BLOGGING AND TWEENS: COMMUNICATION PORTAL TO READING SELECTION AND ENGAGEMENT

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The ethnographic study utilized the research techniques of observations, content analysis, and semi-structured interviews with tween participants (i.e., 9- through 13-year-old youth) during an 8-week literary blog project. Twenty-six participants created individual blog pages within a member-only classroom blog site that allowed for online communication between members. The blog project incorporated social networking applications with which youth frequently engage. The research questions ensured data regarding what facets participants found appealing and motivating during the project was collected. The questions allowed for determining if participants utilized peer blogs for reading material selection or repurposed the blogs to discuss other topics. Components of self-determination theory and engagement theory underlay the project design and aided in identifying motivational aspects of the data. Frequency tables outlined the identified patterns and structures of participants' online activity. Participants found the ability to change the colors of their blog backgrounds and to design their individual blogs and the giving and receiving of feedback to be the two most appealing features of the project. Participants chose books from peer suggestions in the online world but also selected materials from recommendations they received in face-to-face interactions with their peers, their teacher, and the school librarian. Little evidence of repurposing the blog for social topics was observed. Participants engaged in discussions predominantly based around the books they were currently reading or had read. Implications for incorporating social networking applications within the classroom environment are discussed.

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TABLE OF CONTENTS

LIST OF TABLES

Tables Page

LIST OF FIGURES

Figures Page

CHAPTER 1

INTRODUCTION

Background of Study

In the current global society, filled with technology innovations and advancements, there is a push in the educational realm for students to acquire 21st century technology skills. The integration of technology to introduce, enhance, and secure these skills are common pedagogical practice at almost every level of education. Embedded in the tradition of remaining at the top among world leaders, the United States encourages its youth to accept technological devices and proficiently use them. These skills are imperative to students' future success for themselves and the country. Yet what the public sees a populace of youth who spend hours online downloading music, playing games, and utilizing social networking sites. Educators wonder if these children are really learning while engaging in games and texting. Unquestionably, today's youth have embraced technology and media with so much vigor, that educators now look for ways to merge technology with traditional activities such as reading and exercise to maintain their interest and attention.

This study was conducted to investigate what role technology played in promoting reading with youth when coupled with the social aspect of an online community of peers. An observation of students using an online social networking application revealed what facets appeal to youth and whether these applications could be utilized in an educational setting. The findings offered a glance at the impact peers have on one another while making reading selections and revealed the discourse among community members when reading is the domain topic.

Specifically, I examined youth who were tweens, that is, those youth between the ages of 9 and 13 years, as they interacted in a virtual learning environment while participating in a book

club and a regular classroom reading program. Observations of how they explored the format and features, influenced the reading selection of peers, and described what aspects within the environment appealed to them were recorded and analyzed. Findings suggested that youth who embraced connectivity through technology outside the classroom found it appealing and motivational within the classroom.

Purpose of the Study

The purpose of this study was to determine if the interactive online application of a Weblog (blog) would be a motivating catalyst to stimulate communication and participation in tweens reading and reading selection in an academic environment. Additionally, the results provided an indication of whether peer influence could be identified in an online community as evident through participants' selection of reading materials and posted comments. As students participated in the study, they became part of an online community while expanding their development of 21st century skills, specifically those standards that increased students' opportunities to develop digital literacies, allowing them to inquire, think, gain knowledge, create, and communicate.

For the purpose of this study, a blogging application, which allowed an online community to form, was used for the virtual learning environment. The blog application allowed members to comment, respond, and discuss in an online format with other members of the online community. The features of interactivity, such as posting discussions and comments and the ability to link to other individuals' blogs, created a social community. As part of this study's intent, the interactions within both the physical and virtual environments provided data for the findings.

Personal Reflections -- Lessons from the Field

In my experience as a library media specialist in a rural PK-8 school, I have observed a

wide variety of techniques, some more refined than others, which students use while selecting reading materials. Some students browse the shelves, pulling out books with interesting spines to determine if that book sparks an interest. Others like to see what is on display and enjoy choosing from what books I have pulled to match a particular theme or holiday. There are those who want to know what is new, have a very specific request, or just want something short with lots of points so they can quickly make their Accelerated Reader ™ (AR) goal. I often receive requests to assist in winnowing down all the choices or better yet to help a student who somehow came to the conclusion that he or she has "already read all of these" books in the library. Recommending a book based on a reader's interest and reading level can be rather challenging. Consequently, it can be quite rewarding, particularly when they return the book and affirm "that was a really good book."

Students like to suggest books to other students. During regularly scheduled library lessons, I routinely recommend that classmates share with each other when they find what they consider a "good read," and they do. It is quite common to hear students share their book reading experiences. I often overhear students giving accolades about a particular title or notifying their peers of the content, length, or even how "easy" the test is. They discuss characters in a series, show each other illustrations, and compare stories with similar titles. In my experience and observation, peer recommendations are a commanding influence in reading selections.

Experiences in my school library and as a volunteer with several youth organizations, have resonated with three things about youth: (a) they do read (even if it is imposed upon them), (b) friends are influential, and (c) they do utilize technology. As a researcher and student, my observation of this fact implored me to delve deeper into asking if there was way to combine these facets. Could the traditional activity of reading somehow be enhanced through peer

connectivity and technology? Could the appeal of online social communities spill over to academic environments or quests?

Problem Statement

Technology and teens represent a coupling that most will agree is ubiquitous as portrayed in both personal observation and empirical research. United States society attests not only to the copious ways in which teens engage in technology but also to the desire for youth to acquire 21st century skills for future employment, technological developments, and global economy. Rideout, Foehr, and Roberts (2010) provided empirical supporting the age of adolescents interested in using technology spans to ages even younger than teens. Tweens, those adolescents between the ages of 9 and 13 years old, engage with technology devices for recreational, educational, and social purposes. A 2010 report from the Kaiser Family Foundation study on media uses by children showed children ages 11 to 14 years old were the fastest growing age group engaging in media from 1999 to 2009 with a consumption of nearly 9 hours of media use a day (outside of school; Rideout et al., 2010). Students' media exposures and uses surge as they transition from childhood to adolescence.

According to the Kaiser Family Foundation study, the use of social networking applications is the most popular computer activity for 8 to 18 year olds, followed closely by computer games and watching videos (Rideout et al., 2010). Eighteen percent of 8 to 10 year olds and 40% of 11 to 14 year olds report spending time on social networking sites daily, although the younger group reported only a 5-minute daily average compared to almost a 30 minute average for the older group (Rideout et al., 2010). The popularity of social networking sites such as Facebook (www.facebook.com) and MySpace (www.myspace.com) have received a wealth of attention in recent research studies (Boyd, 2008; Chu & Nalani Meulemansm, 2008;

Thelwall, 2008; Tufekci, 2008). These sites are estimated to be used by 80% of college freshmen (Wilber, 2008), but due to increased awareness of Internet safety, they are not recommended for use by younger adults such as tweens. The appeal, however, for these types of applications remain. In a brief release of findings from a 2007 National School Boards Association (NSBA) study, 96% of participants -- ranging from ages of 9 to 17 years old with online access -- reported using social networking technologies, including blogging, instant messaging, text messaging, and chatting ("Teens, 'Tweens, and Technology," 2007).

Although teens report using social networking applications, very few teachers do. According to the Lightspeed Systems survey, 82% of district technology directors reported that none or only a few teachers in their districts use social networking as instructional tools (Stansbury, 2009). Internet safety and protection from online predators has been a major concern for school administrators resulting in limited use of such applications in classrooms. The negative stigma associated with blogs and social networking sites has resulted in blocked access in schools (Prenger, 2008). Many schools block or use filters (70% ban online social networking) to prevent students and teachers from accessing unsecure sites (Stansbury, 2009). A lack of educators taking advantage of the "participatory culture of Web 2.0" is cited as a factor in schools not realizing the full potential of learning with technology (Lemke, Coughlin, & Reifsneider, 2009, p. 5). "When kids lack access to the Internet at home, and public libraries and schools block sites that are central to their social communication, youth are doubly handicapped in their efforts to participate in common culture and sociability" (Ito et al., 2008, p. 36). A recent article released findings from a study commissioned by Lightspeed Systems and Thinkronize Inc.; in this article, Stansbury (2009) defined a gap in how today's digital natives learn and their desire to interact in and out of school. Stansbury listed two barriers to schools not implementing

Web 2.0 technology: (a) humans and (b) technology. Teachers, according to Stansbury, as well as students have begun a bottom up push to adopt these technologies in educational settings.

As researchers have suggested, adolescents including tweens find online applications appealing and interesting. However, how could that result in a motivation to use them, contribute to the ongoing creation of discussions or posts, or impart them to act upon the content upon which they reflect? In other words, does the Internet's applications influence them to think, feel, or act in a certain way? Moreover, could such actions be juxtaposed for both social and academic purposes? This study was conducted to observe tweens' interactions in a peer-constructed literary blog and to provide data to determine the appropriateness and effectiveness of social networking applications in a classroom setting**.** Observations and interviews yielded themes as peers posted and responded to the blog as well as what aspects of the project tweens found motivational.

Research Questions

In order to acquire a better understanding of the motivation and overall experiences of the tween participants while using a social networking applications, five research questions were devised. The research questions were the following:

1. What motivates tween students who participate in a peer-constructed literary blog to use the online blog application?
2. In what ways are tween students who participate in a peer-constructed literary blog influenced in their reading material selection based on blog posts and responses?
3. How do tween students describe their experience using a blog application within an educational setting?
4. What factors, features, or facets do students who construct literary blogs find appealing

while being used in an educational environment?

5. In what unexpected ways do tweens use a blog in an academic environment?

21st Century Skills and the Virtual Learning Environment

New technologies of information and multimedia provide unique opportunities for students to create, communicate, and contribute in a digital environment. The skills needed to effectively interact with technology (hardware and software), the social aspect of communicating on the Web, and the ability to critically evaluate what is retrieved or created on the Internet are often referred to as "new literacies" (Asselin, 2004; Wilbur, 2008), "digital skills" (Gul, 2007), "digital literacies" (Wilbur, 2008), "computer literacy" (Sefton-Green, Nixon, & Erstad, 2009), or "21st century skills" (Metiri, n.d.). Although specific differences in definitions exist (see Fieldhouse & Nicholas, 2008), for this project, the focus was on students' ability to use applications that simulate online communities and the interaction between those online community members.

The World Wide Web has altered the ways in which people communicate, work, learn, create, and live. Wilbur (2008) stated the following:

> The shift in the world around new technologies means that literacy is also changing, and that new literacies are developing that have a direct impact on the ways teenagers read, write, and think Technologies and digital literacy practices are integral to understanding literacy for two reasons. First, new technologies are changing the ways we read and get information, create and send communications, and view the world. Second, digital technologies are so pervasive in our students' lives that many of them need to develop the critical ability to be able to step back and evaluate by thinking about the effects that using certain technologies have on their lives. (p. 61)

Two national organizations have created standards to improve student use and understanding of information technology in education. Since 1998, the International Society for Technology in Education (ISTE, 2010) has helped educators advance education through innovative practices using technology effectively in the classroom. The standards for students set

forth by this association, known as the National Educational Technology Standards (NETS), outlined six broad skill areas that include creativity and innovation, communication and collaboration, research and information fluency, critical thinking, problem solving and decision making, digital citizenship, and technology operations and concepts (ISTE, 2010). Students who apply basic skills in these areas are preparing to live, work, and contribute within a society that is heavily embedded in technology. ISTE provided standards for teachers, technology facilitators and leaders, and administrators. Moreover, ISTE provided resources and professional development to educators promoting student engagement and improved learning in today's digital classroom.

American Association of School Librarians (AASL, 2007), a division of the American Library Association (ALA), promoted the standards for the 21st century learner and beckoned educators and leaders to recognize the importance of teaching the information literacy skills evident in today's digital society. The AASL's 2007 standards were outlined in four broad areas:

- Inquire, think critically, and gain knowledge
- Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge
- Share knowledge and participate ethically and productively as members of our democratic society
- Pursue personal and aesthetic growth (pp. 1-7)

The AASL advocated the school librarian's role as a leader in technology and media instruction. Both organizations summon educators, parents, and community leaders as integral components and stakeholders in developing their students' ability to proficiently communicate, create, research, and interact in a digital environment. Within this paper, the term *21st century skills* is used as a general term encompassing those abilities needed to meet the standards developed by these two organizations.

As this study was carried out in a school environment, it was imperative to consider the

project objectives and the contribution those objectives made to student learning. In addition to the consideration of standards set by ISTE and AASL, I followed the guidelines of a *virtual learning environment* as prescribed by Dillenbourg, Schneider, and Synteta (2002). The following characteristics comprised this environment:

- A virtual learning environment is a designed information space.
- A virtual learning environment is a social space: educational interactions occur in the environment, turning spaces into places.
- The virtual space is explicitly represented: the representation of this information/social space can vary from text to 3D immersive worlds.
- Students are not only active but also actors: they co-construct the virtual space.
- Virtual learning environments are not restricted to distance education: they also enrich classroom activities.
- Virtual learning environments integrate heterogeneous technologies and multiple pedagogical approaches. (Dillenbourg et al., 2002, pp. 3-4)

Although most of the research with VLEs involve settings in higher education and often include international studies, VLEs have recently been utilized with younger students in public education (Wyatt, 2010). Wyatt (2010) examined middle school students' information seeking behavior while utilizing a wiki as a virtual learning environment.

Defining Tweens

Tweens is the term used in this study to refer to preadolescent children aged 9 to 13 years old. Other sources list ages as young as ages 6 years and as old as 14 years. This stage of preteen development has been referred to as "early adolescence" (Meyers, Fisher, & Marcoux, 2007). The tween age range has spurred a recent influx in market research and development of products and services due to their purchasing power in toys, media, and clothing (de Mesa, 2005). The recent increase in use of media and technology by tweens renders them as an interesting population for a study group. For this study, tweens represented the sample population of active participants interacting with technology, social networking, and peers.

Defining Weblogs

For this study *weblog* and *blog* were used interchangeably to an online personal journal in which the user can add text entries, daily if desired, and allow other members within the community to read and comment on those entries. The bloggers' posts were updated in reverse chronological order with options to include links to recommended sites or blogs, known as a *blogrolls*, which within the blogging community are commonly referred to as the *blogosphere* (Huffaker, 2005). The archived communications and ability for members to interact provide a reflective learning component allowing members to scaffold on previous topics or discussions (Huffaker & Calvert, 2006; Naslund & Giustini, 2008). Blogs enable the connection and interactivity of community members and allow for communication to create a social networking environment.

Defining Social Networking Applications

Early creation of content on the Web was mainly authored by those who had knowledge of HTML and access to a server; however, with the development of Web 2.0, everyone can be a creator (Wilbur, 2008). Web 2.0 is commonly used to illustrate the software applications that allow for user-generated content like that found in blogs, wikis, and social networking sites such as MySpace and Facebook. *Social networking applications* allow users to upload, download, create, and comment on a vast array of Web pages, images, music, and video by constructing a multimodal and hypertextual form for reading and writing. "Web 2.0 is less about receiving information than it is about creating and recreating it" (Wilbur, 2008, p. 67). Social networking applications, such as those listed above, provide opportunities for members to create and communicate in an online community.

Significance of the Research

Reading selection is a common information need for many youth. Results of this study provided additional insight in determining if the social networking applications that adolescents report using outside of the academic realm can facilitate or influence their choices, particularly in reading selection, within the academic community. Additionally, the findings provided data on tweens' interactions with technology as members of an online community and whether they utilized it as a source for obtaining their information needs. This project was used to examine the effect peers have on reading selection and whether they found the interaction with technology a motivating factor. Another interesting revelation involved discovering if and how students used the blog outside of the purpose of this study. From the perspective of educators, the data provided a glimpse of the applicability of blogs within a classroom environment and answered whether this type of communication portal was an effective format for content inclusion, discussion, and information retrieval. Lastly, this study was aimed at contributing to the theoretical principles of motivation and engagement as well as presenting the interactivity within the group of tween participants.

CHAPTER 2

REVIEW OF LITERATURE

A review of the literature depicts trends and traditions in which adolescents attempt to socialize and learn. Their preferences focus around peers. From engagement and communication to technology and academics, young people like to spend time with their companions. As United States society places demands of learning 21st century skills on its youth, this literature review includes peer influence, Web 2.0 fascination, blogging as a social networking application for educational purposes, motivation portals in reading engagement and patterns, social context of reading, information seeking behavior in youth, and the theoretical considerations underlying this study.

Peer Influence within Adolescents Social and Academic Realm

During the preteen years, beginning at around the age of 9 years and continuing through the age of 13 years, significant changes occur to children in their physical, emotional, and cognitive development. The preteen, or tween, period has been referred to as early adolescence, a period involving transitioning between the childhood experience, mostly formed by parental views and values, to a more independent course of behavior, which can be heavily influenced by peers (Harter, 1998, as cited in Meyers et al., 2007). Children, even as young as 7 or 8 years of age, begin to rely on peers as important sources of information, often using them as a guide against which to measure themselves (Dworetzky, 1984). "As tweens mature, adults are seen less often as persons they can consult for information due in part to gaps in communication practices, perceived understanding of tween social situations, and the well-documented issues regarding tween self-esteem" (Fisher, Marcoux, Meyers, & Landry, 2007, p. 21). Pre-teens begin to spend less time with parents or family and more time with friends. "Parents become less important than

peers in their decision making processes, identity formation, and in validation of their behaviors" (Harter, 1998, as cited in Meyers et al., 2007, p. 313).

Classrooms and schools in general are social environments lending to a plethora of opportunities for peer interaction. The influence schools have on socialization impacts the lives of students and society in general (Deci, Vallerand, Pelletier, & Ryan, 1991). "Schools are a significant force because they expose each child to new information, important new adult models, and increased contact with peers" (Dworetzky, 1984, p. 448). Peers, without question, are hugely influential in both social and academic environments.

Peer groups are connected not only to adolescent socialization but also to academic performance and may be instrumental in promoting academic aptitude (Furrer & Skinner, 2003; Wentzel & Caldwell, 1997). In a quantitative synthesis of studies on peer group influence, Ide, Parkerson, Haertel, and Walberg (1981) found that peer influence "is a strong, consistent determinant of a wide range of educational outcomes for elementary and high school students" (p. 483). Participation and completion of school have been linked to peers (Furrer & Skinner, 2003).

Berndt, Laychak, and Park (1990) conducted a study of 118 eighth grade students using a traditional experimental design. Berndt et al. examined the discussions of paired participants as they were given low and high level achievement motivation dilemmas in a pre-test questionnaire. Friends were identified and allowed to discuss the dilemmas for a post-test questionnaire control group. Berndt et al. observed that when friends were allowed to communicate, "the discussions changed adolescents' attitudes toward academic achievement" (p. 668). Berndt et al. suggested "that brief discussions between friends contribute to an increase in the similarity of their decisions" (p. 668). Relatedness to specific groups have recently been linked to overall

motivation in school for students in Grades 3 through 6, including academic motivation and performance (Furrer & Skinner, 2003).

The increase in psychological investment in peer relationships during the early adolescent years has prompted research examining the extent in which these relationships play in overall success in the middle school years (Wentzel & Caldwell, 1997). Wenzel and Caldwell (1997) followed students from the sixth to seventh grade to determine the relationships of peer acceptance, reciprocal friendships, and group membership on academic achievement. Data collected through student responses to questions was then compared with their fellow classmates' responses to determine group membership and reciprocating friends. Results were analyzed with GPA scores at the end of the year to determine correlation. Wentzel and Caldwell found a significant relationship between group affiliation and friendships with academic achievement indicating "that belonging to a particular group is related to academic performance" (p. 1206). Ryan (2000) showed that "peer group was influential regarding changes in students' intrinsic value for school (i.e., liking and enjoying) as well as achievement (i.e., report card grades) during the first year of middle school" (p. 104) and concluded the likelihood that "peer group is an important influence on adolescent achievement, beliefs, and behaviors" (p. 101).

Adolescents and Web 2.0 Fascination

The desired modes of communication among peers have taken on many forms throughout the years (i.e., passing notes, telephone conversations, emailing, instant messaging [IM], texting, and social networking applications), yet the adolescent goal of remaining informed continues unchanged. Information exchange is one way adolescent peers influence each other's motivation and engagement in school and provide differing views and new ideas to each other (Ryan, 2000). Today, the format for that exchange of information is heavily embedded in technology, including

the type of Web 2.0 applications that allow for the sharing and creation of online content. "One way to think about teenagers and digital technologies is to understand the need students have to communicate and connect with each other" (Wibur, 2008, p. 60).

A recent examination of adolescent blogs revealed communication behaviors to be mostly prosocial and positive with very little content relating to risky behaviors or problems (Anderson-Butcher et al., 2010). Anderson-Butcher et al. (2010) looked at blog entries of 100 youth between the ages of 13 and 18 years old over a 30-day period. Postings were tracked to identify comments that contained risk factors which included those experiences or conditions that were likely to be problem behaviors and that contained protective factors, those that were not likely to produce problematic behavior. Another observed factor was community building. Common themes such as similar interests, geographic location, and collection of websites defined "community building" (Anderson-Butcher et al., 2010, p. 69). Bloggers were found to most frequently engage in community building behavior motives which allowed users to build and nurture online relationships. Discussions between bloggers included structured and unstructured activities, with 40% of the sample mentioning doing homework or tutoring activities while posting (Anderson-Butcher et al., 2010).

Web 2.0 applications that allow users to create, interact, and contribute to the World Wide Web, hold an enormous appeal to teens. Time spent using computers for 8 to 18 year olds has increased by almost 30 minutes per day in the last 5 years according to a recent survey (Rideout et al., 2010). The three most popular computer activities of social networking, gaming, and watching videos on sites such as YouTube (www.youtube.com) all contain an element of interactivity found in Web 2.0 applications.

In a recent study, Boyd (2008) found that teens use social media as a tool for sharing

media, gathering information, and communication:

> Although learning to navigate social worlds is a critical skill that teens develop through interaction with peers and adults, it is frequently unrecognized in lieu of the skills taught through formal education. One of the most notable shifts I observed in the structural conditions of today's teens, compared to those of earlier decades, involves their limited opportunities for unregulated, unstructured social interaction. Their desire to connect with others is too frequently ignored or disregarded, creating a context in which many must become creative in making space for maintaining connections outside the control of adults. (p. 296)

According to Boyd's (2008) findings, teens utilize social networking as an extension of their everyday life with such sites (i.e., Facebook or MySpace) being a part of their social culture. "The primary motivation for engaging with social networking sites is interacting with one's existing social network" (Luckin et al., 2009, p. 91). Participation for teens is based on what their friends are doing (Boyd, 2008). "The appeal is not the technology itself -- or any particular technology -- but the presence of friends and peers" (Boyd, 2008, pp. 294-295). Nonetheless, learning to socialize within this realm requires developing proficient skills with the technology or the application through which the social experience occurs. The recent creation of online social networking and new technologies has changed literacy by directly impacting the way teenagers read, write, and think (Wilbur, 2008).

Educators need to create language learning media to facilitate new literacies that mirror what youth are experiencing in the online world (Godwin-Jones, 2006). In a recent survey by Project Tomorrow, students reported wanting more technology incorporated in schools with the ability to intertwine Web 2.0 tools into daily instruction (as cited in Prabhu, 2009). Usage of mobile devices such as smart phones, MP3 players, and laptops has accelerated among middle school students along with the desire for using these devices while working with their classmates on school projects. Prabhu (2009) suggested that schools should find ways to create instruction in tandem with how students use Web 2.0 tools outside the classroom. Although educators may

not need to import Web 2.0 technologies into schools exactly as they are used at home, educators do "need to consider popular behaviours and activities and consider how they might support learning" (Luckin et al., 2009, p. 102).

Blogging for Educational Purposes

Weblogs or blogs are a collaborative online environment that has recently sparked a great amount of interest in education (Godwin-Jones, 2003). The appeal stems from the interactivity allowing comments by readers with options for open access through the Internet or limited access to specific community members (Godwin-Jones, 2003). In theory a blog can be an educational tool that promotes verbal and visual literacy, allowing opportunities for collaborative learning and is developmentally equitable to students at varying ages and stages (Huffaker, 2005). Little or no computer language skills are required because templates are usually provided to ease creation for individuals or group collaborators. Weblogs are a "flexible medium that can be used to provide educational participants with a 'middle-space' of options as to how to integrate face-to-face and online modes" (Oravec, 2003, p. 225). Even though weblogs are new in the sense of the reader's ability to share and comment on each other's writing, it in essence is just a remediation of other media (e.g., print, music, film, etc.) that will hopefully provide a new purpose for writing (Brooks, Nichols, & Priebe, 2004).

Blogging permits opportunities for adolescents to present themselves online through self-expression and to build identity through peer group relationships (Huffaker & Calvert, 2006). The blog posts include a subject title and body message, much like an email. Each post made by the blogger is stamped with the date and time of publication and archived in the software (Huffaker, 2005). Comments, the feedback from blog readers or followers, are stamped with a date and time and are viewable by the members of the blogging community, also known as the

blogosphere (Huffaker, 2005). Blogs provide writing in a public sphere, encourage feedback, and engage students in topics and encourage persuasion and argumentation skill development (Godwin-Jones, 2006). Topics are based on the students' own interests and the communities' interactions (Glogowski, 2008). "Weblogs can serve as catalysts in stimulating critical thinking and inspiring students to be lifelong learners" (Oravec, 2003, p. 232).

Blogging is a social activity. The intrinsic motivational factors for adolescents to blog include communication through shared feelings, providing validation, and content discussions of current and personal events, activities, and reflective thoughts (Read, 2006). Providing opportunities for students to interact in a blog -- as a type of social networking application -- addresses many of the 2007 criterion set by the ALA in the *Standards for the 21st Century Learner* including:

> 1.3.4 Contribute to the exchange of ideas within the learning community. . . .
> 1.4.2 Use interaction with and feedback from teachers and peers to guide own inquiry process. . . .
> 2.1.5 Collaborate with others to exchange ideas, develop new understandings, make decisions, and solve problems. . . .
> 3.1.2 Participate and collaborate as members of a social and intellectual network of learners.
> 3.2.2 Show social responsibility by participating actively with others in learning situations and by contributing questions and ideas during group discussions.
> 3.2.3 Demonstrating teamwork by working productively with others. . . .
> 3.3.1 Solicit and respect diverse perspectives while searching for information, collaborating with others, and participating as members of a community. . . .
> 4.1.7 Use social networks and information tools to gather and share information. . . .
> 4.3.1 Participate in the social exchange of ideas, both electronically and in person. (pp.1-3)

The popularity and appeal of weblogging outside of the academic environment may be suppressed within the classroom if understanding the motivation for student use is not achieved (Brooks et al., 2004). A caveat to the blog success is maintaining it as a student interest project, rather than one based on traditional evaluated assignments (Brooks et al., 2004). "The creativity

involved in blogging can help maintain the motivation needed by some students to sustain self-directed learning" (Oravec, 2003, p. 232). Additional benefits stem from reading and responding to current social events and mere educational topics (Oravec, 2003), basing the blog around student interests and interactions (Glogowski, 2008), and for some, developing an online community that reduces social isolation (Zaphiris & Sarwar, 2006).

Barker (2009) suggested an online presence may be preferred by some students who feel less secure in face-to-face meetings. Barker investigated the motivations of college freshmen using Social Networking Sites (SNS) while focusing on social identity issues and gender. Social identity gratification (SIG) was presented as identification with ingroup members who were similar and compared to other outgroup members who were different. Barker found adolescents seek out these types of online ingroup and outgroup memberships as well as interpersonal ones. Females reported communicating with peers as the strongest reason for using SNS. Males did not commonly use SNS for learning. "Those who reported negative collective self-esteem reported more instrumental interest in SNS use for social compensation, learning, and SIG" (Barker, 2009, p. 212).

A persistent theme providing blogs as a social space prevails within the academic forum. Wilber (2008) shared information about a classroom blog that was created for allowing students to summarize chapter readings and comment on classmates' posts. The blog format allowed for online discussions to be archived and illustrations to be added to students' summaries of their readings. All students were required to participate but no information was provided on the students' reactions to the project or the grade level of the class; however, the online discussion among students provided an authentic audience for commenting.

A similar blog project was conducted by Brooks et al. (2004) with undergraduate and

graduate level students. Brooks et al. identified the themes as emotional, intellectual, record-keeping, and practical motivations for keeping various types of journals. Responses from an open-ended questionnaire about what motivated students to blog revealed 34 out of 75 were emotionally motivated (Brooks et al., 2004). Concluding suggestions from Brooks et al. were to allow the blog to be a social space permitting student expression due to the observation that the shared ideas of the community received the most blog responses in the study.

"Personal reflections are a vital part of weblogs, providing a human-scale perspective on the problem of information acquisition and analysis" (Oravec, 2003, p. 227). These findings were confirmed in a recent study of eighth graders. Glogowski (2008) provided results indicating that students found the blogging community to be a "social, interactive space" that had clearly made a "powerful impact on its members" (pp. 143-144). Glogowski examined the writing of 15 students in a language arts class while they interacted and built a community in an online environment. Personal texts shaped the community into one that was interactive and supportive, often leading to more critical and thoughtful discussions (Glogowski, 2008). A blogging community, according to Glogowski, is built through the growth of student comments and responses based on their personal interests and interactions, rather than one that is designed and implemented by some "arbitrary curriculum" (p. 242).

From the aspect of learning through blogging, the applicability of blog use in an educational setting has revealed conflicting findings. From the previously referenced 2007 NSBA study, 60% of participants reported that the topic of education was commonly discussed when utilizing online communicative formats ("Teens, 'Tweens, and Technology," 2007). Additionally, Glogowski (2008) suggested that blog communities can encourage student autonomy as students become co-creators of the curriculum, and the environment "can be

effective in motivating and engaging students in writing and critical thinking about written texts" (p. 241). However, Luckin et al. (2009) cited participants' concerns about using social networking as a learning tool due to their desire for it to remain a respite from normal school assignments. Additional concerns were voiced by Barker (2009) who studied undergraduate college students and indicated that learning was not a common motivation for participants using social networking sites.

Motivation Portals in Reading Engagement and Information Seeking – Choice and Feedback as Key Components

Recent findings confirmed what most educators have held as truth for years: Students who read more do better in school (Rideout et al., 2010). Though it might come as a surprise to some, regardless of the digital media surge that has encapsulated the attention of the nation's youth, reading for pleasure is still alive. The reported time children 8 to 18 years of age spend reading books for recreation has remained consistent from 1999 to 2009 with an average of 33 minutes a day for children 8 to 10 years old and an average of 25 minutes per day for 11 to 14 year olds (Rideout et al., 2010). These results included only what children engaged in *outside* of school assignments, identifying an authentic intrinsically motivated activity, and left a vast amount of potential reading time unaccounted for while at school.

The practice of reading or learning to read might arguably be the most valuable skill taught in public schools, comprising the majority of one's early elementary curriculum. Many young children approach learning to read with a natural zest and excitement that often wanes as they reach the middle grades and continues waning throughout high school (Balas, 2001; Crow, 2009; Virgil, 1994). Motivation plays a crucial role for literary learning in adolescents (O'Brien & Dillon, 2008). A copious body of articles consisting of both scholarly and professional research has provided conclusions and ideas for educators to utilize in an effort to promote

reading motivation. Using a variety of methods, including providing a range of texts as well as hypertexts and allowing students the opportunity in choosing those texts increases both reading engagement and motivation (Cart, 2007; O'Brien & Dillon, 2008).

Choice in selection of reading materials might have other benefits, including increased sense of self-esteem and willingness to share (Virgil, 1994). Choice, according to Arnone, Reynolds, and Marshall (2009), increases a sense of independence and autonomy and is an important component of self-determination theory, or SDT (Deci & Ryan, 1985). With opportunities to choose texts comes ownership and improved attitude (Redding, 1993). Guthrie et al. (2006) found that fourth graders preferred to be in control of selecting their own books and the topics they read with the overall purpose of maintaining reading as a high-interest activity. "Motivation and engagement are not sets of isolated cognitive constructs but the result of complex factors that play out in situated practices" (O'Brien & Dillon, p. 81). Crow (2009) stated in their findings that "students specified that interest/relevance of topic, working in a group, at least some choice in the task, creating a final product, and fewer time constraints are all components of intrinsically motivating information seeking episodes" (p. 95).

Providing ample feedback, both from teachers and peers is one recommendation to boost both intrinsic motivation and building self-esteem. Informative feedback that is positive, sincere, and specific supports students by building competence while enhancing intrinsic motivation and self-esteem (Arnone, Reynolds, & Marshall, 2009; Deci & Ryan, 1985). Ito et al. (2008) in writing for the MacArthur Foundation study found:

> Unlike what young people experience in school, where they are graded by a teacher in a position of authority, feedback in interest-driven groups is from peers and audiences who have a personal interest in their work and opinions. Among fellow creators and community members, the context is one of peer-based reciprocity, where participants can gain status and reputation but do not hold evaluative authority over one another. (p. 31)

Although it is evident that feedback from peers can provide motivation, the desire to do well in school often stems from factors outside the school system. Researchers have focused on parents and teachers, rather than just peers, as the social agent in motivation and engagement. Agosto and Hughes-Hassell (2006) reported urban teens turn to friends and family first when seeking everyday information needs. Crow (2009) looked at dominant intrinsically motivated fifth graders and identified out of school experiences that were influential in their motivation in seeking information. Important family members or adults supported students' daily information needs and seeking, such as buying or finding books, and were a common factor in fostering students' motivation. Anchor relationships range from parents, guardians, and teachers to grandparents, mentors, and older adult school volunteers (Crow, 2009). School librarians have been found to increase students' confidence during information seeking and intrinsic motivation while engaging in research (Arnone et al., 2009). Additionally, facilitators have been found to increase knowledge and understanding and affect students' online interaction in peer-like environments (Paz Dennen & Wieland, 2007). From these findings, it becomes apparent that peers, family, involved adults, and teachers offer motivational components to promote reading engagement, understanding, and information seeking.

Social Context of Reading

A study of the literature provides a glimpse into the social aspect of reading in both online and physical environments. As expected, youth and adults alike often share what they read, and recommendations by friends are why they choose to read a particular text (Fister & Trott, 2005; Hughes-Hassell & Lutz, 2006; Ross, 1999). In a recent United Kingdom study, Howard and Jin (2004) found that friends and peers maintained a positive influence on youths' reading selections, with the most important factor of influencing which book to read being

personal interest followed by personal recommendation by a peer or friend. Within the United States, 23% of urban teens stated friends provide them with encouragement to read while 39% cited friends as a source for obtaining reading materials (Hughes-Hassell & Lutz, 2006). Other findings suggested that friends trade their individually owned books within their circle of friends, signifying that reading is truly a social event (Fister & Trott, 2005; Hughes-Hassell & Lutz, 2006).

Online reviews or recommendations are influential. Prenger (2009) conducted an action research study and examined how students' online reviews impacted circulation and whether those reviews served as an effective strategy for reading promotion. Results indicated that the online student reviews increased both library circulation of the reviewed titles and visits to the library website. Students volunteered to write reviews without being rewarded for their participation. Prenger (2009) concluded "the use of a book review website in promoting reading and the use of the library collection is effective with teens, as is the power of peers to influence reading selections" (p. 47). Using a computer assisted reading selection program "validates the students' own interests and opinions, allowing each student to choose books they want to read and influence others" (Redding, 1993, p. 49).

The definition of reading for teens has changed since the influx of technology to encompass online materials like blogs and wikis as well as audiobooks (Cart, 2007; Dresang, 1999). Rideout et al. (2010) showed media use by children and teens has increased over the past 10 years in every area (i.e., TV, video games, computers, movies, and music) except one, print materials. Although the time spent reading both newspapers and magazines declined, a small increase in reading books over the 10-year study period was reported.

Traditional methods of outreach to motivate teens to read, such as book clubs and student

book reviews, are further enhanced through technology embedded in many websites including library websites (Balas, 2001; Prenger, 2009). The online format allows readers to participate when and where it is convenient and provides anonymity to those who may be reluctant to engage in face-to-face interactions (Starkey, 2005). "Internet-based learning activities make reading enjoyable for students, foster use of critical reading skills, and promote reading fluency" (McNabb, Hassell, & Steiner, 2002, para. 3).

Ross (1999) identified social relations and trust as two of the five emergent themes during an intensive study of 194 adult readers who engaged in reading for pleasure.

> Avid readers not only read a lot themselves but also support, and sometimes initiate, the reading of others, passing on recommendations derived from reviews, choosing books at the library and bookstore for family members, and buying books as gifts for friends. (Ross, 1999, p. 797)

Fister and Trott (2005) found that adults felt part of a community even though they had never met one another, and an online book club was both "intellectual and social," providing discussions, recommendations, and support (p. 305). Guthrie et al. (2006) found that some students preferred a teacher or parent to select books for them, expressing that mistakes were made when they were left to make decisions on their own. The amount of trust youth have in someone as they seek information is more significant than the reliability of a source (Fisher et al., 2007). "One must trust in order to experience an interpersonal environment as informational, and one's trust will be strengthened when the elements of an informational environment are present" (Deci & Ryan, 1995, p. 249).

Information Seeking Behavior in Youth

The social facet of reading extends to information seeking in youth. Meyers, Fisher, and Marcoux (2009) found that information seeking to be a natural and necessary form of communication that is essential to tweens' intellectual, physical, and social growth. Intrinsic

motivation for information seeking is often increased while interacting with others, while episodes of working in groups provide opportunities for students to meet their needs for relatedness (Crow, 2009). Ross (1999) recommended the need of recognition to the "communal and social aspects of the information encounter and [to] build opportunities for collaboration among users into system design" (p. 797). Dresang's (2005) radical change theory addressed the social aspect of youth interacting with digital media and hypertexts, including the nonlinear formats often found in books and online searching. The desire for collaborative projects, group work, and sense of community is evident in the connectivity principle in youth information-seeking behavior (Dresang, 2005).

In a large body of research, various preferences in regard to youths' information-seeking behavior and their experiences while seeking information have been identified. Much of what has been developed has stemmed from Kulthuau's (1983) initial study of high school students doing research in an English class, which resulted in the development of the Information Seeking Process (ISP) model. ISP was one of the first behavior models to show the user's perspective or feelings during the research process. The six stages of the model include initiation, selection, exploration, formulation, collection and presentation. The user's feelings, thoughts, and actions can be explained throughout each stage (Kuhlthau, 2004).

Information seeking can be a daunting task creating feelings of confusion. The principle of uncertainty was later included to the ISP model to explain the anxiety and lack of confidence users can feel while going through the research process. "Uncertainty is a cognitive state that commonly causes affective symptoms of anxiety and lack of confidence" (Kuhlthau, 2004, p. 92). Van Rysbergen (1996, as cited in Kuhlthau, 2004) proposed "a logical model of uncertainty and introduced seven types of uncertainty -- ignorance, incompleteness, undecidability,

complexity, randomness, vagueness, and imprecision -- to be considered with a probabilistic approach" (p. 8). Due to the sheer mass of results from a basic Internet search, it is easy to see how an individual could experience one or more of these feelings while seeking information.

Case (2007) provided insight on how the field of information science is trying to reduce uncertainty and introduced the uncertainty management theory. Case offered the caveat that as new information is acquired -- what was once sought to provide a solution -- can bring forth new uncertainty. Uncertainty reduction is an assumption that cannot be made when new information is acquired. "Even though information can be encountered in a passive way, actively acquiring information implies recognition of uncertainty or anomalies at some level" (Case, 2007, p. 54).

Information seeking can bring forth feelings of anxiety. "How often do searches for information end in failure due to heightened anxiety? Probably a great many" (Case, 2007, p. 106). According to Kuhlthau (2004), "A number of studies have shown that anxiety accompanies information seeking" (p. 7). This includes library anxiety and technology anxiety which is often manifested by the lack of familiarity to the sources or devices used in information seeking (Kuhlthau, 2004). Anxiety can be considered a barrier to information seeking and was shown to be a major factor in one study of adolescent teens as they tried to make decisions about their futures (Hughes-Hassell & Agosto, 2007). Hughes-Hassell and Agosto (2007) reported that many teens "felt that there were too many places to go for their help in information seeking" (p. 31). This sense of overload is often associated with the information explosion created by digital technology.

Information overload involves the "number of alternatives that need to be examined, multiplied by the number of their attributes, which are the way that things can differ from one another" (Case, 2007, p. 86). According to Case (2007), "once the number of alternatives and

attributes rise about 10 each, individuals are likely to experience overload" (p. 87). As students seek information, research has shown the importance of reducing uncertainty, anxiety, and overload. An intermediate source, such as a trusted adult or peer, may reduce these feelings as research has revealed that the amount of trust a youth has in someone as they seek information is more significant than the reliability of a source (Fisher et al., 2007).

The ISP model includes a zone for intervention via mediation between the librarian and the information seeker and based on Vygotsky's (1987) idea of a zone of proximal development (Kuhlthau, 2004). The zone of proximal development was based on the postulation that the collaborative efforts with an adult providing appropriate instruction create advancement beyond what the child can do by imitation or intellect alone (Vygotsky, 1987). "What the child is able to do in collaboration today he will be able to do independently tomorrow" (Vygotsky, 1987, p. 211). The inclusion of a secondary source to help one progress through the research process is further supported in Dresang (1999). The Internet is full of information, and children need adult assistance in order to understand and filter all of the information found on the Internet. This need has created a unique scenario for collaboration and sharing of knowledge between generations (Dresang, 1999).

The process of information seeking for youth has evolved as technology has advanced the process to include digital media. Although there is a prevalent notion among our society that places credence in youths' ability to effectively use electronic devices (Dresang, 1999; Tapscott, 1997), empirical researchers have provided mixed results regarding whether or not youth are successful in using that technology to seek, search, and find information. It seems that young people in the *Net Generation* (Tapscott, 1997) adapt to new technologies more easily than adults (Dresang, 1999). Their ease of use extends to an intrinsic grasp of the format and general

disorder of the Internet environment (Dresang, 1999). "Their ability to move between the real and the virtual is instantaneous, expanding their literacy well beyond text" (Oblinger & Oblinger, 2006, para. 13). As it has been documented previously in this paper, youth are extensively involved in social media use in addition to believing in and utilizing the Web for school research and tasks (Oblinger & Oblinger, 2006).

In contrast, Schacter, Chung, and Dorr (1998) showed children have great difficulty with well-defined information-seeking tasks, yet they perform better when requests are vague or ill-defined. According to Wallace and Kupperman (1997),

> Consistent with previous research on student behavior in library environments, many students seemed to see their assignment as finding an answer to their question, and thus they reduced the task to finding a single page, the perfect source, on which the answer could be found. (p. 16)

Students do not always have the confidence or skills to adequately use search engines or form simple queries when doing online research (Nahl & Harada, 1996). Furthermore, results from Luckin et al.'s (2009) study of UK youth suggested that even though participants reported high use of Web 2.0 activities, they provided little evidence to link that use to sophisticated online activities that required higher order thinking skills, such as authoring and publishing. Although students are using the Internet and Web 2.0 applications, sufficient evidence to support that their use allows students to form transferable 21st century skills is lacking.

Theoretical Considerations

The basic need of belonging and group affiliation has been identified in major theories of motivation. Maslow's hierarchy of needs included belongingness as the third most basic human need, and Alderfer's comparable ERG (i.e., existence, relatedness, and growth) theory named relatedness and the relationships people form with others as the second level of needs, after acquiring basic material needs (Huitt, 2007). Relatedness, the need to feel loved and connected

to others, is a major component of self-determination theory (SDT; Deci & Ryan, 1985). SDT is explored more in depth later in this section. Supporting the importance of belongingness, Furrer and Skinner (2003) reported that the motivational development of children is steeped in relatedness and a sense of belonging.

As a consequence in this study about both a virtual learning environment and tweens, the theoretical considerations were derived from two complementary theories, both containing elements of group membership. The first is a theory of technology-based learning with students, and the second is a broad human motivational theory. Combined, they provided foundational principles for the blog project construction, as well as, the motivational groundwork for student participation.

Engagement Theory

Engagement theory is a technology-based learning theory built on three principles involving the cognitive processes of creating, problem-solving, reasoning, and decision making (Kearsley & Schneiderman, 1998). Each component -- collaboration, creation, and authentic learning -- contains a motivational aspect for student learning. The first principle of relate emphasizes the team concept that includes communication, social skills, and collaboration. Online activities often involve communication with others from different backgrounds providing opportunities for diversity and varying perspectives (Kearsly & Schneiderman, 1998). E-mails, chat rooms, web boards, and other types of programs that allow students to effectively present results and share with each other form the motivating collaborative online environment.

Second, creative and purposeful activities in which students are allowed to define the problem and the focus of their efforts make up the create component of engagement theory. This component promotes students' sense of control, or autonomy, as they contribute to the project

design. During this aspect of engagement, teachers can help direct the project by providing guidelines or making suggestions to aid in student creativity. Online activities using the Web are recommended as a viable resource for collaboration projects. "When student projects are put up on the Web, this provides an incentive for them to do their best possible work, since they know that their work will be viewed by their classmates and possibly the whole world" (Kearsley & Schneiderman, 1998, p. 22).

The third principle of engagement theory is the donate component. Donate purports the importance of the useful contribution of the end project to an outside customer or client. The donate phase captures the idea of having a realistic focus for learning with the end product going to a particular client such as a community group, library, school, church, museum, etc. "Doing authentic projects provides a higher level of satisfaction to students than working on artificial problems, since they can see the outcomes/impact of their work on people and organizations" (Kearsley & Schneiderman, 1998, p. 22).

The components of engagement theory mesh with the standards of ISTE and AASL as defined in Chapter 1. Particularly, engagement theory provides a focus on real-world applications integrating technology and participant interaction. Consistent with 21st century skills, the theory supports critical thinking skills, decision making, creativity, and digital citizenship.

Self-determination Theory

SDT is a broad organismic human motivation theory by the virtue of the human component being active with behavior initiated by intrinsic needs and physiological drives (Deci & Ryan, 1985). SDT has been applied in areas of education, psychotherapy, work, and sports. SDT includes a component of relatedness, just as do Maslow's and Alderfer's models of human

needs (Deci et al., 1991). Motivation is more likely to flourish in interpersonal settings that are perceived as secure and in which relatedness is sensed (Deci & Ryan, 2000). Focusing on three inherent psychological needs, SDT supports competence, relatedness, and autonomy – elements that appear to be essential to personal growth and wellbeing as well as to social development and integration (Deci & Ryan, 2000). Deci et al. (1991) proposed the following for SDT:

> Competence involves understanding how to attain various external and internal outcomes and being efficacious in performing the requisite actions; relatedness involves developing secure and satisfying connections with others in one's social milieu; and autonomy refers to being self-initiating and self-regulating of one's own actions. (p. 327)

All three needs must be met in order to enhance intrinsic motivation; otherwise, motivation will subside, the natural developmental process will be impaired, and low performance or alienation will result (Deci et al., 1991). "Intrinsically motivated activities are freely chosen by the participant, and choice implies self-determination" (Deci & Ryan, 1985, p. 317). "In its organismic approach to motivation, SDT suggests that environments and social contexts facilitate or undermine intrinsic motivation and the self-regulation of externally motivated behaviors" (Crow, 2009, p. 93).

As classrooms and schools are inherent agents of socialization, motivational strategies to increase performance and achievement should address the social contexts of the developing child (Deci & Ryan, 1985). Based on assertions of educational theorist, Bruner, and child development pioneer, Montessori, Deci and Ryan (1985) examined methods for motivating children, particularly the uses of rewards and punishments. As Montessori, Bruner, and others before them, Deci and Ryan concluded that true motivation and creativity are fashioned through natural curiosity and manifested through supportive, not controlling, environments. As a sub-theory of SDT, cognitive evaluation theory (CET), "proposes that social conditions that produce a sense of autonomy and feelings of competence catalyze one's inherent tendency toward intrinsic

motivation (Crow, 2009, p. 93). In CET, it is important to have interesting and challenging activities in order to enhance intrinsic motivation. Feedback, even negative constructive feedback that aids in building task understanding, according to CET, enhances intrinsic motivation. "Supporting autonomy, providing effectance-enhancing information, and acknowledging conflicting feelings," and trust are essential components of the environment (Deci & Ryan, 1985, p. 248).

Tweens use this intrinsic motivation, the willingness to participate or involve oneself in a particular activity based on personal desire, when engaging with social networking applications within a school environment. Increasing intrinsic motivation and internalization stems from self-determined rather than controlled actions. "The effects of specific events such as performance-contingent rewards or limits might be different, depending on whether the experimenter administers them with an autonomy-supportive or a controlling style or intent" (Deci et al., 1991, p. 334).

External motivation through the utilization of rewards, including evaluation and competition, have been found to decrease intrinsic motivation (Deci & Ryan, 1985). In the current study, therefore, the blogging project did not include teacher assessments. I opted instead for genuine feedback to be generated as peers and teachers commented on the blogging site. The direction of the facilitator, most often the classroom teacher, can increase or decrease motivation based on the construction of either a controlled behavior or autonomy supportive environment (Deci & Ryan, 1985).

Theoretical Considerations Conclusion

Information events allow choices (e.g., autonomy supportive) while providing useful information to engaged people who interact effectively within the environment. Choice,

however, does not imply freedom of structure or controls. Information environments consist of feedback or structures that allow users to derive their own feedback (Deci & Ryan, 1985). Positive feedback that is perceived as informational rather than controlling enhances intrinsic motivation. Deci et al. (1991) concluded with suggestions to support self-determination by offering choices, minimizing controls, acknowledging feelings, and making pertinent task performing information available.

Summary of the Review of Literature

Peers are a strong influence on tweens' behaviors and preferences, including ideas formed in both social and academic environments. Today's youth are utilizing technology to communicate with peers, specifically through mobile devices and computers. Web 2.0 applications that allow users to create and interact on the Internet provide opportunities for socialization in online communities. Weblogs are one type of interactive online application that resembles journaling and has been shown to be motivational and an effective means of creating community, communication, and collaboration in some classrooms. Although researchers have examined the use of blogs with adolescents in both structured and unstructured environments, tween use of blogs is not well represented in that body of research.

Despite the time youth spend with technology, they continue to choose reading print materials for pleasure. They select and share those materials with peers, in whom they trust to do the same, building a social context for reading. Even though peers turn to one another first, trusted adults, teachers, and parents are sought for advice about reading, sharing, and seeking information. In addition, online reviews and book clubs are influential in youth reading selection.

Information seeking can present feelings of uncertainty, anxiety, and information overload. Kuhlthau's (2004) ISP model addressed those feelings and introduced a means for

alleviating stress through the use of a mediator, such as a teacher or librarian. Other researchers have suggested that even though today's youth seem to be confident in using technology, they are not always capable in transferring that confidence successfully to retrieving information or creating proficient searches.

Major motivational theories contain components of belongingness or relatedness as a basic human need. Two theories and one sub-theory were discussed to encompass the technology usage and population of tweens for this study. Components of engagement theory and self-determination theory included collaborative elements that addressed the need for socialization of developing youth through group membership. Autonomy supports with indications for increasing motivation as suggested by SDT can be effective when activities offer choices, minimize controls, and acknowledge feelings. CET, a sub-theory of SDT, emphasized the importance of interesting and challenging activities in order to support intrinsic motivation.

This study's design, as discussed in Chapter 3, contained elements found in engagement theory and SDT which motivate youth: working within a group, working with technology, providing choices and feedback, and socializing with peers. The study included the juxtaposition of the basic need of relatedness being achieved as tweens socialize with their peers in a virtual online environment and with technology to help identify what they find motivating about social networking. The blog application was designed to share reading preferences and experiences and established both an educational and social space while presenting an environment conducive to increasing intrinsic motivation.

CHAPTER 3

DESIGN AND METHODOLOGY

This ethnographic study was conducted to observe tweens as they engaged in a virtual learning environment through a literary blog to facilitate reading selection. Participants were observed as they interacted with peers in both the physical space of their school environment and the virtual space created by the blog. Blog posts, comments, and responses provided evidence of interaction in the virtual learning environment and were analyzed for patterns, themes, and structures that existed in the virtual environment. Observations as recorded in field notes as well as in the responses to the semi-structured interviews were utilized to support evidence of interaction, influence, and motivation through blog use by tween participants. Observations of interactions and responses in the physical space of school were also analyzed. The study addressed the following five research questions:

1. What motivates tween students who participate in a peer-constructed literary blog to use the online blog application?
2. In what ways are tween students who participate in a peer-constructed literary blog influenced in their reading material selection based on blog posts and responses?
3. How do tween students describe their experience using a blog application within an educational setting?
4. What factors, features, or facets do students who construct literary blogs find appealing while being used in an educational environment?
5. In what unexpected ways do tweens use a blog in an academic environment?

Research Design

The research design of this ethnographic study provided multiple methods of obtaining

data to represent the experience of tween students in the fifth grade as they interacted in a virtual learning environment via a weblog. Ethnography was an effective investigative method for discovering how people construct meaning within their environments. Ethnography is used for obtaining data specific to a particular group, community, or culture of people and relies heavily on the researcher's eyes and ears for data collection (LeCompte & Schensul, 1999b). Although developed long before online communities existed, ethnographic methodology in an online environment is often used to examine how people move in and out of multiple spaces (Boyd, 2008). Combining methods of observations and interviews in these spaces, representing both the online virtual and offline real worlds, create rich ethnographic material (Sade-Beck, 2004).

An account of researchers' opinions and reasoning regarding observations of networked communities, particularly whether or not online spaces create a unique culture separate from reality or real-life networks, was detailed by Boyd (2008). Boyd's conclusions about studying these differing views resulted in a multifaceted approach of studying teens within the popular social networks of MySpace and Facebook. Believing that online and offline worlds are intertwined, Boyd (2008) practiced methods of interviewing and observations while moving seamlessly between mediated and unmediated environments and maintaining the supposition that one impacts the other. Sade-Beck (2004) combined the traditional ethnographic methods of observations, content analysis, and interviews in both online and offline environments during a study of Israeli loss and bereavement support communities. Sade-Beck described the methodology as evidence of integrating ethnographic methods in both online and offline worlds to create thick multi-dimensional findings. In this study, I employed the same approach of observing participants in both spaces to determine what impact, if any, the project had on influencing group members' reading selections and on what features participants found

motivating or appealing.

As the researcher, I served as a participant observer. “Participant observation is a data collection technique that requires the researcher to be present at, involved in, and recording the routine daily activities with people in the field setting” (Schensul, Schensul, & LeCompte, 1999, p. 91). I was both the researcher and the school librarian. I administered the blog and provided assistance to project participants through instruction and facilitation of online participation as participants interacted in the online blog.

Large et al. (2007) conducted a study with youth to study their design preferences while searching web portals. Participant observers were present during 2 weekly sessions for 4 weeks in a lab setting with Grade 6 students (Large et al., 2007). While engaged in their role, participant observers’ confirmed that participants were adequately trained to engage in the project and provided technical assistance during the study.

Meyers et al. (2007) indicated a participatory philosophical emphasis to their research methodology with tweens and focused on doing research *with* youth rather than *on* youth. Glogowski (2008) utilized participant observation with grade eight students using a blog format and found it necessary to engage in the same practices as study participants. “The researcher has to experience what it means to create an environment in which students feel empowered to construct the curriculum, in which they see themselves as unrestricted agents of their own learning” (Glogowski, 2008, p. 118). Participant observers construct ethnographic research by:

- Identifying and building relationships that are important to future research endeavors
- Provides an intuitive and intellectual grasp as to the way things are organized and prioritized, how people relate to one another, and the way physical and social boundaries and defined
- Demonstrates patterns of etiquette, leadership, social competition and cooperation, socioeconomic status and hierarchies in practice, as well as other cultural patterns
- Endorses the presence of the researcher in the community
- Provides the researcher with cultural experiences that can be discussed with key

> informants or participants in the study site and treated as data. (Schensul et al., 1999, p. 91)

Observation alone can be described as an ethnographic method but does not define ethnography (Fetterman, 1998). "Essential methods, especially participatory observation and interviews, are those without which no researcher can conduct ethnography" (LeCompte & Schensul, 1999b, p. 127). The approach of this study required participant observation as well as semi-structured interviews to obtain insight into the relationships of the project's participants. This combination of methods with adolescent youth using technology was used by Large et al. (2007) and Gross, Dresang, and Holt (2007). In my researcher role, I offered encouragement and responses as an active participant in the blog providing a role of mediation and guidance while learning about the software application (Glogowski, 2008; Kuhlthau, 2004). Additionally, data gathered from group observations of participants in the physical environment and content analyses of the blog posts in the virtual environment were included.

Combining the various described methods and allowing for repetitive observations of behavior created a triangulation of data that tested the sources of information for accuracy, validation, and understanding (Fetterman, 1999; Hughes-Hassell & Agosto, 2007). Using multiple sources of collecting data provided a confirmation and corroboration of findings, and it sufficed for information needs if another source might have been unreliable or incomplete (LeCompte & Schensul, 1999b). Using a variety of methods, specifically with tweens, helped with conceptualizing and authenticating the findings (Meyers et al., 2007). Fisher et al. (2007) utilized focus groups, observations, and individual interviews with 21 tween participants to ensure reliability and validity. Hughes-Hassell and Agosto (2007) collected data from 27 adolescents in the form of surveys, logs, journals, and pictures. These additional methods of data collection provided a fuller picture of participant behavior and led to the development of a

theoretical model. The methods of observation, content analysis of blog discussions, and semi-structured interviewing used in this study provided comparative forms of observed behavior for triangulation. Although it might seem redundant to examine similar sources of data, "triangulation always improves the quality of data and the accuracy of ethnographic findings (Fetterman, 1999, p. 95). Triangulation "is at the heart of ethnographic validity -- testing one source of information against another to strip away alternative explanations and prove a hypothesis" (Fetterman, 1999, p. 93).

Environment

The study environment included both a virtual site and physical space. In the virtual learning environment, several characteristics were apparent as suggested by Dillenbourg et al. (2002). First, it was a designed information space as the blog was a place for participants to locate peer reviews on reading materials and suggestions for book selection. The blog was a social space that allowed participants to provide personal comments, suggestions, recommendations, and reactions to the posts and comments of community members. The blog incorporated technology via an educational software program permitting participants to be active in creating and designing their individual blogs. Lastly, the blog project conformed to the characteristics of a virtual learning environment and included face-to-face classroom activities provided by the cooperating teacher and school librarian that differed in pedagogical approach by emphasizing alternative methods for reading selection. The alternative activities included book talks and instructions on how to use the library's electronic catalog as an information source.

The objective of the blog was to provide a virtual environment for participants to discuss individual preferences and reactions to literature that was required within a reading program.

Although the reading was required, the collection of reading materials in which participants could choose to read was vast and often was left to personal preference for individual selection. Participants selected materials within their zone of proximal development, a span of the students' lowest and highest reading levels suggested based on a computerized reading assessment (Vygotsky, 1987). Teachers could impose additional criteria for reading materials based on the length or type of text. The blog project was designed to assist participants in making book selections by providing recommendations, suggestions, and personal discussions by a group of their peers. Participants responded to the posts and comments building a log of discussions among community members.

The blog software for this project was provided by 21Classes (www.21classes.com) which allowed for the creation of classroom blogs in a safe and secure environment. The software, developed for educational purposes, was accessed via the Internet and provided an easy-to-use, maintenance-free web-based blog portal. The blog consisted of two layers. The first was a home page that the blog administrator or teacher could use to communicate assignments or messages. The second layer housed individual blogs created by the project participants. In an attempt to protect participants and reduce the possibility of online predators, a private fee-based blog was selected with participation by invitation only.

In addition to observing the virtual environment created through the blog, the physical space in which participants interacted was observed. I recorded my observations in field notes, which included detailed descriptions of the face-to-face observations in the physical space. Observed behaviors including quoted conversations, detailed descriptions of individuals, and the physical conditions of the environment were included (Schensul et al., 1999). I created a field note memo similar to that used by Glogowski (2008; Appendix C) as a prompt for important

information to include during observations. Defined places of observation consisted of the classroom as well as other school spaces in which participants interacted (e.g., library, hallways).

The online blog component of the project addressed several theoretical components. As in engagement theory (Kearsley & Schneiderman, 1998), the construction of individual blogs was a creation that supported choice and autonomy as found in the create principle and supported the relate component as students engaged in discussions and shared within the community. The blog served as a class project to aid classmates in book selection and addressed the third theoretical component of donate. The inclusion of these components assisted in providing a motivating and engaging activity for project participants.

Self-determination theory (SDT), as previously introduced, provided a motivational framework of human psychological needs that included competence, autonomy, and relatedness. Crow (2009) studied the intrinsic motivation of fifth grader's while seeking information using SDT to provide a foundation for that motivation. The qualitative methods of interviewing and a drawing activity led to four significant findings that contributed to intrinsic motivation – play, anchor relationships, point-of-passion experiences, and interaction with others (Crow, 2009). In another recent study, SDT provided the theoretical base for a large examination of eighth grade students' information and research skills (Arnone et al., 2009). Arnone et al. (2009) indicated that student perceptions of the school librarian's autonomy supportiveness and technology competence led to a significant increase in students' intrinsic motivation for research and perceived competence in knowledge of research skills. I utilized SDT to provide a basis to the needs and behaviors of project participants as they interacted with peers within the online and physical environments. As project data were collected and analyzed, assertions of SDT were applied to findings.

Sample Population

A convenience sample of participants was chosen for this project based on the collaborative teaching effort of a classroom teacher and the school librarian. Convenience sampling is used when the researcher has convenient access to the study population (Schensul et al., 1999). Examples, according to Schensul et al. (1999), include studies of adolescents at the nearest school located near the researchers' office and of how young children use books in the preschool class of the researcher's daughter. Wyatt (2010) and Glogowski (2008) both utilized samples from the schools in which they worked. As the school librarian and as the primary researcher, I designed this project with input from the classroom teacher to include characteristics of a virtual learning environment, to contain the elements of engagement theory, and to correspond with the existing classroom schedule and curriculum.

After IRB approval, participants, who ranged within the ages of 10 and 11 years of age, were invited to participate in the project. A letter of consent was sent home with students written in either English or Spanish and returned with parental consent signatures. A letter of assent signed by each willing participant was collected prior to project implementation. A letter of consent was obtained from the cooperating teacher who interacted in the blog. The consent and assent forms appear in Appendix B.

Demographics of Population

Participants were students in a rural elementary school, pre-Kindergarten through eighth grade, located in south central Oklahoma. The school district was a small rural district located in a farming community with little commerce. The community consisted of farms, ranches, the school, and some new emerging businesses. School enrollment at the time of study was 411 students with 48% male and 52% female. Racial composition of the student population was 58%

Caucasian, 25% Hispanic, 12% American Indian, 3% Black, 1% Asian, and less than 1% Pacific Islander. Sixty-two percent of the students qualified for the Free or Reduced Lunch Program. School personnel included 32 certified teachers, 11 support personnel, and 1 elementary superintendent.

Twenty-six fifth grade students were invited to participate. The sample population of fifth grade students was 42% male and 58% female. Fifty-four percent of the sample population was Caucasian, 26% Hispanic, 12% American Indian, 4% Black, and 4% Asian.

Pre-test of Blog

Several blogging applications were examined prior to the selection of the 21classes platform as the host site for this project. The first pre-test was conducted by a 13-year-old female who was observed as she interacted with the application. The young teen did what many would expect. After a short introduction of how to navigate around the site, she created her post and then attempted to add a profile picture. After receiving assistance, she downloaded a graphic to use with her blog, changed her blog layout, and completed the information for her profile. She worked with the application for approximately 20 minutes and confirmed that the blog was fairly simple to create. Following the initial experimentation, she posted several times on the blog and read my comments. She later corresponded within the application with another volunteer blogger and accessed the blog from home.

An additional pre-test was conducted by an 11-year-old female. With little instruction, she was able to post a comment and insert an emoticon. She agreed the application was fairly easy to navigate and an appealing way to promote reading. The pre-tester returned the next day to check her blog and post about a book she was reading. She also read the comments I posted. The user name and password was emailed to the pre-tester to allow access from home. The pre-

tester responded to comments while accessing the site from her home computer on two separate occasions.

A third pre-test was conducted by a 12-year-old male volunteer. After a brief explanation of the blogging application, the volunteer had many questions. He questioned how to change the user identification and password, which students would be using the application, and whether or not the site could be accessed by the general population of Internet users. He moved freely through the portal clicking on various links to other blog pages and tabs. He discussed his experience with a wiki application that was similar to the blog. He asked if he could do his posting and personalize his blog from home on his MP3 player. The initial session lasted approximately 20 minutes. The male volunteer returned for a second session in which he changed his username and password, re-titled his blog, added an image for his profile, and searched for a background design for his individual blog page. He made no attempt to post to the blog or read the posts or comments from other blogger's during the observation, but made the statement that he thought it was really interesting. This session lasted approximately 20 minutes. He later accessed the blog from another computer and posted to his page about a book he was currently reading.

Another student volunteer, 12 years old, checked the blog home page to see what type of information she could obtain from posts, comments, and individual bloggers without being a registered user. She was instructed to try to view as much information from the homepage as she could to discern a sense of online security. She discovered that one section, "All About Me," could be viewed without being a registered user. Although postings required approval by the project administrator prior to publishing and the site was to be upgraded to a more secure package offered by 21classes before project implementation, this revelation further supported the

importance of participants' practicing safe Internet posting.

Groups Within the Project

The project contained two groups within the sample size. The first was a small group of students who were selected to participate in a book club, a supplemental reading program administered and developed by the school librarian. The book club students offered suggestions for making the blog site more appealing while the school librarian acted as the principle designer and administrator. Additionally, the book club members, just as the group of remaining fifth grade students, were authors of individual blogs accessed through the main blog site and provided personal comments, recommendations, and summaries of their readings. Although writing and authorship was not the main focus of this study, observations of their use of the blog provided insight into whether tween students found this type of application appealing and motivating.

The book club had been in existence at this school for 5 years and met weekly from approximately October through March, for qualifying students in third, fourth, and fifth grades. Assignments or suggested readings for participation in book club for fifth grade students consisted of group readings and discussions of Newbery titles, sharing of self-selected Newbery titles, and an assortment of literature chosen by the librarian. The book club consisted of eight members. Five had been members since the third grade year. All book club students were successful in keeping up their required reading for their classroom reading program as well as completing book club readings. Book club students frequently shared reflections of their weekly readings with other book club members, but the blog project was their first experience with online publication for an authentic audience.

Fifth grade participants of the book club were selected based one of three criteria: (a) a

reading score in the advanced category on a standardized test given at the conclusion of their fourth grade year, (b) placement in the school gifted and talented program, or (c) teacher recommendation. Participation was voluntary. Strong readers with a desire to read for pleasure and a willingness to read a variety of genre and texts were desired, but all students who met the criteria were allowed to participate.

The second group, whole class, within the study was the cooperating class of fifth graders. This group, in which most of the book club members were classmates, reacted to the blog posts of their peers by commenting on the posts as well as having their own individual blogs. Reaction and response from the members of the whole class as they interacted in both the physical and virtual space provided evidence of motivation and peer influence of blog use.

Development of Materials

A collaborative effort of idea sharing and modification of professional resources resulted in the creation of materials for the blogging project. I worked with the cooperating teacher, who was a 25 year veteran educator with a graduate degree and numerous teaching and administrative certifications, to develop lessons that were both age and developmentally appropriate. A general introduction to blogging lesson was delivered by the cooperating classroom teacher to all project participants. During this introduction, participants become acquainted with what defines a blog and the common terminology of blogs. Several blogging sites were visited to provide examples of formats and design and to familiarize participants with navigation. Netiquette instructions were discussed, and a student agreement of blogging guidelines was distributed for student signature. The second lesson was conducted by the classroom teacher who instructed participants about how to post comments. Participants practiced writing using an offline paper and pencil blogging activity to simulating commenting to a blog post in a small group setting. Each small

group of 4 to 5 participants responded to other group members' comments as the paper blog was circulated. This activity mocked the concept of how blog posts and discussions grow and provided instant verbal feedback from peers. Whole class discussion followed the activity to discuss reactions and check for comprehension. The mock blogs were posted in the classroom for students to reference, read, and discuss throughout the project.

I led two instructional mini-lessons with book club members introducing the software, navigation of the blog, setting up individual blogs, and posting guidelines. During their first and second meetings, participants were instructed on how to write a discussion post and create their first post on paper. Book club members responded to one another's practice posts and provided suggestions for clarity and understanding. Once the practice posts were edited and I approved them, the online posts were constructed by the book club members. All posts and comments were subject to approval and released by the blog administrator prior to publication on the blog site. This feature was provided through the blog application. The third meeting with book club members provided an overview of the blog software, a review of the components from the introduction lesson led by the cooperating teacher, and the initial construction of individual blogs. The book club members were given a short amount of class time to set up their blog while I provided feedback and assistance. Participants were encouraged to "play around" and personalize their blogs as time permitted at home and during school. Once the blogs were constructed, participants were allowed to blog and discuss readings online. Additional short face-to-face weekly meetings with book club members continued throughout the project. I remained available to offer technical assistance or provide guidance to participants in my normal role of school librarian.

I conducted a whole class lesson to discuss user generated content and what types of

social networking sites incorporate this application (e.g., blogs, YouTube, Facebook). Additionally, I met with students during their regularly scheduled computer class, which occurred during a 45-minute period, to provide instruction for formatting individual blogs and setting up usernames and passwords. During this session book club members, who had already learned to set up their individual pages, aided me in assisting classmates with the creation of their blogs.

A formal semi-structured interview is found in Appendix A and was used to capture the responses of participants who were representative of both groups upon the conclusion of the project. "Ethnographers use interviews to help classify and organize an individual's perception of reality" (Fetterman, 1999, p. 40). The interview probes were developed to expand the major elements of the research questions (Guthrie et al., 2006). Providing prompts, such as generalizations, allowed participants to elaborate and explain their responses creating a reflective quality to the process (Meyers et al., 2007).

In an attempt to provide meaningful data from project participants, the questions for the semi-structured interview were designed to address one or more of the research questions as well as to explore the components of the theoretical considerations of engagement theory and SDT. Questions were developed in regards to the major constructs of the study: reading influence, motivational aspects of using a blog, appeal of utilizing technology, and the effectiveness of a social networking application in an academic setting. Each interview question was listed under a broader topic (i.e., motivation, influence, appeal of technology) that correlated with the targeted research question. These broader topics assisted in the initial coding for the participant interviews.

Interviews with tweens have been found to be an effective technique providing a rich set

of data (Meyers et al., 2007). Research supports the use of multiple data sets, the selection of participants uninhibited by the research process, and allowing participants to express their ideas and opinions in order to capture data with youth populations (Agosto & Hughes, 2006; Fisher et al., 2007). The semi-structured interviewing approach with audio capture, as used in this study, has been successfully used with adolescents of similar age in recent studies conducted by Meyers et al. (2007) and Large et al. (2007). Several recent studies with youth contained elements of assembling more than one participant at a time during data collection. Focus groups are well documented as a common method of collecting data with youth (Dresang, Gross, & Holt, 2007; Fisher et al., 2007; Shenton, 2007; Valenza, 2007).

According to Meyers et al. (2007), "focus groups and individual interviews provided opportunities for social interaction and self-definition as tweens engaged in discussion, debated ideas, told stories, and reflected in their personal experiences" (p. 314). Valenza (2007) selected high school peers who shared the same commonalities during focus group sessions to use like interests for creating a relaxed atmosphere for participant sharing. Semi-structured interviews with groups were formed for a study with urban teens (Agosto & Hughes-Hassell, 2006). In another interesting variation of interviewing, Boyd (2008) found that pairing teens during the interview process eased the "power dynamics inherent in interviews" and made parents feel more comfortable (p. 78). Pairs, according to Boyd, tend to correct one another providing more clarity and are better at remembering the details of events, whereas individuals tend to be more forgetful and less knowledgeable. In an effort to reduce anxiety and increase sharing, the pairing of participants during the semi-structured interview was utilized for this study. Participants were verbally asked if they wanted to participate in the interview and if the person they were paired with was an acceptable partner. Suitable pairings were found with all interview participants with

no objections to the interviews process.

Methodology and Data Collection

The methodological approach for this project included the ethnographic practices of observation, content analysis, and semi-structured interviews. The combined approaches encompassed both the physical and virtual environments as the participants, and I traversed between the two environments to conduct all observations. The methods provided an integration of data between the online and offline fields and provided additional support for observing behaviors (Sade-Beck, 2004). Data collection procedures are listed following specific methodology with each of the two groups, book club and whole class.

A group observation of the fifth grade cooperating class was made prior to the introduction of the blog to obtain a baseline examination of the group's dynamics. Field notes from this observation provided a snapshot of how students interacted prior to implementation of the blog and were used to assemble a narrative account of the physical environment. Behaviors of participants and their conversations and interactions were noted. Another comparative group observation, made at the mid-point of the study, was conducted to ascertain if changes within the group were present that might be attributed to project implementation.

As participants interacted within the virtual environment of the blog posted comments, discussions, suggestions, and recommendations were archived by the software. Then, I analyzed the data using content analysis. The data were coded, as detailed later in this chapter, and examined for themes and patterns. Notes from the observations of the physical environment (e.g., hallway, library, classroom) were examined for patterns and provided support in several areas of activity during the project.

Concluding the project, a semi-structured interview, as described earlier, was

administered to 10 participants. All participants returned parental consent and assent forms. The interviews led to an in-depth description of the project experience from the participants' perspectives.

Steps for Implementation

Data collection for this study was focused on the experiences of the participants during a project utilizing a virtual learning environment and observations of interaction in the physical space of the academic school environment. The social aspect of blogging was observed as well as the applicability of using a blog with tween students in an academic setting. A sequential list for project implementation and a brief explanation of each point of data collection follows:

1. Application to the Institutional Review Board (IRB) at the University of North Texas for the research project which included minor children as human subjects was submitted (Appendix E) and approved
2. Participating school provided with project information including
    a. Parental consent form (Appendix B)
    b. Participant assent form (Appendix B)
    c. Summary of project information sheet (Appendix D)
    d. Selected blog site URL and summary of services provided by software provider
3. A meeting with cooperating teacher to finalize the schedule of lessons and beginning of project
4. The first cooperating class unobtrusive observation made of the physical space of the class
5. Observations of the online virtual space as participants interacted through blog posts and comments through the duration of the project

6. A second cooperating class observation was conducted 2 to 3 weeks following the start of the blog
7. Semi-structure interviews were conducted with 10 participants. Interviews were recorded and analyzed
8. Real time observations of participants as they interacted face-to-face in the various physical spaces of school (i.e., cafeteria, hallways, library) were made through the duration of the project
9. Project duration lasted 8 weeks.

Data Analysis

Analysis procedures for the qualitative methods were focused on making sense of the multiple sources of data through interpretation of found patterns and structures. Patterns resulted from repetitive thoughts or actions that seemed to fit together, whereas structures referred to the social composition of the group and provided an overall picture of the phenomenon or culture (Fetterman, 1998; LeCompte & Schensul, 1999a). Steps for analysis included identifying patterns, creating and applying codes, creating a code list, fine-tuning results, and creating interpretations (LeCompte & Schensul, 1999a). The analysis process was iterative, changing throughout the study to reflect the emerging ideas and themes (Fetterman, 1998; Hughes-Hassel & Agosto, 2007).

Once the data were collected and transcribed, they were coded based on the examined patterns and structures. "Coding involves organizing data into categories related to the framework and questions guiding the research so that it can be used to support analysis and interpretation" (LeCompte & Schensul, 1999a, p. 45). Coding data actually meant assigning a numerical or alphabetical label to a passage of text based on their representation of a category,

theme, or concept (LeCompte & Schensul, 1999a). Glogowski (2008) employed a technique of asking three questions prior to assigning a code:

1. What is happening here?
2. What does this suggest about the participants?
3. What does this suggest about the learning community? (p. 111)

The first stage of coding was focused on identifying and defining phenomena found in text that contributed to answering the research questions. For example, the interview questions were designed to assist in presenting findings to the research questions. Each interview question was identified as to which research question the participants' response might be associated. This identification was followed with a step that related "common characteristics and properties" with the key findings from the first stage (Glogowski, 2008, p. 112). Descriptors, which were developed in the first step, were given to student responses. The descriptive code was then issued to the text that reflected the different responses. The final step in coding presented core categories that were developed based on the frequency or "tendency to subsume other concepts or critical incidents" (Glogowski, 2008, p. 113). This "clumping" of naturally occurring items found in text was characteristic of coding that could be examined used for inference and interpretation (LeCompte & Schensul, 1999a).

It was apparent through the first readings of the interview transcripts that the reactions to the blog project revolved around technology or the ability to navigate and customize the application and how "fun" the participants perceived the project. Many of the first codes were labeled to reflect the features the participants stated as desirable. These were expanded to include what they did not like and more information to reveal particular interests such as LFB (likes feedback) or LComment (likes giving comments). The codes were created to address the interview questions, which were designed to address the major components of the research questions, and the responses of the participants. For example, the interview question utilized to

ask students about how they chose a book during the project coincided with the research question regarding reading influence. This inquiry led to several code revisions. At first the responses were coded as InfReal (influenced in the real world) or InfVirt (influenced in virtual world); however, it became necessary to distinguish not only if the student was influenced but also whether the participant actually selected a book based on that influence and if it was from a peer or a teacher. Additional codes were created to reflect the differences and provide specific findings from the interviews (Appendix F).

Anticipated patterns from participants' blog discussions for the study included reflective, affective, suggestive, and policing. Expected structures included participants or groups of participants, who were supportive, non-engaged, or exclusive. These patterns and structures were only preliminary expectations and were modified to reflect the actual findings. Anderson-Butcher et al. (2010) examined 100 adolescent blogs while using a behavior checklist to help determine coding. Although initial behaviors were expected, coders had an Other code option that allowed for unexpected behaviors. This alternative allowed for iterative work and was utilized as patterns where found in the online data. As unexpected patterns emerged, new categories were created to reflect those findings. The categories for participant-generated content came to include reflective, affective, inquisitive, suggestive, supportive, and zero impact comments. Policing of the blog was eliminated due to lack of evidence of use. Supportive and zero impact patterns were included instead. Expanded definitions for each were *reflective*, posts or comments that reflected upon the reading experience or material being read; *affective*, posts or comments that addressed the thoughts or feelings of the reading experience; *inquisitive*, questions submitted by bloggers; *suggestive*, posts or comments that recommended reading materials; *supportive*, comments that were in agreement with the blogger or answered a

question; *zero impact*, posts or comments that did not contribute to continuing the online communication (i.e., responses of "okay," "bye," "I will," or "thanks").

The structures were modified to represent project findings. Structures were defined by the frequency of activity or patterns presented in the data to build an overall picture of the blog culture (LeCompte & Schensul, 1999a). A *non-engaged* structure was determined by ascertaining participants who demonstrated low activity in both posting and commenting within the blogosphere. The *supportive* structure identified participants who provided comments or feedback during the project that represented the ongoing online conversations within the blogosphere. The *conclusive* structure was created to define participants who provided a large amount of posting while generating feedback within the blogosphere. It was expected that a structure for participants who only provided feedback to certain peers would be necessary but exclusive commenting or online cliques were not present within the data.

Williams and Merten (2008) in a recent study of older adolescent blogs coded data based on various demographics, behaviors, and thematic elements. The quantitative analysis of the 100 randomly selected adolescent blogs was used to identify the behaviors and frequencies based on demographics such as age, religious affiliation, gender, and sexual orientation (Williams & Merten, 2008). Although Williams and Merten collected more types of demographic information with a large sample of adolescents, the findings were presented in tables that were both simple and effective in design. A similar table for this study, Table 1, was created to display project findings comparable to those found in Williams and Merten. Demographic information for this study included gender and group affiliation, either book club or whole class. Frequencies of posts were calculated using mathematical means for both groups and provided an indication of participation and use. Additionally, frequencies of posts and comments containing elements of

the defined categories were tallied, and percentages were calculated to help present the findings from the data.

The blog site allowed users to create their own blog layout and customize it by adding graphics and media as well as by changing colors and fonts. Each blogger selected a user name and created a profile in which a graphic and small amount of non-identifying personal information could be viewed. The software application allowed for compiling statistics for the numbers of comments, frequencies in other link sets, numbers of entries, and star ratings as given by those who commented on a post, but the observed numbers were found to be inconsistent. Therefore, frequencies were calculated using Microsoft Excel spreadsheet applications. The values represented participants' use of the blog, and specifically, whether they engaged in creating their own posts or commenting on other group members' discussions and what features were most frequently utilized. These findings provided further indication of the blog appeal and aided in providing answers to the main project research questions.

For the study, the blog comments were printed for each blogger participant (Anderson-Butcher et al., 2010; Glogowski, 2008) followed by a thorough initial reading (Wyatt, 2010). The 26 participant blogs and one teacher blog resulted in 136 pages of data. The data were read and coded, and the frequencies were tallied, as previously described. Percentages were based on the number of findings for each coded behavior or action. Specific comments were examined to determine the patterns and structures of online activity (Anderson-Butcher et al., 2010).

Ten participants were selected to participate in the semi-structured interviews. Participants were chosen based on availability and willingness to participate. Some students were absent during the interview time due to spring track meets. Pairs were chosen based on observation of compatibility during the whole class observations, teacher recommendation, and

my experience with the participants. In addition to parental consent and assent, participants verbally agreed to be interviewed.

Participants were interviewed in an empty classroom near the end of the school day. Interviews were recorded using a smart phone device and notes were taken for detailing any important information revealed during the discussions. The interviews were promptly transcribed from the digital recordings to retain the details of the discussions and were later coded and analyzed. Code formulation ensued with a culmination of a code list to maintain consistency. The code list (Appendix F) was a multi-column document with the codes, expanded definitions of the codes, instructions of when to use specific codes, and examples of usage within the text (Wyatt, 2010). The data were hand coded prior to analysis.

In an attempt to establish reliability, two coders examined selected data from the semi-structured interviews using the code list (Appendix F) I created for the study. Cohen's Kappa (see Cohen, 1960) index to measure inter-coder reliability was used to determine the agreement between the coders. The measurement determined if agreement exceeded that of chance (Choudhury, 2010). The formula for Cohen's Kappa is $K = (O - E) / (1 - E)$, where O equals observed percentage of agreement and E equals the expected percentage of agreement (Choudhury, 2010). A K of one signified complete agreement, whereas less than one stated complete disagreement. The acceptable level of agreement could range from .61 - .8 (Choudhury, 2010; Landis & Koch, 1977; Wyatt, 2010). The K resulted in a value of 0.931 and ensured the high agreement of inter-rater reliability.

In conclusion, each technique for data collection assisted in validating the project findings. Field notes from the whole class observations provided an initial perception of the physical environment. Observations from the field during the project directly captured needs and

reactions of participants as they interacted with the blog application in their natural environment. Content analysis provided a broad view of the internal network of the online community, while the semi-structured interviews upon project conclusion led to thick descriptions from the perspective of a few key participants. Collectively the methods tested one source against another and led to a triangulation of findings providing project validation (Fetterman, 1998).

CHAPTER 4

FINDINGS

This chapter presents findings from the analysis of data collected during the blog project, including the five paired interviews of participants conducted following the project. The project involved fifth grade students representing the tween population while interacting in a virtual learning environment via a blog or weblog. Participants were observed in both the natural physical environment of their normal school day and classroom, as well as, the virtual environment created online through the blog software. The findings begin with an overview of the project, included demographic data, and expand into the role of participant-observer. Results from the observations, blog activity, as well as interview responses are provided and include figures and frequency tables. Some of the participants' unique and self-selected usernames were used throughout the project findings report.

Project Overview and Demographic Data

Twenty-six fifth grade students were invited to participate in the study involving a blogging application that lasted for a period of 8 weeks and occurred during regular school hours. All students returned parental consent forms and signed assent forms prior to participating in the study. Participants interacted in both the physical space of the natural school environment and in the virtual environment created by the blog application. The social networking application created a closed forum and password protected site that could be accessed from any electronic device with Internet capability. Although it was not part of the intent of this study to determine if students had home access or equal access to the Internet, all participants reported having Internet service at home but not all had parental permission to use it (J. L. White, personal communication, March 16, 2011). Most of the blog interaction occurred during regular school

hours, although a minimal amount of activity occurred during non-school hours as participants accessed the blog site away from school.

Study participants were divided into two groups. One group, book club, consisted of eight students who were in a book club and identified as strong readers with a natural interest in reading. The second group, whole class, consisted of the remaining 18 participants who made up the cooperating classroom roster. All participants received in lessons that introduced them to the blog although book club students were the first to create their blog pages in a small group setting during a regular club meeting. This activity allowed me, as the primary researcher, to give individual attention to the needs of the participants and determine if the instructions for creating an individual blog and accessing the site were adequate for group comprehension. It allowed book club members to assist whole class participants as they set up their blog pages. Initially, only book club members were going to have their own individual pages with the remaining students creating several small group blogs. Participants, however, showed so much interest in the project that the cooperating teacher and I decided to allow all participants to create their own blog pages. Even though this decision generated a considerable amount of data, it provided a great deal of insight to the participants' enthusiasm and desire to be engaged equally in the project.

Participant Observer

As a participant-observer, representing the ethnographic component of the study, I made numerous observations during the study. These observations occurred in the classroom, the library, and the hallway, as well as in the online blogosphere. As a participant-observer, I was able to sense the overall excitement generated by the project and capture that sentiment in several direct quotes made by the participants. Additionally, I was able to be a trouble-shooter

providing technical assistance, a consultant giving reading suggestions, and a conversationalist engaging in both online and face-to-face discussions (Morris, 2010). Notable quotes provided evidence of participants' reactions and allowed me to include the natural language of those participants. It was particularly important for me to understand any difficulties the participants experienced while using the blogging application in order to determine whether blogging was an age appropriate and appealing activity for them. The role presented challenges as I had to continually remind myself of the importance of documenting what would otherwise be just normal activities via the communications between the students and me (Fetterman, 1998). Using a convenience sampling, as in this study, can create observer bias; however, I believed that familiarity with me allowed participants to openly approach and discuss the project with me (Gay, Mills, & Airasian, 2009).

Observations

Two classroom observations were made as the classroom teacher was conducting regular curriculum instruction. The first observation took place prior to the onset of the project and the second about mid-way through the study. Both observations were recorded using a smart phone digital recorder. I created field notes as I jotted down interesting conversations and details of the environment.

The first whole class observation was conducted on a Friday morning, the day the class would have their Valentine's Day party. The class was engaged in a small group activity involving story interpretation through illustrations. The teacher circulated the room to provide verbal cues and assist students in recalling the story elements. Students were allowed to sit on the floor or comfortably at their desks as they discussed and worked on their project. There was a buzz of conversations as students provided feedback to their group members in regard to the

assignment. The students who know me as their school librarian were instructed to continue with their work during my visit. I circulated the room as the groups completed their work and spoke to the students as they explained their work to me. One student approached me during this time to ask me a question about my presence and then exclaimed, "Oh, I know what you're observing, you're observing our . . . ." Before she could finish her thought she was interrupted by the teacher as she refocused the group by stating aloud, "Be satisfied," and the students completed, "With nothing but our best." The activity led into an oral presentation during which all groups presented their illustrations to the class and told about their stories. Students were given the opportunity to ask questions and respond to the group presentations. After the group activity, the class had a spelling test. There was no indication that my presence disrupted the normal classroom flow as evident by the students continued endeavors with their normal activities. This observation lasted approximately 45 minutes.

The second whole classroom observation was made 1 month from the first, 3 weeks into the blog project, and lasted approximately 1 hour. The class was taking an electronic quiz on a book they read as a group. The students were in different stages of retrieving laptops, logging on, and accessing the exam. The teacher informed them that once they finished the quiz they could get on their blogs. Unlike the first observation in which my role seemed more as an observer, my presence during this observation definitely seemed to be one of a participant, evident as students comfortably approached me and asked that I look at their blogs, provide technical assistance, or read what they had posted. In addition, as I had observed in my first classroom visit, I saw evidence of peer assisting as several students asked and offered aid to their fellow classmates or requested them to look at their blogs. The following excerpt from my field notes stated:

> The students talk back and forth to their classmates, asking questions and offering assistance while they blog. There is a low hum in the room as students work. Glancing

> around I see that everyone is working, in some capacity, on the blog. One calls MsT over to see his blog. Several ask how to spell particular words they want to put in their blog. Peach calls me over to discuss a post about a book. During the same time, Spike offers to help Peach change the colors on her blog page, Junie also offers advice to Peach. Gamelover is assisting Jellybean in changing her blog page, he then leaves to read over the shoulder of Wenzala and concludes he could take and pass the quiz after reading her book summary on her blog. Tic-tac asks me if he can blog about what he is doing during spring break. Peach continues to work with her blog and is a little confused so I offer her assistance. Flea and Spike are attempting to add a picture to Flea's post but are not having success. Mex123 and Tic-tac are helping Ranger. Junie is now helping Peach again, who has chosen OU colors for her page. Peach shows off her page to Ligra and Junie. Ranger asks if anyone knows how to insert a picture, we explain that we aren't having success yet.

Both observations exemplified a classroom environment conducive to peer feedback and group work. Even though during the first observation the activity was a traditional paper and pencil activity with oral presentations and responses, the blogging activity in the second observation mimicked it by containing interpretations, presentation, and responses but within a digital format. The outcome for both activities resulted in peers, along with the teacher, freely providing assistance and opinions to each other.

Additional observations of the physical environment were recorded throughout the project as they occurred in my presence or as reported to me by a participant or teacher connected to the project. Fourteen separate memos (Appendix C), some containing more than one reflection, were used to document the observed behavior. Findings from the observations were divided into two main themes: (a) technology and (b) participant reaction.

As the project administrator, I was approached several times to assist students with the technical aspects of the software application. Further, the students' peers served as assistants and freely gave help during class time when requested. The assistance included discovering why someone was having trouble logging in, changing background colors, or inserting a picture or graph. Some participants simply asked how to spell a word or assisted a classmate as the need

became apparent. For example, Abes and Wane were looking at the blog on separate laptops during library class when Abes realized that his classmate's username was Wane. Abes asked, "Are you Wane?" Wane replied, "Yes." Abes pointed to the computer screen and stated, "Because you forgot to put a word here." Abes then read the sentence that Wane had typed on his blog page to show him how his comment read aloud. On two episodes, participants were unable to access the website. It was not clear why the site was down, but it only remained that way for a few minutes on these two occasions and did not disrupt the overall project.

As participants interacted during the project, a large amount of verbal feedback was noted. Participants' reactions to the blog was observed during the normal course of activity in the library or hallway of the school site. Ten quotes in regard to participant reaction about the blog were recorded. The conversations involved enthusiastic exchanges between participants or between a participant and me. For example, Gamelover exclaimed while working on the blog site, "Blogging is really fun." Ligra stated as she returned a laptop to the library, "I got two comments, I'm very happy." Wane returned a computer to the library and said, "I put a new comment on *New Moon*, its cool!" One documented exchange between me and a fellow teacher who allowed students to use laptops in her class to access the blog at the end of the day further illustrated students' interest. The teacher's reply after being asked if the participants were allowed to blog in her class was, "Yes, but I probably won't let them do it again because they don't know when to get off!"

Observation notes captured a couple episodes of peer influence of reading selection connected with the blog. During one observation in the library, a participant who was looking for a book to checkout asked, "What other books have they been blogging a lot about?" On another occasion, a female participant asked me if she should check out a particular book recommended

on the blog. She pointed to the book, *Holes*, and asked, "Should I read this book?" I replied, "Why are you thinking you want to read it?" She stated, "Because everybody talks about it in the blog."

Findings and Frequencies from the Online Environment of the Blog Application

The findings of the virtual environment are summarized through tables exemplifying frequencies and averages created with a Microsoft Excel spreadsheet. A table containing the average number of postings and comments based on group membership and gender provided an overall impression of project activity while screen shots (Figures 1 and 2) provide a visual of individual participant blogs. A summary of participant usage of the blog features and individual page creation provided an overview of participant activity and preferences while engaged in the project. Additional data provided the type of feedback participants posted to their peers while engaged in the project.

Features and Participant Use of Blog Application

The homepage of the blog site depicted a welcome heading with a brief summary of the purpose of the blog. Side bar information included the most recent news and assignments, a list of user names that had recently blogged, navigation tools, and a blog list of registered users. The most recent blog posts were displayed in reverse chronological order on the screen directly under the summary and hyperlinked to the individual page of the blog author.

During the project, participants interacted by generating content in posts and providing feedback through commenting on other members blogs in the blogosphere. Frequency of posting was fairly consistent between the two groups of book club and whole class. Comments varied as female book club members provided less feedback than any other group while female whole class members provided a great deal more. Comment frequencies are provided in Table 1 and

represent comments that participants generated on the blogs of other participants in the blogosphere. In addition to the frequencies of creating posts and providing comments, the amount of comments received during the project by group membership and gender are outlined in Table 2. Table 2 includes the number of comments received by peers, teachers, and self and commenting that occurred as participants responded to feedback on their respective blogs.

Table 1

Frequencies of Postings and Comments by Gender and Group

Total	Male – Book Club $n = 2$	Male – Whole Class $n = 9$	Male Total $n = 11$	Female – Book Club $n = 6$	Female – Whole Class $n = 9$	Female Total $n = 15$
Total number posts	10	43	53	21	34	55
Mean posts per participant	5	4.8	4.8	3.5	3.8	3.7
Total number of comments	11	36	47	14	63	77
Mean comments per participant	5.5	3.9	4.2	2.3	7.0	5.1

Table 2

Comments Received by Group and Gender

Group	Total Comments Received	Mean Comments Received
Book Club ($n = 8$)	80	10
Whole Class ($n = 18$)	150	8.3
Gender		
Male ($n = 11$)	99	9
Female ($n = 15$)	131	8.7

Twenty-two of the 26 participants, including all 8 book club participants and 14 from the whole class group, selected brightly colored layouts for their individual blog pages. Examples of the selected colors are shown in Figure 1 and Figure 2. Only three participants, all from the whole class group, chose to keep the default template or display a basic black and white layout with minimal individual changes. Only one participant, a member of the whole class group, integrated a design from outside the array of choices offered by the blogging application. The tropical pattern was used as the wallpaper for the header and borders of the participants' individual blog page. This was the only integration of a graphic used during the entire project even though several participants tried without success. It was the only indication that a student went outside the blog software to retrieve information from the web to include within their blog.

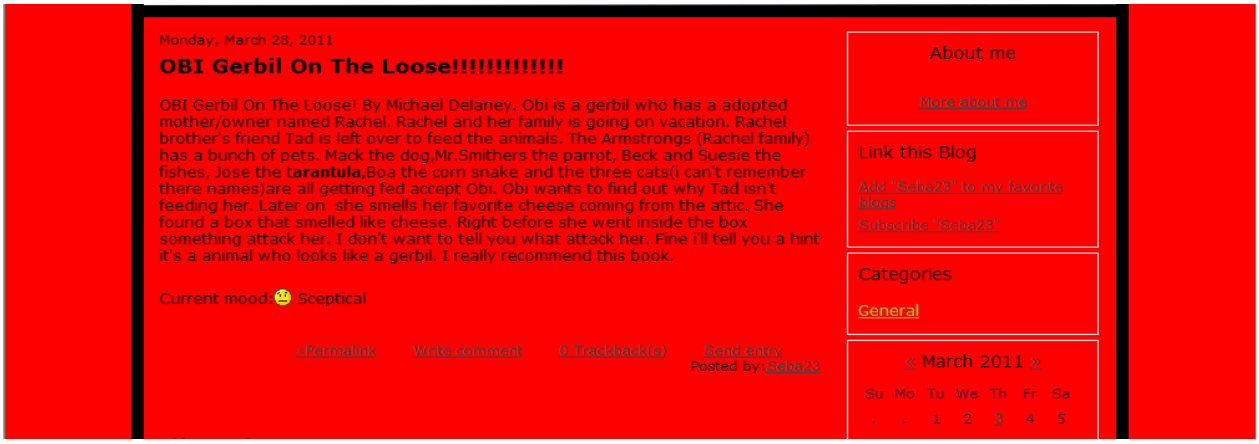

Figure 1. Example of male participant's use of bright colors.

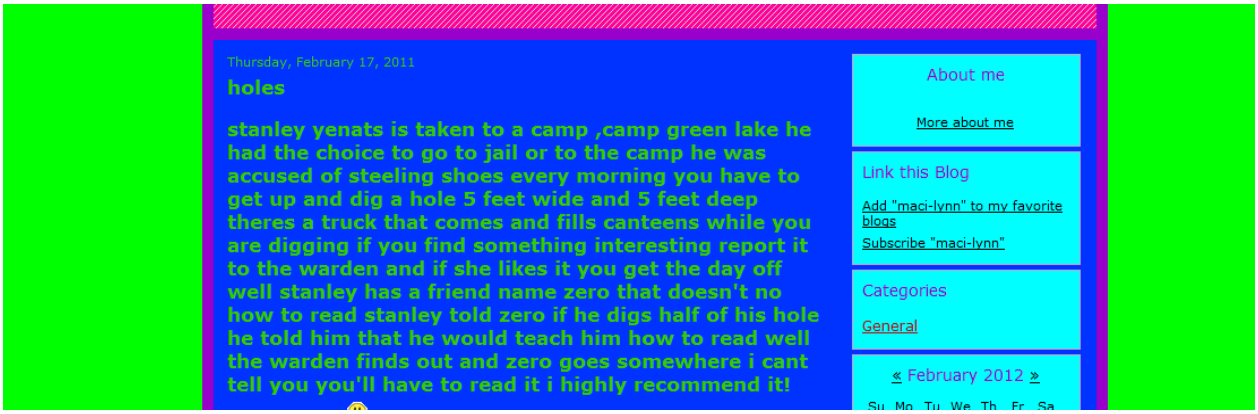

Figure 2. Example of female participant's use of bright colors.

Five participants, three book club and two whole class members, provided more personal information within the "more about me" section on their individual blog pages. This section provided a text box to allow the participants to post individually created information, plus it listed three interest statements for the participants to complete. The pre-formed statements created by the project administrator were favorite book, favorite genre of book, and favorite animal. Two participants provided their first names and a short summary of non-identifiable personal interests. One provided a couple of sentences about what activities she found interesting, and two answered the statements of their favorite book and animal.

Three participants, two book club and one whole class, selected at least one favorite blogger among the members of the project. This feature provided by the blogging application displayed the name of the chosen favorite(s) within the sidebar of the blog page and was hyper-linked to their individual page.

Eleven participants, five book club and six whole class, chose to modify the text of their posts by selecting a new font or by increasing, bolding, underlining, or italicizing the default font size. Emoticons, little graphic faces depicting different emotions, were a popular insertion within the text boxes of numerous posts. Fifteen participants, five book club and 10 whole class

members, used emoticons within their posts.

The blog application allowed those who commented on blog posts to award stars to the author's posts. One or two stars could be awarded to posts based on the individual rating and decision of the reader. Twenty-two star, eight one-star, and 14 two-star ratings were given by 11 participants. Thirteen different bloggers received the star ratings including the participating teacher, seven book club members, and five whole class members. A higher percentage of book club members, 50% versus 30% of whole class members, utilized the star rating feature. All but one of the book club members received star ratings. Five out of 18 whole class members received a star rating from their peers.

Topics and Patterns in Online Discussion

The majority of posts were written about topics of literature, which was the intent of the project. There were several participants, however, who ventured away from book summaries to discuss other topics of interest. Seven participants, all from the whole class group, created nine posts on topics other than their current or past reading selection or experiences. Topics included Spring Break, the book fair, their birthday, and the blog experience. The posts loosely tied to the blog, did not distract from the overall project, and did not consume any one participants' page. The topics were in addition to other posts about literature and reading, rather than being the focus of the blog. For example, Energizer02 wrote:

> Today has been a very good day the most excited thing is getting a blog well I'm not very good at this yet but I hope that I get better at this by the end of the year I really in joy [*sic*] this blog a whole lot!!!!!!!!!!!!!!

Mak11 stated:

> When the book fair started I was so excited that I had a chance to buy some new books but know [*sic*] there is only one more day. And that makes me very sad know [*sic*] tomorrow I am going to come to the parent teacher conferences with my dad and I am going to the book fair." Two participants announced their birthday on the blog. Junie307

shares, “today is my birthday and I am so excited! I’m so excited because I’m finely 11!!!!!!!!!!!

Participants were allowed to create two types of online communication in the blog. One was a post to their blog, which was created through a text box. The post was an original statement appearing on their individual blog page and was linked as well to the blogs’ homepage. The second was a form of feedback referred to as a comment, which allowed bloggers to provide their personal opinions and responses to the blog posts and/or comments of others in the blogosphere community. An example of the online dialogue between participants is displayed in Figure 3.

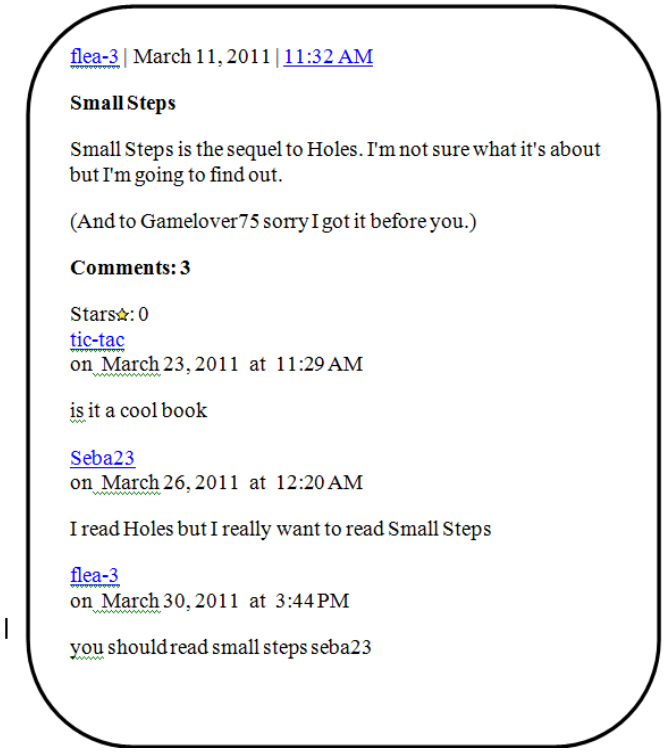

Figure 3. Example of student dialogue with the bright green background found on the blog page and line spacing modified for publication purposes.

Both types of communication, posts and comments, were examined for elements categorizing them as reflective, affective, suggestive, inquisitive, supportive, or random or

incomplete posts, which were marked as zero impact (see Chapter 3 for expanded definitions). One exception appeared in the supportive category of posts. This category was not applicable for posts as they were an original statement created by a blogger, whereas the supportive category was defined as a comment that was in agreement with the blogger or answered a question. Two tables were created to indicate how often each group of participants provided the various types of posts and comments and how frequently these patterns were found in the total amount of posts and comments (Tables 3, 4, and 5). For posts, both groups had similar patterns of posting with almost half of all posts being categorized as reflective, and 100% of participants created at least one post that reflected their reading experience.

Table 3

Posts by Group and Pattern

Type of Post	Percentage of Book Club Members who Made Type of Post	Percentage of Whole Class Members who Made Type of Post	Percentage of Posts Containing Each Pattern Made by Book Club Members	Percentage of Posts Containing Each Pattern Made by Whole Class Members
Reflective	100.0%	100.0%	47.0%	47.5%
Affective	62.5%	72.0%	18.0%	24.0%
Inquisitive	50.0%	22.0%	13.0%	4.0%
Supportive	n/a	n/a	n/a	n/a
Suggestive	87.5%	56.0%	22.0%	22.0%
Zero Impact	0.0%	17.0%	0.0%	2.5%

Note. n/a = not applicable.

The comments left on posts, including those provided in response to feedback or queries posed by participants, are outlined in Table 4 by group and in Table 5 by gender. Book club members embraced the concept of discussing their reading interests during the project with an overwhelming amount of reflective and affective discussion, compared to whole class members who

provided more supportive feedback. While both males and females engaged in supportive feedback to fellow blogosphere members, male participants provided more reflective comments than their female counterparts.

Table 4

Commenting by Group and Pattern

Type of Comment	Percentage of Book Club Members who Made Type of Comment	Percentage of Whole Class Members who Made Type of Comment	Percentage of Comments Containing Each Pattern Made by Book Club Members	Percentage of Comments Containing Each Pattern Made by Whole Class Members
Reflective	75%	50%	24%	9%
Affective	75%	56%	37%	16%
Inquisitive	63%	61%	13%	19%
Supportive	63%	83%	9%	47%
Suggestive	38%	33%	14%	6%
Zero Impact	13%	17%	3%	3%

Table 5

Commenting Patterns by Gender

Type of Comment	Percentage of Comments Containing Each Pattern Made by Males	Percentage of Comments Containing Each Pattern Made by Females
Reflective	21.0%	9.0%
Affective	20.0%	24.0%
Inquisitive	13.3%	19.0%
Supportive	37.3%	35.0%
Suggestive	5.3%	10.0%
Zero Impact	3.0%	3.0%

A summary of participant activity allowed for the generation of patterns that were used to develop structures of overall project activity (Tables 6 and 7). These structures (see Chapter 3 for expanded definitions) gave an overall view of the blog culture during the study and provided a glimpse of participant online activity. Non-engaged participants demonstrated very little activity while conclusive participants produced a large amount of posts while generating a lot feedback (either providing or receiving) during the project. Supportive participants engaged in exchanging feedback through comments in the blogosphere providing ongoing communication between participants. The remaining undefined users represented average online activity.

Table 6

Defined Structures by Gender

Category	Male	Female
Supportive	3	4
Non-engaged	1	2
Conclusive	4	2

Table 7

Defined Structures by Group

Category	Book Club	Whole Class
Supportive	2	5
Non-engaged	1	2
Conclusive	2	4

Paired Interview Responses

Five paired semi-structured interviews were conducted with project participants. Three interview participants represented the book club group and seven were from the whole class group. There were five female and five male participants. Five participants were Caucasian, four Hispanic, and one American Indian. The average paired interview was 10 minutes and 36 seconds. The shortest interview lasted 6 minutes 32 seconds, and the longest 13 minutes 38 seconds. Participants were selected on availability, verbally agreed to be interviewed, and provided their signed parental consent and student assent forms.

Pronounced Aspects

Participants provided authentic insight to both the physical and online environments as they interacted with other classmates during the 8-week study. During the semi-structured interviews participants revealed several appealing aspects of the blog project. These included receiving feedback, commenting on peers and their own blogs, reading what others posted, and designing their individual pages.

Interview responses from participants provided evidence that feedback, in both receiving and giving, was one of the features they liked best about the blog application. Receiving feedback evoked emotions of "happy," "good," and "excited" from project participants. Flea3 shared her reaction when discovering that a peer had responded to her blog, "I would be like eww, I got a comment!" Spike stated:

> I like it [the blog] because you can like get other people's, um, opinions on stuff, instead of just going out in front of everybody and asking, 'oh what?' you can just kind of post something and let other people read it or read what some people say about their books that they might not say out loud.

Comments or the online exchanges between bloggers were noted as leaving participants feeling positive about themselves and their ability to interact in the blog environment. Gamelover

reported, “it was kind of exciting that people were actually listening.” Wenzala reported:

> One time B . . . commented ‘cause I did this summary on *Hatchet*. He put “dang I can read that and take a test on the book.” That made me feel like, ya know, I can put some good summaries up on there.

Ligra summarized receiving a comment in this way:

> Um, it was really cool because it makes me feel good because that means that people actually saw it and it interested them and they want to read it so that just made me happy that I could tell somebody about a book they had never read that way they could read it.

Reading peers’ blogs and comments were mentioned as an interesting part of the project by one-half of the interview participants. Participants reported that if they were going to tell another tween about using a blog, it would be something positive such as “it’s fun” and “really good to enjoy.” A couple of students wanted to send a warning that some things about blogging can be a little hard, such as changing the colors and remembering to save a post as a draft prior to exiting.

When asked what facet of blogging participants would look forward to if they had their own blog page, the majority responded that writing posts, commenting, or receiving feedback would be favorites. One pair of participants imagined expanding the purposes of their blogs to include reviews of video games as well as books.

Technology Tales

In addition to interacting with peers in the blog, interview participants overwhelmingly voiced their enjoyment in creating their individual blog page by selecting colors and templates that reflected their personality. All of the interview participants mentioned that designing their individual pages by choosing the colors was a facet of the blog application they liked. One participant stated that the blog had “really good customizable software,” and he liked that because people could get onto his blog and say, “Whoa, that’s really cool.” Another participant,

Moses shared, “I liked changing the colors because that sorta . . . tells you a little bit more about someone’s personality by the way they decorate their blog.”

Although participants voiced an interest in putting stamps of their own personalities on their individual pages, the responses to questions about technology and the chosen software application received mixed responses from interview participants. The overwhelming majority stated they liked working with computers and working with the selected blog application, specifically choosing colors to personalize their individual pages. Four female participants stated they liked that the site was private and they did not have to worry about inappropriate comments being posted to their page. However, one-half of the interview participants admitted that even though they liked working with the application they found certain aspects of it hard to do. Participants specifically mentioned having difficulty learning how to change the colors, how to save data as a draft before exiting, and the basic keying and spelling needed to sign on or post text. Moses warned, “You have to be careful about writing because if you . . . aren’t finished and you do not press ‘save as draft’ it’s all going to disappear, and you’ll have to start over.” Although participants admitted having some difficulty with the navigation and edits, it was evident by the degree of participation that it did not discourage them from trying. One-half of the interview participants revealed that their peers provided technical support when they needed assistance. Spike stated, “If A . . . would have never told us, showed us how to change colors, it would still be black and white on our blogs.” Ligra admitted that “it was hard at first because you didn’t know how to do it but once somebody told you how to do it, you got it and it was just really fun.” Additionally, several participants stated that if they were to have their own blogs, designing them would be what they would look forward to the most. Moses commented, “I would look forward to changing the color on your blog and making, decorating your own page

so you . . . could let other people see it and say 'wow, that looks pretty cool.'"

Detections of Influence in Reading

When interview participants were asked if they enjoyed reading, 9 of 10 stated yes, and one answered, sometimes. Over one-half of the participants stated that the book they were currently reading was chosen based on a recommendation by someone within the physical environment of school. Four interviewees stated their book recommendations came from the school librarian, and two said their books were suggested by a peer. One-half of the interview participants stated being influenced to choose a book based on blog posts or comments made by peers and teachers in the virtual online world. One participant reported that he knew he had "inspired" somebody to read a book from his blog. Another participant was pleased with the book he selected from a peer blog recommendation. He admitted even though it was rather long in length he just kept turning the pages. He concluded, "Dang, this is a good book." Three interview participants stated that reading discussions on the blog influenced them to read a book that was discussed, while five others stated that even though they had not read one yet, there was at least one book they wanted to read based off recommendations from peers on the blog. One participant was currently reading a sequel to a book that had been heavily discussed on the blog and stated there was another book he wanted to check out, but one of his classmates beat him to it. Ligra shared this comment,

> Somebody wrote about a, uh, I think it was the *Hunger Games*, and um, when they wrote about that like my teacher was telling me about it, and they also wrote about it on the blog, and it just made me want to read it a lot.

Summary

Methods of data collection provided sources of observation in both the physical and virtual environment of the project. Participants were involved in creating and designing an

individual blog while interpreting real world information and experiences of their reading preferences online. The online communication mainly consisted of posts that were defined as reflective. Book club members commonly provided affective and reflective commenting compared to whole class members who provided mostly supportive feedback to their peers. While there was some indication of obstacles to navigating the software application, participants were willing to experiment or approach peers for assistance. Participants found designing their individual blog pages with bright colors and receiving or giving feedback to be the most appealing aspects of the project. Influence of reading selection was evident in both the physical and virtual environments as participants followed the suggestions of their peers and/or teachers.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

Social networking applications or their components that allow for online participation and input are becoming increasingly popular with younger children as well as in classroom instruction (Godwin-Jones, 2003). Based on the popularity of Web 2.0 applications, such as those found in the popular sites of Facebook and YouTube, this study incorporated the appeal of social networking within a virtual learning environment with tweens via a literary blog. This interactive study was designed to be both an engaging and educational activity for tween students. This chapter addresses the major elements of the project findings and evidence for answering the study's five major research questions. The theoretical underpinnings, which aided in the design of the project, are included within research question discussion. Study limitations, suggestions for future research, and additional discussion are presented in the chapter.

Research Question 1

The first research question asked: What motivates tween students who participate in a peer-constructed literary blog to use the online blog application? Evidence from the findings coupled with components from earlier research helped glean an understanding of participant motivation during the project. Although motivation can be hard to pinpoint, the three components of self-determination theory (SDT), coupled with those in engagement theory provided a clear theoretical foundation for identify motivating factors.

In self-determination theory, an increase in intrinsic motivation when feelings of autonomy, competence, and relatedness are perceived can be expected (Arnone et al., 2009). Deci and Ryan (2000) found that activities containing these contexts increase commitment, effort, and performance. Similarly, the technology-based learning theory of engagement theory

was used to advocate for authentic learning through collaboration and creativity. The three principles defined as relate, create, and donate were revealed within project findings (Kearsley & Shneiderman, 1998).

The first component of SDT, autonomy, was addressed through project design by providing an optional activity to participants. There were no grades or evaluations given for the creation of individual blog pages or the amount of online participation; therefore, participation was completely voluntary. Although participants might have initially succumbed to peer-pressure to participate, the amount of time spent on their blogs and their observed individual enthusiasm was purely genuine. The frequencies of posts and comments were fairly even among participants with only a few members showing behavior defined as non-engaged (refer to Tables 1, 6, and 7).

Additionally, the project allowed for choice and control, addressing both SDT and the create component of engagement theory, as participants designed their own blog pages by personalizing them through choosing template styles and colors. This activity was one of the most commonly voiced preferences by project participants. Participants spoke fondly of the ability to post their thoughts within the blogosphere. "Self-publishing encourages ownership and responsibility on the part of students, who may be more thoughtful (in content and structure) if they know they are writing for a real audience" (Godwin-Jones, 2003, para. 7). The blog served as a source of information for the members creating a type of public service consistent with the donate component of engagement theory.

This was a study about using social networking applications with tween students in an educational environment. I did not investigate the technology skills required to effectively navigate and utilize the software application. Recently, Ito et al. (2008) suggested that youth

often learn from their peers, not from parents or adults, when learning about new media forms. It was, therefore, intentional to provide only minimal instruction in that capacity to participants. The strategy was executed to demonstrate that if participants were interested or motivated enough to engage in the online environment, then their determination would produce self-exploration to learn how to use and navigate within the site. This assumption manifested as several participants voiced that it was difficult at first to navigate around the blog site or modify the default format to create their individual blog page, yet they continued their attempts of creating and posting. Participants stated that designing their individual pages or changing the colors provided an outlet for creativity and displayed their individual personalities. The technical aspect of learning how to navigate (i.e., post, save, comment, modify text, and change colors) did not deter them from asking a peer for assistance or learning from trial and error. This determination illuminated the element of competence in self-determination theory as well as that of create in engagement theory. As participants sought or provided assistance, the sense of collaboration and feelings of competence and relatedness potentially increased within the peer group.

The third component of SDT and engagement theory, relatedness or relate, was observed as participants reported feedback from members of the blogosphere by participants as something that brought them excitement, happiness, and confidence. Instructional methods that incorporated elements of collaboration, such as the inquiry approach that includes students asking questions, investigating, exploring, searching, etc., accommodated the students' individual needs for autonomy and relatedness (Crow, 2009). Participants reported receiving comments frequently as a positive experience and were observed to be genuinely enthusiastic about being a part of the project. Participants stated that the blog was fun and enjoyable. Crow

(2009) found that, "group-related information seeking episodes provided opportunities for students to meet their need for relatedness" (p. 104). Consistent with both engagement theory and SDT, the project findings indicated that participants assisted one another when technical support was sought.

To summarize, participants found the aspects of choice, creating, designing, collaboration, and communicating to be appealing factors during the project. Participation was voluntary with only a few non-engaged members. Participants were observed as enthusiastic and were interactive throughout the project. These elements were consistent with the major components of SDT and engagement theory and led to an impression of intrinsic motivation as well as suggested their suitability in designing motivational activities within the educational environment. Additionally, these elements were in line with research findings for activities created by digital worlds being able to capture "teens' attention because they provide avenues for extending social worlds, self-directed learning, and independence" (Ito et al., 2008, para. 3).

Research Question 2

The second research question asked: In what ways are tween students who participate in a peer-constructed literary blog influenced in their reading material selection based on blog posts and responses? The findings from participant interviews, face-to-face observations, and blog conversations in this study indicated that participants, just as research supports, were influenced in making reading selections by their peers, teacher, and school librarian (Crow, 2009; Drouillard, 2009; Hughes-Hassell & Lutz, 2006). Participants chose books from the suggestions of their peers' blogs during the project but also stated they were influenced by their peers and teachers in face-to-face interactions. Consistent with prior research findings, the school librarian was named by several interview participants as being influential in suggesting reading materials

(Arnone et al., 2009). Project participants stated they conversed in the physical world about their blog writings posted in the virtual world which, in turn, influenced them to make a particular reading selection. This finding supported prior research about youth often turning to their peers for information needs and to online book reviews written by peers to influence reading selection (Agosto & Hughes-Hassell, 2006; Prenger, 2009).

Research Question 3

The third research question asked: How do tween students describe their experience using a blog application within an educational setting? As with the first research question regarding motivation, overall participants described their blogging experience as positive (i.e., fun) and several wished to continue their blogs after project completion. A couple of participants voiced that the experience had its "ups and downs," in particular learning how to use the software and creating the blog page. One participant described it as a way to share things with your friends. Perhaps what participants did not say provided additional clarity to the overall experience as there was no mention of the project being boring, being too complicated, or lasting too long. Todd (2008) described social networking activities as a way to provide a new way of learning that "break loose from the static ways of learning that often confine and stifle creativity," but the challenge for education is to make it meaningful (p. 30).

> It is clear that social network sites and tools play an important role for teens in this regard, the challenge is to harness it in educationally meaningful and compelling ways that break loose from the static ways of learning that often confine and stifle creativity. (Todd, p. 30, 2008)

Research Question 4

The fourth research question asked: What factors, features, or facets do students who construct literary blogs find appealing while being used in an educational environment? Based on interview responses, participants' overwhelmingly found designing their individual pages to

be an appealing facet of the project. Numerous participants specifically named changing the colors as a favorite design feature with some admitting they changed their page design frequently. Other participants verbalized that giving and receiving feedback, posting comments, and reading what others had posted were favorable features. Participants showed evidence of expressing their individuality and personality by utilizing the application's features (i.e., all about me, favorites, templates). Many participants modified the text by using bold, italicized, underlined text, or enlarging the font. Participants inserted emoticons to express mood within comments and posts and gave stars to blog posts they found favorable. Both groups equally shared their desire to reflect on their reading experience in their blog posts. Book club members provided more suggestions and asked more questions in their posts, whereas whole class members provided more supportive feedback while commenting.

Research Question 5

The fifth research question asked: In what unexpected ways do tweens use a blog in an academic environment? In the final research question, I examined the unexpected use of the blog by participants. Topics of discussion during the project were expanded by several participants to include social topics in addition to topics with literary content. A couple of students posted messages about their birthdays and about the book fair. One student posted about spring break, and one posted about constructing the blog page. Even though they were "off topic" for the literary blog, these posts did not overwhelm any one persons' individual page or one topic of interest. Additionally, the responses to these posts by other participants was light with only a few comments given by project participants. It was expected that participants would repurpose the blog forum for social conversations but that activity was not evident in the data. Explanation for the lack of creative use of the blog application could be attributed to the young age of the

participants, the knowledge that comments and posts were screened prior to publication, or possibly just the desire to conform to the project guidelines. What was found is that participants, except for the above exceptions, contributed to the blog project in the expected ways of project creation and development.

Even though participants did not frequently use the blog forum to discuss topics beyond that of literacy, the use of it for socializing would still have contributed to the relatedness component of SDT. "Learning to socialize and cooperate with others is connected to the need for relatedness" (Crow, 2009, p. 96). This connection with others was a mentioned in AASL's (2008) standards for the 21st century learner as a practice to collaborate and participate with others.

Study Limitations

The self-contained single classroom was chosen to manage the size of the online community. Maintaining the small online group whose face-to-face interactions could be observed provided an additional perspective to the study. Due to scale, the generalizability of the findings was limited. Realistically this study only provided a snapshot of an online community of tweens during a particular time; however, the findings revealed the patterns and behaviors of tweens -- a group in which a paucity of research was found for this study. Peer influence of participants' reading selection was attributed to the online blog community as interpreted in the data gathered from the observations and participants' interviews; then again, it was plausible to conclude that some peer influence would have naturally resulted as participants interacted face-to-face, thereby excluding the blogs from the project. Finally, the enthusiasm observed in the study participants, who might not have had a lot of experience with social networking, might have been indicative of the novelty they felt toward the software application.

Future Research

The outcomes of this research pointed to several potential research agendas. The first was related to the study's population. Research opportunities to determine the effects, impact, and depth of technology use with youth are crucial as the integration of technology in everyday life increases. Would a study using a virtual learning environment involving even younger participants yield similar results? Can young children effectively interact within online environments? A younger population could provide interesting results to the range of youth able to effectively use technology as well as their social networking capabilities in the education realm.

The second potential research agenda addressed my roles as researcher and as participant-observer. When selecting a dissertation topic, it was important to me as an educator to attempt to conduct the research *with* my participants rather than *on* them (Meyers et al., 2007). It was a priority that I conduct the research in an educational environment, an atmosphere in which I have spent many years and find to be enjoyable, challenging, and intriguing. Just as Meyers et al. (2007) suggested that the needs of special populations, such as tweens, be considered when designing a study, I believed it to be important that the research be of interest to and applicable to classroom educators. Although teachers may not use rigorous scientific methods of investigation, they conduct research and make observations within their individual classrooms daily. The relationships and dynamics of the everyday classroom environment lends to a plethora of research possibilities and the teacher a valuable asset to unveiling topics that are viable to their practice, as well as understanding and interpreting student behavior. The participant-observer research method, as witnessed in this study, was a positive and important factor to retrieving rich and authentic data with tween participants. The interpersonal relationship that is regarded as essential for collecting authentic participant responses is many times already established in the

teacher-student bond allowing for quicker access to data collection and group dynamics (Schensul et al., 1999). Further studies using this method with youth populations as well as educators filling the researcher role could yield additional in-depth understanding about youths' motivations and experiences in educational environments.

Social networking within the educational and virtual learning environments provides the basis for the third research agenda. Outcomes from this study point to participant engagement and enjoyment with a sense of intrinsic motivation based on the components of SDT and engagement theory. The project was an optional voluntary activity with no evaluation or assessment to the end product or for participation. A study requiring student involvement and evaluation, as in traditional classroom assignments, would provide more evidence of what particular skills (i.e., keyboarding, navigation, writing mechanics) are needed to use the software application and technology. Additionally, it would provide comparable data to the frequency and patterns of participant posting and commenting as well as whether or not the same motivational elements are present in a graded situation.

Discussion

The study was designed to observe two groups, book club and whole class, with much of the findings divided based on participant membership. Guthrie et al. (2006) indicated that students who are highly involved and interested in reading often have a stronger attachment to reading as an activity. I thought that the two groups would yield varying types of responses, patterns, and experiences based on their identified reading skills. Evidence of considerable difference based on the division by group, however, was found in only a few areas. The first area was in the patterns of posts and comments. During posting, book club members were more suggestive by providing fellow bloggers with personal suggestions on what to read, whereas

whole class members were more affective, telling peers how they felt about what they were reading. In the area of providing feedback or comments to peers' blogs, whole class members were more likely to respond with supportive statements, compared to the reflective and affective responses made by book club members. The second area, closely related to the first, revealed a difference in the star ratings bloggers gave posts. A higher percentage of book club members received and issued stars to their peers. There were no indications in the data or during participant interviews to explain these differences.

To provide further insight on project participation, frequencies were sorted by gender (see Table 1). Based on means, male participants provided more posts while female participants provided more comments. Interestingly, female whole class participants, on average, provided over three times more comments than female book club members. This low number was attributable to classroom membership as three female book club members were not members of the cooperating class and may not have had the same opportunity to access the blog during regular school hours. Additionally, one female book club member was identified in the non-engaged structure of overall participation.

Although it was not addressed in a primary research question, one area that became evident in this study was the use and appropriateness of social networking in the academic environment. As previously discussed, Internet safety often presents a major deterrent to students having access during school to online sites that provide access to the World Wide Web. However, schools have been urged by researchers, organizations, and even students to allow more online interaction. The AASL (2007) asserted in its 21st century learner standards that information literacy skills are crucial for this century and include developing skills within a social context in both face-to-face and online environments. These sentiments have been echoed

by researchers who have found that social networking can propel information use (Todd, 2008), be used to ascertain learner perceptions (Paulus, Payne, & Jahns, 2009), aid in building a stronger bond between teachers and students (Boyd, 2008), and "be a positive form of communication within the school system" (Williams & Merten, 2008, p. 271). Ito et al. (2008) suggested that educational institutions "need to keep pace with the rapid changes introduced by digital media" (para. 13) as the "digital world is creating new opportunities for youth to grapple with social norms, explore interests, develop technical skills, and experiment with new forms of self-expression" (para. 3).

This study's findings suggested that given boundaries and appropriate supervision, social networking applications can be included within the classroom curriculum providing both an educational and appealing activity for students. Password protected sites are available to ensure a relatively safe online experience. In fact, participants voiced an appreciation for the secured site and the monitoring of comments prior to publishing. Observation of project enthusiasm, frequency of use, and interview responses provided evidence of participant interest and motivation. According to Deci and Ryan (2000), "motivation produces" (p. 69) and mobilizes others to act. It seems only fitting that educators should look to activities that include authentic motivational factors that enhance excitement, confidence, and interest. Based on these findings, it is recommended that more activities incorporating the appealing facets highlighted in this study, such as literary blogs, be included in classroom instruction.

APPENDIX A

SEMI-STRUCTURED INTERVIEW

Semi-structured Interview

Hello _____(participant's name). Thanks for coming and visiting with me about the blog project. We're going to start with a few questions. Feel free to ask me questions if you need more information in order to understand.

Warm-up
Do you like to read? Tell me about a book you have recently read (probe for information about how it was chosen, was it recommended on the blog).

Motivation to Use
Tell me what you liked or disliked about using the blog (probe for details about when, where, and why)

How did you feel when you received comments on your posts (or were able to comment on a post, or commented on another participant's blog)?

Reading Influence
Tell me about a time in which you read a post that made you want to choose a particular book to read.

Did you choose a book based on a review that you read on the blog? Tell me about it.
Did classmates comment on your posts when you recommended a book? Tell me about a time when you read one of them.

Appeal of Technology
Do you like working with computers?

Describe what you liked or disliked about the blog site (probe for details about the design of the blog, colors, fonts, graphics, ease of use, or difficulty of posting or providing comments)

Effectiveness of Blog in Academic Environment
If you were talking to a fifth grade student in another school that had never used a blog what would you tell them about using one?

Concluding Question
If you were able to have your own blog what would you look forward to doing most? (designing, writing, reading comments)

APPENDIX B

INFORMED CONSENT AND ASSENT FORMS

University of North Texas Institutional Review Board

Informed Consent Parent/Guardian Form

Before agreeing to your child's participation in this research study, it is important that you read and understand the following explanation of the purpose, benefits and risks of the study and how it will be conducted.

Title of Study: Blogging and Tweens: Communication Portal in Reading Selection and Engagement

Principal Investigator: Elizabeth Figa, PhD, University of North Texas (UNT) Department of Library and Information Sciences.

Key Personnel: Shelli Sharber, graduate student at the University of North Texas (UNT) Department of Interdisciplinary Ph.D. program, School of Library and Information Science

Purpose of the Study: You are being asked to allow your child to participate in a research study which involves their interaction in a blog, a social networking environment. Participants will be creating an online literary Weblog or blog and participating in online discussions with classmates, which may include commenting, reading, and posting graphics such as book covers and star ratings. Students will be encouraged to share their opinions and reflect about the books they read, as well as interact with others who are doing the same.

Study Procedures: Your child will be asked to participate in the blog by posting or commenting on other participants' posts. Participants will be asked to engage in posting discussions or commenting to posts ranging from 1 to 10 times per week and lasting from 5 to 15 minutes per session. The time spent in the blog project will largely depend on individual interest. The posts will be observed by the researcher and analyzed for patterns that will provide an indication of why and how students use the blog software. A few participants will be asked to complete a recorded interview with the researcher which will take approximately 15-20 minutes. The researcher will also complete two whole class observations in which a tape recorder may be used, as well as observations of participants as they discuss the blog during the school day.

Foreseeable Risks: The researcher does not foresee any potential risks involved with this study. Participation is voluntary. Your child may stop participating at any time during the study and may decline to answer any questions.

Benefits to the Subjects or Others: We expect the project to benefit your child by providing them a method of selecting books that are recommended by their peers in a digital format that youth may find appealing. The study may also assist teachers in creating and designing effective learning environments for the future.

Procedures for Maintaining Confidentiality of Research Records: All reasonable efforts will be made to protect the confidentiality of your child's records. Identification of participants will remain confidential. Consent forms will be kept separately from other data to protect the identification of participants. The blog site is password protected and participants will use a pseudonym or first name only while interacting in the blog. The confidentiality of your child's individual information will be maintained in any publication or presentation regarding this study.

Questions about the Study: If you have any questions about the study, you may contact Shelli Sharber at [redacted] or ssharber@[redacted]. You may also contact Principal

Investigator, Dr. Elizabeth Figa, of the University of North Texas at 940-565-2187 or elizabeth.figa@unt.edu

Review for the Protection of Participants: This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940)565-3940 with any questions regarding the rights of research subjects.

Research Participant's Rights: Your signature below indicates that you have read or have had read to you all of the above information and that you verify all of the following:

- You understand the possible benefits and the potential risks and/or discomforts of the study.
- You understand that you do not have to allow your child to take part in this study, and your refusal to allow your child to participate or your decision to withdraw him/her from the study will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your child's participation at any time with or without explanation.
- You understand why the study is being conducted and how it will be performed.
- Your decision whether to allow your child to participate or to withdraw from the study will have no effect on his or her grade or standing.
- You understand your rights as the parent/guardian of a research participant and you voluntarily consent to your child's participation in this study.
- You have been told you will receive a copy of this form.

Please return one copy of this form to your child's teacher or the school librarian (keeping one copy for your records).

_____
Printed Name of Parent or Guardian

_____ _____
Signature of Parent or Guardian Date

University of North Texas Institutional Review Board

Student Assent Form

Title of Study: Blogging and Tweens: Communication Portal in Reading Selection and Engagement

Principal Investigator: Elizabeth Figa, PhD, University of North Texas (UNT) Department of Library and Information Sciences

Key Personnel: Shelli Sharber, graduate student at the University of North Texas (UNT) Department of Interdisciplinary Ph.D. program, School of Library and Information Science

You are being asked to be part of a research project being done by the University of North Texas Department of Library and Information Science.

This study involves using the computer to post and comment on books that you and your classmates are reading.

You will be asked to interact with classmates in a blog, a type of online journal that allows you to comment and discuss books you are reading. Some participants will be asked to complete a recorded interview with the researcher which will take approximately 15 minutes. The researcher will also complete two class observations in which a tape recorder may be used, as well as observations during the school day that relate to the blog project.

If you decide to be part of this study, please remember you can stop participating at any time.

If you would like to be a part of this study, please sign your name below.

_____
Printed Name of Child

_____ _____
Signature of Child Date

_____ _____
Signature of Principal Investigator or Designee Date

UNIVERSITY OF NORTH TEXAS INSTITUTIONAL REVIEW BOARD

Informed Consent Adult Form

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the purpose, benefits and risks of the study and how it will be conducted.

Title of Study: Blogging and Tweens: Communication Portal in Reading Selection and Engagement

Principal Investigator: Elizabeth Figa, PhD, University of North Texas (UNT) Department of Library and Information Sciences.

Key Personnel: Shelli Sharber, graduate student at the University of North Texas (UNT) Department of Interdisciplinary Ph.D. program, School of Library and Information Science

Purpose of the Study: You are being asked to participate in a research study which involves the interaction in a blog, a social networking environment. Participants will be creating an online literary Weblog or blog and participating in online discussions with classmates, which may include commenting, reading, and posting graphics such as book covers and star ratings. You will be encouraged to share your opinions and reflect about the books you and your students read, as well as interact with others who are doing the same.

Study Procedures: You will be asked to participate in the blog by posting or commenting on other posts as well as monitor and assist participants in your classroom. Participants will be asked to engage in posting discussions or commenting to posts ranging from 1 to 10 times per week and lasting from 5 to 15 minutes per session. The time spent in the blog project will largely depend on individual interest. The posts will be observed by the researcher and analyzed for patterns that will provide an indication of why and how students use the blog software. You will be asked to complete a recorded interview with the researcher which will take approximately 15-30 minutes. The researcher will also complete two whole class observations in which a tape recorder may be used, as well as observations of yourself and participants as they discuss the blog during the school day.

Foreseeable Risks: The researcher does not foresee any potential risks involved with this study. Participation is voluntary. You may stop participating at any time during the study and may decline to answer any questions.

Benefits to the Subjects or Others: We expect the project to benefit you and the participants by providing a method of selecting books that are recommended by their peers in a digital format that youth may find appealing. The study may also assist teachers in creating and designing effective learning environments for the future.

Procedures for Maintaining Confidentiality of Research Records: All reasonable efforts will be made to protect the confidentiality of your records. Identification of participants will remain confidential. Consent forms will be kept separate from other data to protect the identification of participants. The confidentiality of your individual information will be maintained in any publication or presentation regarding this study.

Questions about the Study: If you have any questions about the study, you may contact Shelli Sharber at [redacted] or ssharber@[redacted]. You may also contact Principal

Investigator, Dr. Elizabeth Figa, of the University of North Texas at 940-565-2187 or elizabeth.figa@unt.edu

Review for the Protection of Participants: This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at 940-565-3940 with any questions regarding the rights of research subjects.

Research Participants' Rights:

Your signature below indicates that you have read or have had read to you all of the above and that you confirm all of the following:

- You understand the possible benefits and the potential risks and/or discomforts of the study.
- You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw from the study will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time with or without explanation.
- You understand why the study is being conducted and how it will be performed.
- You understand your rights as a research participant and you voluntarily consent to your participation in this study.
- You have been told you will receive a copy of this form.

Please return one copy of this form to Shelli Sharber, key personnel (keeping one copy for your records).

_____
Printed Name of Participant

_____ _____
Signature of Participant Date

For the Principal Investigator or Designee:

I certify that I have reviewed the contents of this form with the subject signing above. I have explained the possible benefits and the potential risks and/or discomforts of the study. It is my opinion that the participant understood the explanation.

_____ _____
Signature of Principal Investigator or Designee Date

APPENDIX C

MEMO FORM

Memo Form

Face-to-Face Observation

Date: _____

Time: _____

Location: ___ Classroom ___ Library ___ Other:_____

Observed behavior:_____

_____

_____

_____

_____

_____

What prompted observation? _____

_____

_____

Relevant quotes:_____

_____

_____

_____

Keyword(s): _____

_____

Structures (supportive, non-engaged, exclusive, other_____)

Patterns (affective, suggestive, reflective, policing, other_____)

APPENDIX D

PROJECT SUMMARY INFORMATION SHEET

Project Summary Information Sheet

Who - Students in Ms. Teacher's 5th grade class and the fifth grade book club are invited to participate in a research project through the University of North Texas (UNT) during the school year of 2010-2011. Shelli Sharber, UNT Doctoral student and School Librarian, will develop and manage the project under the supervision of dissertation research advisor, Elizabeth Figa, PhD. The project title is Blogging and Tweens: Communication Portal to Reading Selection and Engagement.

What - Students will be creating an online literary Weblog or blog and participating in online discussions with classmates, which may include commenting, reading, and posting graphics such as book covers and star ratings. Students will be encouraged to share their opinions and reflect about the books they read, as well as interact with others who are doing the same.

Observations of participants as they interact in the project will be recorded by the principal investigator (Mrs. Sharber) and, on occasion, may include audio recording (i.e., tape or digital recorder). Data will be collected from blog entries, individual and group interviews, and survey responses administered in either print or digital formats, as well as observations. The identity of participants providing individual comments, records of their observed behavior, and survey or interview responses will be kept in confidence and stored securely in an environment accessible only by principal investigator, Shelli Sharber.

Students will receive instructions on setting up the blog and proper web etiquette prior to posting comments or responses. Teacher assistance will be provided throughout the project.

When - The project will be begin upon approval and last 6-8 weeks.

Where - Students will interact in an online environment using a software blogging program designed for educational blogs (for more information please see www.21classes.com). The blog portal is password protected and administered by both Mrs. Sharber and cooperating teacher, Ms. Teacher. Blog postings made by students will be screened prior to publication to ensure appropriate content. Students will use first name only or a pseudonym for this project providing additional security measures.

Students will be able to access the blog during designated school times and during other times, such as home, when Internet access is available. The blog can be accessed from any device (i.e., smart phone, laptop, desktop computer) with Internet access; however, comments are released or published at the discretion of blog administrators.

Purpose of Study - Children between 9 and 12 years of age are often motivated by the use of social technology that allows for their input and creation. This project will observe students as they participate with such applications and provide educators with information regarding student preferences of using it and its applicability in an academic setting.

APPENDIX E

IRB APPROVAL LETTER

UNT
UNIVERSITY OF
NORTH TEXAS
Discover the power of ideas.

OFFICE OF THE VICE PRESIDENT FOR RESEARCH AND ECONOMIC DEVELOPMENT
Research Services

January 26, 2011

Elizabeth Figa
Department of Library and Information Science
University of North Texas

Re: Human Subjects Application No. 11034

Dear Dr. Figa:

As permitted by federal law and regulations governing the use of human subjects in research projects (45 CFR 46), the UNT Institutional Review Board has reviewed your proposed project titled "Blogging and Tweens: Communication Portal to Reading Selection and Engagement." The risks inherent in this research are minimal, and the potential benefits to the subject outweigh those risks. The submitted protocol is hereby approved for the use of human subjects in this study. **Federal Policy 45 CFR 46.109(e) stipulates that IRB approval is for one year only, January 26, 2011 to January 25, 2012.**

Enclosed is the consent document with stamped IRB approval. Please copy and **use this form only** for your study subjects.

It is your responsibility according to U.S. Department of Health and Human Services regulations to submit annual and terminal progress reports to the IRB for this project. The IRB must also review this project prior to any modifications.

Please contact Shelia Bourns, Research Compliance Analyst, or Boyd Herndon, Director of Research Compliance, at extension 3940, if you wish to make changes or need additional information.

Sincerely,

Patricia L. Kaminski, Ph.D.
Associate Professor
Department of Psychology
Chair, Institutional Review Board

PK:sb

1155 Union Circle #305250 | Denton, Texas 76203-5017 | TEL 940.565.3940 | FAX 940.565.4277
TTY 940.369.8652 | http://research.unt.edu

APPENDIX F

CODE LIST

CODE LIST

Code	Broadened Code	Definition
LTech	Like Technology	Participant likes to use the blog application; likes the ability to change colors, create page, or design the blog; thinks the ability to do so shows personality; the application is customizable
LSafe	Like Safety	Participant likes that the blog is safe; feels safe using because users must be registered; site administrator can block inappropriate remarks or comments; the site is private
LFB	Like Feedback	Participants likes the ability to agree or disagree with comments/postings on blog; like receiving comments, likes others opinions
LComment	Like Comment	Participant likes giving comments; asking questions on others' posts; likes typing
LLurk	Like Lurking	Participant likes reading the posts and/or discussions; likes to read the variety of topics
GFB1	Gives Feedback to one blogger in particular	Participant likes to comment on a favorite blog(ger); has one blog they follow
GFBE	Gives Feedback to Everyone	Participant like to give feedback to all or many of the bloggers on the project site;
DTech	Dislike Technology	Participant thinks it was hard to change colors, signing on, keying the right letters, or spelling correctly; hard to maneuver in site; had to learn from experience to "save as draft" before exiting site;
InfReal	Influence in Real World	Participant was influenced to consider choosing a particular text or book by talking or hearing a conversation in the real world (classroom, library, etc.).
InfVirt	Influenced in the Virtual World	Participant was influenced to consider choosing a particular text or book by talking or reading a discussion in the virtual world (blog).
SelrealT	Selection in Real World from Teacher recommendation	Participant actually selected a book based on a face-to-face recommendation by a teacher or librarian in the real world
SelrealP	Selection in Real World from Peer recommendation	Participant actually selected a book based on a face-to-face recommendation by a peer, classmate, or friend in the real world
SelvirtT	Selection in Virtual World from Teacher recommendation	Participant actually selected a book based on a blog post or comment by a teacher or librarian
SelvirtP	Selection in Virtual World from Peer recommendation	Participant actually selected a book based on a blog post or comment by a peer (classmate, friend)

Code	Broadened Code	Definition
FeelP	Feelings were Positive	Participant had positive feelings while interacting in blog (i.e., encouragement, made them feel happy, received positive comments from others, it was exciting, felt good)
FeelN	Feelings were Negative	Participants had negative feelings while interacting in blog (i.e., depressing, received negative comments, boring, did not enjoy the project)
LComp	Like computers	Participant likes working with computers, they are fun to work with
LTech	Like Technology	Participants likes to design the blogs (choosing colors, backgrounds, templates, customizing their page)
Comp?	Computers Questionable	Participant does not always like working with computers; indifferent
PAssist	Peer Assisted	Participant asked a peer or received help from a peer with the technology aspect of designing or creating the blog (changing colors, choosing a template, maneuvering in the site)
TellP	Tell Positive	Participant would tell another tween something positive about blogging (i.e., it was fun, make sure you save before exiting; teacher has to publish so it's safe; it was a positive experience, I would do it again)
TellN	Tell Negative	Participant would tell another tween something negative about blogging (i.e., it was hard to change colors, learning to save was hard, you have to be careful, it was boring)
OwnFB	Own Feedback	Participant would look forward to receiving comments or recommendations from others if they had their own blog
OwnD	Own Design	Participant would look forward to designing (choosing colors or template, formatting, customizing) the blog page the most if they had their own blog
OwnWr	Own Writing	Participant would look forward to blogging/posting/writing/typing if they had their own blog

Codes for Comments and Posts

Code	Label	Definition and description for use
R	Reflective	Comment/post describes a reflection of the reading experience or the text being read or the blog itself When to use: comment/post is a summary or a story, details of character(s), setting, plot. Participant's statement of what "I just read …," or "I just finished…." Description of what one is now reading or is going to read or bought at the book fair to read or the experience of being at the book fair that leads to reading a new book.
A	Affective	Comment/post describes the thoughts, feelings, or actions of the reading experience or text being read, or story being described. When to use: participants states, "it made me happy, sad, laugh, etc."; "I didn't like the ending, the length, etc."; "it was really good, bad, scary, cool, awesome, etc."; "I give it 5 stars"; "It's good."
I	Inquisitive	Comment/post is a question to the blogger or audience to receive feedback or information to answer the requested need. When to use: participant asks, "tell me more" or "how many pages?" "Was it good?" "Does anyone know…?" "How did it end, begin, etc.?"
U	Supportive	Comment is supportive in nature by agreeing with the blogger or other comments left by members of the blogging community or if the comment answers a question or provides information to a request previously posted by a blogger. When to use: participant states, "I like your blog, summary, colors, etc."; "Cool post"; "thanks for sharing your comment"; "I want to read this book"; "that sounds very good." Comments that add more about the story or answer a question should also use this code.
S	Suggestive	Comment/post suggests reading or checking out or not reading or checking out a particular book or story. When to use: participant states "I highly recommend it"; "you should give it a try"; "I think you should read…"; "read what happens next." Also use when comment suggests not reading a particular book or story.
0	Zero Impact	Comment/post has no impact on or does not contribute to the blog or blogging community. When to use: participant replies "see you later"; "ttyl"; "I will"; "bye"; "okay"; or an incomplete thought was posted.

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