

Technology, Literacy, and Self-Regulated Learning: The Impact eReaders have on the Reading Engagement Behaviors of a Group of Intermediate Grade Boys

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Abstract

For school-aged boys, it could be argued that reading orientation, i.e., a willingness and ability to focus on reading tasks, is generally lower than for their female peers. Boys' low reading orientation contributes to a gap in reading achievement and leads to many boys being labeled as reluctant readers. The purpose of this article is to provide results from a research study undertaken to understand the impact Kindle® eReaders had on the reading experiences and motivation of eight intermediate grade boys. Focus groups and participant observations were employed to examine the participants' reading engagement behaviors. Analysis of the data revealed that the boys were purposeful in the selection of titles they found relevant thus allowing for self-regulated learning. Based on study findings, recommendations are made to assist administrators and teachers in creating learning environments that bolster reading engagement among students, including those that have been labeled as reluctant readers.

Keywords: eReaders; boys and literacy; reluctant readers; social interactions; self-regulated learning

Introduction

"For school-aged boys, it could be argued that reading orientation, the willingness and ability to focus on reading tasks, is lower than for their female peers" (Martinez, 2017, pp. 14-15). Due in part to lower reading orientations, there exists a reading achievement gap between boys and girls, which in turn leads to boys being categorized as reluctant readers. In standardized reading testing, boys score lower than girls, many boys self-report that they are less capable than girls when it comes to reading acumen (Boltz, 2007; NAEP, 2015; National Literacy Trust, 2012; Retelsdorf, Schwartz, & Asbrock, 2015). In 2012, the National Literacy Trust found a significant reduction in the number of boys who self-reported spending time in leisure-reading activities and reported that only one in four boys engaged in reading on a daily basis. Research studies have also shown that boys tend to be less motivated to read overall (Coddington & Guthrie, 2009; Wigfield, 2000). These research studies and reports support the notion that boys are less likely to read on a consistent basis than girls.

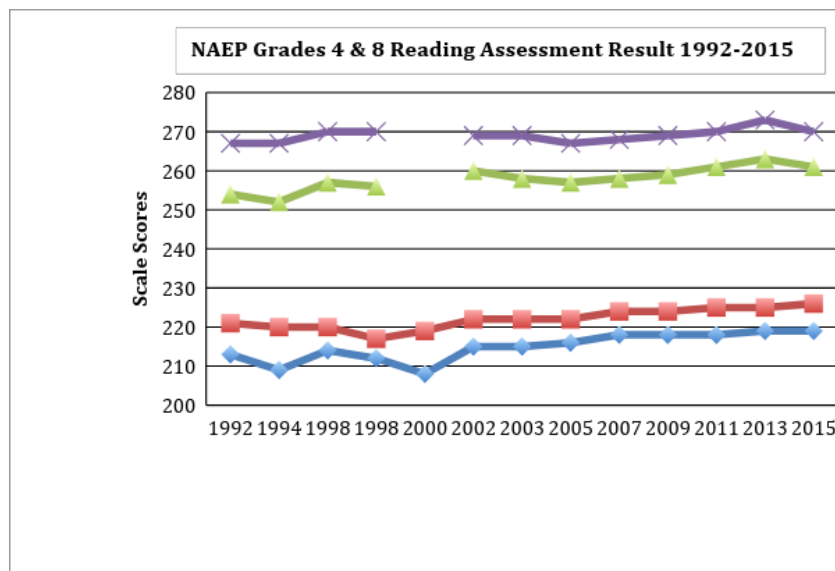


Figure 1. NAEP Grades 4 & 8 Reading Assessment Result 1992-2015

This reading disparity is not a new phenomenon. As shown in Figure 1, longitudinal assessment data shows that between 1992 and 2015 the gap in reading achievement between girls and boys remained constant (Bank, 2015). Although the results do not imply that all boys are unmotivated or low achieving readers, they point to an alarming historical trend that situates boys in a deficit position when it comes to reading when compared to their female peers. The trend speaks to a collective history of underperformance on reading assessments for boys. "This data further corroborates the position that boys' low reading orientation is contributing to a gap in reading achievement and their portrayal as reluctant readers" (Martinez, 2017, p. 18).

To address the growing concerns with the reading achievement gap, fourteen states enacted mandatory retention laws for students who fail to meet predetermined reading standards by the end of third grade (Tulenko, 2013). Even though reading achievement goals remain a significant part of federal education laws like No Child Left Behind (NCLB), Race to the Top, and the Every Student Succeeds Act, as well as in state laws which also requiring mandatory retention, there has been little to no change in the reading achievement levels of boys. So, while it is essential to consider the weight of federal laws, as well as the expectations from state legislatures, it is crucial that school administrators understand the importance of employing instructional practices that influence motivation for boys as self-regulated readers.

The purpose of this article is to provide information from a dissertation research study that looked at the impact Kindle® eReaders had on the reading practices of eight (8) intermediate grade boys, who had been identified by their teachers as reluctant readers. Based on analysis of the collected data, one key finding was that the boys exhibited more self-regulated learning behaviors when given access to Kindle® eReaders. EReading, reading on an eReader like the Kindle®, may be one way to engage reluctant readers. Better understanding behaviors, actions,

and reading choices made by boys, who were labeled as reluctant readers, may help administrators and teachers develop plans to utilize eReading as part of their reading curriculum.

Theoretical Framework

For the research study, a sociocultural framework of learning and development was used to better understand the participants' behaviors, choices, and actions as they accessed digital collections with Kindle® eReaders. A look at the historical context of the sociocultural approaches to learning and development can be found in the writings of Lev Vygotsky. Vygotsky's work originated in the school of thought born from Russian Psychology of the 1920's and 1930's (Kaptelinin & Nardi, 2012; Wertsch, 1998). Vygotsky (1978) rejected the notion that development occurred in isolation and instead advanced the notion that learning is a function of cultural development. Vygotsky (1978) believed that learning occurred within a *zone of proximal development* that allowed instructors to "delineate the child's immediate future and his dynamic developmental state, allowing not only for what already has been achieved developmentally but also for what is in the course of maturing" (Vygotsky, 1978, p. 33). Teachers that worked with children in the zone of proximal development afforded students the opportunity to expand their problem-solving abilities while completing complex learning activities that they would not be able to accomplish independently.

In line with Vygotsky's (1978) assertion of the zone of proximal development, Bruner (2009) posits that a person's experience of reality is represented by a linking of symbols to the contexts in which the experiences occurred. For Bruner, this form of symbolic interactionism is a shared reality between community members and may be employed in various contexts to construct varying interpretations of reality. Then, often through language, the symbols are "elaborated, and passed on to succeeding generations who, by this transmission, continue to

maintain the culture's identity and way of life" (Bruner, 2009, p. 160-61). In both cases, the "learning and developmental processes conceived by Vygotsky (1978) and Bruner (2009) position the development of knowledge and understanding in the social interactions between individuals, within specific contexts, where people employ culturally relevant symbols or tools jointly with their interactions to make meaning of situations and events they experience" (Martinez, 2017, p. 45). Thus, the research in this study used a sociocultural lens for analysis that pulled from Vygotsky's (1978) zone of proximal development and Bruner's (2009) symbolic interactionism.

Background literature

Many children begin developing reading skills as they learn to make meaning from both printed and digital text. These screen-based text images are the first exposure some children have to display, meaning-making processes digitally. "As children grow and mature their reading becomes an active, integrated mental process that is expected to result in making meaning from printed or digitally displayed text or characters in words, phrases, sentences, and paragraphs" (Martinez, 2017, p. 49). Readers deliberately engage with the text during the reading process by bringing to bear their unique experiences, background, and ways of knowing to the creation of meaning (Goodman & Niles, 1970; Rosenblatt, 1988).

Reading requires motivation (Gambrell, 1996) and engagement between the reader and the text; It is not a passive activity. According to Rosenblatt (1988, 1994), readers bring unique background experiences to the reading event thus creating a unique context in which meaning is made during the transaction between the reader and text. This transactional exchange allows the reader to experience an individualized meaning-making event. Thus, there exists no "generic reader, that each reading involves a particular person at a particular time and place, underlines

the importance of such factors in the transaction as gender, ethnic and socioeconomic background, and cultural environment” (Rosenblatt, 1994, p. viii). She makes the case that readers need not be lumped together in a mass categorization of a passive audience but instead be seen as active participants in the reading process. By shifting the perception that readers are active, rather than passive participants, in the meaning-making process, it is easy to see how the lived experiences, and the unique perspectives of each reader influence the meaning they take from the text. It is also then possible to better understand the relationship between reader motivation and achievement.

Reading Motivation

Teachers recognize the problem of low reading orientation and its links to the fissures in reading achievement between girls and boys. Gambrell (1996) found that teachers are eager to understand the relationships that exist between motivation and achievement. They recognize that motivation has a widespread influence on literacy learning. There is a strong connection between reading motivation and reading achievement. In one study "third and fifth grade students' self-report amount of time spent reading in school and out of school was associated with competency tests of students' reading comprehension, even when controlling for background knowledge, previous grades, intrinsic motivation, and self-efficacy” (Guthrie & Wigfield as cited in Guthrie, Wigfield & You, 2012, p. 609). Wigfield (2000) explains that as students spend more significant amounts of time reading, they become better equipped for reading achievement and reading skill development which in turn supports their reading self-efficacy.

In her study of a reading motivation program designed for use at the elementary level, Gambrell (1996) noted that, while in general children valued reading, a significant percentage of

her participants in third through fifth grades did not consider reading a high priority activity. These findings were especially true in schools where there had previously been insufficient literacy achievement and high poverty. She explained that analysis of the results of the Value of Reading subscale from the Motivation to Read Profile uncovered that 17% of the students she surveyed preferred cleaning their room to reading a book and 14% predicted that they would spend little to no time reading in their adult lives. One-tenth of the participants also felt that people who spent time reading were boring.

Clark's (2011) more recent study aligns with the findings of Gambrell (1996). She suggested that as children's lives became busier, filled with more leisure time activities and choices fewer children were choosing reading as a leisure time activity. "More than a fifth of children and young people (22%) rarely or never read in their own time. More than half (54%) prefer watching TV to reading [and] nearly a fifth (17%) would be embarrassed if their friends saw them reading" (Clark, 2011, p. 7). Clark's findings align with the conclusions drawn by National Literacy Trust (2012), and Guthrie, Wigfield, and You (2012) that students who have a low reading motivation, choose not to read and reinforce the reading achievement gap that has been present for a generation or more.

Building from the perspective that meaning-making is an active process that requires an engaged learner to be in transaction with the text, the reading experience and meaning-making activities require purposeful action by the reader. As is well documented in the literature, school-aged boys often maintain lower reading orientation and underperform compared to girls on standardized reading assessments. They self-report being less capable readers than their female peers, having less interest in reading as a leisure activity, and being less motivated to read

overall (Boltz, 2007; Chambers, 1969; NAEP, 2015; National Literacy Trust, 2012). These beliefs come together and lead to their classification as reluctant readers.

Boys as Reluctant Readers

When it comes to reading assessments, girls are outperforming boys. Girls choose to read at higher rates than boys, and in general, school-aged girls are more motivated to read than boys (Clark, 2011). As a result of their lower reading orientation and inferior performance on standardized reading assessments, educators have developed a pervasive belief that boys are less motivated to read compared to their female counterparts (Coddington & Guthrie, 2009; Wheldall, & Limbrick, 2010). This is particularly evident in the way boys are labeled as *reluctant readers*. Chambers (1969) defined reluctant readers as “those who have the ability to read without any mechanical problems but have little or no inclination to read except what is required by way of work or normal everyday life” (p. 4).

School is a primary access point for acquiring reading material, developing reading skills, and for building reading orientation. Allington (1983) observed literacy instruction provided to children of low socioeconomic status is often insufficient for achieving those goals. He observed and commented on instructional environments that impeded learning to read and further hindered the growth of reading motivation. The poor instruction observed by Allington was a contributing factor in creating a Matthew effect for reading “whereby good readers get better because they take advantage of opportunities to read...[and] poor readers fall farther behind because they avoid such opportunities” (Anderson-Inman & Horney, 1998, p. 17). Teachers’ gender stereotypes (Retelsdorf, Schwartz, & Asbrock, 2015), ineffective instruction, low reading orientation, text interactions that fail to produce significant meaning, and the absence of high-quality print and digital reading materials all contribute to the unrelenting achievement gap that

continues to depress boys' motivation for reading and helped lead to them being identified as reluctant readers.

eBooks and eReaders

Over the past decade, eBooks and eReaders have gained traction in the publishing industry (Chandler, 2015; Rozema, 2015) and are considered one of the top 10 game changers for school libraries in the past 25 years (Johnson, 2013). All age groups are increasing access to digital reading experiences (Pew, 2012) and "electronic text is nearly universal in schools, homes, and students' backpacks" (Guthrie, Wigfield, & You, 2012, p. 631). In fact, many K-12 schools are being pressured to leave behind traditional textbooks and pursue mobile and digital text options via open educational resources, web resources, and eBooks (Lenkei, 2016; Lewin, 2009; Molnar, 2016, Stern, 2013; Zubrzycki, 2016).

This shift brings different consequences. Stern (2013) wrote that one of the first high schools, Stepinac in White Plains, New York adopted a "digital library" (para. 3) and was all for "letting go of expensive, heavy, environmentally unfriendly and instantly outdated books" (para. 5). On the other hand, a study done by Scholastic (2015) indicated an increase from 60 to 65 percent of school-age children who would always prefer to read print over eBooks. Further, Kuforiji & Williams (2017) identified that existing classroom research on eReaders often focuses on the obstacles teachers face using eReaders (Gros, 2013; Hutchinson & Reinking, 2011) and is primarily outside of the school setting (Mitchell, 2013; Scale, 2012). It is critical to examine the impact of eBooks and eReaders in schools and classrooms to find the right balance of integration. According to Larson (2010), "[t]he rapidly changing nature of e-books and digital reading devices demands a progressive research agenda that examines the use of new technologies in authentic school settings" (p. 22).

Specifically, one area that warrants examination is "whether motivation, behavioral engagement, and competence in the domain of electronic text interaction are subject to the same principles as traditional interaction with printed text" (Guthrie, Wigfield, & You, 2012, p. 631). Existing research looks at understanding that not every student enters school as a highly motivated reader, or with strong reading orientation; and has identified classroom characteristics and teacher behaviors that have been shown to support reading motivation including relevance, choice, student-centeredness, and teachers' emotional support (Guthrie, 2011). Guthrie, Wigfield, & You (2012) further examined "the quality of teacher-student relationships" (p. 625) and found that students' motivation for school and reading increased "when teachers emphasize collaboration and positive interpersonal relationships (between themselves and students and among students in the classroom)" (p. 625). Research is needed to extend the body of knowledge about the impact of the use of eBooks and eReaders on student motivation. Examining the behaviors, choices, and actions that students and for this article, specifically, boys make when they use eReaders to access the digital collections of a city-county library district and Amazon's eBook store creates deeper understandings of their motivation and reading experiences.

Methods

The purpose of this research study was to learn about the impact eReader usage had on the reading experiences, behaviors, and choices of intermediate grade boys, who had been characterized as reluctant readers. A case study was conducted to understand the behaviors, choices, and actions of intermediate grade boys in Colorado when they used eReaders to access digital libraries (Martinez, 2017). The chosen methods for collecting qualitative data included participant observations and focus group interviews. An instrumental case study (Stake, 1998) was selected to create historically bound, thick descriptions of the behaviors, choices, and

actions, of the participants as they used eReaders. The researcher was immersed in the “daily activities, rituals, interactions, and events of a group of people as a means of learning the explicit and tacit aspects of their life routines and their culture” (DeWalt & DeWalt, 2011, p. 1) through the use of participant observations. Finally, focus group interviews (Hesse-Biber and Leavy, 2011; Krueger and Casey, 2009; Stewart, Shamdasani, & Rook, 2007) provided a broad understanding of the phenomena.

The participants for this study were a group of eight intermediate grade boys from an elementary school in Southern Colorado. The school is located in a geographically diverse district that is classified as rural by the Colorado Department of Education. The school population is twenty-six percent minority. Thirty-five percent of the student population qualifies for the USDA Free and Reduced Lunch Program. The sample population resembles the school socioeconomic and ethnic demographics. The purposeful sample criteria included: a) student was an intermediate grade boy at the research site, b) student was identified as a reluctant reader by his classroom teacher, and c) student did not have a reading support plan or an individualized education plan (IEP) that included reading support .

The lead researcher (first author) was a participant observer (Gold, 1958) because he was the participants’ technology teacher and was in the classrooms with the students on a weekly basis for observation and interaction. Data were collected over an eight-week period at the research site. For this study, participant observations, using an observation protocol, occurred weekly for each participant during the eight-week data collection period by the lead researcher. Focus groups were systematically conducted every other week by the lead researcher utilizing Krueger and Casey’s (2009) focus group model.

Results

An analysis of the case study data, revealed a significant finding that participants' self-regulated their learning, alternating between eBooks and print books in the selection of reading material. They selected specific genres, titles, and maintained specific purposes for their self-selected reading tasks. The data record also indicates that the participants made utilitarian uses of the eReading device. The behavior, actions, and choices these participants made run counter to the operationalized definition of reluctant readers (Chambers, 1969) as used in this research study.

Self-Regulation of Learning

During the research study, the question under investigation was, "*What happens when a group of intermediate grade boys, who have been identified by their teachers as reluctant readers, are given Kindle® eReaders to use?*" Examination of the data set revealed that the participants used the Kindle® eReaders to self-regulate their learning in a variety of ways. This included selecting an assortment of eBooks from fiction and nonfiction genres. It also included them finding utilitarian uses for the eReading device.

Zimmerman (1990), credited with foundational theoretical work about self-regulated learning, explained that self-regulated learners "approach educational tasks with confidence, diligence, and resourcefulness" (p. 4). Self-regulated learners, according to Zimmerman's conception, recognize their self-efficacy and generate personal learning goals that are modeled on their perceived competencies. Students who engage in self-regulated learning internalize their personal learning goals and initiate actions to acquire the knowledge or skills they seek. Then they strategically apply learning activities to grasp their new skills or knowledge. Self-regulated learners are not impeded by common obstacles to learning or skill development and believe that knowledge acquisition is a "systematic and controllable process" (Zimmerman,

2010, p. 4). He suggested that students who demonstrate self-regulating behaviors engage in interdependent motivational processes, respond to self-oriented feedback, and apply self-regulated learning strategies.

The characteristics of self-regulation as described by Zimmerman were evident in the reports of their eReading experiences and used for the eReader provided by the participants. They described selecting and reading eBooks. Then in their focus groups discussed the authors, the characters, and the plots, from the stories. After they read expository texts on the eReader, they explained their skill development and the learning that occurred from the eBook. In describing their other uses for the eReaders, the participants detailed the learning support provided by the eReading device.

The participants' descriptions and explanations of their self-regulated learning behaviors were used to answer the research question. In the data record, it was evident that the participants self-regulated their learning by selecting reading material in eBook or print book format and by devising utilitarian uses for the eReaders. They demonstrated self-regulated learning through the selection of specific genres and titles of the books and eBooks they read during the data collection. They extended their self-regulating behaviors by maintaining specific purposes for selecting and reading their chosen titles and by using the eReader in ways that supported both teacher assigned and self-selected learning tasks. These participants were engaged in autonomous decision-making, and thereby were active agents in self-regulation of their reading and learning tasks. These findings answered this research question and are examined below.

Book format.

The participants selected books in both eBook and print book format during the data collection period. Alternating between book formats was one method for exhibiting self-regulation of their learning. When the participants had reading tasks assigned by their teachers they selected mostly printed material. Student Eight explained, “I have been reading an actual book, *The Hardy Boys* so that I can take AR [Accelerated Reader] tests. It is from the school library” (Student Eight, Focus Group, October 18, 2016). For self-selected reading tasks, the boys selected both eBooks and print books. Student One stated, “I hardly read this at night, but sometimes when I get home I read this [waves a paperback] (Student One, Focus Group, October 18, 2016). Choosing one book format over another for their reading material was a characteristic of the methods the participants used to self-regulate their learning as the same title was available in both print and digital format.

In a few cases, the participants selected print books based on a physical need that was unmet by their eBooks. Student Eight chose to read his *Treasure Hunters* series, by James Patterson, in print instead of using his Kindle®. About using the eReader, he stated “I like the paperback book because I like holding the book in my whole hand. With the Kindle® you barely even swipe with your finger” (Student Eight, Focus Group, October 18, 2016). Student Four also felt that it was “easier” to tell what a print book was about because he could read the dust jacket. These boys’ statements suggest what Sellen and Harper (2002) discovered. The tangibility of paper allows for a distinctive tactile experience that one does not receive when reading from a screen.

The participants in this case study were actively engaged in eReading tasks. However, their use of the eReader was offset by a regular selection of printed reading material. For independent reading, their behavior showed that the Kindles® were a useful device, but not a

replacement for all reading tasks. This finding confirms Ciampa's (2012) finding that eReading may be a beneficial supplement to a print-based literacy program. De Jong and Bus (2002) had concurrent findings from an earlier study. They explained, "exploration of electronic books is not a replacement for regular book-reading sessions but a valuable supplement. Suitable electronic books offer overlapping and complementary experiences with the written form of words and the story content" (de Jong & Bus, 2002, p. 154). Both Ciampa (2012) and DeJong and Bus (2002) support the notion that eBooks provide students with measurable benefits but are not a one-for-one replacement for print book reading experiences. The findings advanced by both Ciampa (2012) and de Jong and Bus (2002) are reinforced by the data collected about these boys' actions and behaviors. The participants demonstrated that eReading could be a beneficial addition for self-regulation to a school-based reading program where students have access to a variety of material in both print and digital formats. The eReader provides the students the capacity to decide to access an eBook or print books as different needs arise.

Genre.

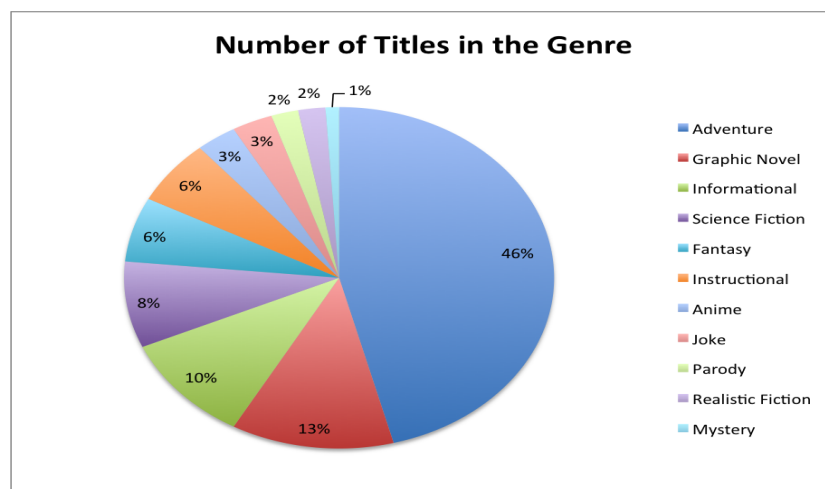


Figure 2. Percent of books downloaded by genre

The boys in this study engaged in self-regulation of their learning by selecting specific genres of books and eBooks for their reading tasks. As shown in Figure 2, for leisure reading, the boys demonstrated a preference for fiction titles downloading more fiction eBooks than any other genre. The boys also engaged in self-regulation of their learning when they selected specific descriptive titles. Informational eBooks, video game strategy eBooks, and instructional eBooks made up sixteen percent of the eBooks they downloaded. The variation in genre selection was evidence of self-regulation of the participants' learning behaviors.

Student Seven displayed self-regulation through his selection of a specific genre and title stating, "I like my *Star Wars* book because I've seen all the movies and I've read most of the books. I think I have two more to read after this one. I like the *Star Wars* books. Some of them are not the same author, but they are kind of related to the movie" (Student Seven, Focus Group, October 4, 2016). His background knowledge and experience with the movies and that eBook series supported his motivation for reading and afforded him the ability to self-regulate his reading experience. Student One shared similar self-regulatory behaviors in his selection of an eBook from the instructional genre. He stated, "The reason I like the *Minecraft Secrets Handbook* book is because when I play *Minecraft* at home on my PS3 if, I read that [and] I don't know what to do, I don't have to spend time searching *YouTube* on my tablet to see what to do" (Student One, Focus Group October 4, 2016). His choice to select an eBook from the instructional genre demonstrated both his belief in the importance of the learning task, developing a game skill or strategy, and his interest in the reading task. Reading the *Minecraft Secrets Handbook* saved him from having to "spend time searching *YouTube*" and allowed him to continue to engage in gameplay with the new knowledge he gained from his selection of an eBook from the instructional genre.

The availability of reading material from multiple genres bolstered the participants' self-regulation of their learning. Through their self-selection of eBooks from diverse genres, the participants addressed their specific reading needs. Zimmerman (1990) explained that "self-regulated students proactively seek out information when needed and take the necessary step to master it" (p. 4). The participants demonstrated that books and eBooks in different genres provided different reading experiences. In line with Zimmerman's assertion, they read fiction titles for enjoyment, and expository texts from the informational and instructional genres to further their skills and address immediate learning needs.

Self-regulated Learning

The participants engaged in self-regulation of learning through their purposeful selection of reading material that met their unique goals for reading. The availability of reading material accessible on the eReader made addressing their purposes for reading a probability. As they established the purposes for their specific reading tasks, they developed high interest, an element of motivation that has been well documented in the literature on motivation (Cambria & Guthrie, 2010, Pintrich & de Groot, 1990; Zimmerman, 1990). Self-regulation of their learning occurred as a result of their engaged reading behaviors, the purposes they had for reading, and their motivation to address their purposes for reading.

The participants made purposeful selections in their reading material explaining their selections by stating, "I researched *Minecraft* stuff"; "I got it, so I could learn Spanish"; and "[I got it] for my AR [Accelerated Reader] test tomorrow." They exhibited their tacit knowledge that selecting specific titles would lead them to achieve their learning goals, most commonly answering questions, or dealing with an urgent need for knowledge to solve a problem

(Gambrell, 1996; Goodman & Niles, 1970). Their action demonstrates self-regulation of learning, supported by their motivation to achieve a learning goal or desired outcome.

For the participants in this study, the books they downloaded addressed their purposes for their reading tasks. Zimmerman (1990) explains that self-regulated learners engage their agency for learning, displaying both motivation and action related to their learning goals. Downloading and borrowing eBooks to address their learning goals and unique purposes for reading is evidence of these participants' self-regulatory learning actions.

Utilitarian Uses

Using the eReader in utilitarian ways, the participants demonstrated their ability to self-regulate their learning in areas of personal interest and classroom content. "Our teacher assigned us an assignment in *Google Class* and when I got home I watched the video she assigned because I didn't get to finish in class" (Student Two, Focus Group, October 18, 2016). In addition to the classroom content, the participants' self-regulated learning behaviors stemmed from individual interests or personal learning goals. "I got a learn Spanish dictionary. You can watch videos for vocabulary learning. It has phrases. They are kind of hard for me to pronounce. That's why I watch the videos. After they pronounce them you practice them" (Student Six, Focus Group, October 4, 2016). It was evident in their statements that the eReaders were used to assist the participants in new skill development and learning. "Sometimes there are a few words in *The Force Awakens* that I don't understand, so I use the dictionary. I highlight the word and put a note and the description of what it means, so I know the word" (Student Two, Focus Group, September 20, 2016). Language development, online gameplay, and vocabulary learning were among the refinements and advancements of their existing skills.

These skills were enhanced by the utilitarian uses of the eReader and motivated by the participants personal learning goals.

The findings provide a glimpse of these participants as readers, who engage their agency in purposeful ways self-regulating their selection of reading material to address a variety of needs including skill development, learning, and entertainment. They approached their self-selected reading tasks diligently, managing and controlling their effort and demonstrating the confidence, and resourcefulness needed to complete the task (Pintrich & De Groot, 1990; Zimmerman, 1990). The results of this research study may provide classroom teachers with new knowledge about the purposeful choices students make in their reading behaviors when they have the autonomy to self-select their reading material and access to both digital and printed books.

Recommendations

Based on the research results, the following recommendations are being made to administrators and teachers that are interested in creating learning environments that bolster reading engagement among their students.

Recommendation 1: Empower teachers to apply the technology in the classroom by providing them access to eReaders. For this study, the eReading device used was a Kindle® from Amazon. However, any tablet or laptop computer with internet connectivity and a color screen will suffice. Once the teachers have the eReaders, they can conduct an investigation of possible eReading experiences by accessing any of the free online digital libraries including Amazon's eBook store, Project Gutenberg, and most public libraries. This investigation will

provide the classroom teacher with thousands of free titles and options for an eReading experience with students.

Recommendation 2: Develop partnerships with a local library. Through the ConnectEd program schools and libraries had access to e-Rate funding to increase their broadband capacity (ConnectEd, n.d.). In many locations, this funding stream has resulted in upgrades to the digital infrastructure and improved accessibility to digital services available through the library. By creating partnerships between schools and libraries students can acquire library cards to access downloadable eBook collections allowing them to self-select titles that fit the purposes they have for eReading activities. Self-selection of eBooks was a primary factor in the self-regulated learning displayed by the participants of this study.

Recommendation 3: Encourage students to begin a limited investigation of other online and digital libraries. Once students have had an opportunity to experience the process of selecting, downloading and reading from an eBook they can begin to experience the vast collections of digital reading material available online. A Google search for free eBooks will yield millions of possible links to visit. This number of sites can be overwhelming and unproductive. By accessing the most common open libraries including the Amazon eBook store and Project Gutenberg, students will gain access to many more titles and genres that can be read in an academic year. eBooks available from these and many of the online and open libraries can provide the learners a title and genre that can meet their particular interests and purposes for reading.

Recommendation 4: Provide an environment for learners to engage in social interactions

with other students that chose the same titles and genres. In so doing, teachers are providing the students with access to classmates that are able to assist them in meeting the reading purpose they determined when they made their eBook selection. This, in turn, helps them meet their individual purposes for their eReading experiences. After the participants in the study selected and read their eBooks they sought social interaction around the reading experiences. Much like the interaction of a book club, these learners shared details about the characters and stories they were reading (Ivey 2014). They recommended titles to each other and sought reinforcement for their selection supporting a positive attitude toward reading (Merga, 2014). They engaged in both formal dialogues about the elements of the story and in informal conversations about how the eBooks supported their purpose for reading such as improving gameplay skills, or how the title aligned with a movie series. In these social interactions the teacher played a small role in creating links between students when they had similar titles, subjects or purposes for reading. By creating these opportunities for social interaction students' eReading experiences can be reinforced leading to more eReading.

Recommendation 5: Develop and teach a unit on the affordances of the eReader. This

instructional unit can focus on the technical skills a student will need so he or she can have a customized eReading experience. Ebooks and eReaders offer some affordances that can customize the eReading experience (Ciampa, 2012; Cavanaugh, 2002; Zucker, Moody, & McKenna, 2009). These affordances include dictionaries, annotating capabilities, comprehension supports, and links to social media, among others. Use of these affordances are not intuitive and may require instruction. A unit of study that provides practice on these eReading skills will

support the learners as they delve into eReading and make the eReading experience more supportive of the self-regulated learning goals they hold.

By applying these recommendations, a foundation will be created for a self-regulated, eReading program within schools.

Conclusion

The Kindle® eReader proved to be a valuable tool for accessing a world of reading material that could not be housed in a single elementary school library. It made available tools that supported the reading and enhanced the reader's ability to interact with the texts. With instruction on the affordances of the eReader, and guidance for selecting engaging reading material, deploying eReaders with intermediate grade students may reinforce engagement with eTexts and be an effective supplement to a traditional print book reading program.

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