The Importance of Background Information When Reading Informational Text in the Primary Classroom

Carly Smith
St. John Fisher College

Follow this and additional works at: https://fisherpub.sjfc.edu/education_ETD_masters

Recommended Citation
Smith, Carly, "The Importance of Background Information When Reading Informational Text in the Primary Classroom" (2012). Education Masters. Paper 220.

Please note that the Recommended Citation provides general citation information and may not be appropriate for your discipline. To receive help in creating a citation based on your discipline, please visit http://libguides.sjfc.edu/citations.

This document is posted at https://fisherpub.sjfc.edu/education_ETD_masters/220 and is brought to you for free and open access by Fisher Digital Publications at St. John Fisher College. For more information, please contact fisherpub@sjfc.edu.
The Importance of Background Information When Reading Informational Text in the Primary Classroom

Abstract
The goal of this study was to examine the impact background knowledge has on the reading and comprehension of informational text. I believe that background knowledge on the content and genre related to informational text is essential in order to comprehend this genre of text. This study examines how kindergarten students interacted with informational text and the impact background knowledge had on their understanding of informational text. Data was collected through assessments, field notes, and surveys. This study found that kindergarten students are not only capable of learning from informational text, but that they also enjoy reading this genre. It also found that students require background knowledge not just on the content topic, but on the genre of informational text as well. This study emphasizes the importance of using informational text in today's primary classrooms.

Document Type
Thesis

Degree Name
MS in Literacy Education

Department
Education

Subject Categories
Education

This thesis is available at Fisher Digital Publications: https://fisherpub.sjfc.edu/education_ETD_masters/220
The Importance of Background Information When Reading Informational Text in the Primary Classroom

By

Carly Smith

Submitted in partial fulfillment of the requirements for the degree
M.S. Literacy Education

Supervised by

Dr. Joellen Maples

School of Arts and Sciences
St. John Fisher College

May 2012
Abstract

The goal of this study was to examine the impact background knowledge has on the reading and comprehension of informational text. I believe that background knowledge on the content and genre related to informational text is essential in order to comprehend this genre of text. This study examines how kindergarten students interacted with informational text and the impact background knowledge had on their understanding of informational text. Data was collected through assessments, field notes, and surveys. This study found that kindergarten students are not only capable of learning from informational text, but that they also enjoy reading this genre. It also found that students require background knowledge not just on the content topic, but on the genre of informational text as well. This study emphasizes the importance of using informational text in today’s primary classrooms.
Background Information and Informational Texts

The importance of including informational texts in literature available to students has been demonstrated by recent trends encouraging a movement towards using more informational texts than fictional texts when reading aloud to young students. In order for a student to successfully comprehend and apply knowledge from an informational text, students must have background information on the topic already available. Freebody and Luke (1990) emphasize the importance of readers having and using background knowledge when reading a text.

Reading for information is one of the key goals of literacy. Being successful at reading and comprehending informational texts is a skill that all students must possess to be not only successful in their educational career, but also as productive members of society (Duke, 2000). As students grow they have different experiences both in and out of school. These experiences are stored and help to build a student’s schemata, or background information (Gee, 2004; McVee et al., 2005; Smagorinsky, 2001). A person’s schema can be applied to lead to a better and deeper comprehension of a text. Finding the appropriate information can prove to be an obstacle for some readers and sometimes accommodations must be made to help the reader access his or her schemata (Kucer, 2009). Often these accommodations for a lack of background knowledge are made by a teacher.

The new Common Core Standards (2011) place a far larger emphasis on the importance of reading and exposing students to informational text. Because of the new standards, districts are now requiring that students interact with equal amounts of informational text and fictional text, if not more informational text. The standards require that students in kindergarten are able to identify key details about the text and answer questions about those details. They also state that kindergarten students should be able to ask and answer questions about unknown words in a text.
while actively engaging in group activities related to an informational text. The new Common Core Standards (2011) make research about the importance of informational texts critical to help all students be successful as well as college and career ready.

By conducting research on this topic, present and future kindergarten students will be helped because this research will determine the importance of building background knowledge prior to reading informational text. It will also reveal various ways to have young students present the knowledge they gain by such a text. It is important that teachers discover what content their students possess large background information in already, and what topics are less familiar to students. Researching the influence background knowledge has on the reading of informational text allows teachers to more successfully aid in the building of background knowledge where needed.

The purpose of this study was to determine the importance of background knowledge when reading and understanding informational text. According to the sociocultural theory, an individual’s background knowledge is built through diverse experiences unique to each individual (McVee, Dunsmore, & Gavelek, 2005). This background knowledge impacts an individual’s ability to comprehend an informational text. Through field notes, survey results, student assessments, and a review of the current literature, it was determined that background knowledge on the genre of informational text is possibly more important than background knowledge on the topic of the informational text. The results of the study also revealed that young students in the primary grades are not only capable of learning from informational texts, they enjoy reading informational text.
Theoretical Framework

Freebody and Luke (1990) define literacy as “a multifaceted set of social practices with a material technology, entailing code breaking, participation with the knowledge of the text, social uses of text and analysis and critique of the text” (p. 15). Literacy allows individuals to read, write, and use oral language. It involves verbal and nonverbal language components. And literacy acquisition begins the day you are born. Acquisition, according to Gee (2001), is “a process of acquiring something subconsciously by exposure to models and a process of trial and error, without a process of formal teaching” (p. 20).

Literacy is acquired through a person’s experiences and interactions with it. Each person’s experiences are unique to them, which makes the process of literacy acquisition unique to every person. Economic, social, and cultural differences also influence the functional literacy experiences a person encounters. These differences create both cultural and linguistic variation. They often become very apparent when a young child begins his or her schooling career. These diverse experiences that a child has not only shape a child’s literacy acquisition but help students build background knowledge on a variety of different topics. The presence of background knowledge or lack of background knowledge on a topic greatly impacts a student’s ability to read and comprehend a variety of texts.

Gee (2001) explains that there are two types of discourses, primary and secondary. He bases his beliefs on the sociocultural theory. Primary discourse is communication between intimates, or people who share similar experiences and who have shared a vast amount of knowledge. Secondary discourse occurs when someone needs to communicate with a non-intimate. Discourses, both primary and secondary, are developed through acquisition. Literacy is a
discourse, and therefore it too is gained through acquisition. The acquisition of literacy occurs through experiences at home and at school (Gee, 2001).

Functional literacy experiences as well as economic, social and cultural differences lead to the building of a person’s schemata, or background knowledge. Schemata are built through experiences and interactions with society and to cultural experiences. (McVee, Dunsmore, & Gavelek, 2005). Freebody and Luke (1990) describe literacy as a practice where one is not isolated, but instead as a set of social practices, used to interact with the rest of the world. The authors also argue that development of the key components of literacy each draw on an individual’s schema, or background knowledge. Freebody and Luke (1990) draw on the sociocultural theory to support their definition of literacy because literacy is not an isolated occurrence. Freebody and Luke (1990) state that “it is through social interactions around literacy events that we learn our position as read and our notion of what the texts are for” (p. 11).

Kucer (2009) indicates that it is important to note that an individual’s background information is about more than just the amount of information stored away. An individual must also be able to use existing knowledge to build additional knowledge. The ability to assimilate this information will have a large impact on a reader’s ability to comprehend informational text (Kucer, 2009). Often this background knowledge must be activated or brought to the surface before it can be assimilated. In schools, the role of the teacher is to activate a student’s prior knowledge before building upon that knowledge with new information. By activating prior knowledge, students are then more likely to assimilate old and new information.

The sociocultural theory focuses on the interactions of a group as opposed to the individual or text (Kucer, 2009). It describes the child as an “active member of a constantly changing community of learners in which knowledge constructs and is constructed by larger cultural
In a typical school setting, students will interact with each other throughout the school day, engaging in experiences and interactions that will build their schemata. Their classmates, peers and teachers are all a part of their community and cultural system at school. Outside of school children have a different community and different cultural system within their family and other peers and friends. These communities and cultures work together to build a student’s schemata.

When a new content area is introduced in a classroom, one can expect a variety of prior knowledge about the new topic. Some students may have had direct experience with a topic such as apple picking because they have some form of interaction with an apple orchard. Other students may have gone apple picking or gone to the farmer’s market to pick apples. It is these different experiences that lend themselves to creating a community of learners conducive to building background information connected to informational texts. Students can benefit from the experiences they have had themselves, and the experiences of their peers and classmates. With the sociocultural theory at play, the teacher would also be a member of the community of learners. The teacher has the important role of aiding the growth of background knowledge through a variety of strategies. The growth of background knowledge provides more opportunities for successful comprehension.

**Research Question**

Literacy acquisition is a social experience based strongly on functional literacy experiences that people have. Given that literacy is a social experience and comprehension developed greatly through the development of background information, what is the importance of background knowledge when reading aloud informational text in kindergarten?
Literature Review

This literature review will examine the influence of prior knowledge on both reading and comprehending informational text. First, I investigated what prior knowledge is and how it impacts a reader’s comprehension of a text. Secondly, was an examination of what defines an informational text and the impact informational texts have on readers. Next, I looked at the influence prior knowledge has on the comprehension of an informational text, and finally what research has revealed as possible implications for the classroom. Research has indicated that prior knowledge has a significant impact on a reader’s ability to read and comprehend informational text. Additionally, research indicates that although informational texts are proven to be both beneficial and motivational, they are scarce in today’s primary classroom.

Prior Knowledge and Comprehension

Prior knowledge, also commonly referred to as background knowledge, or world knowledge can be defined as, “the sum of what a person knows about the content of a text” (Brandao & Oakhill, 2005, p. 688). Prior knowledge is created through world knowledge and personal experiences (McNamara & Kintsch, 1996). This construction of new knowledge is an essential component to reading comprehension.

Eskey (1986) states that a reader’s prior knowledge is knowledge that is critical to reading. Eskey categorized prior knowledge into two different categories. The first being knowledge of form, which provides the reader with linguistic information about a text including semantic and syntactic patterns. The second category of prior knowledge is knowledge of substance, which provides information to the reader about cultural, pragmatic and topic information (Eskey, 1986). According to Brandao and Oakhill (2005), when reading a text, readers must use their prior knowledge of a topic to understand information that is implicit.
Often this prior knowledge is used to fill in the gaps of information and to construct a more coherent understanding of a text (Brandao & Oakhill, 2005).

Kintsch (1988) used the theory of constructive-integration process to describe the role of prior knowledge in comprehending text. According to this theory, prior knowledge of the reader is combined with information provided by a text to construct a situational model. Kintsch explains that the situational model is the new knowledge that is gained through reading a text. When the reader has more prior knowledge, the situational model is more fully developed. The ultimate goal in comprehending a text is for the reader to build a mental representation of what the text is about. This is done through the creation of a situational model, or new knowledge (Kintsch, 1988).

Previous studies have shown that children with high prior knowledge have better text comprehension (Taft and Leslie, 1985). Research has also shown that struggling readers can often comprehend texts on a topic about which they have a high level of prior knowledge (Marr & Gormley, 1982; Pearson, Hansens & Gordon, 1979). Blanc and Tapiero (2001) found that readers who had high prior knowledge were able to construct the more accurate and detailed model of a situation. Those readers with high prior knowledge were able to integrate new information with better accuracy than readers with low prior knowledge. Blanc and Tapiero (2001) also found that the main factors in constructing a situational model (Kintsch, 1988) were both a reader’s prior knowledge and the demands of a task (Blanc & Taperio, 2001).

The ultimate goal of comprehension is to integrate both prior knowledge and textual information. Overuse of either factor leads to poor comprehension and a weaker developed situational model (Kintsch, 1998, Brandao & Oakhill, 2005, Cain & Oakhill, 2001, Pudlio, 2007, Kamalski, Sanders & Leo, 2008). Brandao and Oakhill (2005) performed a study designed to
research the impact of prior knowledge on understanding narrative texts. Participants in this study were young children who were asked to explain how they knew the answer to various comprehension questions. The results of the study showed that while young readers tended to use the text as their main reference for answering questions, they also tended to overuse their background knowledge (2005). In their study, 6.46% of children’s answers were derived only from background knowledge and not from textual information. Brandao and Oakhill (2005) determined that this demonstrated that these children were not creating the situational model described in Kintsch (1988) and were not connecting new information with old information.

Pulido (2007) conducted a study that found similar results to Brandao and Oakhill (2005). Pulido (2007) found that readers with stronger comprehension skills were able to activate their background knowledge on a topic and make a connection to textual information with more ease and accuracy than readers with lower comprehension skills. Pulido found that readers with lower comprehension skills were able to recall less from a text than higher readers, and that the lower readers demonstrated less activation of their background knowledge. Pulido concluded that “the construction of a coherent mental representation of a text involves the interaction between explicitly stated textual information and background knowledge” (p. 185). Instruction, therefore, should aim to teach students to activate and apply their background knowledge while reading.

Research has indicated that prior knowledge and the ability to make a connection between textual information and prior knowledge has a large impact on a reader’s ability to make inferences (Cain & Oakhill, 2001). Similar research has found that the level of prior knowledge on a topic is a better indicator of a fourth grader’s ability to make inferences than comprehension skills (Marr & Gormley, 1982). Cain and Oakhill (2001) hypothesized that readers struggling to make inferences may have a poorer memory for recalling and activating appropriate prior
knowledge than other readers. The results of the research conducted by Cain and Oakhill also proved that some students might struggle to generate an inference about a text because they are not aware an inference should be made (Cain & Oakhill, 2001). In some of these cases it was not the amount of prior knowledge available that impacted comprehension and inference making, but the ability to recall and connect prior knowledge to new knowledge presented in a text. Additionally, this study showed that other readers the amount of prior knowledge on a given topic did in fact have a significant impact on the reader’s ability to comprehend and make inferences about a text (Cain & Oakhill, 2001).

Lin (2002) conducted a study to specifically look at students studying English as a Foreign Language (EFL). Lin (2002) was curious about the perception of background knowledge and it’s influence on comprehension from the point of view of these students. The results of this study showed that EFL majors all found prior knowledge important to reading comprehension. Middle school students stated that a reader’s linguistic knowledge was the most important type of prior knowledge when reading English texts (2002). Linguistic knowledge would be considered knowledge of form, according Eskey (1986). Tertiary learners believed that sociocultural information was the most important type of prior knowledge (Lin, 2002). In a related study, McCullough (2008) researched the prior knowledge of African American students to explore the connection between cultural orientation and reading comprehension. The study revealed that students who possess a large amount of prior knowledge about their own culture can better understand other cultures when reading (McCullough, 2008).

An important implication of the impact prior knowledge has on comprehension is the matter of test bias. Johnston (1984) defines test bias as “any factor other than that being measured which systematically influences an individual’s test score. Prior knowledge constitutes
such as factor” (p. 220). The problem with prior knowledge being a factor connected to test bias is what to do about it. Because no two individuals will ever have the exact same prior knowledge, it is essentially impossible to create tests that are free of this particular bias.

Johnston (1984) concluded his study by stating that while it may be near impossible to create a test free of the bias created by prior knowledge, it would be unwise to do so because prior knowledge is such a key component of reading comprehension.

**Informational Text**

Being able to both read and write informational text is a skill essential to being successful in today’s schools and workplaces (Duke, 2000). The new Common Core State Standards (CCSS, 2010) state that children must begin to acquire an understanding of how to read and write informational text starting in kindergarten. Specifically, kindergarten students must begin to ask and answer questions about key details in a text, ask and answer questions about unknown words in a text and identify similarities and differences between two texts on the same topic (CCSS, 2010). Moss (2005) states that by fourth-grade 50% of material read is informational text. By eighth grade, 73% of text on standardized tests is informational (Moss, 2005). Because of both the Common Core State Standards and the nature of schools, communities and workplaces in today’s society, it is more important now than ever before to expose young children to informational texts in a variety of settings.

Duke (2000) defines informational text as a text containing many or all of these features: a way to communicate information about the natural or social world, factual content, technical vocabulary, classificatory and definitional material, compare and contrast, or cause and effect type structure and one that contains graphic elements such as diagrams, an index, page numbers and maps (Christie, 1984, 1987b; Pappas, 1986, 1987; Derewianka, 1990; Jan, 1991; Duke &
Kays, 1998). Baker et al. (2001) expands on this definition by stating that informational or expository texts do not include story elements typically found in narrative text such as characters, goals and resolutions. Instead, informational text can best be characterized as reports that use text structures such as cause and effect, compare and contrast and descriptions. Additionally, informational texts offer explanations about things relating to both the natural and social world (Baker et al, 2001).

Traditionally, educators have withheld informational texts in the primary grades because it was believed that young students should be learning to read instead of learning from reading (Baker et al., 2011). However, experts are now encouraging the integration of both learning to read and learning from reading starting at the kindergarten level (CCSS, 2010). Best, Floyd, and McNamara (2008) found that there is a drastic increase in the amount of informational text fourth grade students are expected to read. Prior to entering third and fourth grade, students typically have experienced reading activities that focus primarily on decoding and fluency. Their exposure to informational texts may be limited. Because of this lack of exposure to informational texts in the primary grades, many fourth grade students are unprepared to meet the demands of reading to learn and often the result is a decline in reading performance (Baker et al., 2011). This decline in reading performance is often referred to as the fourth-grade slump (Chall, Jacobs, & Baldwin, 1990). The cause for the fourth-grade slump may be connected to the fact that informational texts place greater demands on the reader because their structure tends to be more complex and their information more dense (Chall et al., 1990). Informational texts typically include more abstract and logical relations that can be difficult for children to interpret, especially where there is limited background knowledge (Best, Floyd & McNamara, 2008).
Scholars are now suggesting that providing more experience with informational texts during the primary grades may help in preparing students for the amount of informational reading expected in the intermediate grades (Duke, 2000). According to Mohr (2006), recommendations have been made encouraging teachers to expose students to a variety of texts because this aids in the development of a variety of literacy skills. Additionally, scholars have pointed out that for some young children, informational texts provide more motivation to learn to read than other texts (Caswell & Duke, 1998).

Studies have shown that young children are in fact capable of learning both from and about informational texts when then are frequently exposed to this type of text. Hicks (1995, as cited in Duke & Kays, 1998) conducted a study that researched first graders' interactions with informational texts both in oral and written form. Hicks concluded that the students in the study were able to interact with the texts in sophisticated ways. In a different study, Donovan (1996) found that when a group of first-grade students were exposed to both narrative and informational texts, the students were able to identify the different genres of texts along with specific features those texts included. Caswell and Duke (1998) go as far as to suggest that for some children informational texts may act as a method to develop a child’s overall literacy development. The students in their study became more interested, confident, and active in both reading and writing as a result of exposure to informational texts. These studies suggest that exposure to a high number of informational texts from a young age may improve overall reading ability and improve an individual’s desire to read (Caswell & Duke, 1998; Donovan, 1996; Duke & Kays, 1998; Hicks, 1995).

Mohr (2008) conducted a study aimed at examining the reading preferences of first-grade students. The results showed that 84% of the 190 students surveyed preferred nonfiction, or
informational text. What proved even more interesting was that both boys and girls preferred informational texts. Of the informational topics provided, most students preferred books in which animals were the prominent subject (Mohr, 2008). Duke (2000) also states that informational texts appeal to young children’s interests and natural curiosity about the world around them. A study conducted by Baker et al., (2011) revealed that after students had been exposed to informational texts with higher frequency, they were more likely to select informational texts when given a choice. The informational texts were used to help them learn about a topic they were curious about. These students also experienced a higher interest in reading both in and out of school (Baker et al., 2011). The research is available to prove that young children are interested in informational text, can read and comprehend informational text and that reading skills improve drastically with exposure to informational texts.

Duke (2000) looked into the amount of time first students spent working with informational text during the school day. Duke conducted his study under the assumption that children can learn and benefit from informational texts during the primary years in school. Duke believed that experiences with informational text are important in order for children to develop an understanding of the genre. The results of the study revealed that informational text in these first grade classrooms was scarce. Only 2.6% of displayed text in these classrooms was informational and that only 9.8% of classroom libraries consisted of informational texts. During written language activities only 3.6 minutes a day were spent with informational texts. Duke (2000) shares his concerns that although researchers have been discussing the importance of informational texts in early grades for many years, this genre of text is still being underutilized.

More recently, Jeong and Gaffney (2010) researched the availability of informational texts in second, third and fourth grade classrooms. The results were similar to the results found in
Duke (2000). In looking at fifteen different classrooms, the percentages of informational books available in classrooms in second, third and fourth grade were 22.3%, 18% and 19% respectively (Duke, 2000). Jeong and Gaffney (2010) were specifically looking for an increase in the availability of informational text as the students grew closer to fourth-grade, but their results did not find this to be true. In fact, the greatest percentage of informational text was seen in second grade. These results led researchers to believe that the lack in availability of informational text could be a possible cause of the fourth-grade slump (Chall et al. 1990; Jeong & Gaffney, 2010).

Another recent study conducted by Pentimonti et al. (2010) further demonstrated the lack of informational text available in classrooms of young children. This study looked at preschool classrooms and found that 82% of read aloud texts were narrative in nature. Only 4% of the texts read were informational text. Pentimonti et al. (2010) also stressed the importance of increasing the amount of informational text being read in classrooms.

There are several different plausible explanations for why, despite all of the information available regarding the importance of informational text at the primary level, narrative text is still the most used text in these classrooms. Duke and Kays (1998) suggest that perhaps there is the belief that young children are incapable of learning from informational text until they know how to read. Many teachers of young children report that they themselves are unfamiliar with informational text and believe that their students will find informational texts to be boring (Pentimonti et al, 2010). Regardless of the reasons, the research is available to prove the importance of exposing young children to informational text.

**Impact of Prior Knowledge on Informational Text**

Research has proven the impact that prior knowledge has on a reader’s ability to comprehend a given text (Taft and Leslie, 1985; Kintsch, 1988; Blanc and Tapiero, 2001; Cain
and Oakhill, 2001; Brandao and Oakhill, 2005; Pudlio, 2007; Kamalski, Sanders & Leo, 2008).

Research has also demonstrated the need for including exposure to informational text in primary classrooms (Baker et al., 2011, Duke and Kays, 1998, Caswell and Duke, 1998, Jeong and Gaffney, 2010, Duke, 2000, Best, Floyd and McNamara, 2008). The presence of prior knowledge on a given topic and the ability to activate that prior knowledge has been shown to improve the comprehension of informational texts in children of all ages (McNamara, Ozuru, & Floyd, 2011, Ozuru, Dempsey, & McNamara, 2007, Callies, Denhiere, & Kintsch, 2002, Duke, 1998, Best, Floyd & McNamara, 2008). Although the research has shown that young children can both enjoy and learn from informational text, studies are revealing a severe lack of this genre in primary classrooms.

As previously discussed, the sudden decline in reading performance in fourth grade is a trend referred to as the fourth-grade slump (Chall, Jacobs, & Baldwin, 1990). Prior knowledge deficits, or gaps in a reader’s previous knowledge and knowledge required to comprehend a given text, are believed to be contributors to the occurrence of the fourth-grade slump (McNamara, Ozuru, & Floyd, 2011). There is a connection between text genre and the prior knowledge required to read and comprehend a text. Narrative texts typically contain topics that are very familiar to readers such as friendship and love. These texts also contain textual elements such as characters and setting. Research has found that readers tend to have a sufficient about of exposure and prior knowledge surrounding the topics and text structure of narrative texts (McNamara, Ozuru, & Floyd, 2011). Informational texts, however, are primarily used to acquire new information, which results in higher comprehension demands being placed on a reader. In order to successfully read and comprehend an informational text, readers must have sufficient prior knowledge not only about the topic, but also about how to read an informational
text. Often, the information explicitly stated in informational text is not enough information for readers to construct new knowledge. A connection between prior knowledge and textual information must be made in order for true comprehension to occur (Kintsch, 1988; Ozuru, Dempsey, & McNamara, 2009). Research has shown that there is a significant connection between prior knowledge and informational text comprehension (Afflerbach, 1986, McNamara, Ozuru, & Floyd, 2011).

McNamara et al. (2011) conducted a study to determine the effects that prior knowledge has when reading a narrative text versus an informational text. The study was conducted under the assumption that readers typically understand narrative text with more accuracy than informational text. Under this assumption, McNamara et al. (2011) hypothesized that prior knowledge would be more beneficial when reading informational science texts than when reading narrative texts. The results of this study demonstrated that the effect of prior knowledge was much greater when reading an informational text than when reading a narrative text. Students who possessed greater prior knowledge about the informational text yielded higher comprehension scores than students with less prior knowledge. McNamara et al. (2011) concluded that young readers need to have a high amount of prior knowledge in order to successfully read informational text.

The importance of prior knowledge on comprehension cannot overshadow the importance of having strong reading skills in place at a young age. Students must still have the ability to decode unknown words in order to comprehend a text of any genre (Oruzu, et. al, 2009; McNamara et al., 2011). However, a study conducted by Ozuru et al. (2009) demonstrated that while both reading skill and prior knowledge affect comprehension of science based informational text, prior knowledge has a more significant impact than reading skill.
Additionally, Ozuru et al. (2009) found that prior knowledge had a greater impact on questions considered global-bridging questions, which required integration of the information.

Similar results were found in a study conducted by Best, Floyd & McNamara (2008) in which the results demonstrated that decoding skills were more important for comprehending narrative text, but prior knowledge was found to be more important when comprehending informational text. Although prior knowledge was determined to be an important factor in the comprehension of narrative text, most students were found to be familiar with the characters, setting and events found in narrative texts. The influence of prior knowledge on informational texts is so great it often overrides the reader’s decoding and reading skills (Best, Floyd & McNamara, 2008; McNamara, Oruzu, Floyd, 2011). Because of this, Best et al. (2008) concluded that students who possess less prior knowledge will struggle more when reading informational text. (Cain & Oakhill, 2001).

In addition to having a significant impact on comprehension of informational texts, prior knowledge has also been linked to shorter reading times. A study conducted by Caillies, Denhiere, and Kintsch (2002) examined the relationship between prior knowledge and understanding the elements of a procedural text. Caillies et al., (2002) determined that readers with more prior knowledge about the topic and structure of a procedural text demonstrated shorter reading times with greater accuracy in comprehension. The study also found that prior knowledge allowed readers to gain direct access to the information that they needed to comprehend a text. Caillies et al. (2002) found that their research supported the construction-integration model that was proposed by Kintsch (1988) in that high-level readers were more capable of using prior knowledge integrated with textual information to construct new knowledge.
Implications for Classroom Instruction

The impact of prior knowledge on a reader’s ability to comprehend informational text is indisputable (Best et al., 2008; Callies et al., 2002; Duke, 1998; McNamara et al., 2007; Ozuru, & Floyd, 2011, Kintsch, 1988; ). It then becomes the responsibility of teachers to recognize this connection and utilize teaching methods that encourage the activation of prior knowledge when reading texts of all genres, but particularly informational texts. Different studies have resulted in different methods to use when teaching informational text. Read alouds, graphic organizers and exposure throughout the day are all suggested ways of encouraging even young learners to learn about informational texts.

Anderson (1985 as cited in Duke & Kays, 1998) states that reading text aloud to young children may be one of the most important ways to ensure children go on to become successful readers. Duke and Kays (1998) hypothesized that because read alouds are so widely known for having a positive influence on reading ability, it would make sense to expose young children to informational texts through the use of read alouds. Duke and Kays followed students in a kindergarten classroom for three months during the school year. Duke and Kays asked the kindergarten students to participate in a pretend reading of an unfamiliar informational book at the start of the school year and again after three months of exposure to informational books through read alouds. The study found that after just three months of exposure to informational books the kindergarten students were able to conduct a pretend reading of an informational text using language common to informational texts. Duke and Kays (1998) determined through the results of this study that young children are both capable of learning from informational text, and that they are interested in informational text.
Greenawalt (2010) supports the findings of Duke and Kays (1998) that showed read alouds can improve young children’s understanding of informational text. Additionally, Greenawalt (2010) encourages using repeated interactive read alouds with young children as a way to increase comprehension. Greenawalt conducted a study that revealed repeated interactive read alouds promote critical thinking skills and vocabulary knowledge. After three repeated interactive read alouds of the same informational text, kindergarten students were able answer open-ended questions about a text with more accuracy than after one read aloud of the same text. The kindergarten students also demonstrated an increase in the use of vocabulary words related to the informational text topic after the repeated read alouds (Greenawalt, 2010).

Further support of the claims made by Duke and Kays (1998) and Greenawalt (2010) are found in a study conducted by Tower (2002). Tower examined the ways in which preschool children responded to informational books during read alouds. After the read alouds, children were invited to participate in a group pretend reading of the informational text. Tower also incorporated the strategy of repeated readings used by Greenawalt (2010). Tower (2002) found that children were very aware of the characteristics found in informational text and were very interested in the illustrations of the books as well as the language used. Tower’s (2002) study implies that teachers must help develop not only children’s background information of informational text, but also children’s background information of informational text as a genre. There are specific characteristics found in informational texts that are not present in typical narrative texts, and how to gather information from these characteristics must be explicitly taught. One such characteristic is the use of graphics in informational texts.

Graphics are an important characteristic of informational texts. When reading an informational text, readers are often required to determine which information found in the
graphics is important, and which is not needed (Norman, 2010). Often times these graphics include charts, photographs, diagrams and tables. These text features are details not commonly found in narrative texts and are therefore a new concept to many young readers who have not been exposed to informational texts. Norman wanted to determine how the comprehension process of informational texts is influenced by graphics. The study found that prior knowledge was required for comprehending both the text and graphics found in informational texts, and that readers needed to have prior knowledge both about the subject and about how to read graphics (Norman, 2010).

Ermis (2008) conducted a study that looked at the influence of graphic organizers on using prior knowledge to comprehend informational texts. The results of the study showed graphic organizers increased student’s comprehension of such texts. Students with lower prior knowledge were the population that benefited the most from the use of graphic organizers. Students were able to gain more knowledge and more vocabulary from the informational text when a graphic organizer was used in place of traditional read and discuss methods (Ermis, 2008). Another study conducted by Myhill (2004) found that traditional whole class discussions provide limited opportunities for students to share prior knowledge. During whole group discussions conducted for the study, only 3% of statements made by students used prior knowledge. Graphic organizers, as reported by Ermis (2008) provide more opportunities for students to use prior knowledge to comprehend informational text. This method combined with read alouds and repeated readings (Duke & Kays, 1998; Greenawalt, 2010; Tower, 2002) provide different methods to help students activate prior knowledge and apply it to the comprehension of informational texts.
Prior knowledge has a significant impact on comprehension. In order to comprehend a text of any genre, a read must be able to synthesize information that is already stored as prior knowledge with textual information to create new knowledge (Blanc & Tapiero, 2001; Brandao & Oakhill, 2005; Cain & Oakhill, 2001; Kintsch, 1988; Kamalski, et al., 2008; Pudlio, 2007; Taft & Leslie, 1985). A genre particularly influenced by the presence of prior knowledge is informational text (Best, et al., 2008; Callies et al., 2002; Duke, 1998; Kintsch, 1988; McNamara et al. 2007; Ozuru, & Floyd, 2011). Informational text is scarce in today’s primary classrooms despite the research showing the importance of including informational texts at all grade levels. Activating a student’s prior knowledge through various methods is a way to make both the reading and comprehension of informational texts not only easier, but more enjoyable. Students who are motivated to read and who possess the strategies necessary to read a variety of texts are more likely to go on to be successful readers.

Methods

Context

Research for this study occurred a kindergarten classroom at Hogwarts Elementary School. Hogwarts Elementary School is located in a rural farming community along side Lake Ontario in upstate New York. Sodus Elementary School supports students in grades Pre-K through fourth grade. It is the only elementary school in the Sodus Central School District. According to the New York State Education Department (NYSED.gov) School Report Card, during the 2009-2010 school year there were 428 students enrolled at Sodus Elementary. 54% of students enrolled at Sodus Elementary School were eligible for free or reduced lunch. 18% of students at Sodus Elementary were Black or African American, 15% were Hispanic or Latino, 62% were white, and 4% were multiracial.
In this kindergarten classroom, there were 19 students, 12 of whom participated in this research. This class included ten boys and nine girls ages five to six years old. 15% of the class were Black or African American, 63% were white, 0.05% were Hispanic, and 15% were multiracial. The classroom was considered a general education classroom and did not receive special education support. Students in this class attended a full day kindergarten program. A classroom aide was present for most of the school day. Additionally there was a 1:1 aide who worked with a child with autism.

**Participants**

**Students** 13 of the 19 students in this class were given parental consent to participate in the study. Reading benchmarks were determined by DIBELS progress monitoring and local benchmarks created by the school. Independent reading levels were determined though running reading records and teacher observations.

Ron (a pseudonym) is five years and one month old and is a Caucasian male. Ron is a friendly and happy five-year-old boy who very much enjoys being with his peers. Ron has been diagnosed with Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS) and is on the autism spectrum. He has a 1:1 aide who is with him for the entire school day. Ron receives speech services daily, occupational therapy three times a week, physical therapy twice a week, and musical therapy once a week. He benefits from written directions and relies on a rigid daily schedule. Ron is currently meeting the reading benchmarks for kindergarten and can read and comprehend a level D text independently. Ron is capable of decoding texts at a much higher level, but struggles to comprehend those texts.

Hermione (a pseudonym) is five years and three months old and is an African American female. Hermione is a friendly, energetic, and creative five-year old who enjoys playing with her
friends and loves books of all kinds. Hermione is currently meeting the benchmark reading standards and receives pull out reading intervention services three times a week. Hermione is currently reading at a Level A independent reading level.

Harry (a pseudonym) is five years and ten months old and is a Caucasian male. Harry is a kind, quiet boy who enjoys drawing pictures and building with legos and blocks. Harry is well liked by his peers and he is an excellent role model in this classroom. Harry excels in the area of reading, meeting or exceeding all reading benchmarks. Harry is currently reading level B texts independently and is not receiving any additional services.

Ginny (a pseudonym) is six years and one month old and is a Caucasian female. Ginny is a creative and outgoing girl who enjoys playing dress up, drawing and arts and crafts. Ginny is a hard working student, however, reading has been an area of struggle for her since the beginning of the year. She is making the reading benchmarks in all areas, but struggles to apply these skills to reading. She does not yet have an independent reading level as she cannot yet read a level A text independently. Ginny receives pull out services for speech twice a week.

Fred (a pseudonym) is five years and four months old and is an African American male. Fred is a very energetic boy who enjoys playing with cars and building with blocks and legos with the other boys in the class. Fred struggles to contain both his excitement and frustration over different things and this often results in consequences that are frustrating to him. Reading is an area of extreme challenge for Fred and he is not currently meeting any reading benchmarks. Fred receives daily reading intervention from a reading teacher in a small group setting and is making slow, but steady progress. Fred does not yet have an independent reading level as he is not yet able to read a level A text independently.
Minerva (a pseudonym) is six years and two months old and is a Caucasian female. Minerva is a bright girl who enjoys writing and drawing pictures. Although Minerva is a smart girl, she often appears unmotivated and very tired which has a negative impact on her student work. Minerva is currently meeting the benchmark reading standards and receives no additional services. She is reading at a Level B independent reading level.

George (a pseudonym) is six years and one month old and is a Hispanic male. George is an extremely creative and loving boy. George frequently chooses to play independently and does not often engage in play with his peers. Although George is very creative, he struggles with distinguishing between reality and fantasy. This has a negative impact on his ability to learn and work to his highest potential. He has been referred to counseling services by the school psychologist and myself, but he is not yet receiving services. George is currently meeting the reading benchmarks and is reading at a level A independently.

Lily (a pseudonym) is five years and 4 months old and is an African American female. Lily is a bright, opinionated girl that loves helping adults around her, as well as doing arts and crafts. Lily struggles to contain her frustration at times and takes it out on her peers or teachers. Lily is currently meeting the reading benchmarks and does not receive additional services. She is currently reading at a level A text independently.

Charlie (a pseudonym) is five years and four months old and is a Caucasian male. Charlie is a quiet student who enjoys both playing with his peers and playing independently. Charlie is a bright student who has many things to add to discussions, particularly about social studies and science. Charlie is meeting the reading benchmarks for all areas and is reading a level B text independently. Charlie does not receive any pull out services.
Oliver (a pseudonym) is five years and six months old and is a Caucasian male. Oliver is a kind and energetic boy. He is well liked by his peers and often takes on the role of a leader during free choice time. Oliver enjoys the areas of science and social studies, as well as math. Oliver excels in the area of reading, meeting or exceeding all reading benchmarks. Oliver is currently reading at a level B independently. Oliver receives pull out services for speech twice a week.

Molly (a pseudonym) is five years and ten months old and is an African American female. Molly enjoys playing with her peers in the house center and has a quiet, but friendly personality. Reading is a struggle for Molly and she is not currently meeting benchmark for reading. Molly receives daily small group reading intervention services with a reading teacher. She does not yet have an independent reading level because she cannot yet read a level A text independently.

Bella (a pseudonym) is five years and eight months old and is a Caucasian female. Bella is a bright and energetic girl who enjoys playing with her friends and playing outside. Bella excels in the area of reading, meeting or exceeding all reading benchmarks. Bella struggles with motivation at times, which can make pushing her to her full potential difficult. Bella is currently reading level B text independently and receives no additional services.

Bill (a pseudonym) is five years and eleven months old and is a Caucasian male. Bill is a creative, energetic boy who is well liked by his peers. Bill enjoys building with blocks and is very interested in non-fiction text. Bill struggles with beginning reading concepts and receives pull out reading intervention three times a week with a reading teacher. Bill has made growth and is currently meeting reading benchmarks and can read independently at a level A.
**Researcher Stance**

In this study, I took the role of both researcher and teacher. More specifically, I was an active participant observer. Mills (2011) defines an active participant observer as teachers who both observe the outcomes of their teaching and adjust instruction based on those observations and outcomes. I am the teacher of this kindergarten class. This year is my second year teaching kindergarten at Hogwarts Elementary School. Previously I worked as a kindergarten consultant teacher in both the Penfield and Hilton school districts. I completed my undergraduate degree in Elementary and Special Education at SUNY Geneseo in 2009. I am currently a graduate student at St. John Fisher College working towards a Master’s Degree in Literacy Education. I am certified in Early Childhood Education (B-2), Childhood Education (1-6), Special Education (1-6), and English Language Arts (7-12). Upon completion of my Master’s Degree, I will be additionally certified in Literacy (B-12).

**Method**

During this study, three different topics were covered to examine the impact of prior knowledge on the understanding of informational text. The topics were each connected to the kindergarten science and social studies curriculums and were covered over three weeks. Each topic was new to these students and had not yet been covered in kindergarten curriculum. Four consecutive days were spent on each topic for approximately 40 minutes a day. During the first week, an investigation into the life of Abraham Lincoln occured. During week two, students learned about African lions and during the third week students explored and learn about volcanoes. Prior to starting the first week, students completed a survey identifying how they felt about reading informational texts and their preferences for reading about topics they already
know about or things they do not know about (See Appendix A). The students were given the same survey again at the end of the study.

During the first week, we learned about Abraham Lincoln. Abraham Lincoln is a topic typically taught in February of kindergarten and students had varying prior knowledge on the topic. At the start of the week, students took a prior knowledge assessment to measure how much they already knew about Abraham Lincoln (See Appendix B). Following the assessment, students were asked to identify things they already know about Abraham Lincoln. I recorded these ideas on a KWL chart that was used throughout the week (See Appendix H). We then read an informational text about Abraham Lincoln titled *A Picture Book of Abraham Lincoln* by David A. Adler (1989). After the reading, students were asked to identify something they learned and something they were still wondering about Abraham Lincoln. On the second day, students read another informational text about Abraham Lincoln titled *Abe Lincoln’s Hat* by Martha Brenner (1994). Students were encouraged to discuss ideas they noticed or things they were wondering throughout the reading. After updating the KWL chart with new concepts learned or questions that still remained, students created a mini Abe Lincoln hat and will engage in a creative writing piece about what they would keep in their hat if they were Abe Lincoln. On the third day, students reviewed the KWL chart and then engaged in an interactive read aloud of *Abraham Lincoln* by Marion Dane Bauer (2012). The focus this day was where Abraham Lincoln lived. Before reading the story students engaged in a discussion about what it would be like to live in a log cabin. Additionally, students created their own log cabin out of popsicle sticks. On the fourth and final day, students were given a post-assessment (See Appendix C). Students were given the same assessment they were given earlier in the week to measure growth of knowledge gained from informational texts.
During the second week, students learned about African lions. On the first day students were again given an assessment designed to measure prior knowledge of African lions (See Appendix D). Students then brainstormed facts they already know about African lions, and I recorded these ideas on a KWL chart (See Appendix I). I then read *African Lions* by Joelle Riley (2007) and students added ideas they learned and questions they still had to the KWL chart. After the reading, students created a lion puppet to be used throughout the week. On the second day we revisited our KWL chart and students engaged in an interactive read aloud of *Lions: African Animals* by Catherine Ipcizade (2010). We brainstormed describing words for the Lion’s habitat and students were given finger paints to draw a visual representation of the lion’s habitat. On the third day, students listened and responded to the informational text *Lions* by Jill Anderson (2006). Today the discussion was based around what African lions eat. I updated the KWL chart based on student discussions. After the interactive reading students were given two pictures in an envelope. One picture had something lions eat and the other was something lions do not eat. They will need to write two sentences using the pictures. “Lions can eat ______. Lions do not eat ________.” On the fourth day, students were asked to take the assessment they were given at the beginning of the week again to measure knowledge gained (See Appendix D).

During the third and final week of research, the topic were be volcanoes. On the first day of the week, students were given an assessment to measure student’s prior knowledge on the topic (See Appendix F). Students then brainstormed ideas they already know about volcanoes and things they were wondering about volcanoes. This information was recorded on the KWL chart (See Appendix J). Students then engaged in an interactive read aloud of *Volcanoes!* by Anne Schreiber (2008). On the second day, students participated in a reading of *Volcanoes* by Franklyn M. Branley, Megan Lloyd (2008). After, students will create an interactive volcano
flap book showing the stages of a volcano explosion. On the third day, students engaged in a read aloud of the informational text *Time for Kids: Volcanoes!* by Jeremy Caplan (2006). We then updated the KWL chart based on the discussion. Students then participated in creating a simulation of a volcano explosion using baking soda and vinegar. On the fourth and final day, students took the prior knowledge assessment from the first day to measure knowledge gained (See Appendix G).

**Quality and Credibility of Research**

Mills (2011) defines credibility as the researcher being able to consider some of the complexities that appear during a study and to deal with patterns that cannot be easily explained. In order to assure credibility in my research, I took several steps. I practiced triangulation by comparing a variety of data sources in order to cross-check data (Mills, 2011). I also engaged in peer debriefing by frequently communicating with a critical colleague in order to reflect and gain insight into the data and research process. Additionally, throughout the research process I collected numerous types of data including student work, video recordings, and artifacts (Mills, 2011).

During my research study, I ensured transferability. Mills (2011) defines transferability as the researcher’s belief that everything in a study is context bound and that the goal of the researcher’s work is not to develop statements intended to generalize large groups of people. In order to ensure transferability, I collected detailed and descriptive data that will allow comparisons to be made between various contexts. Additionally, I developed a detailed description of the context, which allowed judgments to be made about how this data can compare to other contexts (Mills, 2011).
During my research, I will also ensure dependability. Dependability refers to the stability of data collected (Mills, 2011). In order to ensure dependability, I used overlapping methods, which is similar to the triangulation process. Through the use of overlapping methods, the weakness of one method is compensated by the strength of another method (Mills, 2011). I also established an audit trail, which allows for the possibility of an auditor to examine the process of data collection, analysis and interpretation. I established an audit trail through written descriptions of each process (Mills, 2011).

Finally, I ensured confirmability during my research. Confirmability is the neutrality or objectivity of the data that is collected (Mills, 2011). Triangulation, using a variety of data sources and methods, ensures confirmability of research. The triangulation process was used throughout this research. In addition, I used reflexivity by revealing underlying assumptions or biases that I may have (Mills, 2011). To use reflexivity I frequently reflected on my research.

**Informed Consent and Protecting the Right of the Participants**

Before I began collecting data for my research, I collected informed parental consent from the parents of the 12 students who participated. Parents were sent a letter explaining what the research was for and defining the rights of each participant. The letter was intended to protect the rights of the participants. Parents signed the consent form to confirm that they authorized their child to participate in the research. Because all of the participants were younger than third grade they are required to give verbal consent to be a part of the research. Each of the 12 students gave their verbal consent. Parents and participants were also told that pseudonyms would be used to ensure confidentiality.
Data Collection

During this study, three different types of data were collected. Prior to beginning the research, students participated in a survey to determine their feelings towards informational text. The survey also asked students to identify how they feel about reading about topic they know about versus things they do not know about. The survey was given again at the end of the research to see if student’s opinions changed. Field notes were collected throughout the research. Read alouds and discussions of informational text were video taped and later notes were taken on discussions and interactive read alouds. These video tapes were then destroyed. The field notes during discussions were helpful for looking back on student interactions with the text and with each other. Notes were taken during student work time with specific attention given to student motivation and student’s interactions with each other. Finally, student assessments will be collected throughout the research. Students took a prior knowledge assessment before starting each topic to measure the knowledge each individual student already possesses about a topic. The assessment was given again at the end of each week.

Findings and Discussion

To ensure that students can successfully read and comprehend informational text, such as the texts used in this study, students must be able to make a connection between their prior knowledge and informational texts (Afflerbach, 1986, McNamara, Ozuru, & Floyd, 2011). It has also been found that students need to have a high level of prior knowledge in order to successfully read informational text (McNamara et al., 2011). This study looked specifically at the importance of background knowledge when reading aloud informational text in kindergarten.
Analysis of the data collected in this study revealed three prominent themes. The first theme was an increase in student motivation surrounding non-fiction texts. Next, was a theme surrounding the impact background knowledge has on the comprehension of informational texts. Lastly, emerged a theme regarding student participation and the impact it has on student comprehension and background knowledge.

**Increase in Student Motivation to Read Informational Text**

At the beginning of this study, the participants were asked to take a survey (see appendix A) to provide information on their feelings towards informational text and their preferences for reading about familiar or unfamiliar topics. The same survey was given again at the end of the study to see if students’ preferences had changed. The first question on the survey asked students to identify if they would prefer to read fiction or non-fiction text. Both genres were explained with multiple familiar examples of each. The results from question one are shown in Table 1 below.

Table 1

<table>
<thead>
<tr>
<th></th>
<th>Fiction</th>
<th>Non-Fiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey One</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>2/27/12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey Two</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>3/15/12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Of the 11 students who took the survey at the beginning of the study, six preferred fiction texts to the five that preferred non-fiction texts. At the end of the study, of the 11 students surveyed, three stated they preferred fiction texts to the eight that stated they prefer non-fiction. Mohr (2008) conducted a study that showed students preferences for reading non-fiction text increased after they were exposed to this genre during school. I believe the increase in students
preferring non-fiction over fiction texts was due to the exposure they experienced during the study. Prior to this study, students had been exposed to primarily fictional texts.

According to field notes from the study, students were more confident in the distinction between fiction and non-fiction on the second survey. According to field notes, while taking the second survey, Bill originally picked fiction text as his preference, but then pointed to the words “non-fiction” and said “Is this like volcanoes and snakes?” before crossing out fiction and circling non-fiction. While volcanoes were one of the topics we covered together, snakes is a topic Bill has recently become interested in through a collection of informational text in our classroom library. When taking the second survey, Hermione hesitated when choosing fiction versus non-fiction and pointed to “non-fiction” before asking “Oh! Like volcanoes? I want that one!” and chose non-fiction. Prior to the study, based on my observations, I do not feel that students were confident in distinguishing between fiction and non-fiction texts. After being exposed to non-fiction text during the study, students were more aware of what the genre is composed of and their own genre preferences. According to my field notes, the majority of the students were eager to learn about the topics we covered which may explain the increase in preferences for non-fiction texts.

In addition to more students identifying that they now prefer reading and listening to non-fiction text, there was an increase in students seen taking non-fiction texts out of the library during the weeks of the study and beyond. As documented in field notes, many times students came in from the library excited and begging to have their new informational text read to them. Students demonstrated an increased interest in the non-fiction texts located in the classroom library as well. During the first week of the study, Bill and Hermione approached me and with a non-fiction text about bugs. Bill asked “Hermione and I are wondering what kind of insect this
is?” This type of questioning during free reading time was not something previously observed. Students appeared to be developing not only background knowledge on the topics we were studying, but background knowledge on how to read and comprehend non-fiction text. These results are similar to a study conducted by Mohr (2008), in which 84% of students surveyed stated that they preferred non-fiction text to fictional text.

As stated earlier, according to field notes, students appeared to develop a better understanding of the distinction between fiction and non-fiction text as the study progressed. Students were overheard making questions such as Minerva: “Is this non-fiction? Because it has real pictures in it,” and Oliver stating “This is real, not make believe!” when looking at non-fiction texts. Understanding the distinction between the two genres led to an increase in curiosity and a desire from the majority of students to read and listen to more non-fiction texts. Students began to request different topics that they were interested in learning about, such as dinosaurs. On the third day of the third week of the study Oliver stated, “I think a volcano killed the dinosaurs.” Without teacher prompting, students began a discussion about what they thought killed the dinosaurs. Minerva shared that her Mom told her it was a meteor that killed the dinosaurs. When the students were asked if they would like to read and learn more about dinosaurs next there were cheers of “Yes!” from many of the students. These field notes suggest that there was not only an increase in a preference to read non-fiction texts, but also an increase in curiosity and a desire to learn from non-fiction texts. It also reveals an unexpected outcome from the study, that students became more motivated to read non-fiction text as they develop background knowledge on the genre of non-fiction text. Tower (2002) emphasized the importance of developing student’s background knowledge on not only the topic, but on the
genre of informational text. The importance of building that background knowledge is
demonstrated in this study.

The third question on the survey that was given both at the beginning and the end of the
study, asked students to identify how they felt when reading a non-fiction text about something
they are unfamiliar with and therefore have limited background knowledge about. The results of
this question are displayed below in Table Two.

Table 2

Survey Question Three-How Do You Feel When You Read a Non-Fiction Book About Something
You Don’t Know About?

<table>
<thead>
<tr>
<th></th>
<th>Happy</th>
<th>Okay</th>
<th>Bad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey One</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/27/12</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Survey Two</td>
<td>8</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>3/15/12</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When the students took the survey at the beginning of the study they revealed mixed
feelings about reading a book on an unfamiliar topic. Four students said that they felt happy
when reading a non-fiction text on an unfamiliar topic, four students said they felt okay about it,
and three students said they felt bad about reading a non-fiction text on an unfamiliar topic.
According to field notes, while taking the first survey many of the students did not appear to
understand what the question was asking. Many of the students appeared to be simply picking a
face they liked. George commented, “I am grumpy. I picked the sad face.” Other students were
seen changing their answers based on what their peer picked.

Students appeared to understand the question better during the second survey. I believe
this may be a result of spending three weeks reading multiple books on three topics, which is a
new experience for many of the students. When the post-survey was given at the end of the study
there was a drastic change in student preferences, which revealed another unexpected outcome. On the second survey, eight students stated they would prefer to read non-fiction text about something they did not know much about and therefore had limited background knowledge on. This number doubled from the first survey given. Three students indicated they felt just okay and zero indicated that they would feel bad about reading non-fiction text on unfamiliar topics. The results of this question yielded unexpected results. These results would suggest that students would prefer to read non-fiction text on unfamiliar topics that they have limited background knowledge on. However, the results also suggest an increased motivation for reading non-fiction text on new topics and an increase in curiosity about the world around them.

Data indicated an increase in student motivation for reading informational texts throughout this study. Students developed an increase in background knowledge about the informational text genre and became more aware of how to read informational texts and why people read this genre of text. There was also an increase in the number of students choosing to read informational texts. Students did not indicate a preference for reading books on a topic that they possess a large amount of background knowledge, but instead indicate a preference for reading informational texts on new topics.

**Increase in Student Comprehension of Informational Text**

Quantitative data was collected using a teacher made pre-test and post-test for each theme. Students were asked to take a pre-test prior to the start of each theme to measure the level of prior knowledge each individual student possessed on the topic. At the end of the theme the same assessment was given again to measure student growth and comprehension. All of the assessments consisted of five different questions. The questions were multiple choice, fill in the blank, and open ended questions that students used drawing to complete. Each assessment
question was worth one point; therefore each of the tests was scored out of five. Table 3 shows student pre-test and post-test scores from the Abraham Lincoln theme (see Appendix A and B).

Table 3  

*Abraham Lincoln Assessment*

<table>
<thead>
<tr>
<th>Student Name (Pseudonym)</th>
<th>Pre-Test Score 2/27/12</th>
<th>Post-Test Score 3/2/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oliver</td>
<td>0/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Fred</td>
<td>Pulled out-No data</td>
<td>2/5</td>
</tr>
<tr>
<td>Ron</td>
<td>2/5</td>
<td>3/5</td>
</tr>
<tr>
<td>Harry</td>
<td>3/5</td>
<td>5/5</td>
</tr>
<tr>
<td>George</td>
<td>2/5</td>
<td>4/5</td>
</tr>
<tr>
<td>Lilly</td>
<td>2/5</td>
<td>Absent-No Data</td>
</tr>
<tr>
<td>Bella</td>
<td>2/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Molly</td>
<td>2/5</td>
<td>4/5</td>
</tr>
<tr>
<td>Minerva</td>
<td>2/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Hermione</td>
<td>1/5</td>
<td>4/5</td>
</tr>
<tr>
<td>Charlie</td>
<td>Absent-No Data</td>
<td>Absent-No Data</td>
</tr>
<tr>
<td>Bill</td>
<td>0/5</td>
<td>4/5</td>
</tr>
<tr>
<td>Ginny</td>
<td>1/5</td>
<td>3/5</td>
</tr>
<tr>
<td>Average</td>
<td>1.5/5</td>
<td>4/5</td>
</tr>
</tbody>
</table>

Students were given the first assessment on a Monday afternoon prior to reading about or discussing Abraham Lincoln in class. Charlie was absent for the full week we discussed Abraham Lincoln and his absence is noted on the table. Fred was pulled out for reading intervention services during the pre-test and when he returned we were already discussing the topic, therefore a pre-test was not given to him as it would not have been an accurate reflection of his prior knowledge. Student scores on the pre-assessment revealed that the class had a low amount of prior knowledge concerning Abraham Lincoln. The class average for this assessment was 1.5/5. Student scores ranged from 0/5 to 3/5 with Oliver and Bill demonstrating the lowest
amount of background knowledge and Harry demonstrating the highest amount of background knowledge. Post-test scores revealed that the class average increased from a 1.5/5 to a 4/5. Student scores on the post-test ranged from 2/5 to a 5/5. All of the students who took both the pre-test and post-test improved or maintained their score. These results indicate that although students did not appear to possess a large amount of background knowledge on Abraham Lincoln, they were able to gain considerable amounts of knowledge through the reading of informational text and corresponding follow up activities. The follow up activities conducted during this study did not differ from typical activities I would do following the read aloud of a given text. What differed during this study was the use of strictly informational texts on the same topic for three consecutive days. I believe that this change in instruction is the reason for the increase in background knowledge.

During the second week of data collection, a pre-test and post-test was given to collect data on student knowledge of Lions (see Table 4). The pre-test (see Appendix C) was given on Monday and the post-test (see Appendix D) was given on Friday. The results of the assessments are displayed in Table 4 below.
Table 4

*Lions Assessment*

<table>
<thead>
<tr>
<th>Student Name (Pseudonym)</th>
<th>Pre-Test Score 3/5/12</th>
<th>Post-Test Score 3/9/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oliver</td>
<td>2/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Fred</td>
<td>4/5</td>
<td>Absent-No data</td>
</tr>
<tr>
<td>Ron</td>
<td>2/5</td>
<td>1/5</td>
</tr>
<tr>
<td>Harry</td>
<td>5/5</td>
<td>5/5</td>
</tr>
<tr>
<td>George</td>
<td>2/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Lilly</td>
<td>2/5</td>
<td>4/5</td>
</tr>
<tr>
<td>Bella</td>
<td>3/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Molly</td>
<td>1/5</td>
<td>4/5</td>
</tr>
<tr>
<td>Minerva</td>
<td>2/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Hermione</td>
<td>4/5</td>
<td>Absent-No data</td>
</tr>
<tr>
<td>Charlie</td>
<td>Absent-No data</td>
<td>5/5</td>
</tr>
<tr>
<td>Bill</td>
<td>3/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Ginny</td>
<td>2/5</td>
<td>4/5</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>2.6/5</strong></td>
<td><strong>3.9/5</strong></td>
</tr>
</tbody>
</table>

The day the pre-test was given, Charlie was absent from school for the sixth day in a row. All other students in the study were present and able to take the pre-test. The class scored an average of 2.6/5 on the pre-test with student scores ranging from Molly scoring a 1/5 to Harry scoring a 5/5. The post-test was given Friday afternoon of the same week. The class demonstrated an average score of 3.9/5 on the post-test with student scores ranging from Ron scoring a 1/5 and to Bill, Charlie, Minerva, Harry, George, and Oliver all scoring a 5/5. 10 out of 11 of the students who took both the pre-test and post-test maintained or improved their scores. The results of this data suggest that reading the non-fiction texts on lions for three consecutive days, while participating in related follow-up activities increased students background
knowledge. Students were able to perform better on the post-assessment because of the informational text and follow-up activities.

During the third week of data collection, both a pre-test and post-test were given to collect data on student knowledge of volcanoes (see Table 5). The pre-test (see Appendix F) was given on Monday and the post-test (see Appendix) was given on Wednesday.

Table 5

Volcanoes Assessment

<table>
<thead>
<tr>
<th>Student Name (Pseudonym)</th>
<th>Pre-Test Score</th>
<th>Post-Test Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oliver</td>
<td>5/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Fred</td>
<td>Absent-No Data</td>
<td>5/5</td>
</tr>
<tr>
<td>Ron</td>
<td>4/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Harry</td>
<td>Absent-No Data</td>
<td>5/5</td>
</tr>
<tr>
<td>George</td>
<td>4/5</td>
<td>3/5</td>
</tr>
<tr>
<td>Lilly</td>
<td>Absent-No Data</td>
<td>4/5</td>
</tr>
<tr>
<td>Bella</td>
<td>5/5</td>
<td>Absent-No Data</td>
</tr>
<tr>
<td>Molly</td>
<td>5/5</td>
<td>4/5</td>
</tr>
<tr>
<td>Minerva</td>
<td>5/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Hermione</td>
<td>4/5</td>
<td>Absent-No Data</td>
</tr>
<tr>
<td>Charlie</td>
<td>5/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Bill</td>
<td>5/5</td>
<td>Absent-No Data</td>
</tr>
<tr>
<td>Ginny</td>
<td>4/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Average</td>
<td>4.6/5</td>
<td>4.6/5</td>
</tr>
</tbody>
</table>

The pre-test was given on a Monday, which was a half-day of school for students. Because of this the pre-test was given during the morning ELA block instead of the afternoon Science block. Also due to the half day there was an increase of students who were absent with three students in the study absent from school on Monday. The average from the pre-test was
4.6/5, which revealed that students possessed a high amount of background knowledge prior to reading about volcanoes in school. Student scores on the pre-test ranged from a 4/5 to a 5/5. There were also three students absent from school when the post-test was given on Wednesday due to scheduling conflicts on Friday. The average score on the post-assessment was a 4.6/5, the same as the average on the pre-test with scores ranging from 3/5 to 5/5. Of the seven students who were present for both the pre-test and post-test, five were able to maintain or improve their assessment score. George and Molly both revealed a lower score on the post-test than on the pre-test. George had a very difficult morning when the post-assessment was given. He was upset about something that had occurred during playtime and was fixated on that event. He was eventually removed from the classroom because he was so upset and was given the assessment when he returned. George had a very difficult time because he fixated on events from the past, which may have resulted in his receiving a lower score on the post assessment. I am unsure why Molly received a lower score on the post-assessment than on the pre-assessment. It could be that the post-assessment was given in the morning instead of the afternoon, or that she was having a difficult time with the change in routine due to a half day.

The pre-test and post-test scores for all three themes indicated the importance of building background knowledge in order to improve comprehension of specific topics. Students also demonstrated an increase in background knowledge on how to read informational texts. At the beginning of the study many students struggled with activating prior knowledge (the “I know” column on our KWL charts) and with thinking of relevant questions to wonder about. According to field notes, during the first week of the study, many student questions were relatively off topic such as Molly asking “Does Abe Lincoln have a bed?” to George believing he was asking a question by saying “I have a question! He was on the penny.” Students developed an
understanding of what appropriate questions were as well as how to ask them. Students began to ask appropriate questions that were related to the topic and discussion. As the study progressed, they were also able to start their questions with a thinking stem such as “I wonder.” In addition, as the study continued and students continued practicing their questioning skills, the questions they posed became more relevant and direct. During the second week Minerva asked, “I wonder if lions eat grass?” and during the third week the same student asked, “I wanted to know yesterday if lava is fire.” These statements suggest that students were not only becoming more familiar with how to activate their prior knowledge through responses and asking questions, but they were also becoming more aware of the purpose of questions to get more information.

As the study progressed, students became increasingly aware if they had the appropriate information to answer a question and whether they knew the answer. For example, as documented in field notes, Students became very interested in finding out if Abraham Lincoln had lived in the White House or not and we eventually ended up looking this up on the Internet. Additionally, when all of the questions were answered during our lion unit students cheered! In fact, at the student’s request we began checking off questions that had been answered on the KWL chart for each theme (see Appendix H). The increased awareness of answering questions demonstrates that students were indeed building background knowledge and increasing their understanding of how to ask and answer questions.

Students also began to develop background knowledge on the use of the KWL and how it helped with the reading of informational text. A study conducted by Ermis (2008) found that students were able to gain more knowledge and more vocabulary from the informational text when a graphic organizer was used in place of traditional read and discuss methods. The use of the graphic organizer in this study increased student’s interest in the study and exposed them to a
method of organizing information. According to field notes, Lilly and Oliver both seemed particularly interested in the use of the graphic organizer. Lilly made several comments such as “Look how many things are in that (learned) column!” In addition, Oliver began stating which column his comment belonged in by stating, “This is a question for the wonder part” or “I think this needs to go under the ‘I know’ section.” The students appeared to become accustomed to the graphic organizer and it appeared to have a positive impact on their comprehension. The graphic organizer may have also made students more aware of how to read an informational text. For example, questioning prior to reading a text was a new comprehension skill for these students. The KWL provided students a way to work on this skill with the visual support of the organizer.

Each week students were given a pre-test prior to discussing the new theme in any length. During the first week when students were given the pre-test for Abraham Lincoln, many of the students got very upset because they were not accustomed to the format and being asked questions to which they did not know the answer. However, even after that first test, students were overheard asking each other the questions off the assessment and comparing answers. When the class transitioned to the first read aloud about Abraham Lincoln, many of the questions the students asked were based on questions from the pre-assessment. For example, many students were curious about what Abraham Lincoln kept in his hat and Minerva asked “I wonder if he kept a cat in his hat?” because that was one of the possible answers for that question. Students again asked questions based on the pre-assessment during the lion week when Lilly asked “I wonder what lions eat?” which was a question on the pre-assessment. The pre-assessment resulted in not only a measurement for prior knowledge, but also activated prior knowledge for students and increased student curiosity on the topic. The pre-assessment also
served as a way for students to preview the material they would learn for the week. The pre-assessments appeared to provide scaffolding for students and cued them in to the information they needed to listen for. As evidenced in the field notes, students appeared to be actively listening for the answers to the questions from the assessments. The questions on the assessments were geared towards my learning objectives for each topic, so in turn, the students were listening for what I considered to be the most important information on each topic.

The original goal of this study was to measure the impact background knowledge has on student’s comprehension. The results indicate that background knowledge on a specific subject does improve a student’s comprehension. Unexpectedly, the study also showed that student background information on how to read non-fiction texts and comprehension skills such as questioning skills also have a large impact on student comprehension as demonstrated by the data.

**Importance of Student Participation in Read Alouds and Activities**

Throughout the study, I collected quantitative data on the number of times each student orally participated during whole group read aloud of each informational text. Oral participation was considered to be when a student asked or answered a question, or made another statement during the story or discussion. Each table shows the number of times each student participated on any given day of the study. Student participation was recorded when students asked a question, answered a question or made a statement during the pre-reading discussion, read aloud or during the post-reading discussion. If a student was absent or pulled out for a service during the discussion than that is noted on the chart. Total student participation was recorded at the end of each week. This also served as a device for keeping track of students that were not present during the read aloud or discussion. The results for each week are displayed in Tables 6, 7, and 8 below.
Table 6

*Abraham Lincoln Participation*

<table>
<thead>
<tr>
<th>Student Name (Pseudonym)</th>
<th>Participation Day One</th>
<th>Participation Day Two</th>
<th>Participation Day Three</th>
<th>Total Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oliver</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Fred</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Ron</td>
<td>1</td>
<td>Absent</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Harry</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>George</td>
<td>9</td>
<td>14</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td>Lilly</td>
<td>7</td>
<td>3</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>Bella</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Molly</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Minerva</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Hermione</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Charlie</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
</tr>
<tr>
<td>Bill</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Ginny</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Average</td>
<td>37</td>
<td>29</td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>

During the first week of the study, George participated the most, orally participating a total of 27 times. However, George made many off topic comments throughout the whole study.
and this is most likely why he revealed the highest amount of oral participation. The lowest amount of participation was from Ginny. Ginny is a very quiet student who does not often orally participate in whole group discussions. Charlie was absent throughout the entire week, and this absence is noted on the chart with the term “absent.” Ron also missed a day of the study, which is also noted on the chart. The most student participation occurred on the first day of the study, and student participation decreased slightly each of the following days. Day one of the study was when students were asked to brainstorm information they knew prior to reading any informational text. It was also the day that students asked the most questions, according to the field notes. After the reading on the first day, students also had the most new information to add to the “I learned” column on the KWL. I believe that the first day yielded more oral participation from students because the topic was new and therefore students had more questions to ask. On each of the following days, students tended to have fewer questions to ask because they were finding the answers to many of their questions.
During the second week of the study, the topic was lions. Student participation is displayed in Table 8 above. Charlie was absent on the first day of the week and Molly was absent on the second day. These absences are both noted on Table 7 above. During this week, George again had the highest amount of participation, orally participating 22 times throughout the week. Yet again, George made many off topic comments throughout the week. The smallest amount of oral participation was from Harry, who did not orally participate at all during this week. Harry is another very quiet student who does not orally participate very frequently. Unlike
during the first week, students orally participated the most during the third day of the study.

According to field notes, the students were more attentive during the third day, which could explain why there was an increase in participation. Many of the unanswered questions were also answered on the third day, which is another possible explanation for the increase.

Table 8

Volcanoes Participation

<table>
<thead>
<tr>
<th>Student Name (Pseudonym)</th>
<th>Participation Day One</th>
<th>Participation Day Two</th>
<th>Participation Day Three</th>
<th>Total Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oliver</td>
<td>1</td>
<td>At Speech</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Fred</td>
<td>Absent</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Ron</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Harry</td>
<td>Absent</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>George</td>
<td>3</td>
<td>8</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Lilly</td>
<td>Absent</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Bella</td>
<td>5</td>
<td>4</td>
<td>Absent</td>
<td>9</td>
</tr>
<tr>
<td>Molly</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Minerva</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Hermione</td>
<td>7</td>
<td>4</td>
<td>10</td>
<td>21</td>
</tr>
<tr>
<td>Charlie</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Bill</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Ginny</td>
<td>0</td>
<td>At Speech</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Average</td>
<td>28</td>
<td>25</td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

The topic for the last week of instruction was volcanoes. Participation for the third week of instruction is show in Table 8, above. During this week, Hermione orally participated with the highest frequency, 21 times total. Harry again participated the fewest times, only
making one comment during the week. On the first day of the study, three students were absent. This may have resulted in a lower amount of participation on the first day. This topic again revealed that students participated the most on the last day of the study, a total of 34 times. This increased amount of participation is likely because students were very excited about the volcano experiment they were able to participate in after the read aloud. Field notes show that students made many comments and asked many questions during the third day.

Originally my perception had been that there would be a relationship between student’s oral participation and both their amount of background knowledge and achievement on the post-test. However, there does not appear to be a relationship. There were several students who did not demonstrate a large amount of background knowledge on a topic, but who participated several times each day. For example, Hermione only earned a score of a 1/5 on the pre-test for Abraham Lincoln (see Table 3), but still participated nine times throughout the week. Hermione likely participated more because she had more questions about the topic. Additionally, Harry achieved a pre-test score of 5/5 on the lion’s assessment but did not orally participate at all during the discussions that week. Harry is a very quiet student so it is possible that is why he did not participate. Another possible interpretation is that because he already had a large amount of background knowledge he was not as engaged with this topic and therefore did not have any questions to ask.

While most of the comments were considered on topic and relevant to the discussion, the student who had the one of the largest amounts of participation also made the largest amount of irrelevant comments during the discussions. According to field notes, George participated 27 times during the Abraham Lincoln theme, 22 times during the lions theme, and 14 times during the volcanoes theme. Many of the comments he made were off topic. For example, during the
Abraham Lincoln theme, George had a piece of string in his pocket he was pretending was a snake. All of his questions that day were about the snake including “I wonder if Abe Lincoln had a snake?” and “Do you like my snake?” George also picked one fact about each topic that he fixated on throughout the week. For Abraham Lincoln, everyday George stated “He was on the penny!” During the lions theme George stated everyday “Lions are in a zoo. When I grow up I’m going to be a zookeeper,” and for volcanoes he said “They rumble!” as his fact everyday. George often becomes fixated on a single idea or event and cannot attend to any other information while he is fixated. I believe that he was fixed on these single ideas, which resulted in a decrease in his overall background knowledge on each topic.

Although there did not appear to be a relationship between the amount of times a student orally participated, background knowledge and post-test scores, there does appear to be a relationship between participating in the discussions and follow up activities with student scores on the post-test. Students that were present for the activities appeared to improve or maintain their assessment scores. Additionally, during the third week when there were the most student absences, the class average did not improve as drastically as during previous weeks where attendance was better. Even though some students did not orally participate through asking or answering questions, they were still participating in read alouds by listening and students still participated in corresponding activities. Listening to read alouds and discussions as well as participating in corresponding activities still led to an increase in both background knowledge and assessment scores. For example, Oliver orally participated just five times during the lions theme (see Table 4) but still increased his assessment score from a 2/5 to a 5/5 (see Table 4). Oliver was present for all of the discussions and participated in the follow up activities for lions. Therefore, I believe that Oliver’s participation in the discussions and follow up activities
increased his overall background knowledge of lions, as seen by his increased post-assessment score.

Being present for the activities and read aloud also appears to have an impact on the building of background knowledge and using this knowledge on assessments. During the first and second weeks of the study, student absences were minimal. In the first week of the study during the Abraham Lincoln week only two different students missed one or more days, with Charlie missing the entire week. During this week 100% of the students improved or maintained their assessment scores. In the second week only two different students missed one or more days and 90% of the students improved their assessment scores. However, during the third and final week six different students missed one or more days of school. This topic also had the lowest percentage of students increase or maintain their scores with only 70% increasing or maintaining scores. Students must be present for instruction in order to build upon background knowledge and improve achievement.

Students began to demonstrate an understanding of the importance of participating in read alouds and corresponding activities as well. According to my field notes, Lilly missed the first day of the third theme, volcanoes. When she returned on the second day she stated “I don’t know much about volcanoes because I wasn’t here yesterday.” Lilly was able to make this unprompted statement acknowledging that she knew information was gained when she was absent from school. Field notes also revealed that students became increasingly curious about what they missed if they were pulled out during the read alouds or activities. For example, Fred became very upset when he needed to leave at the end of one of the discussions about lions. Oliver and Ginny both missed for speech several times and both came back into the classroom asking what they had missed and were immediately engaged in the activity. The students’ interest
in the material and activities they had missed suggests that students were beginning to understand the importance of the learning we were doing. It also suggests that they were interested in the material and therefore wanted to participate in the activities.

Although student’s oral participation did not appear to have a direct relationship to student’s background knowledge and achievement, there does appear to be a relationship between student participation and the building of background knowledge. Students who were present and attentive during instruction and who participated in related activities were able to improve their assessment scores regardless of the number of times they participated orally. Students also appeared to become more aware of the importance of building background knowledge by inquiring about activities they had missed while absent.

The findings of this study suggest that students are both interested in reading informational text and that students are capable of learning from informational texts. By the end of the study, the majority of students were showing an increased interest in reading informational texts. Additionally, students were able to better comprehend informational text when they had background information on the context and on the genre of informational texts. Students also performed better on pre and post assessments when they were participating in read alouds and follow up activities. The results of this study imply the importance of using informational texts in primary classrooms.
Implications

The results of this study suggest several implications related to both informational text and background knowledge. The study found that young students can not only understand informational text, but also that these young students enjoy reading informational texts. The study also found that while the presence of background knowledge surrounding both the topic of an informational text is important, background knowledge in how to read and comprehend an informational text is essential.

A common misconception regarding informational texts is that young children do not enjoy reading them and struggle to learn from them. The results of this study support the results of additional studies that dispel this misconception. A study conducted by Mohr (2008) showed that 84% of students surveyed preferred reading informational texts to narrative texts. Similarly, this study found that 73% of the students from this study stated they would prefer reading informational texts to narrative texts. This study also supports research that states that students not only prefer to read informational texts, but can learn from informational texts as well (Caswell & Duke, 1998; Donovan, 1996; Duke & Kays, 1998; Hicks, 1995). Duke (2000) emphasizes the importance of students reading to learn from informational texts because that is a skill that will be applied in real life situations as students become productive members of society.

The research from this study, supported by research from additional studies, implies that teachers in the primary grades should be incorporating more informational texts into their daily classroom routines.

Students in this study were primarily exposed to informational text through read alouds. However, after a new informational text was introduced through a read aloud, it was added to a book-browsing basket in the classroom library. Throughout the study observations were made
that these books were preferred over other narrative read aloud books to the point where students began to argue over which student got to read the informational text first. Additionally, informational texts that had always been a part of the classroom library were discovered by students and also became very possible.

Informational texts can also be introduced at students’ instructional and independent levels, allowing students to practice reading and comprehending informational text that they have read. Reading informational texts during a guided reading setting allows for exposure to not only the text, but how to read informational text with support from teachers. Teachers of primary students need to recognize the importance of incorporating these texts into their classroom not only because of the practical implications, but also because many students prefer to read informational texts. The ability to read and listen to text of a preferred genre can also lead to an increase in motivation to learn to read for some students (Caswell & Duke, 1998). This study supports this research that students prefer and enjoy reading informational texts.

This study also revealed that while background knowledge on a topic is very important, background knowledge on how to read different genres of literature is equally as important. Best et al., (2008) found that informational texts typically include more abstract and logical relations that can be difficult for children to interpret. If students are not exposed to this genre of text frequently, they may not gain the skills necessary to both read and comprehend informational text. Tower (2002) found that it is not enough to build background on a topic, but that students must also possess background knowledge on the genre of literature. During this study, field notes showed that students began to understand more about the genre of non-fiction. Students were able to identify that books in the informational genre are fact based and often contain real
photographs. Students also began to explore the text elements found in informational texts, including a table of contents and an index.

The results of this study imply that teachers need to do more than simply expose their students to the genre of informational text. Teachers must take the time to teach specifically about the genre. Students need to know what types of text elements are likely to be present in an informational text and how to use these elements to help increase their comprehension. For example, it is not enough for a student to be able to identify the table of contents in a book, students must also understand how to use this text element and why it is important.

Studies have found that because there is a lack of exposure to informational texts in the primary grades, many students reaching fourth grade are unprepared to meet the demands of reading informational texts. There is a shift that occurs in fourth grade that requires students to switch from learning to read to reading to learn (Baker et al., 2011). This decline in reading performance is often referred to as the fourth-grade slump (Chall, Jacobs, & Baldwin, 1990). Research suggests that providing students with more experience with informational texts during the primary grades may help in preparing students for the amount of informational reading expected in the intermediate grades (Duke, 2000). As this study supports, teachers can help their students become better prepared for the increase in informational reading by exposing them to informational texts in the primary grades.

Additionally, students need a different set of comprehension skills to understand an informational text (Best et al., 2008). Narrative texts often require students to identify story elements such as characters, goals, and resolutions (Baker et al., 2001). Informational texts require the reader to understand cause and effect, compare and contrast, questioning, and noting key details (Baker et al., 2001). Both research and this study suggest that the use of graphic
organizers, repeated read alouds, and daily exposure to informational texts can help improve student’s understanding of the genre and therefore increase their comprehension of informational text (Duke & Kays, 1998; Ermis, 2008; Greenawalt, 2010; Norman, 2010; Towers, 2002).

**Conclusions**

There were several limitations to this study. Due to the nature of today’s classroom, often times students are pulled out of the room for support services and therefore miss pieces of the study. For example, Fred missed several days of instruction and assessments because of the frequency with which he is pulled out for support services. Another limitation to the study was student absences. Several times students were absent from school for several days, which impacted their understanding of the topic and participation in read alouds. Material missed during absences was not made up due to time constraints and scheduling conflicts. Additionally, there was no way to control the amount of background knowledge a student possessed on a topic prior to learning about it in school. Although I made an effort to pick topics that students were likely to have less background knowledge on, because of factors outside of my control, students entered the study with various amounts of background knowledge. Finally, being both the researcher and classroom teacher may have created a bias in field notes and observations that would not have been present if an outside person was conducting researching in the classroom.

Due to the limitations of this study, there remain questions that require further research. More research would need to be done to investigate the types of follow-up activities for informational text that best support the building of background knowledge. Additional research would also be required to determine how long students retain background information from informational text, and if that information can be retrieved and applied at a later date. It would
be important to examine if students could retain information not only on the content of an informational text but also on the genre of informational text.

The purpose of this study was to determine the importance of background knowledge when reading and understanding informational text. According to the sociocultural theory, an individual’s background knowledge is built through diverse experiences unique to each individual (McVee, Dunsmore, & Gavelek, 2005). This background knowledge impacts an individual’s ability to comprehend an informational text. Through field notes, survey results, student assessments, and a review of the current literature, it was determined that background knowledge on the genre of informational text is possibly more important than background knowledge on the topic of the informational text. The results of the study also revealed that young students in the primary grades are not only capable of learning from informational texts, they enjoy reading informational text.
References


Duke, N.K., (2000). 3.6 minutes per day: The scarcity of informational texts in first grade.


Teaching second language reading for academic purposes. (pp. 3-23). Reading: Addison-Wesley.


doi: 10.1016/j.learninstruc.2008.04.003


Appendix A—Survey

Name _____________________________

1. Would you rather read a non-fiction book or a fiction book?

   Fiction    Non-Fiction

2. How do you feel when you read a non-fiction book about something you know?

   🤩   😐   😞

3. How do you feel when you read a non-fiction book about something you don't know about?

   🤩   😐   😞

4. Would you rather read a non-fiction book about something you know or something you don't know?

   Something I know about    Something I don't know about

5. What strategies do you use when reading a non-fiction text?

   Teacher scribes answers
Appendix B - Abraham Lincoln Pre-Assessment

Name ________________________________

1. Circle the picture of Abraham Lincoln.

2. What did Abe Lincoln keep inside his hat?

3. What number president was Abe Lincoln?
4. Draw a picture of the house that Abe Lincoln grew up in.

5. How did Abe Lincoln help the slaves?

- He ended slavery.
- He gave them food.
- He bought them a boat.
Appendix C - Abraham Lincoln Post Assessment

Name ________________________________

1. Circle the picture of Abraham Lincoln.

   [Images of three different historical figures]

2. What did Abe Lincoln keep inside his hat?

   [Images of a cat, an apple, and a stack of papers]

3. What number president was Abe Lincoln?
4. Draw a picture of the house that Abe Lincoln grew up in.

5. How did Abe Lincoln help the slaves?

- He ended slavery.
- He gave them food.
- He bought them a boat.
Appendix D - Lions Pre-Assessment

Name ________________________________

1. Circle the picture that shows a lion.

![Picture 1](image1)
![Picture 2](image2)

2. Circle the picture that shows a lion's habitat.

![Picture 3](image3)
![Picture 4](image4)

3. Draw a picture of food a lion might eat.
4. The long hair around a lion’s face is called a ________.

- Mane
- Hair
- Fur

5. Lion’s live in a group called a ____________.

- Pride
- Team
- Class
Appendix E - Lions Post-Assessment

Name ________________________________

1. Circle the picture that shows a lion.

![Picture of a lion and other animals]

2. Circle the picture that shows a lion's habitat.

![Picture of a savannah and a forest and a city]

3. Draw a picture of food a lion might eat.

[Blank drawing space]
4. The long hair around a lion’s face is called a ________.

Mane  Hair  Fur

5. Lion’s live in a group called a ____________.

Pride  Team  Class
Appendix F - Volcanoes Pre-Assessment

Name ______________________________

1. Circle the picture of a volcano.

![Volcano Image] ![Tornado Image] ![Wave Image]

2. Volcanoes are _________________________.

[Hot] [Cold]

3. A volcano is a _________________________.

[Mountain] [Lake] [Wave]

4. Lava comes from _________________________.

[People] [Inside a volcano] [Clouds]
5. Draw a picture of a volcano erupting.
Appendix G - Volcanoes Post-Assessment

Name ____________________________________________

1. Circle the picture of a volcano.
   ![Volcano Image]  ![Tornado Image]  ![Wave Image]

2. Volcanoes are ________________________________.
   [Hot]  [Cold]

3. A volcano is a ________________________________.
   [Mountain]  [Lake]  [Wave]

4. Lava comes from ________________________________.
   [People]  [Inside a volcano]  [Clouds]
5. Draw a picture of a volcano erupting.
Appendix H- Abraham Lincoln KWL

Red=Day One

Blue- Day Two

Pink-Day Three

<table>
<thead>
<tr>
<th>I know…</th>
<th>I wonder…</th>
<th>I learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>• He is on the $5</td>
<td>• Did he live in the white house?</td>
<td>• He died</td>
</tr>
<tr>
<td>• He died</td>
<td>• Does he have a cat?</td>
<td>• He lived in a log cabin</td>
</tr>
<tr>
<td>• He was president</td>
<td>• Did he have any pets?</td>
<td>• He was shot</td>
</tr>
<tr>
<td>• He helped the other people</td>
<td>• What did he look like?</td>
<td>• He had a flat boat</td>
</tr>
<tr>
<td></td>
<td>• Did he have a white car?</td>
<td>• He had a sister</td>
</tr>
<tr>
<td></td>
<td>• Did he have a TV?</td>
<td>• He is on the penny</td>
</tr>
<tr>
<td></td>
<td>• How did he help people?</td>
<td>• He got married</td>
</tr>
<tr>
<td></td>
<td>• Did he have an office?</td>
<td>• He had 4 boys</td>
</tr>
<tr>
<td></td>
<td>• What number president was he?</td>
<td>• He was the 16th president</td>
</tr>
<tr>
<td></td>
<td>• Did he carry anything in his hat?</td>
<td>• He freed the slaves</td>
</tr>
<tr>
<td></td>
<td>• Did he go fishing?</td>
<td>• He had brown hair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• He was tall</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• He had lots of pets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• He lived in the white house</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• He carried papers in his hat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• He was funny</td>
</tr>
</tbody>
</table>
Appendix I-Lions KWL

Blue-Day One

Red-Day Two

Orange-Day Three

<table>
<thead>
<tr>
<th>I know…</th>
<th>I wonder…</th>
<th>I learned</th>
</tr>
</thead>
</table>
| - They have fur  
- They roar  
- They have sharp claws  
- Lions can run and chase food  
- Food is called prey  
- Sharp teeth!  
- They are in a zoo  
- They can bite!  
- Lions are in movies  
- They kill their prey  
- They eat elephants, zebras, hyenas (meat)  
- Hyenas are predators | - I wonder where lions live?  
- I wonder if they have babies?  
- I wonder if they have parents?  
- Do they eat grass?  
- What else do lions eat?  
- Do they drink water?  
- Where do they sleep?  
- Do they eat people?  
- Is the group called a pride?  
- Do they eat blood meat?  
- Do they roar loud? What does it sound like? | - They live in a pride  
- Babies are called cubs  
- Lions eat zebras, waterbucks  
- They live in Africa  
- Fur around their face is a mane  
- They hide in the grass because they are the same color  
- They eat antelopes  
- They live in Africa  
- They have 2-4 cubs  
- Roar to keep lions away  
- Mane protects them  
- They eat buffalo  
- Hyenas attack them  
- They can see in the dark  
- They can run fast  
- They sneak up on their prey  
- They can stretch |
Appendix J-Volcanoes KWL

Red-Day One

Blue-Day Two

Orange-Day Three

<table>
<thead>
<tr>
<th>I know…</th>
<th>I wonder…</th>
<th>I learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>• They erupt</td>
<td>• Did they kill dinosaurs?</td>
<td>• Volcanoes can kill you</td>
</tr>
<tr>
<td>• They blow up</td>
<td>• I wonder if lava burns things?</td>
<td>• Smoke comes when a volcano erupts</td>
</tr>
<tr>
<td>• They have hot lava</td>
<td>• Is lava fire?</td>
<td>• Some are extinct</td>
</tr>
<tr>
<td>• They might have killed dinosaurs</td>
<td>• Does lava come from people?</td>
<td>• Some are sleeping</td>
</tr>
<tr>
<td>• They rumble</td>
<td>• I wonder if lava hurts people?</td>
<td>• Some are active</td>
</tr>
<tr>
<td>• Lava is hot</td>
<td>• How do volcanoes blow the lava up?</td>
<td>• They are hot</td>
</tr>
<tr>
<td>• Melts rocks</td>
<td></td>
<td>• Lava comes from volcanoes</td>
</tr>
<tr>
<td>• They are in Hawaii</td>
<td></td>
<td>• There is a ring of fire</td>
</tr>
<tr>
<td>• The lava can burn</td>
<td></td>
<td>• Magma comes from inside a volcano</td>
</tr>
<tr>
<td>• Lava goes down the side of the volcano</td>
<td></td>
<td>• Things near a volcano get burned</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Geyisers shoot hot water</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The cone volcano shoots out steam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Magma is in the magma chamber</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Volcanoes aren’t in our backyard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• There are lots of volcanoes on the ring of fire</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hawaii is made from volcanoes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Lava made mud that buried things</td>
</tr>
</tbody>
</table>