

## Peer-led Discussions of Social Studies Text: Comprehension Strategies in Action

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### Abstract

*The purpose of this study was to investigate how small groups of fifth graders construct meaning of social studies text during peer-led discussions. Data collection occurred across six months and included individual and small group student interviews, teacher interview, audio tape recordings, and verbatim transcriptions of the audio tapes, author's field notes, and students' artifacts. Transcriptions and observational field notes were examined and coded for instances of students' meaning making talk. Findings indicated: (1) Fifth graders in this study initiated and maintained meaningful talk of social studies text in peer-led settings with minimum teacher intervention; (2) They used numerous cognitive processes to generate higher levels of awareness to enhance understanding for all group members as they engaged in the discussions. Therefore, classroom teachers may want to use this knowledge to inform their instructional practice. Keywords: Peer-led discussions, Meaning-making talk, Cognitive development*

in the classroom. Regarding comprehension and collaboration, the CCSS Anchor Standards for speaking and listening specifically states [students]:

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric (2010, p. 22).

The CCSS lists the goal of what students should do, but little in terms of value; therefore, as written, classroom teachers may not want to invest much time in this type of learning context since the full picture and potential for student learning is not explicitly conveyed. This very idea was a topic of conversation between Allington and Pearson (2011) regarding the unintentional consequences of policy. They argued that certain mandates have reduced the amount of time students spend reading for meaning and the reluctance of teachers to engage students in rich discussions about text. Others have agreed that standardized testing and accountability prevent or limit students from participating in student-centered text discussions in the classroom (Kenna & Russell, 2014; Valli, Croninger, Chambliss, Graeber, & Busese, 2008). Further, Maloch and Bomer (2012, p. 130) noted “... high-stakes assessments that purportedly assess these standards often drive instruction to focus on students' performances of skills, such as reading comprehension, vocabulary, and fluency, not on how well they engage in discussions.”

Maloch and Bomer (2012) present a strong and eloquent argument for embedding discussion as part of instructional practice, noting that although it may not appear as an innovative idea to some; there is a lot to learn when it comes to student discussion of texts in the classroom. Numerous reading researchers and practitioners see student discussion of text as a powerful context to deepen understanding and build collaborative learning communities. However, there is a discrepancy between research, the philosophical beliefs and practices of educators -- and policy. For example, the Common Core State Standards (CCSS) recently adopted by 45 states offer only partial and narrow attention to the importance of students' discussion

Thus, the question: How are students expected to practice, develop, refine, and extend their understanding of comprehension, vocabulary, and fluency without a valuable learning context such as discussion? If learning is social as advocated by (Vygotsky, 1978; Wells, 2000; Wertsch, 1991), then it makes sense to allow students to practice comprehension techniques in small collaborative learning groups.

Learning is a social activity and the learning of language begins at birth and grows through lullabies, finger-plays, stories (Genishi, 1988), and later through conversations with peers and adults (Halliday, 1978). Several reading researchers (Almasi, 1995; Cazden, 1986; Eeds & Wells, 1989) have focused their lens on this social nature of learning to examine the effects of collaborative discussion on student learning. Chinn, Anderson, & Waggoner (2001) have posited that collaborative peer discussion is important to understanding written texts and advances critical reasoning abilities. Additionally, students are more likely to accept responsibility for their own learning when they participate in collaborative discussion groups (Almasi, 1996; Gambrell, 1996).

### **What does the research say about learning as a social activity?**

This inquiry draws from a family of learning theories known as constructivist theories. Social constructivist theories of learning are embraced by many individuals in the educational arena. The constructivist view of learning has significant implications for how students understand text material in a social context. A major theme in contemporary educational theories of constructivism is the view that learning is an active process whereby learners construct new ideas and concepts based on their prior knowledge (Adams & Collins, 1977), and through social interaction with others. According to Vygotsky (1978) students' thinking develops first on a social plane, that is, through interaction with others before becoming internalized. Initially, a more capable individual must model, support, and assist the student with a difficult task or problem, thereby guiding the individual to more successful attempts in

accomplishing the task or problem. Then gradually and with practice, the student acquires and internalizes the skills and knowledge and eventually performs these operations with little or no support. These assisted interactions seem to have a direct application to small group discussion where peers act as models and facilitators.

Thus, learning is social and knowledge is a constructed event made by each learner as he or she interacts with peers in student-centered learning activities. Over a hundred years ago, Dewey (1900) postulated that children are socially oriented and learning is an active, social process in which children construct rather than receive knowledge. More recently, Wells (2000) proposed that teachers should strive on building communities of inquiry in their classrooms. In such settings, teachers act as co-facilitator and co-inquirer in order to stimulate productive endeavors that build student and community development. One essential component to such a community is talk; whereby participants use talk in a discussion format to solve problems and work together to co-construct knowledge. Wells (p. 72) stated that such talk is "the dialogue of knowledge building" and holds value since it is a "mode of discourse in which a structure of meaning is built up collaboratively over successive turns." In such classrooms as advocated by Wells, teachers create opportunities for students to discuss their understanding of texts, listen to one another's ideas, and co-construct meaning by working together. This is the same idea others (Barnes & Todd, 1977; Beach & Hynds, 1991) believe leads to the development of higher cognitive processes such as answering and generating questions, predicting, making connections, clarifying, and explaining.

### **What does the research say about classroom discussions?**

Productive talk within a social interactive context has the ability to advance the mental processes of all engaged participants. However, some believe that certain discussion structures such as the IRE discussion format inhibits students' thinking, instead of promoting it. The IRE discussion structure gives the teacher interpretative authority, control over turns, and topic selection,

thus students play a limited role and share no responsibility for meaning construction and text understanding (Cazden, 1986; Chinn et al., 2001). To prevent preconceived notions that the teacher is the holder and keeper of all knowledge, some have called for alternative peer-centered discussion formats. Thus, teachers need to provide frequent learning opportunities using discussion structures where students exchange interpretations, explore alternative perspectives, and resolve cognitive conflicts of the text and themselves (Almasi, 1996; Martinez & Roser, 2001).

This type of context is conducive to effective instructional practice and highly recommended as a valid way to develop higher-level thinking. Discussions are transactional exchanges where group members collaboratively construct meaning or contemplate alternative interpretations of the text in order to establish new understandings (Almasi, 1996). This view, compared to the IRE, sees students cognitively engaged and actively involved in meaningful conversations with one another. In transactional conversations no one participant controls the event, instead, the discussion is a natural conversation where all group members freely share their thoughts, ideas, and opinions to derive meaning (Gambrell, Hughes, Calvert, Malloy, & Igo, 2011; Gambrell, 1996). Researchers (Applebee, Langer, Nystrand, & Gamoran, 2003; Duke & Pearson, 2002) have argued that students need multiple opportunities to collaborate with text and peers in order to build effective text understanding. Collaborative discussions about text are necessary for discovering the multiple layers of meaning as this further enables meanings to build upon meanings (Maloch & Bomer, 2013; Wood, Roser & Martinez, 2001).

Rogoff (1990) claimed that students benefit from peer interactions to the extent that they participate in the collaboration. Roschelle (1992, p. 236) stated that the crux of collaboration “is convergence” or the construction of shared meanings for conversations, concepts, and experiences. As an instructional practice, peer collaboration encompasses the conviction that students can help one another develop their own

understanding, integrate new information into existing cognitive structures and modify those structures as necessary when faced with conflicting ideas articulated by others during social discourse (Cooper, 1999). Therefore, students who meaningfully engage in this type of learning are better able to extrapolate meanings from texts. Peer-discussions allow students to see how group members collaborate to construct meaning of text while they participate in the process (Raphael & Wonnacott, 1985). Learning through discussions provide for the refinement of various interpretations, thereby, giving richer, deeper and more insightful meanings to the discussion content. Additionally, this allows students to strengthen their knowledge of what they read and discuss which helps to build confidence in their thinking and communication abilities.

Working collaboratively in small groups holds many benefits since it allows students to take risks in thinking aloud. Contemporary researchers (Almasi, 1995; Gambrell, 1996; McMahon & Raphael, 1997) have advocated small group discussions formats is a means for gradually releasing responsibility of learning to students. This stems in part from researchers and practitioners valuing students’ individual interpretations and acknowledging discussion as a way for students to build new understanding. Additionally, this context allows speakers the opportunity to integrate and refine their ideas as they share their perspectives; while listeners may absorb new information that enables them to arrive at new understandings (Chinn et al., 2001).

One way to assist students in the improvement of text understanding is through small group, peer-led discussions that allow students to talk with one another in a conversational manner as they share current understanding of text and create new ones (Almasi, 1995; McMahon & Raphael, 1997). In peer-led discussions, students support and engage one another through problem-solving conversations, by sharing their own explanations and interpretations of text with group members, and revise them after listening to peer input (McCormack, 1997). Classroom observations (Almasi, 1995; Almasi, McKeown & Beck, 1996;

Beck et al., 1996; Brown, Pressley, Van Meter, & Schuder, 1996; Goldenberg, 1992/1993; Guthrie, McRae, Coddington, Klauda, Wigfield, & Barbosa, 2009) have provided evidence that student-centered discussions, including peer-led discussions improved students' reading comprehension abilities, facilitated higher levels of thinking, and increased motivation for learning and challenged their oral competencies to explain various types of text material. Teachers can create opportunities for students to develop higher cognitive processes by immersing students in robust discussions by using multiple types of text.

Although there are significant advantages for students to participate in small group, peer-led discussions; some (Alvermann, 1995; Rose, 2011) have cautioned that all group members in this context may not necessarily follow the democratic process. For example, although there may be conflicts and disagreements, some members may feel reluctant to offer their opinions and will instead stifle their own thinking in order to minimize conflicts and support harmony in the group. To alleviate this concern, teachers can set a few discussion guidelines in place; for instance, encourage all students to meaningfully participate, respectfully explore all perspectives, and engage in debate and negotiation to productively resolve conflicts.

### **What does the research say about informational text discussions?**

Student discussion of different text types is a critical component to learning because it provides opportunities for them to ask and clarify questions about concepts they do not understand or get information on ideas they want to know (Moffett & Wagner, 1991). Students who read different types of text scored higher on reading achievement compared to those who read one text type (Dreher, 2000). Different text types challenges thinking, expands knowledge, stretches the imagination, increases sensitivity, and offers vicarious experiences (Martin & Duke, 2013). Allowing multiple opportunities for students to read and discuss different text types supports and increases their understanding of those texts (Scharer, Lehman,

& Peters, 2001). One type of text that is significant to learning and continues to garner much support in the research community is informational text (Duke & Roberts, 2010; Jeong, Gaffney, & Choi, 2010; Maloch & Bomer, 2013; Maloch & Horsey, 2013; Maloch, 2008; Martin & Duke, 2013; Pappas, 2006). The CCSS recommend that fifty percent of the text available and utilized with elementary students should be informational text. For purposes of this study, informational text is a type of nonfiction. Informational text is text that conveys information about the natural and social world and contains specific text structures and specialized vocabulary; often written by someone who has more knowledge about the subject to someone who has less knowledge (Duke, 2004).

Over the past two decades many teachers began integrating nonfiction in their classroom discussions and these include informational texts including trade books and textbooks (Jeong, Gaffney, & Choi, 2010; Maloch & Horsey, 2013; Purcell-Gates, Duke, & Martineau, 2007; Wilfong, 2009). This in part stems from accountability pressures to improve students standardized test performance where a high percentage of the reading content is nonfiction (Kenna & Russell, 2014). Therefore, it is critical for students to read and discuss nonfiction, including informational text in order to develop an understanding of this particular genre (Duke & Bennett-Armistead, 2003).

The use of informational text offers students a valuable source from which to learn limitless topics. Informational text can enrich knowledge and stimulate interest by providing accurate accounts of research material, introducing new and expanded vocabulary, clarifying facts, and increasing curiosity (Burke & Glazer, 1994; Duke, 2004). Additionally, reading and discussing informational text allow teachers to document increased comprehension in areas such as recalling details, sequencing information, identifying cause and effect, and predicting outcomes (Strickland, Dillon, Funkhouser, Glick, & Rogers, 1989). There is strong evidence that many elementary teachers and students engage in reading and discussing informational texts; however, there is a paucity of



research regarding small group, peer-led discussions of informational texts.

In a recent study on small group discussions of science, Wilfong (2009) provided professional development to a science teacher and assisted her in creating a technique involving roles that assisted fifth graders in reading and discussing their science textbook. Called "Textmasters," this practice encompasses the students learning and applying roles during literature circles. For example, roles included: Discussion Director, Summarizer, Vocabulary Enricher, and Webmaster. Students learned the tasks assigned to the roles and utilized them during discussion of topics outlined in their science textbook. Prior to discussion, the Discussion Director prepared a series of factual and inference questions on a role sheet and began asking a question to stimulate discussion, after which another question was posed followed by discussion. Textmaster discussion included silent reading and completion of role sheet, then discussion and finally a self-reflection activity regarding responsibility and performance during the discussion. Informal test scores of 73 fifth graders between the first and second chapter of the textbook showed an increase of just over three percentage points.

School districts require teachers to use textbooks as a routine part of teaching content areas subjects such as social studies. Russell (2010) noted that the traditional structure of teaching social studies continues to include reading the textbook, lecture, and seatwork; compared to research-based practices that focus on student-centered learning activities such as inquiry and discussion which can lead to a better understanding of the topics. Thus, it makes sense for teachers to support students' acquisition of content through diverse instructional modes and techniques (Conley, 2011). Small group, peer-led discussions can serve as one type of instructional mode.

### **What does the research say about readers transacting with texts?**

The transactional theory (Rosenblatt, 1978) maintains that the reader must transact with the text to make meaning, as such, meaning does not reside in the text itself; nor can meaning be found just with

the reader, in fact, it is when the two transact that meaning occurs. Additionally, meaning is derived from the context of social transaction (Almasi, 1996). Rosenblatt's theory posits that the reader's individuality must be considered and respected and a reader initially understands a piece of text only on the basis of prior experience.

A reader's stance is an important feature in transactional theory as it reflects the choice the reader selects to make in order to create meaning from the transaction with the text being read. Rosenblatt differentiates between the efferent stance, in which the reader is primarily concerned with what will be carried away and the aesthetic stance, in which the reader focuses primarily on the experiences lived through during the reading.

In some classrooms, teachers are co-participants in shared inquiry and students' discourse is seen as valuable to the learning process. Since reading development is complex and inextricably interwoven in language and social interaction with others, it is simply perplexing that in the last decade only a limited number of studies have investigated meaning making in small group, peer-led discussions of informational text at the elementary level. Therefore, the purpose of this inquiry was to explore and describe various ways students make meaning of informational texts in small group, peer-led discussions.

### **Methodology**

This study used a case study design. The phenomenon or unit of analysis was the meaning-making talk in which the students engaged during small group, peer-led discussions of topics in their social studies textbook. The primary focus that drove this research was specific ways fifth grade students make meaning during small-group, peer-led discussions of texts selected by their teacher for instructional purposes. In this study, the term *meaning making* refers to what a student says when he or she connects the relationship between the information encountered in the text with ideas that individual already has regarding the content (Palincsar & Brown, 1988). Further, as students exchange ideas and interpretations in a social group, they often derive new understandings as they

interact with one another during the event (Almasi, 1996). Specifically, the central research question was:

1. In what ways do fifth grade students make meaning of informational text during small group, peer-led discussions?

#### *Participants and Setting*

The participants in this inquiry included this author, one teacher, and her twenty-five, 5<sup>th</sup> grade students from one suburban elementary school in the Midwest. The author secured approval from the Institutional Review Board to conduct this research inquiry prior to data collection. Through an acquaintance, the author was introduced to an elementary school principal who identified one teacher whose philosophy of teaching reading includes having students participate in small group discussions of text they have read. This teacher, the parents and twenty-three fifth graders agreed to participate in the study by signing consent and permission forms. At the beginning of the study, two focal groups consisting of five students each (all had returned signed permission forms) were selected by the teacher as participants in this case study. Students' informational discussions from all groups were audiotaped, and although all audiotapes were transcribed, only the transcriptions of discussions for the two focal groups were analyzed. Although there is cultural and ethnic diversity among the students attending Thomasville Elementary (pseudonym) the majority were Caucasian from middle and upper-middle class households. Thomasville serves students from kindergarten through fifth grade. None of the students in Ms. Ann's fifth grade class received free or reduced priced meals. Pseudonyms are used for all participants and the school identified in this inquiry.

#### *Research Design*

This study used a qualitative case study design to investigate meaning making talk of fifth-grade students engaged in small group, peer-led discussions of informational texts. Although it explored and described events that occurred during this inquiry, it contains some quantitative elements to support its findings. The phenomenon or unit of analysis is the meaning-making talk in which

students engaged in during discussions of texts. A case study is an intensive examination and detailed description and analysis of a single entity or event (Lincoln & Guba, 1985; Stake, 1995). Case study research provides value-laden description and interpretation and is presented without researcher bias as much as possible (Creswell, 1998). Emphasis is placed on the research process, rather than on possible outcomes (Merriam, 1988).

Case studies have been used extensively as a research methodology in education and other social science fields. To be classified as a case study, the phenomenon under study must be a bounded unit (Merriam, 1988; Stake, 1995) where the bounded unit limits the amount and type of participants, data collection tools, time frame for data collection, and the extent of the phenomena to be studied (Merriam, 1988). Several important features exist within case study research, for example, a naturalistic setting, extensive participant observation, on-going interviews, careful recording of events in the setting through detailed field notes, numerous data and artifact collection, continuous cross checking for patterns, analysis of data and major themes, interpretative data of the observed events, and a thick narrative description (Creswell, 1998; Stake, 1995).

A qualitative case study design was selected for this inquiry because it allows for in-depth examination and detailed description on how peer talk impacts students' understanding of informational text during small group, peer-led discussions. A case study design criterion applies to this inquiry because the participants, data collection, and time frame are bounded. This bounded unit included a small number of students from one fifth-grade classroom, selected data collection tools, a six-month time frame for data collection, and specific ways students make meaning of informational text. Through the exploration of peer discourse, this inquiry illuminated specific instances of students' meaning making talk as they engaged in discussions of texts they had read.

#### *Data Sources and Collection*

This inquiry is a segment of a larger study that was conducted across six consecutive months from January through June. Data sources consisted

of: (a) individual and group interviews with the students, (b) teacher interviews, (c) audio tape recordings, (d) transcriptions of the audiotapes, (e) observational field notes, (f) and students' artifacts. These data sources were collected to formulate possible answers for the research question and to consider implications for future research. Data were collected throughout the study. Ms. Ann, the classroom instructor, often placed students in small groups of five, and sometimes rotated group members depending on instructional purpose and student's needs. However, due to the nature of this inquiry, the two focal groups remained intact for all informational social studies discussions. The groups were heterogeneous for reading ability based on their most recent test scores on a school district reading assessment that measured word recognition, fluency, and listening and silent reading comprehension. Members in the two focal groups were all proficient English speakers, and did not qualify for special services during the scheduled reading time.

Several teachers at Thomasville Elementary fold student discussion of texts into their routine instructional practice; therefore, this was not a new or novel learning context for the majority of Ms. Ann's students. Nevertheless, upon their return after the holiday season, students reviewed their familiar discussion practice on how to talk collaboratively about text in small, peer-led groups. Using the structure implemented at the beginning of the academic year, all of the students participated twice a week for thirty minutes in small group, peer-led discussions of teacher-selected social studies text.

Although the author was present in the classroom for two hours once a week throughout the study, informational text discussions were observed and audiotaped once a month for four months. Therefore, this data set was comprised of a total of 8 small group, peer-led discussions for a total of four discussions per focal group. Each discussion lasted thirty minutes for an overall total of 4 hours of audiotaping across 6 months. These teacher-selected social studies texts were part of the students' already established classroom curriculum, but were never read nor discussed by these two groups of students. The selected texts were fully

intact chapters; therefore, their length enabled discussion of the entire piece in one session. During the informational text discussions in which data were collected, field notes recorded the discussion context. Close observation were possible by sitting just outside of the groups and alternating between them, that is, during discussion 1, the author's focus was on Group A, and during discussion 2, the focus was on Group B. This alternating pattern continued throughout the study. The author's stance as an observer was that of participant observer.

#### *Data Analysis Procedures*

Data analysis was conducted as a simultaneous activity with data collection. The audiotapes of the students' small group, peer-led discussions were transcribed verbatim. Following transcription, students' talk was coded using the constant comparative method of data analysis to examine for emerging patterns and themes throughout the discussions (Glaser & Strauss, 1967). The author's coding scheme was influenced by a previously validated instrument for coding discussions of text (Chinn et al., 2001). Their coding system provided for the following: connections across text; elaboration of texts; predictions; explanations; coordinating positions with evidence; co-construction of ideas; and articulation of alternative perspectives. Data analysis was ongoing throughout the study and the coding scheme was applied during multiple readings of the collected data and future data collections. The repetitive readings of the data set and close attention to coding enabled the author to capture and illuminate instances of students' meaning making talk.

#### *Reliability of Coding*

After the author had finalized a coding scheme, two raters were asked to assist in validating the author's perception of meaning making talk, and to help establish reliability. One doctoral candidate in reading education and one third grade teacher were asked to assist the author with coding students' talk of informational text discussions. The raters received specific training instructions from the author and were asked to independently code two informational transcripts. During the training session, the raters were asked to read through the

transcripts once to determine if there was a need for clarification. Additionally, both raters and the author reviewed the definition of terms in the codebook to check for agreement on the meaning of each term. To train the raters, the author used the categories outlined in the codebook and modeled with one complete transcription that was not part of the raters' transcription packet. Differences in coding were resolved through rater's discussion. Figure 2 displays the levels of consistency among the two raters, as well as the author. Inferences regarding reliability can be assured when the correlation of consistency among raters is above .8, however, tentative conclusion may be drawn from correlations that range between .67 and .8 (Krippendorff, 1980).

Consistency of Coding Scheme

Text	Author & Coder 1	Author & Coder 2	Coder 1 & Coder 2	Author & Coder 1 & Coder 2
Plymouth Colony	.84	.87	.82	.74
Colonial Economy	.83	.84	.80	.73

### Credibility

Credibility in qualitative research focuses on description and explanation and whether or not the explanation fits the description (Janesick, 2000). This study's credibility was determined through data triangulation (Lincoln & Guba, 1985). To increase credibility of the study, triangulation of the collected data sources were cross-examined to check for patterns and key phrases within each category. Triangulation is a way of increasing the validity in qualitative analysis. This strategy uses different methodologies and various sources of evidence to gain an in-depth understanding of the

phenomenon in question with the assumption that these multiple sources will offer convergent results (Mathison, 1988). The use of multiple sources can clarify meaning and verify the repeatability of an observation or interpretation (Stake, 1995). The rationale for this strategy is that the weakness of one method can be the strength of another; therefore, a combination of methods will result in the strength of each, thus ultimately compensating for any deficiencies (Denzin, 1978, cited in Mathison, 1988). In case studies, credibility is research that is plausible, trustworthy, and defensible (Johnson, 1997). In this study, findings were not drawn from one data source, but from the following data sources: transcriptions of audiotapes, transcriptions of interviews, field notes, participant observation, and students' artifacts. These combined sources substantiated understanding by identifying different ways the phenomenon was seen (Mathison, 1988).

### Results and Analysis of the Data

The purpose of this inquiry was to investigate how students make meaning of information texts during small group, peer-led discussions. This section presents the results and analysis of the discussion to answer the research question: *In what ways do fifth grade students make meaning of informational text during small group, peer-led discussions?* This study describes ways in which students make meaning of informational texts during small group, peer-led discussions. This data reflect verbatim transcriptions and close observations of the students as they engaged in discussions. Table 1 presents numeric data with specific examples of cognitive processes utilized during small group, peer-led discussions. Further, Appendix A (at the end of this article) displays the frequencies of cognitive processes for informational text used by Group A and Group B. There were 832 units coded as cognitive processes and since the number of responses for informational text and their coordinating percentages vary, the following range was developed to distinguish the level of responses: 1 – 4 = low; 5 – 9 = moderate; and 10 and above is considered high.



Table 1 – Numeric Data and Examples of Cognitive Processes

Cognitive Processes	Units	Percent	Example Segment
Connections across the same text	8	<1%	A typical segment stated during discussion of “Plymouth Colony” included, Henry: “They know how to live in the cold ‘cause they lived in England and Europe is cold ... it’s colder towards the North Pole than it is to the equator. So they had cold winters and they know how to make a fire, they know how to keep themselves with quilt blankets and if they could find any beaver or something and keep themselves up. They knew how to do some stuff.”
Elaborations of:			
Text to personal perspective	87	10%	During the discussion “Why They Came,” Kim placed herself in the story regarding how slaves were packed on the ships, she stated, “I wouldn’t want to be the person who is kinda like at the bottom in the middle cause people are packed so closely.”
Text to other text	10	1%	For example, during the discussion “Why They Came,” Carl made a connection to another piece of work when he said, “I read somewhere ... in one of my grandmother’s old books that in the 17000s, they say that people would take some of your family and keep them as captives ... ummm ... most of the time they would take your child or keep them.”
Text to larger world	31	4%	During their discussion of why Native Americans sat on the ground during the first Thanksgiving, Henry reflected on the text and connected the issue to the larger world in which he stated, “Cause like Chinese and Japanese people ... they don’t sit like at real tables ... they usually sit on the floor. And when they sit at tables, the table is like this high off the ground.”
Predictions of informational text	103	12%	. A typical segment of informational prediction was when Carl questioned why the Pilgrims chose William Bradford as their leader. To this question, Barbara speculated, “Probably ‘cause she showed some leadership in the past.”
Text based explanations	51	6%	An example was when Patrick provided an explanation to David’s question regarding farming in New England where he stated, “At that time, New England had rocky soil and they couldn’t farm and stuff ... they did a lot of fishing and ship making.”
Coordinating positions with evidence	27	3%	In this example, Henry explains to Carl the labor differences between indentured servants and slaves. He stated, “Indentured servants weren’t forced to ... like slaves ... who had to. But indentured servants had to offer ... had to offer to work for them ‘cause this person paid for their way and they knew they had to.”
Co-construction of ideas	98	12%	The following excerpt is taken from “The Colonial Economy” and the talk centers on the practice of slave owners preventing African American slaves to practice their own religion.

			<p>Barbara: “Why couldn’t the slaves practice their own religion? Like did they have to follow the religion of their masters?”</p> <p>Henry: They had no rights ... they were like dogs. To them [slave owners] ... slaves were like dogs. They can play with them all they want, they can tell them what to do, they can put an ankle bracelet on them.”</p> <p>Carl: Yeah ... but ... “</p> <p>Liz: They [slave owners] owned their lives.”</p> <p>Carl: Yeah, but its cruel treatment. There’s no problem with them practicing their religion.”</p> <p>Liz: “To them it was.”</p> <p>Henry: “Came [slave owners] for religious freedom and take away their [slaves] religious freedom.”</p>
Articulation of alternative perspectives	51	6%	During one of the discussions, Barbara stated that George Washington basically won the war and upon reflection said that someone else could have won also, but it would be more difficult. To this statement, Margaret differed with Barbara’s comment and said, “It’s not like George Washington is fighting, George Washington is good, George Washington is doing all this stuff and everyone else is standing their letting him do it all.”
Questions:			
About text implicit information	161	19%	A typical example was the following where Margaret asked, “Olaudah Equiano ... umm ... it said in the excerpt ... from the excerpt of his autobiography that so many people were just cramped together that so many people died. What’s the point of cramping them altogether if the slave traders know that there’s going to be a lot dying and suffocating?”
About explicit information	34	4%	Segments included examples such as the one posed by Ellen, “Why was indigo so important to South Carolina?”
About confusions	9	1%	A typical instance was where the text explicitly indicated items the slave traders gave to African village leaders, but did not emphasize what was given in return. Kim took notice of this by saying, “I was confused about it ... they traded with Africa ... rum, and iron, and goods, and guns, and stuff like that, but it doesn’t show Africa giving them anything.”
Regarding ethical positions	2	<1%	One instance of this question dimension took place when Barbara asked, “Why couldn’t women sign the Mayflower Compact, but were expected to obey all the laws it talked about?”
Seeking evidence for claims	6	<1%	A typical example seeking evidence was when Liz asked, “Where do you see that?”
Seeking clarification	36	1%	An instance of this was when Carl queried “Wait ... wait ... do you mean after they did the revolt or before they did the revolt?”
Summarize	12	1%	In the following example, David recaps one section of the assigned reading,

			“Some farmers bought slaves from slave traders and slave traders were in the business of buying and selling slaves. Many slaves died because they were forcefully placed on the voyage.”
Interpretation	91	11%	The following example illustrates how Margaret tried to make sense of why women were not allowed to sign the Mayflower Compact, “And who ever made up that law ... who ever made that up ... maybe it was a man and maybe he said that they were the only ones who could sign and didn’t like women or something.”
Vocabulary	15	2%	The following transcript segment was taken from the discussion “Why They Came.” Barbara: “Okay ... and there was a word that I didn’t know in here ...” Henry: “What?” Barbara: “And it is per-por-sis or something.” Carl: “Purpose.” Barbara: “P-o-r-p-o-i-s-e-s.” Carl: “That’s porpoises ... they’re like little dolphins. They’re kind of like ... wait a minute ... they’re kind of like a cross between a whale and a dolphin. Only they’re not huge ... but their face is like a dolphin.”

## Discussion

Results from the data analysis demonstrated that the fifth-grade students in this study initiated and maintained meaningful talk of written text in peer-led settings with minimum teacher intervention, but they can benefit from additional teacher guidance to further their understanding of relevant issues when discussing social studies texts. In the past decade, many teachers began integrating informational texts as part of their reading instruction. Informational text is a valuable source from which to learn limitless topics (Pappas, 2006). Further, informational text can enrich knowledge and stimulate interest as it can provide accurate accounts of people and places, introduce academic and expanded vocabulary, clarify facts, and increase curiosity about the natural and social world (Martin & Duke, 2011).

As shown in Table 1, the fifth graders implemented numerous cognitive processes to expand their understanding of informational text during small group, peer-led discussions. The following section presents possible explanations for

findings regarding categories ranked 10 and above. Included are two categories that fell into the moderate range. Analysis of cognitive processes engaged during informational text discussions revealed that elaboration accounted for 128 responses or 15% of meaning making talk. Further, when elaborations were analyzed in terms of their dimensions, Elaboration of text to personal perspective received the largest amount of responses at 87 or 10% where students gave personal examples related to content; followed by Elaboration of text to larger world at 31 responses or 4%. The smallest number of responses in this category fell in Elaboration of text-to-text at 10 responses or 1%.

A possible reason for these results can be attributed to the instruction students receive on drawing connections and relating their own knowledge to that of the text. For example, in one review lesson on learning how to participate in discussions of informational text, students were required to elaborate on a given topic by recalling

prior knowledge and experiences and integrating it with incoming information.

In this study, students frequently placed themselves in the positions of the early American settlers and expanded their views on how life would be different for them. Since the discussion texts consisted of social studies lessons regarding early settlers in colonial America, the students drew connections to what they knew regarding places, events, and people in the text. Occasionally, students elaborated on what they had read or seen in other texts, movies, and television shows. The students were capable of making text-to-text connections since they had read numerous books and researched multiple internet sites to obtain information to help design a colonial American community. Maybe students thought it irrelevant to talk about text-to-text connections, thus resulting in a low level of responses in this category. Or perhaps making intertextual connections is a more sophisticated skill and needs additional practice, or requires more mental maturity and exposure to topics under discussion.

When making predictions during informational text discussions, students often talked about the type of content they will encounter in the book, which usually included a hypothesis about why an event might occur or the definition of a word. Analysis revealed students made 103 responses or 12% of meaningful talk regarding predictions. This can be explained through the use of three techniques based on students' prior experience. First, when faced with an unfamiliar word, students knew how to apply context clues to predict the meaning of the word. Second, they asked for help from a peer. Third, students were somewhat familiar with the Anticipation/Reaction Guide, a technique that required them to anticipate or react to teacher, peer or statements from a text. Anticipation/Reaction Guides allow for activation of prior knowledge and prediction to statements before reading a specific text section. After agreeing or disagreeing with the given statements, students read the text to confirm or reject their predictions.

The ability to effectively collaborate to make meaning of text can be attributed to the co-construction of ideas among all participants.

Students can improve their understanding of informational text by applying what they read to the flow of ideas being exchanged within the group, where responses are clarified, extended, and modified (Mazzoni & Gambrell, 1996). Analysis indicated 98 responses or 12% of talk featured aspects of co-construction of ideas. One probable cause for this result may be the students experience with Discussion Webs, a graphic organizer technique that encourages students to work in pairs. After reading a specific piece of material, students are provided with a teacher or peer created thought provoking question where they discuss and argue for and against the question idea (Almasi, 1991). Pairs of students then partner with another pair and the four compare and contrast their written responses. Author's field notes did not capture this activity, however, the teacher reported that students received instruction and had some experience with this technique.

Questioning as a comprehension strategy allows students to ask, clarify, and obtain information about concepts they want to learn more about (Moffett & Wagner, 1991). Students ask questions to monitor their comprehension, actively process information, and construct new knowledge (King, 1999). Analysis revealed that questioning accounted for 248 responses or 30% of meaning making talk. Further, when the questions were analyzed in terms of their dimensions, Text implicit questions received the largest number of responses at 161 or 19%. Text explicit received 34 responses or 4%; Confusion received nine responses or 1%; Ethical positions received two responses or less than 1%; Evidence for claims received six responses or less than 1%; and Clarification received 36 responses or 4%.

It was interesting to see the large number of implicit questions generated by the students. One possibility for this result might be the students' interest level in reading and talking about informational texts. This behavior might be attributed to the teacher's expectations that all students come to the discussion with at least five prepared questions, including knowledge-based ones where information cannot be recalled simply by looking at the text. Some researchers



(Scardamalia & Bereiter, 1992) have concluded that students who verbalize knowledge-based questions that require elaborative responses and alternative explanations deepen their comprehension abilities.

It is widely agreed that asking text-based questions can generate a deeper understanding of material. Asking questions was found to facilitate learning when the questions are ones that require higher order thinking (King & Rosenshine, 1993) as in implicit type questions which requires student to go beyond the text to critically thinking about how that information relates to what is already known (King et al., 1998). Implicit questions include “why” questions which encourage students to integrate their prior knowledge and experience with information in the text (Menke & Pressley, 1994). According to the analysis, students posed 161 implicit questions during the discussions. This was an intriguing finding and one speculation is that in addition to being taught how to generate higher level questions, the students in this study were given multiple opportunities to practice this strategy especially in small group discussions. Field notes recorded the teacher reviewing and reminding the students on numerous instances to use the Question Answer Relationship (QAR) technique to find information in their social studies textbook. The QAR technique shows students how to read a text in order to answer questions. It enables them to consider and integrate their own prior knowledge with text material to answer questions (Raphael, 1985).

Although the questioning category generated the largest number of responses, a closer inspection of discussion transcriptions revealed that the students questioned and talked about moral judgment only two times. This was surprising since all of the informational texts were within the social studies textbook. On several occasions, various students raised questions regarding behaviors and decisions undertaken by people who were once a prominent part of this society. For example, transcriptions included the following questions: “Why did they just come and take away other peoples’ land.” “Why send people to fight a war but don’t give them the things they need to fight the war?” “Why did some people treat other people like

animals?” “Why did women not have equal rights, but had to do all the hard work?”

Extended talk about these practices were rarely discussed or ignored altogether. When a student posed one of these questions, none of the others questioned whether it was right or wrong or how it might have affected the lives of the people involved. Perhaps students were unable to talk about these issues because they lacked sufficient background knowledge, were not interested in these concerns, or because they do not understand that humans must study the past to project the future. One student simply said what many believe, “Oh well ... it’s the past and you can’t do nothing ‘bout it now.”

The following excerpt presents students’ talk pondering a moral issue:

Barbara: “Why couldn’t women sign the Mayflower Compact, but were expected to obey all the laws it talked about?”

Liz: “Were men believed to be better than women or was it just the rule?”

Margaret: “I think it was just the rule.”

Henry: “I think it was just the rule.”

Margaret: “And who ever made up that law ... who ever made that up ... maybe it was a man and maybe be said that they were the only ones who could sign and he didn’t like women or something.”

Barbara: “Yeah.”

Henry: “Cause women ... to them back then ... women were stupid to them ... to other men. That’s not how it is though ‘cause half the girls in this class are smarter than me.”

Although students were interested in the topic, they appeared to have limited information

regarding inequality of gender and discriminatory factors, or perhaps their age and experience can be held accountable for this limitation. Margaret made the correct assumption that the rule was created by men, but did not have the knowledge to share that women were considered inferior and the property of men. Henry then correctly reasoned that men viewed women as people of lower intelligence and clarified it is not reality.

The other example of ethical judgment incident occurred as the students tried to make sense for reasons why the British and French invaded Native American territory.

Kim: "Why were they trespassing?"

David: "Because they're trying to get their own land."

Kim: "No, they had their own land, so why are they trespassing to get other peoples' land?"

Barbara: "'Cause they're greedy."

Ellen: "Because they're filled with greed."

Patrick: "They wanted ... tried to destroy nations to get their land."

Kim: "Well they can fight over it and be like bullies."

Ellen: "I think they just wanted to overpower other people and take their land."

Kim: "Or they can trade."

Patrick: "But that didn't work."

Ellen: "Well, if they see other people having richer land than them ... they just would go take it."

The students initiated this discussion by questioning the intent of the invaders. Kim posed an important text related question that developed a context for other group members to join in. Although they did not explicitly question whether

forceful confiscation of another's property is right or wrong, they did come to an understanding that greed probably influenced some people to do horrible things to others. Within a social studies context, students must be able to contribute their ideas about democracy, civic participation, and decision making and present reasoning based on the ideas or questions posed by others. Peer discussion regarding reasoning about social justice and fairness is essential in a democratic society and for good citizenship. (Kruger & Tomasello, 1986) emphasized that students who discuss moral dilemmas with peers increase their higher level reasoning skills. In her work with elementary preservice teachers, McCall (2011) offers a number of important ideas to help students think at a deeper level when teaching social studies content.

Interpretation can significantly increase students' understanding of written text. To create interpretations, students read between the lines and use inferences to supply information not stated in the text. Questioning prompts that move students beyond literal reading to more critical examination of the authors' intent and filling in the gaps is considered an interpretive strategy (Beck et al., 1996). Analysis of informational text discussions revealed that students provided 91 comments or 11% of meaning making talk related to interpretations. Students' knowledge and experience in visualizing and inferring may have contributed to their understanding of making interpretations when reading and discussing informational texts.

Students supported the ideas of others, helped to fill a gap of missing information, and problem solved during discussions. The following segment took place while they discussed "Why They Came" where several group members helped Margaret to understand an idea not explicitly stated in the text.

Margaret: "Okay ... it said Olaudah Equiano or whatever his name is ... was enslaved in 1756 when he was 11 years old. Why do you think they enslaved people who were that young?"

Henry: "Because they took your family and if you were an African American woman that they sold or capture ..."

Liz: "Then they would probably steal or sell your child."

Henry: "If you're the mom ... they would take you and your child and maybe fifty percent of the time ... if you were lucky, you could keep your child with you."

Margaret: "They took your kids from you?"

Henry: "Yeah ... they took your kids from you."

Carl: I read somewhere ... in one of my grandmother's old books that in the 1700s they say that people would take the family and keep them as captives ... umm ... most of the time they would take your children and kill them or just keep them."

Margaret: "Why?"

Carl: "Probably because they don't want the family to continue and they don't want it to be about stealing, so they just wanted to kill them right then."

In this excerpt, the students' collaborative talk enabled Margaret to better understand possible reasons young African American children were enslaved. These speculations were inferences drawn from the students' prior knowledge and information read in other texts. Additionally, attention to peer talk was so high that Liz was able to complete Henry's thought.

### Limitations

There are several limitations to this study and these restrict the generalizability of the research findings. First, the participants consisted of a small homogeneous grouping of predominantly Caucasian

students from middle to upper-middle class households in a suburban community. Replicating this study with a much larger population and expanding it to include students from various cultural, ethnic, and socioeconomic backgrounds may provide additional insights. Second, this study did not compare this group of students with another from a different school or classroom. Thus, results of small group, peer-led discussion contexts may vary with students from urban and rural classrooms, depending on the type of instruction provided and experience with discussion practices. Third, no measures were built into the study to examine the possibility for specific outcomes gained. This study was not an intervention; instead, the focus was to observe and record ways students make meaning of texts during small group, peer-led discussions which were part of their normal classroom practice. However, measures have the ability to show growth over time and inform new understanding; therefore, future research in this area should compensate for this element. Fourth, all texts were teacher selected from the regular classroom social studies curriculum. Future research should investigate similarities and differences exhibited when students are allowed to self-select texts based on interest level compared to teacher selected texts.

### Implications

This study demonstrated that student-centered instructional format of small group, peer-led discussion offers promise in helping students to practice, develop, refine, and extend numerous cognitive processes as they pursue a better understanding of informational text. Peer-led discussion is not a magical activity for cognitive development; it is the quality of talk that occurs during the discussion, which results from the type of instruction provided to students. Talking as an act by itself does not necessarily promote comprehension. Research suggests that certain instructional context (Almasi, 1995; Maloch & Bomer, 2012; Martinez & Roser, 2001), type of text (Martin & Duke, 2011; Maloch & Horsey, 2013), interest level and preference (Duke, 2004), and the use of numerous cognitive processes (Beck et al., 1996; Chinn et al., 2001; King et al., 1998; King &

Rosenshine, 1993; Mazzoni & Gambrell, 1996; Raphael, 1985) apparently enhance and deepen students' understanding. As part of their instructional practice, classroom teachers may want to consider allowing multiple opportunities for students to engage in meaningful conversations about informational texts.

## Conclusion

Over a century ago, John Dewey observed that schools fail to equip students with essential tools to participate successfully in society. Dewey argued that schools impede children's natural instinct of becoming socialized, a process that is critical to language development and learning experiences. More recently, educational policies are possibly discouraging elementary classroom teachers from providing adequate opportunities for students to communicate meaningfully with one another in student-centered learning activities. This study explored and described ways fifth grade students make meaning of informational texts during small group, peer-led discussions. It demonstrated that this type of discussion format allowed students to take risks as they practiced, developed, and refined numerous cognitive processes that research advocates as meaning making. More specifically, high occurrences were documented of students elaborating, making connections, making predictions, co-constructing ideas, questioning, and interpreting while discussing social studies texts. Findings suggest that small group, peer-led discussion holds potential for examining how students use a variety of comprehension skills to make meaning of informational texts.

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## Appendix A – Cognitive Processes for Informational Texts

Cognitive Processes	Group A	Group B	Percentage Total
Connections across the same text	4	4	-1
Elaborations of:			
Text to personal perspective	43	44	10
Text to other text	4	6	1
Text to larger world	25	6	4
Predictions of narrative text	66	37	12
Text based explanations	24	27	6
Coordinating positions with evidence	18	9	3
Co-construction of ideas	65	33	12
Articulation of alternative perspectives	27	24	6
Questions:			
About text implicit information	113	48	19
About explicit information	17	17	4
About confusions	6	3	1
Regarding ethical positions	1	1	-1
Seeking evidence for claims	6	0	-1
Seeking clarification	26	10	4
Summarize	0	12	1
Interpretation	67	24	11
Vocabulary	6	9	2