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CREATING OPPORTUNITIES FOR LEARNING: PLAY AS A SCAFFOLD FOR FORMAT BASED INFORMATIONAL TEXT FEATURES

by

SUSAN DANDALIDES

DISSERTATION

Submitted to the Graduate School

of Wayne State University,

Detroit, Michigan

in partial fulfillment of the requirements

for the degree of

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Approved By:

Advisor

Date

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CHAPTER 1

Introduction to the Study

During my teaching career of more than twenty years, instructional emphasis has changed as policy makers balance national economic concerns with educational outcomes (Afflerbach, 2005; McDaniel, Sims, Miskel, 2001). Much of the focus has been on improving reading performance with research-based instruction and assessment (Coles, 2004; Garan, 2005; NICHD, 2000).

Current research has focused on fluency and accuracy as indicators of reading ability (Altwerger, Jordan, Shelton, 2007; Fuchs, Fuchs, Hosp, & Jenkins, 2001; Good, Kaminski, Simmons, & Kame'enui, 2001; Rasinski, 1990). In the early grades, students are expected to quickly and accurately identify letters and sounds, while older students are expected to read an unfamiliar grade level passage fluently (Good, Kaminski, Simmons, & Kame'enui, 2001). These quantitative measures provide a quick comparison of students and classrooms, which may have unintended results. If students and teachers are judged by how quickly students read, fluency assessments, in and of themselves, may drive instruction. An increased allocation of instructional minutes to the goal of performing well on reading assessments may supersede the goal of skillful reading that includes comprehension and critical literacy. (Afflerbach, 2005; Johnston & Costello, 2005).

The current emphasis of beginning reading instruction on phonics and fluency seems to ignore other factors that support students as they begin formal instruction. In particular, the current atmosphere seems to disregard that students are active participants in their own learning outside of the school setting and that students arrive at school with knowledge about print and other multimedia texts (Cook, 2005; Pahl, 2002). They learn that print is meaningful by participation

in the social context of their everyday lives. Examples of this include learning to write their names and other personally important words and by associating logos such as the stylized M that represents McDonald's to the goods and services they represent. Upon arriving at school, interaction with texts can become decontextualized, especially if reading instruction focuses on lower level skills (Harste, Burke & Woodward, 1982; Mason & Allen, 1986; Smagorinsky, 2001). Reading environmental print is replaced with sounding out the letters in words and blending the sounds to "read" nonsense words or reading simple texts with contrived sentences such as "The cat sat on the mat". Nonsense words and contrived sentences do not carry the same meaning as contextualized interactions with print that occur naturally during out of school experiences (Neuman & Roskos, 1997).

Because reading can become decontextualized, students may approach texts in a fragmentary fashion. As an example in my experience, young readers often ignore format based informational text features that are used by authors to aid comprehension. Table of contents, headings, tables and charts are often disregarded by early readers. It seems as if many young readers are focused on reading the words and are unaware of other information that may actually help them read and comprehend texts. Reading that is meaningful and provides opportunities for students to spend time engaged with the text can help change the focus of early reading. Purcell-Gates, Duke & Martineau (2007) investigated the impact of explicit instruction in conjunction with authentic informational reading and writing tasks. They found authentic tasks alone were as effective as authentic tasks paired with explicit instruction. Students learned about text features while engaged in authentic tasks without explicit instruction from a teacher. This supports my experience that meaningful literacy activities in the classroom seem to match the out of school literacy experiences that self-propel students to develop literacy skills.

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Research demonstrates that students can and do learn necessary reading subskills such as alphabetic knowledge and decoding during explicit instruction (Ehri, et al, 2001; Good, Kaminski, Simmons, & Kame'enui, 2001). Questions remain, however, whether reading subskills are sufficient for the literacy capabilities that our students need (Cope & Kalantzis, 2000; Johnston & Costello, 2005). Reading instruction in the early grades must foster the understanding that reading is meaningful. Activities that are authentic and build on ways of knowing that are appropriate for our youngest students will link the knowledge that students bring to school with beginning reading. For young students, play is an authentic, meaningful activity that can serve the interests of literacy (Christie, 1991; Eisner, 1990; Maduram, 2000; Newman, 1990; Pellegrini & Galda, 1993). Helping our students develop literate lives requires us to combine the best of research about formal instruction and the informal ways students develop their understandings of print.

The introduction to this study will begin with the complexities involved in defining literacy and why it is necessary to carefully consider how we characterize what it means to be literate in our society. I will then examine factors that are narrowing the focus of reading curriculums, the potential impact of a narrowed curriculum and will propose that an expanded view of literacy and developmentally appropriate reading instruction has the promise to improve real world literacy for our students.

Defining Literacy in the Twenty-First Century

Literacy has been defined in many ways over the course of our country's history.

It is an ever changing target depending on who is providing the lens by which it is conceived. Roberts (1995) investigated the changing definition of literacy and noted that it is described differently depending on whether a quantitative or qualitative lens is used. From a quantitative perspective, the number of years of schooling or percentages correct on summative evaluations is a sufficient standard by which to judge literacy (Roberts, 1995; Stedman & Kaestle, 1987). For those who use this standard, literacy seems to be synonymous with decoding and comprehending text. Others, however, view literacy as a social practice and demand more than a quantitative view of reading and writing. From a qualitative viewpoint, literacy as a singular notion may be too restrictive to truly define literacy in the twenty-first century. Persons can have basic, minimal competencies in reading and writing in a school setting, but be highly literate in other multimodal activities (Roberts, 1995; New London Group, 1996; Moje, Cichanowski, Kramer, Ellis, Carrillo, Collazo, 2004; Knobel, 2001). Multimodal activities are described as those situations where "written linguistic modes of meaning interface with visual, aural, gestural and spatial patterns of meaning" (Kalantzis, Cope and Harvey, 2003, p. 18) such as the ticker tape text that scrolls across the bottom of a newscast or the page layout designs that include text, photographs and spaces intentionally left blank on a page to convey meaning that extends beyond the text. Lee's (1995) research on signifying provides an example of a disconnect between real world multimodal discourse and academic discourse. Students who understood figurative language during social discourse did not always apply this same knowledge to understand figurative language while reading. This example illustrates that it is not correct to assume that a skill that seems lacking in one domain is indeed not understood in a different situation. This can be applied to early reading skills. A child can be unsure of a long vowel sound such as in the word cake, but read the word easily in a meaningful sentence.

The term multiliteracy has been used to capture the idea that literacy is more complex than decoding the words on a page. Literacy encompasses the ability to create and understand a variety of multimedia texts. Informal practices that are supported by families, as well as individual experiences with a variety of media, impact literacy learning. A different perspective is taken by those who advocate that learning to read is the first step to literacy. From this point of view, formal instruction marks the beginning of literate lives for our students. It assumes a linear growth beginning with phonemic awareness, accompanied by formal practice with the alphabetic code, followed by a progression to decoding. Proficient readers are those who meet specific criteria for reading rate, accuracy, and comprehension. The presupposition is that these skills build upon one another and eventually lead to mature reading and writing, the hallmarks of literacy (Gough, 1972; LaBerge and Samuels, 1974; Adams, 1994; Perfetti, 1995; Good & Kaminski, 2001). From this viewpoint, a child who reads at a slower rate, but thinks deeply about a text is, nonetheless, a disabled reader in need of corrective instruction. A reader who pauses after reading a heading, rereads a sentence with italicized or bold words or scans a graph before continuing to read, will necessarily be a slower reader, but it does not necessarily follow that this indicates reading difficulty. Multiliteracy research framed in semiotic theory suggests that we can unknowingly position students as unsuccessful if we assume that reading rate is the same thing as literacy (Dyson 2001; New London Group; 1996, Fisher, 2000; Siegel, 2006; Luke & Freebody, 1999). Reading rate is a simplistic definition that does not capture the complexity of literacy that has been driven These complexities "require locating, comprehending, using, by technological advances. critiquing, and creating texts within personal, social, educational, historical, cultural, and workplace contexts" (Zammit & Downes, 2002, p. 4). Examples of these are following the links of hypertext embedded in an online article, judging the reliability of an unvetted resource or the ever-changing lingo and informalities in e-mails. For my research I will use an expanded view of literacy that assumes reading rate is not an adequate measure of literacy.

The manner in which we define literacy has an impact on how we view reading instruction. A quantitative measure such as years in school or a reading level can impact reading instruction (Roberts, 1995). In the next section, influences that impact reading instruction and have the potential to restrict curriculum will be examined.

Influences on Curriculum

The Influence of Reading Policies

Aspects of our political climate are, perhaps unwittingly, restricting reading curriculums. Quantitative data is being championed as the one true measure. The trail of evidence begins with the National Reading Panel Report (NRP) (2000) which only considered experimental and quasiexperimental research (Shanahan, 2003; Garan, 2005), signaling that quantitative data provides better evidence than qualitative data in educational research. Indeed, states which applied for grants under the Reading First Initiative were pressured to use texts that matched the phonics findings of the NRP (Manzo, 2005). Reading instruction that did not focus on subskills for early readers was discouraged by these politics. Continuing the same focus on quantitative data, the What Works Clearinghouse (WWC), a database managed by the US Department of Education, provides information about educational interventions that can be used to help struggling students. The stated goal of the WWC is to be a "central and trusted source of scientific evidence for what works in education" therefore all interventions have been researched using a quantitative experimental design (U. S. Dept. of Education, 2011, WWC Procedures and Standards Handbook, p. 1). Clearly, reading assessment and instruction is being driven by a trend toward quantitative data as an accurate description of reading ability. Aspects of early reading that are most amenable to quantitative measurement are those with a ceiling such as phonological knowledge, alphabetic knowledge and reading rate. Other important aspects of reading such as comprehension, vocabulary, and understanding of text structure, which grows incrementally, are harder to measure and seem to be overlooked by these policies.

Policy makers also influence instruction through mandated curriculum. The architects of the Common Core Standards (CCS), which have been adopted by 48 states (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010) have developed a curriculum centered on college and career readiness. Although the creators repeatedly deny that this is a national curriculum, it is one, in essence because 96% of our public school students will be impacted by the new program. A focus of the CCS reading curriculum is a growing emphasis on informational text as students progress through school. Research suggests that expository text is enjoyable for early readers, but can be more challenging to read. Lack of topical background knowledge, text structures and features that are unfamiliar and lack of access in many classrooms are some of the reasons why expository text is more difficult for students to read (Duke, 2000; Neuman, 2001; Chall & Snow, 1988; Coté, Goldman, & Saul, 1998, Williams, Hall, Lauer, Stafford, DeSisto, & deCani, 2005; Herman, Anderson, Pearson, & Nagy, 1987). These factors, combined with the emphasis on fast and accurate reading seem to be at odds with the mandate to increase student reading of informational text. Instead of a focus on lower level skills, we need reading policies that encourage students to monitor comprehension and use text structure and text features as an aid to comprehension – strategies that will likely decrease reading rate, but boost comprehension. These higher level metacognitive skills are difficult to measure, but are crucial to mature reading and should not be pushed aside by policies that leave little room for them. My research will investigate one aspect of higher level metacognitive skills; young readers' knowledge of text features and a method by which they may become more familiar with them.

Testing and Curriculum

Calls for school reform to improve student performance have been bantered about for more than 50 years (Borman, Hewes, Overman, & Brown, 2003). A focus on teacher accountability has been part of the reform movement (Berends, 2004; Borman, et al, 2003). Holding teachers accountable for student performance seems likely to increase student achievement. Indeed, there is much evidence that focus on specific reading skills leads to increased ability in that area (Fuchs & Fuchs, 1986; Hamilton & Shinn, 2003; Stanovich, 1986). For example, students who practice reading nonsense words show a greater ability to read nonsense words, an indicator of letter sound knowledge (Tierney & Thome, 2006). What is not as clear is whether the gains in isolated reading skills such as the alphabetic principle or phonemic awareness results in gains in reading ability (Duffy, & Roehler, 1987; Paris, 2005; Altwerger, 2007; Kuhn & Stahl, 2003).

Teacher accountability is often determined by student outcomes on tests (Cochran-Smith, 2003). Testing is costly in terms of time and resources (Cochran-Smith, 2003; Marchant, 2004). In an effort to balance the need for measuring student achievement against the cost, it is no wonder that our schools must turn to quick and simple testing. Reading fluency is one area that can be measured quickly and inexpensively. Reading fluency is used as a proxy for reading ability (Good, Kaminski, Simmons, Kame'enui, 2001; Fuchs, Fuchs, Hosp, & Jenkins, 2001; LaBerge & Samuels, 1974; Nathan & Stanovich 1991; Zutell, & Rasinski, 1991). As a snapshot of student achievement, it provides a piece of data to consider when assessing student reading ability. When considered along with other measures of reading, it does not seem harmful. In reality, however, fluency as a proxy for reading can become distorted. Instead of using fluency as a measure, it can drive instruction, which may result in a narrowed curriculum. Other aspects of reading such as comprehension, vocabulary, critical thinking and other higher order skills can be pushed aside to

allow more time for fluency practice (Edmondson, & Shannon, 2002; Allington, 2002b; Garan, 2005; Yatvin, Weaver, & Garan, 2003). My research demonstrated how practitioners can provide reading instruction that reaches beyond reading accuracy and rate, providing a balance in reading instruction.

Increased Academic Pressure

Although the National Association for the Education of Young Children (NAEYC) designates birth to age 8 as early childhood (Neuman, Copple, Bredekamp, 2000; NAEYC, 2009) much of our current educational climate seems to disregard the primary grades as part of early childhood. Evidence for this is provided by the growing body of research on school readiness and concerns over the increased academic pressure in the early elementary years (Gullo, 1992; Shepard & Smith, 1988; Meisels, 1992; Kirkland & Patterson, 2005; NAEYC, 2009). Critics of the increased academic pressure for young students note that the pushed down curriculum may unintentionally create an atmosphere that encourages formal academic instruction. This transmission method of teaching however, may not allow adequate opportunities for students to construct their knowledge through developmentally appropriate activities such as movement, play, interactions with others and discovery (Adcock & Patton, 2001; Katz, 1999; Bodrova, 2008; Christie & Roskos, 2006). When combined with the pressure for students to do well on standardized tests as a component of teacher accountability, developmentally appropriate instruction for young students can be pushed aside. This research provided evidence that developmentally appropriate reading instruction that goes beyond fluency and accuracy practice can be offered to students to help them construct their literate lives.

Summary

All of these factors in the current political and scientific climate have worked to restrict reading curriculums. Research suggests that phonics plays a role in beginning reading, but that effective reading instruction must also include higher level thinking skills that are the hallmark of mature reading (Cope & Kalantzis, 2000; Johnston & Costello, 2005; Gray, 1954; Pressley, Roehrig, Bogner, Raphael, & Dolezal, 2002). Expanding our definition of literacy and matching it with balanced reading instruction may help our students more fully develop the reading skills needed for a literate society. My research used an expanded definition of literacy and provide opportunities for students to be involved with reading instruction that supports higher order reading skills from the beginning of formal reading instruction.

Developmentally Appropriate Reading Instruction

DAP as a Constructivist View of Learning

Developmentally appropriate practice (DAP) is a phrase used by NAEYC to describe educational settings that "characterize early childhood and primary grade classrooms in which students are engaged meaningfully in learning activities, use hands-on materials to support their learning, and actively construct their knowledge (Maxwell, McWilliams, Hemmeter, Ault, & Schuster, 2001). DAP is grounded in years of research on the development of young students, informed by constructivist theory (Camp, 2007; Quick, 1998). A major premise of constructivist theory is that thought processes of young students are qualitatively different than those of older students or adults. Ferriero (1990) described stages of literacy development that showed a qualitative change in alphabetic knowledge. Students at the earliest level of literacy development in the study displayed an understanding that there needed to be more than one letter for a word to be readable, while older students used an understanding of syllables to determine how many letters might be needed to write a word. For students at both levels, three letters may be sufficient to represent a word, but the reasoning behind their choices was quite different. This indicates a qualitative change in thinking. This is in stark contrast to the ideology behind information processing theories which view young students' thinking as differing quantitatively from that of adults or older students. Kirschner, Sweller and Clark (2006) provide an information processing perspective when defining learning as "a change in long term memory". LaBerge and Samuels (1974), who support an information processing view of reading advocate for automaticity in reading. Reading instruction differs depending on how child development and learning is perceived by those mandating reading policy.

In their joint position statement published by NAEYC and IRA regarding literacy instruction for young students, the authors call for developmentally appropriate practices for reading and writing instruction for young students (Neuman, Copple, Bredekamp, 2000). Among other recommendations, the IRA/ NAEYC (1999) called for play as a medium for students to learn the role of literacy in everyday lives, linguistic awareness, phonemic awareness and concepts of print. While not explicitly defined in the position statement, play can be seen as an important bridge between students and literacy acquisition.

The Power of Play for Literacy Learning

Play, a bastion of childhood, provides many opportunities for literacy learning. Research into the efficacy of play for literacy learning can be divided into two branches. One area of research considers the globalized benefits of play in terms of language use, symbolic transformation, and self-regulation (Piaget, 1962; Vygotsky, 1967; Smilansky, 1965; Bruner, 1983; Berk, 1984; Christie, 1983; Meade, 1999; Rowe, 1998; Wohlwend, 2007), while the other area examines aspects of play that impacts and/or predicts future literacy skills such as phonological awareness, emergent writing, and early reading (Pellegrini, Galda, Dresden, & Cox,

1991; Vedeler, 1997; Bergen & Mauer, 2000; Hanline, Milton, & Phelps, 2008). Whether the research focuses on wide ranging impact of play on literacy or specific aspects of play as they relate to literacy, the message is clear. Play has many positive aspects on early literacy.

A multiliteracy perspective also speaks to the power of play to teach reading and writing. Play has the power to create a permeable curriculum for young students. A permeable curriculum "allows for a dynamic interplay between students 'unofficial' worlds (home, peers) and the 'official' world of formal schooling" (Brass, 2008, p. 465). Play can act as a bridge between the world of the young child and the decontextualized texts that are the reality of school. Play also allows us to capitalize on the funds of knowledge of our students by encouraging our students to begin with what they know. It is easy to argue that play is a fund of knowledge for our young students because play is what students know and can do. By relating school learning to what students already know, we can build a bridge between formal educational goals and the world of the child (Moje, Ciechanowski, Kramer, Ellis, Carillo, & Callazo, 2004; Moll, 2000). Play can also provide engagement for our students. Engagement provides intrinsic motivation for our students as they make sense of print (Wilhelm 1995; Gallas, 2001; Coté, Goldman, & Saul, 1998). Making connections between play and literacy brings together decontextualized school based learning with a naturally engaging activity.

Social semiotics also provides a rationale for including play into the early childhood reading curriculum. Social semiotics is concerned with how people use signs as part of their life to make meaning. The meaning given to signs is dependent on the social context of the situation (Harste, Woodard & Burke, 1984; Lemke, 1989; Siegel, 2006; Vygotsky, 1935/1978). Semiosis refers to the process by which signs become meaningful. Siegel (2006) suggests that the transformation of a sign to something meaningful is multiplied "when meanings in one sign system

are transformed into another sign system" (p. 69). Students who have opportunities to develop a meaningful understanding of text by using the same sign in play seem likely to increase their personal understanding of the school sanctioned texts. Format based informational text features, such as bold words, heading and tables can become more meaningful when students have the opportunity to use these same features as they play.

Summary

With the current trend to emphasize the code based aspects of reading and writing, literacy can become narrowly defined as school sanctioned reading and writing activities. In the primary grades early reading instruction can focus on low level skills that make little room for meaning making activities that support reading comprehension and higher level reading skills. (Harste, Woodard & Burke, 1984; Wohlwend, 2008). The joint position statement of IRA and NAEYC recommends that students need not only the low level reading skill of automaticity, but opportunities to use these low level skills as they think and reason (Neuman, Copple, and Bredekamp, 2000). Encouraging students to use their natural predilection to play to build their literate identities seems a good practice.

Purpose of the Study

The purpose of this study is to explore how play, a naturally occurring activity of students, can enhance student understanding of format based informational text features used in informational texts. Text features such as headings and bold words, which are provided as an aid to comprehension, may go unnoticed by young students if reading instruction focuses on phonics and fluency instead of constructing meaning. When students have the opportunity to engage with format based informational text features through play, these special features of text are contextualized and become meaningful. This study will examine whether students who have some knowledge of format based informational text features learned through earlier direct instruction can use text features to organize their writing in a play situation.

Research Questions

1) How do second grade students incorporate their knowledge of format based informational text features into their writing during play situations?

2) What do second grade students know about format based informational text features after role playing in a literacy enriched play setting?

Rationale for the Study

There are two reasons to complete this research. The first reason is related to federal policies that have created an emphasis on the teaching of reading subskills in beginning reading instruction. The debate over the best method for beginning reading instruction has persisted for many years. Dubbed The Great Debate by Chall (1967), the issue can be boiled down to the degree of importance placed on phonics instruction for early readers. Over time, reading instruction seemed to find a middle of the road approach for many practitioners, with holistic reading instruction that included skills instruction, but was tailored to meet the needs of individual students (Pressley, et al 2002). However, the emphasis placed on phonics for beginning readers seems to be on the upswing, beginning with the recommendation s of the National Reading Panel Report (2000), which recommended synthetic phonics instruction in the early grades. Additionally, the No Child Left Behind Act (NCLB) (2001) called for all students to be reading at grade level by third grade. Reading in the NCLB (2001) document was defined using the findings of NRP (2000), with three out of five components based on code breaking skills. These two federal documents have signaled tacit approval for reading instruction that focuses on low level reading skills for beginning readers. This growing focus on speed and accuracy does not take into account the need to teach other components of reading from the beginning of reading instruction. This research will provide evidence that early reading instruction can extend beyond fluency and accuracy goals to ensure that reading is a meaning making activity. Play, which is a naturally occurring activity for students, can be used to enhance student knowledge of format based informational text features in a meaningful context.

The second reason concerns the texts used to teach basic skills of reading which may not provide the content vocabulary and background knowledge needed for our students. Researchers have recommended decodable texts for early readers (Snow, Burns & Griffin, 1998; Hiebert, 1999). Decodable texts are defined as texts that emphasize the letters and sounds that have been previously introduced to students (Stein, Johnson & Gutlohn, 1999) or texts that feature regular rime patterns (Hiebert, 1999). Neither of these criteria are appropriate for informational text. With the adoption of the Common Core Standards in 2012 (National Governors Association Center for Best Practices, 2010), the focus of reading instruction will shift to informational reading. An increase in educational minutes spent on the genre, in itself, is not a problem. Many have called for an increase in information texts in primary grades (Chall & Snow, 1988; Pappas, 1991; Pappas & Pettigrew, 1998; Duke, 2000; Dreher, 2003; Moss, 2005; Neuman, 2001). But taken together with the current focus of reading instruction as a set of subskills and an emphasis on quantitative data this could become problematic. Informational text can be more challenging for students to read due to (1) lack of background knowledge (Duke, 2000; Neuman, 2001; Chall & Snow, 1988; Coté, Goldman, & Saul, 1998) (2) content-specific vocabulary (Sanacore and Palumbo, 2009; Neuman, 2006; Chall & Snow, 1988), and (3) unfamiliarity with the text structure (Williams, Hall, Lauer, Stafford, DeSisto, & deCani, 2005; Herman, Anderson, Pearson, & Nagy, 1987). A focus on low level reading skills in the early grades comes at the loss of time for instruction in other related areas which foster the development of our students as literate members of our society. This research will provide additional evidence that informational text is appropriate for early readers as well as provide an instructional method to teach informational text features as an organizational tool to aid comprehension.

Definition of Terms

Play

For this study, the definition of play will be based on the research of Johnson, Christie and Yawkey (1987) who use the terms nonliterality, experimentation (also referred to as process over product), free choice and positive affect to describe criteria of play. Nonliterality refers to the pretense that is often involved in play. Experimentation, also referred to as process over product, is the idea that the play is not goal oriented. Free choice means that the play is entered willingly. Positive affect is used to mean that play is generally pleasurable. Not all criteria need to be present in any one situation for a definition of play. Smith and Vollstedt (1985) investigated play and found that the more criteria present, the more an activity was likely to be judged as play. For the scope of this research, these criteria are sufficient to adequately judge the playfulness of the activity of the students.

Role Play

During role play, students assume the identities of other, often living, beings. As students take on alternate identities, they act in accordance with the known actions of the new identity. The new identities can be realistic or fantastical. For example, one six year old can play the role of mother, while another six year old can assume the identity of the baby. Students can also assume the role of fictional characters such as Superman or an animated princess.

Format Based Informational Text Features

Text features are graphic devices used to support readers by calling attention to important aspects of the text or explain a point in greater detail. Some text features are incorporated into the body of the text, while others are placed outside of the text using insets or tables. The list below provides a sample of text features that may be found in informational texts for early elementary readers.

- Table of Contents: The pages at the beginning of a book that provide organization of the text.
- Heading: A title at the top of the page or at the beginning of a section of text. The heading provides information about the subject of the text that follows.
- Diagram: A drawing or photograph with labels that describe or explain
- Bold Words: Words in a text that stand out from the surrounding words. Boldface type is used by writers to emphasize or draw attention to the word. Bold words are often used to signify that a word is important or may be unknown to the reader.

Informational Text

For the purposes of this study, informational text will be defined as a genre that refers to the expectation of providing information from a reliable source to an audience. Examples of informational text include books about science, cultures, mathematics and technology. Newspapers, periodicals and Internet-based texts are also sources of informational texts.

Informational text is often identified by linguistic features such as general statements, timeless verb construction, generic noun construction and technical vocabulary. For example, the statement, *Birds build nests*, typifies the linguistic structure in an informational text. It is in contrast to a narrative take on the same topic which might be written as, *Mama Bird hopped along*

the ground looking for grass to build her nest. Text features such as maps, graphs, headings and bold words are often included in texts of this genre.

CHAPTER 2

Review of the Literature

Information processing theories of learning focusing on isolated skills provide knowledge about specific aspects of beginning reading, but do not explain the process of reading in its entirety (Goodman & Goodman, 2004). Focusing on performances on isolated reading skills can shift the perception of reading from the complex skill it is to one that is more simplistic (Paris, 2005). Learning to read or decode and encode words on a page is but one facet of the bigger picture of literacy. Adding to the problem, current educational policies and mandates seem to assume that learning to read is synonymous with literacy. This confusion trickles down to the state and local level and effects teachers and students as the focus on beginning reading skills becomes the reading curriculum (Cochran-Smith, 2003).

Expanding our view of reading to include the personal construction of meaning, efferent or aesthetic stances while reading, motivation and engagement, and critical reading of texts which consider issues of power and authority of dominant groups requires that we move beyond an information processing model of reading (Cope & Kalantzis; 2000; Eisner, 1997). Although knowing how to best teach different components of reading such as phonics and fluency is important, it is not sufficient to stop at this low level of reading performance. To tap the full potential of reading we must investigate contextualized teaching methods that allow students to interact with text meaningfully.

This review of literature will present a case for an expanded view of literacy and reading instruction by linking research about informational reading, early childhood research on play and the field of social semiotics. First I will present the conceptual framework that informs my thinking. I will then review research that describes and defines informational text as well as illustrate why it is appropriate and necessary for young students to read and respond to informational text. Next, I will review research from early childhood theorists on the value of play, how play has been describe and defined, how play promotes and scaffolds literacy learning and how play may make informational text more accessible. I will end the review with an examination of literacy development from a multiliteracy perspective, considering how academic literacy differs from real world literacy and how authentic experiences bridge the difference. At the juncture of these diverse fields of study, play as a pathway to literacy for our students, can be found.

Conceptual Framework

The conceptual framework for this study begins with the premise that reading is a meaning making activity that is more than the sum of its parts. Theoretical stances that support this view and frame my thinking include constructivism and socio-cultural theories. These two viewpoints are often merged, but for clarity, I will briefly describe major tenets of both viewpoints before describing how they often work in tandem.

Piaget (1959, 1962), one of the widely known constructivism theorists, described students as active learners who construct their knowledge through interactions with objects in their world. From this viewpoint, students "have an active part in the process of knowing and even contribute to the form that knowledge takes" (Miller, 1993, p. 36). For example, a baby may cause movement of a toy by an unintentional touch with a hand. Over time, the touch becomes intentional to create the movement. It is through interaction that the child creates knowledge of the world.

Constructivist views of reading align most closely with top-down approaches to reading instruction which posits reading is more than decoding words on a page. Research on vocabulary (Nagy and Scott, 2004) and schema (Anderson, 2004) demonstrate the ways in which prior

knowledge is integrated with new knowledge to construct meaning while reading. Miscue analysis (Goodman & Goodman, 2004), establishes that decoding and comprehending are both necessary for constructing meaning from text.

Socio-cultural theorists also frame my thinking. Vygotsky (1935/1978) along with more recent socio-cultural theorists such as Bruner (1983), Gee (2004a), Moll (2001), and Smagorinsky (2001), posit the importance of the social context of learning and human development. The premise that all learning is social in nature is supported by years of research. For Vygotsky, "learning awakes a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers" (1978, p. 90). Bruner built upon the social constructivist perspective by intertwining it with cognitive theory, suggesting that "…culture shapes the mind, that it provides us with the toolkit by which we construct not only our worlds, but our very concept of ourselves and our powers" (1996, p. X, preface).

Smagorinsky, Gee, and Moll are some of the researchers who have used socio-cultural theory to explain reading. Smagorinsky (2001) locates meaning in reading "...not only in the reader and text but in the cultural history that has preceded and conditioned both..." (p. 134). Gee (2004b) argues along the same lines by saying that schools fail students, rather than students failing school, when reading is not considered in the broader context of language and Discourse. Moll (2000) continues the line of thinking by encouraging teachers to find the possibilities in their students' backgrounds instead of seeing deficits. The juxtaposition of constructivist theory with socio-cultural theory and reading pedagogy provides a framework for situating the development of reading and literacy within the child within a specific culture.

Semiotics is a study of signs and symbols that are spoken, written or gestured to convey meaning (Kress, 2013; van Leeuwen, 2005). From the early semiotic work of Peirce, the field has grown to encompass the many ways that signs are used by people to express themselves. This includes, but is not limited to speaking, writing, reading, drawing, drama, and media (Bezemer & Kress, 2008). From the earliest work on semiotics, signs are considered social. Meaning of any word or gesture is mediated by the context of the society (Harste, Burke & Woodard, 1982). The social nature of semiotics fits with social-constructivist theory as it applies to reading instruction in a classroom. Reading comes to have meaning in conjunction with how it is taught. Teachers who demonstrate through lessons and assessments that reading is sounding out words, will have students who learn that message, while teachers who model reading as a transaction between readers and text are teaching that reading is a meaning making activity that relies on background knowledge as well as the decoding of the words on the page (Harste, Burke, & Woodward, 1982; Pardo, 2004).

Transactional psycholinguistic theory, as framed by Rosenblatt (2004) and Goodman (1996) provides another layer to my thinking. A transactional perspective considers the ways in which human activities and relationships with each other and objects are reciprocally influenced by each other. Rosenblatt (2004) this to the act of reading and meaning making by suggesting "meaning does not reside ready- made 'in' the text or 'in' the reader, but happens or comes into being during the transaction between reader and text" (2004, p. 1369). Psycholinguistics is the study of relationships between language acquisition, production and perception. Goodman (1996) applied the transactional nature of reading to the field of psycholinguistics by noting that "readers transact with the text to construct meaning, a continued interplay that affects everything from

global interpretations of the text to perceptions at the word level" (1966, p. 9). Readers interacting with text to produce meaning add a layer of depth to the reading process.

The theories, constructs and pedagogies that inform my thinking all posit learners as active participants in constructing knowledge. The social contexts of home, school and peer groups mediate development. This perspective leads me to question policies that position teachers and learners as passive. It is what encourages me to invest my time to investigate alternate ways to teach reading that promote active engagement and learning.

Informational Text

Providing opportunities for young students to engage with informational text has received growing emphasis (Chall, Jacobs & Baldwin, 1990; Duke 2000; Kamil & Lane, 1997). Before this can become a reality, it is necessary to ask what constitutes informational text and whether it is appropriate in early childhood classrooms. I will begin by providing a review of commonly accepted terms and inclusive criteria for the genre. I will follow with a review of the literature on the appropriateness of informational text for young students and how it is thought to be necessary to improve learning outcomes for students.

Describing Informational Text

Inherent in research that focuses on informational text has been the need to define and name the genre. General consensus seems to have been reached about inclusive criteria for informational text. It is expected to convey information, use non-narrative text structures such as compare and contrast, contain linguistic features such as generic noun use and make use of format-based text features (Dreher, 2003; Duke, 2000; Hall, Sabey, & McClellan, 2005; Saul & Dieckman, 2004; Yopp & Yopp, 2012). Providing an encompassing name for the genre does not seem to have the same type of consensus, likely because so many different text structures are used

to convey factual information. Non-fiction is a broad term that is used to classify all texts that are not fictional. This term can be problematic because it can be confused with the Dewey Decimal system that categorizes poetry, fairy tales and information books in the same category. Books that are intended to convey information may also contain features that are usually found in narrative texts. The blending of these genres can create subcategories of informational text such as narrative-informational and informational poetic (Duke, 2000). Narrative-informational books have also been called dual-purpose texts because they provide factual information as well as a story line (Donovan & Smolkin, 2001).

For my research, I will use the inclusive term, informational text, to describe a text written with the goal to provide information. This term will be used in this document because it can be used to include text on a broad range of topics that might be of interest to young students.

Informational Text and Learning Outcomes

Many have challenged the primacy of narrative text use in the primary grades, noting that background knowledge, vocabulary, and knowledge of text structures other than story grammar are important components of comprehension in later grades (Chall & Snow, 1988; Duke, 2000; Moss 2005; Neuman, 2001; Pappas & Pettigrew, 1998; Smolkin & Donovan, 2010). Schema theory, which postulates that knowledge is organized into units, provides support for the idea that background knowledge is a key component to reading comprehension. Anderson (2004) proposes that a reader's schema creates background knowledge that aids readers' comprehension and recall of ideas in texts. Students who read widely – informational texts as well as narratives - are likely to develop the greatest background knowledge. In fact, Neuman (2001) argues that our focus on early literacy skills undervalues that role of basic knowledge on literacy learning. Neuman suggests that before students can write, think or solve problems, they need factual knowledge that

can be gained by including informational reading as part of early literacy programs. Additionally, Kintsch's (1988) construction –integration model posits the use of knowledge as a top-down effect which helps the reader make appropriate inferences. Readers with a greater knowledge base will make more accurate inferences. For example, a child who has greater knowledge about magnetism will, when reading about the topic, make an inference about the ends of magnets when they read the word poles rather than the North Pole or stakes that are used to hold up tents. This inference would likely lead to better comprehension. Guillame (1998) encourages the reading of expository text for young students because "(o)ne powerful determinant of what we will learn from a given situation is what we know" (p. 477). This demonstrates the need for using informational texts in classrooms to increase factual knowledge which will, in turn, improve comprehension.

Including informational text in the early grades can also increase the breadth and depth of vocabulary knowledge for our students. Nagy, Herman and Anderson (1987) suggested that of the 3,000 words children learn annually only 200 are learned through direct instruction. The remainder are learned incidentally through reading and listening using context. Nagy and Scott (2000), however, argue that incidental learning of words through context is not the most effective manner to learn vocabulary. Others suggest that words learned through context are often partially incorrect, leading to misunderstanding (Miller & Gildea, 1987; Pressley, et al 2002). Although it may not be clear if contextual reading is the most efficacious manner for vocabulary development, research suggests wide reading does provide opportunities for exposure to words that are not typically available in oral language. Research by Cunningham and Stanovich (2001) offers support for this. They compared the lexical complexity of printed texts, television texts and adult speech and found that printed texts, even those written for children, use more rare words than

college graduate conversations. Exposing students to both narrative and informational texts can lead to improved vocabulary knowledge.

Chall and Snow (1988) argued that the fourth grade slump may be due, in part, to lack of opportunities to read challenging materials, learn vocabulary, and read diverse materials. Chall, Jacobs and Baldwin's (1990) investigation into the "fourth grade slump", the decline in reading performance, most noticeably for low income students, found three factors that contributed to the noted weakening reading ability: 1) lack of fluency and automaticity, 2) word knowledge, also described as vocabulary, and 3) decline in comprehension as the density of unknown words in texts increased. Sanacore and Palumbo (2009) agreed with this assessment and added that the "fourth grade slump" is promoted by the lack of informational text in primary grades. In their estimation, the factors considered by Chall, et al (1990) are directly related to the texts of early childhood. Sanacore and Palumbo (2009) considered the differing text structures of informational text as well as the academic vocabulary inherent in the genre to be major factors impacting comprehension as students advance through school. Informational text structure, which includes macrostructures and microstructures that may be unfamiliar, can be more challenging to read than narrative text. When that is coupled with content-specific vocabulary, texts can become very difficult to understand. Including informational text as part of the curriculum of the early grades could help alleviate the fourth grade slump.

Venezky (2000) described a chasm between the literacy needs of adults and the reading curriculum in schools. Venezky (2000) cited the literacy requirements of everyday life such as reading IRS forms or repair manuals for appliances against the backdrop of school literacy activities such as considering character traits or author's point of view. When considering literacy from the perspective of everyday survival, familiarity with informational text does seem to have a

greater advantage over the plot driven reading of narrative text. By changing the focus from reading instruction to literacy development it is easy to see how informational text can provide the background knowledge, vocabulary, and exposure to alternate text structures and text features that is needed for students to develop important literacy skills (Bluestein, 2010; Caswell & Duke, 1998, Neuman, 2001, Venezky, 2000). Moss, Leone, and DiPillo (1997) argued that is important for students to have more than exposure to informational text; (t)hey need to develop understanding of this form" (p. 421). My research will demonstrate a simple, yet effective method by which students can learn about format based informational text features that will promote a deeper understanding of the genre.

Conclusion

The majority of the texts encountered by primary grade students are narrative (Duke, 2000; Pappas, 1993; Sanacore and Palumbo, 2009). But research provides compelling reasons to consider offering informational text in the primary grades. Students who are given a wide range of reading materials, including access to informational books, have built in advantages for literacy development. Access to informational books in the early grades teaches vocabulary, builds content knowledge, provides practice with academic language and fosters understanding of the text features that help students comprehend informational text. Hanging onto the historic notion that narrative is primary for early readers has potential negative outcomes for students. This research aims to add to the body of research that posits informational reading in the early grades is appropriate and necessary for our young readers. Because informational text provides opportunities for students to learn more vocabulary and knowledge, research that demonstrates the effectiveness of play, an inexpensive and simple intervention that can scaffold student learning with informational text, may fill the need.

Play in the Service of Learning

Play can be loosely or broadly defined depending on the goal of the research. Those who have studied play development in students have finely grained definitions of play. From this perspective researchers have asked how the play of students changes as they grow and develop and how play promotes development (Piaget, 1962; Vygotsky, 1935/1978). These types of questions have led to research on the various dimensions of play such as motor play, object play, symbolic play, and social play (Johnson, Christie, & Yawkey, 1987). Those who study the impact of play on learning often have a broader definition of play. Additionally, investigations into the beginning of literacy, which often includes young students and play, uses a different lens and asks different questions about the play of students. Researchers in this field have asked how play enhances literacy (Neuman & Roskos, 1993; Pickett, 1998); what aspects of language during play are correlated with literacy skills (Pellegrini, Galda, Dresden & Cox, 1991; Vedeler, 1997) and how play act as a scaffold for literacy development (Rowe, Fitch & Bass, 2003; Stone & Christie, 1996). This review will begin by establishing a definition of play that will be used for this research. This will be followed by a review of research investigating play and literacy, how play is thought to scaffold learning and, in particular, students' play as they interact with informational text.

Defining and Describing Play

Over time, specific criteria to define play have been explored. Johnson, Christie and Yawkey (1987), who sought to define play from a developmental perspective, describe the following parameters of play: nonliterality, intrinsic motivation, process over product, free choice and positive affect. Christie (1991) elaborated on the definition by adding that the "choice of how to manipulate the play situation" is a characteristic of play (p. 72).

Smith and Vollstedt (1985) investigated whether untrained observers could identify play. Using the four criteria of flexibility, positive affect, means/ends, and nonliterality, trained and untrained observers rated preschool students' activities and judged which criteria were met and which activities could be construed as play. Both trained and untrained observers were in close agreement of which observed activities constituted play by the students. The researchers noted that the more criteria present in an activity, the more likely the situation was judged to be play. Smith and Vollstedt (1985) suggest that most people "recognize play as being enjoyable, flexible and most typically characterized by pretend" (p. 1049). Their research suggests that play cannot be defined by one feature. Play seems to best be defined as an activity that meets more than one criteria rather than the absence of a feature.

Because my research focuses on learning outcomes that are scaffolded by play, I will use a broad definition of play. I will use criteria suggested by Johnson, Christie and Yawkey (1987) which includes nonliterality, experimentation (also referred to as process over product), free choice and positive affect as a definition of play for this research. These researchers also include intrinsic motivation, which is a term used to describe an internal motivation to play that is separate from a drive such as hunger. Because intrinsic motivation is difficult to determine from overt actions and is outside the scope of this research, it will not be included. I will also use the word transformation to describe aspects of students' play. Researchers use the word transformation to describe the flexibility or fluidity of a play situation which is characterized by quick changes in an activity (Fein, 1975; Smith & Vollstedt, 1985, Daiute, 1990). Students who participate in this research will choose to engage in the pretense of being reporters as they observe other students play and as they compose an informational text to describe their observations. This activity meets the majority of the criteria to be considered play.

Play and Literacy

Play and its influence on literacy development has its roots in Vygotsky's (1935/1978) view of play. When a child uses an object to represent something else, it is an example of symbolic representation. Vygotsky (1935/1978) posited that when a child uses symbolic representation, it is a precursor for later work with the written language symbols as second order symbolism. Pellegrini, Galda, Dresden and Cox (1991) found that symbolic transformation predicted preschool students' emergent writing status. Students who were able to make object or ideational transformations were best able to write single words.

Play has also been linked to beginning reading skills such as phonological awareness and print awareness. Pickett (1998) introduced books and writing materials into the block play area of a first grade classroom. The block play included dramatic play as well as constructive play. Literacy behaviors of the students were noted under the conditions of 1) no literacy materials, 2) the block area enhanced with literacy materials and 3) adult modeling with the literacy materials in the block area. Literacy behaviors increased dramatically for the emergent readers during the three weeks of the study. During the first week there was one incident of literate behavior, four literate behaviors the second week and fifty one literacy events during the final week. Literate behaviors included making signs to show ownership or provide messages as well as using books to find information. The students used emergent reading and writing skills while playing. Pickett (1998) also noted that the students used pertinent vocabulary about buildings that had been introduced by the adult from the informational books.

Neuman and Roskos (1997) also noted an increase in vocabulary during dramatic play. Students in literacy enriched office play settings used vocabulary related to "offices" such as doctor, business or a post office. During the dramatic play, the students were "exploring the tools of literacy and practicing the behaviors associated with them" (p. 116). Adult intervention increased student participation in literate behaviors in this study.

Vygotsky (1935/1978) postulated that interaction with an adult or more capable peer creates a zone of proximal development. The zone of proximal development was described by Vygotsky (1935/1978) as the distance between actual and potential development. Much research on play has focused on the role of the adult as the more capable other that spurs learning for students. But during dramatic play students can and do teach each other about literacy. Stone and Christie (1996) investigated the collaborative learning in a K-2 multiage classroom. They found that during 40% of the time spent in the sociodramatic play area, the students were engaged in literacy activities such as environmental print reading, functional writing, academic reading and writing and recreational reading and writing. Collaboration, with one child helping another, occurred in 75% of the activities.

Wohlwend (2008, 2011) studied a group of kindergartners playing school. During their play, the students scaffolded each other's understanding of what it means to be a reader by teaching "each other new forms and strategies for interpreting texts, analyzing pictures , and handling books" (Wohlwend, 2008, p. 384). Although these students were using conventional reading skills such as one to one matching of their spoken words to the written words on the page, they were taking each other beyond the basic processes of reading. These students were trying out more mature negotiations of reading processes. Similarly, when Rowe, Fitch and Bass (2003) encouraged students to play with toys they found that students were motivated to write in the classroom. Students who had developed a story line by playing with toys were able to take on the perspective of the toy characters which allowed them to write in a more mature manner. For these students, play was the scaffold that helped them reach greater heights of literacy.

Daiute (1990) also investigated play as a scaffold for student writing, but from a different perspective. Instead of engaging students in play and then asking them to write, she viewed their collaborative writing through the lens of play. Student conversational turns while composing were coded as instances of play. While composing collaboratively, students were involved in instances of nonliterality, transformation, and experimentation as well as showing signs of positive affect. Her perspective allowed her to see that students used play as a writing strategy.

Students who are allowed to use play as a tool of literacy learning seem to make good use of this scaffold. In my research, the play of the students will likely act as a scaffold as they act a "head taller than themselves" in the role of reporters. They will take on perceived adult reading and writing roles. The students will also likely scaffold each other as they collaborate to write an informational book using format based informational text features. Most research on play and literacy focuses on preschool or kindergarten age students who are likely to be emergent readers and writers. My participants will be more advanced readers and writers who can use play as an impetus to advance their literacy knowledge.

Informational Text and Play

Play as a scaffold for informational text has not received a lot of attention from researchers. There are two likely explanations. First, play is losing its status as a useful tool of child development (Bodrova & Leong, 2005; Roskos and Christie, 2001). Economic demands for a post-industrial workforce are changing curricular focus and assessments. There is an emphasis on workforce readiness as an end result of schooling (Lubeck, 2000; Torres, 2002). Secondly, informational text is thought of as serious writing. As a purveyor of fact, playful approaches to the genre might not be considered appropriate, but researchers who have taken this approach have shown that play can help students develop reading and writing skills (Dalton & Mallett, 1995; Hoyt, 1992).

The research that has examined the relationship between play and informational text has focused on preschool students. Maduram (2000) used case study methodology to view the link between play and informational books with her daughter, Amy, during her early childhood years. Play was a spontaneous response to informational books for this young child. The play observed often happened much after the child heard a book read aloud. During dramatic play, Amy role played about dungeons, possums, snakes and slugs, among other natural and historical topics. Maduram (2000) hypothesized that the play allowed Amy to integrate new knowledge with her existing knowledge.

In a larger study, Rowe (1998), observed preschoolers' responses to texts that had been read aloud. Students dramatized the information presented in narrative or informational text. Rowe found that play was an often-used tool for responding to texts because it provided "a connecting link between the child's world and the adult one represented by books and the book-reading events in which they were embedded" (p. 31).

Some researchers who have used play in connection with informational text have included play, but not as a major focus of the study. Dalton and Mallet (1995) provided five and six year olds a variety of supports to help young students make connections between informational books about firefighters and real world context. They discussed the texts during read- alouds, surveyed schoolmates about smoke alarms in their homes, met with an actual firefighter, and used role play in the dramatic play area. Although the students expressed interest in the role play, only three sentences in the article are devoted to this topic and its role in helping students develop an understanding of firefighters was not explored. The researchers seemed to miss the value of play as a scaffold for the students.

Similarly, Read (2001) described the writing of first and second grade students who combined background knowledge and source texts to create original informational texts. Using case study methodology, Read observed the work of four dyads. Two of the dyads spontaneously used dramatic play and drawing while discussing the source text. Read referred to their actions as "distancing" themselves from the informational books that were being used as resources. The dyads who used dramatic play as part of the writing process wrote "highly original" informational books (p. 335, 337). The other two dyads, who interacted with the texts by reading, mostly paraphrased the source text for their informational book. Although Read characterized the writing of one of these non-playful dyads as "sophisticated" (p. 339), the sophistication seems to be at the level of text structure rather than originality or the combination of prior knowledge and resource material. Read did not seem to notice that the play seemed to create a connection between the young authors and their source text.

Other research on play and informational text with primary grade students seems to be focused on the use of drama to provide a link between background knowledge and informational text. Putnam (1991) investigated the use of drama with nonfiction books. As students dramatized the activities of bees or the life of a pilgrim on the Mayflower, they "appear(ed)" to be thoroughly absorbed and enjoying themselves, as if at play" (p. 464). Putnam noted that the students retained much of the information presented during reading. Although Putnam did not characterize dramatization as play, the students' responses could be characterized as dramatic play. Varelas, et al. (2010) used drama activities with primary grade students to help them develop their understanding of science topics. Students acted out the molecules in three states of matter and

animals and plants in a food web as part of science units that included reading and writing informational texts and other multimodal activities on the topics. These researchers argued that drama mediates learning because it "help(s) fill in gaps in meaning" (p 2).

It is interesting that research with older students does not use the term play when dramatic play is indeed present. The simple explanation may be that reading researchers are considering multimodal activities, of which dramatic play is but one facet. Early childhood researchers who explore literacy have a different lens by which to view activities to promote literacy. My research aims to fill this gap in our knowledge of how to make informational books accessible for young students. Neuman (2001) sums it up by saying, "If we assume that books are a key resource for knowledge and vocabulary, informational texts may provide a central source for developing areas of expertise" (p. 471). The aim of this research was to use play to investigate how young students notice the organizing principles of text features. It provides additional information about the value of play as a scaffold for informational texts.

Conclusion

During play students learn to separate thought from action, scaffold their own learning and the learning of others, and develop flexible thinking. (Bruner, 1983: Piaget, 1962; Vygotsky, (1935/1978). Play can also be used to help students access informational text more readily (Maduram, 2008; Rowe, 1996; Wohlwend, 2008). Previous research has not specifically addressed the use of play as a mediator for format based informational text features, nor has it examined the use of play and informational text in early childhood beyond kindergarten. This research will address this need and may provide new insights about the efficacy of literacy related play with older students as they interact with informational text.

Expanding Our View of Literacy

The dictionary definition of literacy is the ability to read and write, but many argue that in the 21st century literacy is much more complex than this simple definition of decoding and encoding text implies (Cope & Kalantzis, 2000; Luke and Freebody, 1999; Turbill, 2002). Eisner (1997) suggests that we need to go beyond competency in the basic reading, writing and computation skills because "even high levels of skill in their use are not enough to develop the variety of mental capacities that children possess" (p. 350). Hirsch (2003) argues that avoiding the fourth grade slump means we must "combine early instruction in the procedures of literacy with early instruction in the content of literacy, specifically: vocabulary, conventions of language, and knowledge of the world" (p.21). We need to teach our students how literacy functions in the real world if we want them to be able to meet the demands they will face.

This section will provide a review of literature that provides a rationale for expanding our current view of literacy by first contrasting academic and real-world literacy and then examining research on authentic experiences that fosters engagement and offers opportunities for depth of learning for students. Both of these subjects draw on a multiliteracy perspective.

Academic Literacy vs. Real World Literacy

Researchers who study literacy development in young students identify early meaning making engagement with print and other media as harbingers of emerging literacy (Pahl, 2002; Rowe, 1998; Wohlwend, 2008). During this beginning literacy stage, students shift between drawing, playing, and emergent reading and writing. Literacy for these young children is contextualized in the world around them and is multimodal. Harste, Burke and Woodward (1982) demonstrated that preschool children are aware that print carries meaning and use that knowledge to read environmental print and write using invented alphabet-like symbols. The word Crest on a

tube of toothpaste, an example of environmental print, was read as "brush teeth, toothpaste or Crest" with no hesitation by young children. Preschoolers' responses showed "semantic intent" (p. 111) – a term used by the authors to indicate that print was meaningful.

After children enter formal schooling, a more formalized path to literacy is put in place. Emphasis shifts from using multimodal forms of literacy to decoding and encoding print. In the same study by Harste, Burke and Woodward (1986), children who had later experienced formal reading instruction grew hesitant to read environmental print. In the example of Crest toothpaste, one early reader, whose family had always used this brand of toothpaste, attempted to sound out the word on the tube of toothpaste, calling it "Crost" instead of "Crest". It seems as if the child had abandoned what she knew about words in favor of a strategy she was taught that did not serve her as well.

Sulzby (1985) found a similar phenomenon when she asked children to "read" aloud a favorite book. Children who had not yet engaged with formal instruction, the non-readers, showed a trajectory toward sophisticated retellings that used intonation and story like grammar. On the other hand, children who were in the process of learning to decode words were reluctant to emergently read a familiar story, relying instead on code breaking strategies to attempt to sound out words even when asked to pretend they could read the words.

Although the intention of Sulzby's (1985) work was to plot the course of emergent reading, other inferences can be made. It suggests code-breaking instruction can reduce reading to a skill rather than a meaningful activity. Although Sulzby's (1985) research indicates many children seem to go through this phase as beginning readers, it seems likely to be problematic in today's current reading instruction climate with a heavy emphasis on phonics. Students who practice reading nonsense words as part of school sanctioned activities are learning that, to be correct, words do

not have to carry meaning. This runs counter to students' early expectation that written language makes sense (Harste, Burke & Woodward, 1986, Mason & Allen, 1986).

Decoding, word recognition and fluency are part of the reading process, but when they become the reading curriculum by default because of overemphasis on skills based assessments, it can create dissonance between school and home literacy. The problem may lie in the immediate utility of what school teaches students. Neuman and Roskos (1997) noted that formal education can be decontextualized, saying it "may typically involve them in learning techniques for processing information (e.g., identifying letters, sounds, and words; computation skills), apart from their functional relation, with the assumption that what is learned at the time may be useful later on" (p. 10). Out-of-school literacy activities may be more significant for students of all ages simply because they are meaningful. My research will investigate whether play can make an in-school literacy activity meaningful for young learner by providing a context for format based informational text features.

Creating Third Space with Authentic Experiences

Moll, Amanti, Neff and Gonzalez (1992) used ethnographic techniques to develop an understanding of the home life of working class Latino families in an effort to delve beyond the stereotypical belief that low SES families provided poor quality experiences for their students. They used the phrase *funds of knowledge* to describe the background knowledge that is accrued during interaction with culture and objects at home. In particular, these researchers wanted to highlight the vast array of home experiences and practices that could be called upon by schools to continue the literacy learning of these students.

Moje, et al. (2004) built upon the earlier work of Moll, Amanti, Neff, and Gonzalez. (1992) and considered how students' funds of knowledge – their background knowledge – could

effectively be used to help adolescents build a bridge between what they already know and content area learning. They conceptualized this as a "third space". A critical distinction is that third space is more than making a connection between background knowledge and new content. It is a way of developing new understandings. Moje, et al. (2004) gave the example of students talking about air and water quality in science class, but neglecting to relate their families' experiences as landscapers, factory workers and dry cleaners. From third space perspective, students' understanding of the necessity of air and water quality would likely have developed more fully if out- of- school funds of knowledge about the economic impact of air and water quality was bridged with school texts. They suggest teachers need to be aware that students may not voluntarily relate their funds of knowledge without encouragement. Using authentic experiences such as exploring air and water quality issues in their own communities can be used to create a third space.

Cook (2005) merged funds of knowledge and school texts to create a third space in schools when working with teachers in school to combine a shared experience such as a field trip to a restaurant followed by role playing of restaurant at school. Parents were encouraged to support students at home to develop texts to bring to school that were related to the role play. Examples might be signs or props that could be used to extend the play. Students were encouraged to use their funds of knowledge as they played, developing real life literacy skills by solving problems such as advertising and interviewing for a new chef for the restaurant. These students used their reading and writing skills in an authentic context.

A recurrent theme of those who posit an expanded view of literacy is the necessity of authentic experiences to develop literacy skills. Guthrie, et al. (1996) used authentic experiences such as building a bird nest with natural items found on the playground to spur the real life need of locating and evaluating information in expository texts. Raphael and McMahon (1994) used

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participation in book club discussions as an alternative to skills based worksheet completion. The research focused on personal response to books rather than answering questions posed by the teacher. Student conversations became more insightful as they became engaged in the authentic conversations around books compared to the passive engagement when they completed worksheets.

Research that investigated the growth of students' knowledge of science informational and procedural text with an authentic only or authentic plus explicit instruction model demonstrated that the authentic only condition was as effective as when explicit instruction was involved (Purcell-Gates, Duke & Martineau, 2007). Students were just as likely to learn format based informational text features on their own as the need arose as when they were explicitly taught. Bergeron and Rudenga (1996) suggest "(t)he power of authenticity is in the potential of offering school experiences that closely resemble and are connected to students' real lives." (p. 545). The connection between authentic experience and literacy learning has been explored in many topics of reading research such as balanced literacy instruction (Pressley, 2006), motivation (Guthrie & Wigfield, 2000), discourse analysis and social linguistics (Cook, 2005; Gee,1999: Gee, 2004a; Moje, et al, 2004), and emergent reading (Harste, Burke, and Woodward, 1982). The common thread to each of the above mentioned areas of research is the need to include contextualized experiences so that reading instruction is positioned as a meaning making activity that relies on background knowledge as well as decoding skill.

Vygotsky's sociocultural theory suggests that students play what they know – home, shopping, dining out. When engaging with other students – the social aspect of play – peers scaffold the play. They are in a zone of proximal development which allows students to reach a greater range of understanding than if tackling new ideas by themselves as they must make their

ideas clear to others and thus themselves (Göncü, 1993; Whitington & Floyd, 2009). For our young students, play is the avenue by which to make sense of the world. It is a way to include authentic experiences in a classroom. The intent of this research is to use play to create a third space that bridges what students already know and can do on their own and the academic language and skills of school.

Conclusion

In essence, multiliteracy assumes that literacy is embedded in social practices, best learned through authentic experiences that encourage the construction of meaning (Alverman, Hagood, Heron-Hruby, Hughes, Williams, & Yoon, 2007; Cope & Kalantzis, 2000; Dyson, 2003; Hand, et al., 2003). Literacy learning is seen as a continuum rather than a linear progression of accumulating isolated reading skills. This view, which posits learners as active, rather than passive receivers of knowledge, is at odds with the national trend for reading instruction. Recent educational policy, which places an emphasis on explicit teaching, champions decoding and comprehension strategies as the route to literacy (Duke, 2004; Purcell-Gates, Duke & Martineau, 2007). This behavioristic view of reading is amenable to quick, quantitative measures to evaluate reading growth (Kalantzis, Cope, & Harvey, 2003). Many other factors such as a disposition toward reading, motivation to read, and opportunities to engage with meaningful print impact later reading achievement. Reducing reading to a simplistic information processing operation ignores the complexity and social nature of literacy.

Necessity of the Study

Providing reading instruction that honors the beginning literacy skills and developmental needs of young students is a challenge that is faced by today's practitioners. Research has shown that students arrive at school with an impressive array of knowledge about print, but the meaning driven processes that are used by pre-readers are eclipsed by attempts to decode even when

meaning is lost once formal reading instruction begins (Harste, Burke, & Woodward, 1982; Sulzby 1985). This is because beginning reading instruction can be decontextualized.

National policies have created roadblocks to improving reading instruction. Concerns about our country's ranking on national and international assessments such as National Assessment of Reading Progress (NAEP), Program for International Student Assessment (PISA), and Progress in International Reading Literacy Study (PIRLS) have created an interest in educational reform (Allington, 2002a; Bracey, 1997; Darling- Hammond, 2007; Gee, 1999). Publications such as Preventing Reading Difficulties in Young Children (Snow, Burns & Griffin, 1998) and the National Reading Panel Report (NRP, 2000) provided "scientifically proven methods" to improve reading skill. The NRP's decision to only include quantitative research methodologies limited the possible recommendations to improve reading achievement (Yatvin, Weaver, & Garan, 2003; Ede, 2006). Additionally, financial incentives to use reading programs that focused on low level skills encouraged the use of specific reading programs (Aldridge, 2007; Bracey, 2006; Manzo, 2006).

These types of national policies and decisions assume that poor reading achievement is a decoding issue. This is troublesome because although low level reading skills have been correlated with later achievement, causation has not been shown (Paris, 2005). Many other factors, such as failing to read for meaning, lack of background knowledge, vocabulary deficits, lack of experience with a variety of genres and motivation contribute to reading achievement (Dreher, 2003; Chall, & Jacobs, 2003; Pappas & Pettigrew, 1998; Sanacore and Palumbo, 2009; Valencia & Buly, 2004; Wilhelm, 1995). Arguing that higher level thinking skills are necessary for literacy, Neuman (2001) stated "early childhood programs have emphasized process to the exclusion of content,

placing the utmost importance on how students learn rather than on what they learn, instead of striking a better balance" (p. 470).

Finding ways to bring the context back to beginning reading instruction means that we must provide authentic reasons for learning print and writing conventions. To that end, much research has been devoted to the educational benefits of play. Play research often demonstrates it is an aid to foundational skills such as self-regulation, flexibility of thought and language development (Roskos & Christie, 2001; Smilansky, 1965; Vygotsky, 1935/1978). However, little research has shown the direct effect of play on specific measurable academic skills such understanding the role that format based informational text features play in organizing text. This research aims to begin to fill that void. Using play, an authentic activity for students, can create a bridge between the real, contextualized lives of students and the decontextualized school work that is used for beginning reading instruction and empower teachers to use authentic methods to increase opportunities to develop academic vocabulary, read for meaning and use informational texts in the primary grades.

The ramifications of this research extend beyond the early primary years. In the upper elementary years, reading shifts from learning to decode words on the page to reading to learn new information. To make this shift successfully, readers must do more than decode words; they must also comprehend what they read. Many have argued that this should ideally begin in the primary grades (Pardo, 2004; Pressley, et al 2002; Snow, Burns and Griffin, 1998). However, Pressley, Graham and Harris (2006), in a review of reading interventions, noted a lack of comprehension instruction that they attributed to current reading policies that emphasize decoding for beginning readers. Students who use informational text features to organize their own writing may develop a deeper understanding of the organizing properties of text features in the books they read.

CHAPTER 3

Methodology

Qualitative methodology was used for this research that examined second grade students' use of format based informational text features during play. Qualitative methodology was chosen to provide a holistic view of students' developing understanding of text features in informational texts. Experimental and quasi-experimental research provides opportunities for empirical observation and measurement of specific instances of literacy skill practice. However broader, more general questions are best answered by methods that allow data to be collected then analyzed to find patterns (Creswell, 2003; Denzin & Lincoln, 2000). A basic tenet of qualitative research is that it be conducted in an authentic setting (Merriam, 2002) and this research conforms by observing literacy development of students who are in an intact classroom as they play.

This chapter will explain the methods that will be used to explore this topic. I will begin by restating the research questions, provide details for the design and setting of the study, and describe the participants. The methods for data collection and analysis will be explained as well as provisions for trustworthiness stated.

Research Questions

The research questions focus on how students use their knowledge of format based informational text features to organize their writing to make it clearer for their intended audience. Specifically, I examined the format based informational text features of student writing produced during a play situation. I also examined the knowledge students had about the format based informational text features that are in a commercially produced book. I asked the following questions: 1) How do second grade students incorporate their knowledge of format based informational text features into their writing during play situations?

2) What do second grade students know about format based informational text features after role playing in a literacy enriched play setting?

Research Design

A qualitative approach was used for this research. As is typical of qualitative research, the researcher was "the primary instrument for data collection and analysis" (Merriam, 2002, p. 4). Students, in groups of 3 - 4, were given the opportunity to engage in role play as reporters. Each group engaged in play for 30 minutes per day that extended over a five day period. The procedure continued for three weeks to allow each group 150 minutes of play. In keeping with the roles of reporters, the play had two parts, 1) observing and collecting information and 2) writing about the observations. During the play, the researcher acted as an observer of other students' play. This research design allowed for extended time in the field, which permitted gathering of data that went beyond a reporting of facts and contextualized the setting and participants as is recommended for qualitative design (Creswell & Miller, 2000; Merriam, 2002).

The group of nine students about whom data were collected served as a case study. Case study methods, which can provide an in-depth examination of educational questions, was an effective tool to study play as an instructional technique in the authentic context of a real classroom for two reasons. First, Yin (2013) recommends case study to answer "how" questions and "what" questions that are exploratory in nature. My questions are of this type. This research was exploratory in nature because it investigated the use of play as an educational intervention with second grade students - students who are at the upper limit of early childhood as defined by NAEYC (2009). In general, play has been studied with students of preschool or kindergarten age

and as such, exploratory research is appropriate because little research on play has focused on this age group. Secondly, Merriam (2002) describes two important criteria to define case study; the investigation must be in depth of a social unit and focus on the analysis of the unit. In this instance, the case is bounded by a specific social unity; students in a nearby classroom who are familiar to me and have chosen to play at being a reporter during play time in their classroom. The unit of analysis is a group of students who are playing as reporters.

Research Methods

Description of the Setting

The elementary school for this study is located in a suburb of a large Midwestern Metropolitan area. It is diverse economically, but not racially. The racial makeup of the community is 95.4% White, 2.56% Latino, 1.26% African American, 1.18% Asian, 27% Native American, .02% Pacific Islander, and .61% other races. The median income for a family in this community is \$68,000 per annum.

The school from which the participants were drawn enrolls more than 600 students in grades K - 5. The school is similar to the surrounding community in that it is not racially diverse. Of the 612 students, 89% are Caucasian, 4% are African American, 3% are Asian American, less than 1% are Native American or Native Hawaiian, and 3.5 % are Latino. There is little economic diversity, with only 13% of the students eligible for free or reduced lunch.

The school is designed as a school within a school. There are four separate areas of the school, referred to as Neighborhoods, which each house kindergarten through fifth grade classrooms. The vast majority of students remain in the same Neighborhood throughout their years at the elementary school, helping foster strong relationships between teachers, students, and parents. The school is designated as a multiage school with first and second grade students

comprising the Lower Elementary grade and third and fourth grade students the Upper Elementary grade. Kindergarten and fifth grade students are not in a multiage setting on a daily basis.

In the classrooms where this study took place, dolls, stuffed animals, small transportation toys and pretend food and dishes are available for sociodramatic play, however there are no specific sociodramatic areas such as a kitchen or office. Students make use of available floor space for play. Board games, craft materials and writing utensils are readily available. This school district has encouraged play in the primary grades through mandates for play time to be allotted during the day and has provided professional development on play for all kindergarten, first and second grade teachers.

Participants

The participants for this research consisted of a purposive sample drawn from the second grade students enrolled in one multiage classroom. Out of 25 students in the classroom, 12 were second graders. All spoke English as their first language and read and wrote at grade level or above. The district assesses all second grade students' reading four times per year and writing twice yearly. The Developmental Reading Assessment 2 (DRA2) (Pearson, 2009) is used to assess reading. Students who are at grade level read nonfiction text at a level 16 and fiction text at level 18 at the beginning of second grade. The writing is assessed with a rubric developed by the local intermediate school district. Students are expected to meet the requirements for a Level 3 at the end of first grade, which was the latest assessment available for the participants. Level 3 of the district writing assessment is described as a sparse, sequential written account. The majority of the students in this study (92%) had been assessed at Level 3.

Second graders were used for this research because first graders would not necessarily have the ability or stamina to produce an informational text during a play based activity. All of the second grade students in the classroom who wished to participate were included. Data were gathered from all students who participated and used for the case study. Pseudonyms were used throughout.

Data Collection

Data were collected over a five week period. Pre- and post- assessments were gathered to document change in knowledge of format based informational text features. Student play sessions were videotaped to augment the field notes of the researcher. A written text, which was produced by students as they played reporters, was included in the data collection. The data collection will be discussed in detail in the following sections.

Format Based Text Feature Book Interview

Student knowledge of informational text features using the Format Based Text Feature Book Interview protocol (Appendix A) was gathered during Week 1 and Week 5, prior to and after student play as reporters. The pre-assessment data collected in Week 1 provided baseline data regarding student knowledge of format based informational text features and was completed prior to the student play as reporters (see Appendix A). The post-assessment was used to document change, if any, in student knowledge of the text features and was completed after the role play as reporters observing and writing about an event.

These data were collected to augment the qualitative data that was collected. The expectation for change was unknown. No other studies of this nature were available that would provide an estimate.

Two informational books were used; one for pre-assessment and one for post-assessment; Bug Book: Ant (Hartley & Macro, 2006a) and Bug Book: Bee (Hartley & Macro, 2006b). Both books are written at a level that is appropriate for late second grade students' reading level. Leveled texts take into account the readability of the words on the page as well as the supportiveness of text structure (Fountas & Pinell, 2011; Fry, 2002; Hoffman, Roser, Salas, Patterson, & Pennington, 2001). At this level, informational text structures include organization by categories and subcategories, variety in organization and structures, presentation of multiple topics (Fountas & Pinnell, 2011). Students were not asked to read the text, but instead asked what they noticed about the books. These specific books were chosen because they contain the following text features: table of contents, heading, photographs, diagrams, bold words, glossary, index, and labels. These books were not familiar to the students nor had they been used for instruction in the classroom.

The procedure for the Format Based Text Feature Book Interview was as follows. Students were handed an informational book. Students were asked to look at the book and tell what they "noticed". This phrase was used because it was familiar to students. Their teacher had used the words "notice" and "noticing" to draw attention to features of books such as dialogue or stylistic use of font. These words had been used for all genres. After each text feature that was identified, the prompt, tell me more about that, was used to elicit an explanation of the text feature.

The order in which the books were used for each student was counterbalanced using an alphabetical listing of student names. The first student on the list was given Bug Book: Ant (Hartley & Macro, 2006a) for the pre-assessment and Bug Book: Bee (Hartley & Macro, 2006b) for the post-assessment. The second student was given Bug Book: Bee for the pre-assessment and Bug Book: Ant for the post-assessment. This alternating procedure was used for all remaining students.

Student comments from the book interview were audiotaped and transcribed at a later date. The book interviews were conducted with all second graders in the class over a two-day time period during Week 1 of the study.

Student Play

Opportunities to role play as a reporter were provided to students. Students who chose to play as a reporter were told that the classroom needed a book about the play choices in the classroom. They were asked to pretend they were reporters while they observed classmates during the daily play time. During these sessions, students had props to enhance their play. They had the choice of lined and unlined paper and pads of paper, as well as pencils, pens and markers to take notes. A digital camera was available for use at their discretion. The props available may seem limited by the standards of exemplary preschool and kindergarten programs (see Morrow & Rand, 1991; Neuman & Roskos, 1993 for examples), but are appropriate for older students and the setting of this study. As symbolic thought develops, students' actions are governed more by ideas than objects (Smilansky, 1965; Vygotsky 1966). Students in this study are at the end of the age range of early childhood and are thus likely to be motivated by the idea of playing reporter rather than by a variety of props. Also, in this study students were not in one play area. Their very role as reporters required them to move around the room to gather information, therefore, props in one area may have encouraged them to stay in one area rather than moving around the room to observe others and therefore would have been counterproductive. As students played reporter, the researcher videotaped to capture conversations between students and as they observed classmates who were playing. Videotapes were transcribed at a later date.

After observing other students play, the participants were asked to continue their play as reporters as they wrote a book about the play choices in the classroom for other students to read. These sessions were videotaped by the researcher to capture the collaboration between students as well as the student discussion surrounding the use of format based informational text features as they wrote the book. Their discussion provided a window into the playful composing of the students as they composed. All videotapes were transcribed after all the data were collected.

The play data were collected over a three week time period. On Day 1, the first group of students played reporter as they observed other students at play. The session lasted 30 minutes. During 30 minute sessions on Days 2 - 5, students continued their play as they wrote about their observations of other students playing. The writing portion was part of the role play as reporters. In real life, reporters gather information and then write about it. Students acted in both roles of reporters. The process was repeated for two more cycles to collect data for groups 2 and 3.

Written Text

Written text was collected on Day 5 of each cycle. Theoretical evidence as well as research based evidence supports the use of written text as part of student' play. Vygotsky (1966) described play as a zone of proximal development for students. With play as a scaffold, students are able to perform with greater ability than would otherwise be possible. Peer scaffolding, which occurred in this research, helped students with challenging task such as writing an informational text. Rowe, Fitch and Bass (2003) used this idea when they asked students to play with toys before writing narrative text. Student play contextualized the task and provided a rehearsal for later written text. The play in this current research built upon this same idea; play acted as a scaffold.

Students had a variety of formats to use for their informational books which included 1) a selection of graphic organizers, some of which were familiar to students, 2) blank paper in a variety of colors or 3) unbound pages of lined and unlined paper. Students worked as part of a group with teacher assistance as needed.

Field Notes

Descriptive field notes augmented the videotapes of student play. The guidelines suggested by Bogdan and Biklen (2003) were followed. They suggest that descriptive field notes should address: 1) portraits of the subjects, 2) reconstruction of dialogue, 3) description of physical setting, 4) accounts of particular events, 5) depiction of activities, and 6) the observer's behavior (Bogdan and Biklen, 2003).

For this study, field notes centered on literacy related events of the participating students. Field notes were written during observations and/or as soon as possible after observations to capture rich details In particular, how students interacted with each other during both phases of play was noted. Instances that demonstrated free choice in the play situation, smiles and laughter than indicated pleasure and the use of artifacts were observable and described in the field notes. Frequency of interactions or the lack of, as well as exchanges between students that seemed to move the composing process forward on Days 2 - 5 were noted because I was particularly interested in interactions that seemed to indicate engagement during the play.

Reflective Journal

A reflective journal was used for "speculation, feelings, problems, ideas, hunches, impressions and prejudices" (Bogdan and Biklen, 2003, p. 114). The following categories, suggested by Bogdan and Biklen, were used in my reflective journal: 1) reflection on analysis, 2) reflections on method, 3) reflections on ethical dilemmas and conflicts, 4) reflections on the observer' frame of mind, and points of clarification (Bogdan and Biklen, 2003). Reflective notes helped me ponder my thinking.

Data Analysis

Data analysis was an ongoing process. Multiple data sources were analyzed to answer the research questions. A graphic representation of data source and analysis as related to each research question is included in Appendix D and E.

Format Based Text Feature Book Interview

The pre- and post-assessment format based text feature book interviews were transcribed and scored according to the rubric in Appendix A. Students were awarded one point for each text feature identified and one point for each text feature explained for a possible total of sixteen points. No additional points were given for the same text feature identified or explained more than once.

All pre- and post-interview transcripts were scored by the researcher and another doctoral student with initial inter-rater agreement of 94%. Discussions resolved all disagreements so the final agreement rating was 100%.

Scores from both pre- and post-interviews were compared using raw scores and/or percentages. Descriptive analysis was used to summarize the data. Descriptive analysis is appropriate because the sample is non- random and the study will not be generalized to a larger population (Fraenkel & Wallen, 2009).

Videotape of Student Play as Reporters

Verbatim transcriptions of student play were analyzed using open and axial coding (Corbin & Strauss, 1990). I began by reading transcripts several times to identify possible codes. Each conversational turn was listed on a spreadsheet and codes were assigned to each conversational turn. Examples of play moves by the students were noted during examination of the transcripts. The comments/actions by students on Day 1 were analyzed to determine whether play was present during the role play. The examples were used to develop definitions of each type of play category.

Comments/actions of the students on Day 1 were compared with categories developed by play researcher and found to be well aligned. The codes suggested by play research of nonliterality, transformation, experimentation, free choice and positive affect (Johnson, Christie & Yawkey, 1987; Smith & Vollestedt, 1985, Sutton-Smith, 1970) were used to describe the comments/actions of the students during role play. An additional code of non-playful was added so that all comments/actions could be coded. Definitions and examples of play during the role play are included in Appendix F. The principal investigator and a seasoned kindergarten teacher with a graduate degree in early childhood coded the transcripts to establish inter-rater reliability. A transcript was independently coded by the kindergarten teacher and the results were compared to the principal investigator's coding of the same transcript. Initial agreement was 86%. The disagreements which occurred were resolved by consulting the coding definitions. The high degree of agreement suggests that the codes used to define play on Day 1 were appropriate.

During the second part of the play, writing about their observations, the focus was on conversations between the students as they composed. Rogoff (1990) suggests that active participation in verbal communication is needed for collaboration, therefore the conversational turns were of particular interest. Active participation by the students was noted as well as how they reached editorial decisions and handled conflicts. Conceptual labels to describe the conversational turns as students negotiated the writing process were developed using open coding (Corbin & Strauss, 1990). From the transcripts, I identified repeated comments/actions by the students that suggested the following codes: agreement and disagreements, next steps, explanations, think aloud and referencing artifacts. These codes were supported by research on collaboration and intersubjectivity during student conversation (Chang & Wells, 1987; Crook; 1985; Göncü, 1993; Ingram & Hathorn, 2004; Rogoff, 1994). Because a play lens was used for

analysis in this research, the open codes were considered in relation to the moves made by students during play. The comments/actions of the students on Days 2 – 5 were then coded using the ideas present in play research. Examples of playful comments while composing were noted during examination of the transcripts and definitions were developed using qualitative data analysis. Initial coding was compared with a framework developed by Daiute (1990). Daiute (1990) looked at play as a strategy for composing for fourth and fifth graders and noted that students played with: (1) reality, (2) language, (3) composing, (4) knowledge, and (5) imagery as well as engaged in (6) interpersonal play and (7) other interactive play. There was a good fit between the definitions that I had developed and the coding described by Daiute (1990), allowing me to subsume the open codes into the play framework. Definitions and examples of play during the composing are included in Appendix G. This coding allowed me to establish the comments/actions of the students while composing as playful.

The next level of coding was used to investigate similarities between comments/actions seen during role play and the playful composing of these students. Because no known research has made a link between comments/actions by the same students during role play and while composing, the analysis was begun by identifying types of play from transcripts of the groups composing collaboratively. Examples of the comments/actions of the students during role play and composing were compared. Similarities were noticed between the play. Nonliterality, or taking an "as if" stance, was seen during role play and composing play. Students made nonliteral moves when they pretended they were someone other than a second grade student. Transformations occurred during role play and composing. In both instances the students defined or changed roles as the play proceeded. During role play students alternated between taking the role of reporter seriously and teasing students they were observing. While composing in their

groups, the students used interpersonal play such as teasing each other, whispering secrets and engaging in conversations not related to their composing. Experimentation moves were characterized by testing out ways to compose a section of their text, trying out informational text features or consulting an informational trade book for ideas. Further analysis established three subcategories of experimentation: (1) experimentation with composing, (2) experimentation with knowledge and (3) experimentation with imagery. These three separate categories together became the category of experimentation. Free choice was demonstrated by the students during the role play when they chose which areas of the room to observe, what to photograph and which notes to take. Free choice during composing was seen when students interacted with other objects, made faces at the video camera, chose when to leave to talk to a friend or played with objects around them. The final category of play, pleasure, was seen in both the role play and the composing. In both instances, students smiled and laughed. The students' pleasure with the process was evident before they began by their pestering me about when it was their turn, during the process with their thanking me for letting them be part of the play, and after when they requested to do it again. The moves made by students during role play and while composing overlapped and thus similar codes were used for analysis.

To establish inter-rater reliability, coding was completed by the principal investigator and another student in the doctoral program. A transcript was independently coded by the doctoral student and the results were compared to the principal investigator's coding of the same transcript. The initial rate of agreement was 94%. The few disagreements which occurred which were resolved by consulting the coding definitions.

Written Text

The informational text written by the students were scored using the form in Appendix B. Specifically, the text was analyzed for the inclusion of and effective use of format based informational text features. The appropriate use of format based informational text features to organize writing for an assumed audience was used to verify an understanding of text features. Specifically, a text feature that had been used by the students in each group was located and it was noted whether the text feature was used in the expected manner. For example, a table of contents page would be expected to list the major headings along with a page number where that heading could be found.

Because this research is unique in its investigation of play as a scaffold to learn about informational text features, no field tested assessment was available for the particular task. To provide validity, student produced texts was assessed using a researcher developed scoring rubric that was adapted from Purcell-Gates, Duke and Martineau (2007). These researchers, who studied the use of authentic tasks and authentic plus explicit tasks on second grade students ability to write informational text, used their rubric to provide an analytical score of student written informational text. At present, it is the most closely related rubric available to assess use of format based informational text features in student written text. To provide reliability, another student in the doctoral program scored one third of the written text. The initial inter-rater agreement was 94%. Differences were resolved through discussion. Inter-rater agreement of 80% is recommended to ensure reliability (Fraenkel & Wallen, 2009).

The Text Feature Assessment in Appendix B has a range of zero as a minimum and forty points as the maximum. The maximum is reached if all text features on the rubric are used by the students. A point was given for each text feature used. Additional points were given for appropriate and/or effective use of each text feature. Lower scores indicated fewer text features used and/or inappropriate or ineffective use of text features. Higher scores indicated more text features and more appropriate or effective use of text features. No format based informational text features were used by students that were beyond the scope of the assessment.

Field Notes

The field notes were analyzed to confirm or disconfirm the codes established during analysis of the videotapes. The criteria established by play research of nonliterality, transformation, experimentation, free choice and positive effect (Johnson, Christie, & Yawkey, 1987; Smith & Vollestedt, 1985; Sutton-Smith, 1970) were considered when reading the field notes for Day 1 of the intervention. Instances that supported the emergent coding of the transcripts were noted. Student engagement and non-playful codes were also established by the field notes.

The field notes were also analyzed for Days 2 - 5, when students were composing to confirm or disconfirm the codes established in conjunction with Daiute's (1990) framework. Field notes supported the codes of play related to (1) reality, (2) language, (3) composing, (4) knowledge, (5) imagery, (6) interpersonal play and (7) interactive play. A code of non-playful was needed to allow all notes to be coded. Descriptions of the physical setting were not coded as they did not relate to the play of the students.

The field notes allowed me to capture the essence of the dialogue between and among the students, student interactions, and an accounting of the events which supported the open and axial coding from the transcripts. As such, the field notes provided triangulation of the coding developed from the transcripts for both the role play and the composing play of the students.

Reflective Journal

Qualitative research, by its very nature, is subjective. By using a reflective journal, researchers who use a qualitative methodology monitor their subjectivity by acknowledging biases (Denzin & Lincoln, 2000; Morrow, 2005). My reflective journal was analyzed for congruity between my thinking prior to data collection, during data collection, and during analysis. The assumptions with which I began the research changed as I gathered data. Initially, I assumed the play I would see during the role play of the students would be different than the play during composing. I assumed that the play while composing would be limited to the nonliterality of the students pretending they were reporters. The initial coding of the composing process was oriented more toward the collaboration and intersubjectivity of the students. As the coding continued, the instance of collaboration and intersubjectivity began to seem like the play I had seen on Day 1. The artifact use could be seen as similar to the use of props that younger students use to support their play. The reflective journal allowed me to document the modifications and adjustments I made. The decisions I made during data collection and analysis were compared to the theoretical framework that supports my thinking. Terminology from the field of multiliteracy such as funds of knowledge and authentic experience could be seen as similar to terminology such as scaffolding and literacy enriched play settings from play research. Because the roots of multiliteracy research and play research can be found in constructivist theory, merging the two fields to show a flow between role play and composing play made sense. The reflective journal contributed to the coding and analysis.

Member Checks

Member checks took place with a member of my dissertation committee, Dr. Poonam Arya. During the data collection phase, she suggested that I collect data while differing my level of participation to help me consider my role in the play. During data analysis, she probed my coding decisions and encouraged me to develop more detailed definitions that could be referenced to support or refute the coding. Her questions promoted self-reflection and pushed me to return to the transcripts; my research questions and the literature that supported the emergent codes.

I also completed member checks with student participants to develop a better understanding of their composing play. Transcription was ongoing throughout the study which allowed me to ask questions of the participant as they arose. During one composing session, I intentionally left the students as they were composing, returning to check on them occasionally. I wondered if I needed to be present to support the composing process. In my field notes, I wrote that the students seemed to be able to stay on task even when I wasn't there. After viewing the videotape, I realized my perception was inaccurate. I followed up by talking to Joe because he seemed unhappy with his classmates because of their off task behavior. I asked him about it and he confirmed that he was frustrated. This discussions caused me to reflect on my role while they were composing. During data collection, students provided feedback about the text they had written and the page layouts. I wanted students to have ownership of their texts so I was careful to make sure I understood what they had written. Allison had written her directions in one long string that was only partially decodable. When I asked how she wanted me to place her directions on the page, she and other members of her group turned to informational trade books to decide how to make it look like an informational book. This prompted me to think about the use of artifacts as props. Questioning the students about their thoughts on the process after the play helped confirmed my thinking about the role of play while composing. I felt the play provided a scaffold, and students' comments confirmed that it did. Comments from the students centered on the fun they had and how the teamwork made it easier to do. Allison said that when they worked together they "inspired others". Tommy said that without teamwork they "would not be finished yet". Owen said that sometime his hand got tired and others could do some of the work". Owen and William both said the liked the drawings they did. Olivia liked taking the photographs. Several students thought the conversations about the directions were important for clarifying their thinking. Allison said, "When we were writing Spoons, we messed up a lot. We tried to change things and the others would say yes or no". Ethan said that writing how to do the mazes was hard so they "told each other how to beat the mazes for directions". Member checks during data collection and analysis increased the reliability and validity of my findings.

Rigor and Trustworthiness

Assumptions

Qualitative research is vulnerable to experimenter bias and, as such, it was necessary for me to consider the theoretical lens that frames my thinking. This allowed me to reflect on my assumptions. I will begin by listing and describing my assumptions. I will also reflect on the impact my research design has on issues of internal validity.

Based on years of experience, I believe that reading is a meaning making activity that is more than the sum of its parts. Related to this premise is my belief that reading and writing are semiotic activities that are transactional in nature. My experience is bolstered by research on the early reading and writing activities of young students – emergent readers and writers. Students at this stage of development develop their own systems for interpreting the symbols around them. They mix their own marks on paper with quasi-alphabetic and numeric symbols and trademark logos to create written messages. They "read" stories from memory or by interpreting pictures. These early attempts are all meaning making activities. Research from the field of semiotics, early childhood literacy, and transactional theory has detailed these processes (Cook, 2005; Harste, Burke, and Woodward, 1982; Mason & Allen, 1986; Pickett, 1998; Roskos & Christie, 2001; Sulzby, 1985; Whitmore, Martens, Goodman & Owocki, 2004; Wohlwend, 2008).

Another assumption that frames my thinking is that play promotes learning. Some developmental theorists view play as practice for later roles and self-knowledge (Bruner; 1983; Piaget, 1962). From this perspective, play helps to consolidate new knowledge. Others view play differently. For example, Vygotsky and other contextualists suggest that learning leads development (Bodrova & Leong, 2003; Vygotsky, 1933/1967). For young children, play is a source, a stimulus for development. For young children, play is an authentic, meaningful activity that can serve the interests of literacy (Christie, 1991; Eisner, 1990; Maduram, 2000; Newman, 1990; Pellegrini et al, 1993).

A final assumption that informs my belief is that an expanded view of literacy is needed to develop real-world literacy. Our current national trend positions reading acquisition as a linear progression of low level reading skills. Reading instruction that considers higher level thinking is needed to develop truly literate members of our society.

By considering my beliefs and assumptions, I was in a better position to reflect on how they impact my observations during the data gathering phase of my research. In my reflective journal, I considered my observations from alternate perspectives to ensure that I had taken my predispositions into account. Specifically, my initial analysis of the student composing centered on student collaboration, not play. All transcripts were coded from a collaboration perspective using codes such as agreement/disagreement, ask for assistance/provide assistance, offer explanations and make suggestions (Chang-Wells, & Chang, 1993; Crook, 1995). I then compared to the results from the pre- and post-interview. This analysis did not support the data. Emma and Joe had the highest and second highest gains from pre- to post-interview, but the results did not fit with the coding I had completed. Joe had high scores for collaboration such as agreement/disagreement, ask for assistance/provide assistance, offer explanations and make suggestions while Emma had low scores in these areas. As I tried to find a fit for the data, I realized I was not staying true to my assumptions about (1) literacy being more than the sum of its parts, (2) that it is transactional in nature and (3) that play promotes learning. In my initial coding I sought to find the individual comments/actions that would match with the interview data rather than looking at their actions in a more global perspective. My initial coding ignored my belief that reading and writing are transactional and that students will respond in their own personal way. It was only when I used a play lens to analyze the data that the analysis and interview results became meaningful. Viewing the data from more than one perspective validated my assumptions.

Provisions for Trustworthiness and Rigor

Four criteria have been suggested by Guba (1981) to ensure trustworthiness of naturalistic studies; (1) credibility, (2) transferability, (3) dependability, and (4) confirmability. Each one needs to be considered carefully when planning qualitative research. I will discuss each criterion as it relates to my research.

Credibility. This criterion refers to internal validity – a question of whether the research measures what it purports to measure. Valid instruments are starting point for establishing credibility. For the purposes of this qualitative study, the researcher is the primary instrument. Stating the assumptions of the researcher at the outset allows the readers to understand the lens by which the data were gathered (Merriam, 1995). The assumptions of this researcher have been described in earlier chapters and sections of this document. The Text Feature Assessment was adapted from research that aimed to assess informational text written by elementary age students. Because I used it in a similar fashion for what it was created, its credibility is bolstered.

Valid methodology is also needed for credibility (Shenton, 2004). The qualitative research parameters that I used have been well researched and recommended by authoritative researchers and include "prolonged engagement" and "persistent observation" (Guba, 1981, p. 83). This research gathered data over a three week period that include 600 minutes of observation. Videotape and field notes were used to record the data. The methods used fit the criteria for engagement and observation.

Triangulation of data also increases internal validity. I have included pre- and post-format based text feature book interviews, observation of play situations, artifacts created by the participants, my reflective journal and field notes to further triangulate data. Each of these data sources contributed to an understanding of the ways in which play acted as a scaffold. For example, it was noted whether specific text features noticed and/or explained during the postinterview of format based text feature book interview were discussed during play. The written texts of the students provided additional evidence that a text feature mentioned during the format based text feature book interview and/or play was used by students in an authentic task. The wealth of data from multiple sources provided a detailed picture of the authentic use of format based informational text features.

Guba (1981) recommends the inclusion of "member checks" to validate one's thinking about the data collected. In particular, I was concerned with whether my assumptions had unduly influenced my thinking and created a barrier to other ways of interpreting the data. In this study, member checks include discussions with knowledgeable adults as well as interviews with the student participants to understand their thinking while playing. The member checks required me to question my methods, return to the literature, and further develop the codes used for analysis. **Transferability.** This provision of trustworthiness refers to external validity. The findings of my research was related to the context of these particular students in a specific setting. Although I did "...collect 'thick' descriptive data and develop thick descriptions of the context" as suggested by Guba (1981, p. 86), generalizing to a larger population is not the goal of this research. Instead, I hoped to gain understanding of play and its relation to informational text in this specific setting and therefore is only generalizable to similar populations and context. Generalizability would be strengthened if similar methods were employed in a different context and may be an avenue for future research.

Dependability. Dependability and credibility are closely related criteria. Dependability seeks to show that "if the work were repeated, in the same context, with the same methods and with the same participant, similar results would be obtained" (Shenton, 2004, p. 71). To increase dependability, I have described, in detail, my research design and methods for data collection and analysis. A format was developed for the Format Based Text Feature Interview that was used for all participants. A script was developed to introduce the play to the students and was used for all participants. This ensured that others could judge the dependability of my work.

Confirmability. Confirmability relates to the idea of objectivity. Qualitative research, by its very nature, does not seek investigator objectivity, but rather data and interpretational confirmability (Guba, 1981, p. 87). Shenton (2004) states that the researchers must ensure "that the work's findings and interpretations are the result of the experiences and ideas of the informants, rather than the characteristics and preferences of the researcher" (p. 72). Confirmability is enhanced through the use an audit trail of data and the theoretical framework of the researcher (Shenton, 2004). My data audit trail consists of book interviews, transcripts of student play, student artifacts and field notes. Guba recommends that qualitative researchers "intentionally

reveal....underlying epistemological assumptions" and "...document shifts and changes in (the researcher's) orientation" (Guba, 1981, p. 87). The theoretical audit trail is provided by my theoretical framework and supplemented by my reflective journal. The lens through which my data collection and analysis was viewed includes three key assumptions: 1) reading and writing are semiotic activities that are transactional in nature, 2) play promotes learning and 3) an expanded view of literacy is needed to develop real-world literacy. The reflective journal was helpful to note shifts in my thinking as the research progressed. As mentioned previously, the shift in thinking that allowed me to view the activities of students while composing as primarily playful was brought about by reflection on my analysis.

Summary

Qualitative research design provides many safeguards to ensure rigor and trustworthiness. The best precaution is to design research that follows well recognized research methods and is explicit about the participants, data collection and data analysis. I have strived to do this by choosing research methods that are well-defined and evidence based. My data collection provides triangulation of data so that different aspects of participants' voices and actions inform the findings. Member checks from knowledgeable adults and from the participants provided opportunities to reflect on my initial thinking. By considering these factors prior to beginning the research, I was able to ensure rigor and trustworthiness in my research.

CHAPTER 4

Findings

This research study examined the value of play as a scaffold for second graders to develop a greater understanding of informational text features. The findings described in this chapter were guided by the following research questions.

1) How do second grade students incorporate their knowledge of format based informational text features into their writing during play situations?

2) What do second grade students know about format based informational text features after role playing in a literacy enriched play setting?

Findings from the pre and post-interview, video transcripts of students role playing and composing as reporters, and the informational text produced by the participants will be presented to answer the research questions.

Using Informational Text Features during Play

Context of Play

To answer the first question, the data were analyzed to examine how students acted in different play situations. To determine if play was indeed present during both the reporter observation and composing components of the intervention, the video transcripts of the participants was analyzed. Because the two types of play, observing and composing, may have produced different comments/actions by students, transcripts of both activities were analyzed for playfulness.

During the initial day of role playing as reporters, the students had notepads, pencils, and a camera for props. The teacher gave minimal directions on how to play reporter, simply requesting that the students see how the other students were playing and to take notes while they were observing. The students were told they would later write a book about the play time. The students used their understanding of what a reporter does as they began observing classmates who were involved in their own freely chosen play activities in a classroom setting. The reporters observed, took notes and photographs, and asked questions of classmates. Posing questions of classmates often prompted more note taking. To determine whether the students were engaged in play, the transcripts were analyzed using a coding scheme suggested by play research, which includes the categories of nonliterality, transformation, experimentation, free choice and pleasure (Daiute, 1990; Johnson, Christie and Yawkey, 1987; Smith & Vollestedt, 1985, Sutton-Smith, 1970). Appendix F and G provide definitions and examples of each play type for the reporter role play and the student play while composing.

Role Play as Reporters

The data suggested that the students had, indeed, adopted a playful stance during the first session of the study with 90% of student comments/actions reflecting one of the categories of play. Table 1 lists the type of playful comments/actions and non-playful comments/actions for each group of students. Each group consisted of three students who worked together to observe play choices in the classroom and then produced an informational text about the play they had observed. Data are reported by group rather than individual because the students worked in teams to observe the other students play and then write an informational book about the play they had observed.

Table 1

	Nonliterality	Transformation	Experimentation	Pleasure/ Positive Affect	Free Choice	Non-Playful	Total Percent Playful Comments	Total Number of Student Comments
Group 1	44	8	33	3	4	8	92	101
Group 2	47	10	23	13	4	3	97	135
Group 3	31	1	20	4	14	29	71	70

Percentage of Comments/Actions by Category on Day 1

Play While Composing

On Days 2-5, the students composed an informational text to explain their observations. Analysis indicated the students also adopted a playful stance while composing with 60% of their responses categorized as play across the three groups. Table 2 lists the type of playful and nonplayful comments/actions by group for Days 2 -5. The data indicates play was indeed present during the composing phase of the intervention. This finding is not surprising based on previous play research which has found that play permeates the lives of children (Bruner, 1983; Daiute, 1990; Rowe Wells, 1998).

Table 2

	Nonliterality	Transformation	Experimentation	Pleasure/ Positive Affect	Free Choice	Non-Playful	Total Percent Playful Comments	Total Number of Student Comments
Group 1	0	2	43	9	8	38	62	454
Group 2	0	9	54	2	11	24	76	447
Group 3	0.5	4	36	5	6	57	42	190

Percentage of Comments/Actions by Category on Days 2 -5

Conversational turns while composing were analyzed for the type of play it represented because it was while students were composing that they had the opportunity to use informational text features. The following section describes how the play categories of nonliterality, transformation, and experimentation were used to describe play while composing for each of the groups. Pleasure/positive affect (laughing or positive comments about the activity) and free choice (talking to other students or the camera) are not discussed as they did not contribute to student composing.

Nonliterality. Nonliteral play during dramatic play is characterized by violations of reality such as when students pretend they can fly. Nonliteral play while composing also involves violations of reality such as when students write themselves into a fictional story they are creating or play out roles as they compose. Aside from the overall pretense of students acting as reporters, there was only one instance of nonliterality during the composing sessions which was seen with Group 3 (see Table 2). When the teacher suggested the students in Group 3 help each other, Emma said, "I'll pretend that Tommy's the teacher and Tommy can pretend that I'm the teacher. It is likely that the rare instance of nonliteral play was related to the informational focus of the writing.

It is unlikely for a student to include nonliteral comments/actions while composing when the goal of writing is to inform others.

Transformation. Transformation refers to the fluidity of play. In dramatic play, roles are defined and changed as the play proceeds. While playing house, children can adopt the traditional roles of mother, father and baby, but quickly change to superheroes if the play turns in that direction. During playful composing, student play with language and interpersonal play rely on the same fluidity. For example, while trying to decide which words could be used to describe the Hangman board game, Nathan suggested "sanitize". As Joe and Nathan debated the appropriateness of "sanitize", Stephen suggested "flippy, flippy". Nathan indicated his approval when he said, "(o)ooh, you flip things over" which resolved the debate over the word sanitize. In another aspect of play, interpersonal play, one child's comments or action elicits an unknown reaction by another and can cause the play to change moment by moment. Interpersonal play is indicated by friendly competing and gentle teasing. An example from this research is from Group 2 when Stephen made silly faces for the camera and Nathan tried to get him back on track by teasing him about being influenced by the videotaping by saying, "Stephen, it really looks like there's camera fright." He then turned to Joe, who also was acting silly and not contributing to the writing and said, "Really, Joe?" In both instances, Nathan was able to tease his friends into returning to the writing task.

Group 2, at 9%, had the highest proportion of transformations. Groups 1 and 3 were lower, with 2% and 5% of comments/actions recorded as transformation (see Table 2). The higher percentage of transformation comments/actions from Group 2 is likely due to the membership of that group; it was an all boy group. It was the only group that did not have mix of boys and girls.

Also, the boys had been in the same class for the last three years and played together regularly likely creating a strong affinity group (Fernie, et al., 1995; Gee 2008).

Experimentation. Experimentation during dramatic play emphasizes process over product. Children who are playing restaurant do not care if an order is written precisely or correct change given. It is the process of taking an order that is important for the person role playing as a waiter rather than the precise encoding of a customer's order. As can be seen in Table 2, the students in this study used experimentation frequently as they wrote a text about the play activities in the classroom. There was a high proportion of the play comments/actions of each group coded as experimentation. Group 2 had the highest percentage of experimentation while composing with 54% of the comments/actions coded as experimentation. Of the comments/actions of Group 1, 43% were coded as experimentation. Group 3 had the lowest percentage (36%) of their comments/actions coded as experimentation among the three groups.

The category of experimentation subsumes three types of experimentation. During playful writing, students experiment with composing, knowledge and imagery. Table 3 provides a breakdown of experimentation with composing, knowledge, and imagery comments/actions for each group. In the sections below, examples of experimentation from the categories of composing, knowledge and imagery are described.

Table 3

	Composing	Knowledge	Imagery
Group 1	48	37	16
Group 2	49	50	0.8
Group 3	63	36	1

Percentages of Experimentation Types by Group

Experimentation with Composing. Experimentation with composing involves the back and forth posing of alternative phrases or sentences. For Groups 1 and 2, approximately half of the comments/actions were coded as experimentation with composing, while Group 3 had 63% of its comments/actions coded as experimentation with composing. The data suggests that, for all the groups, a focus of the playful comments/actions by students were related to writing the informational text. The following paragraph provides examples of experimentation with composing that demonstrates the collaboration between students as they built upon each other's ideas to write precise directions.

While acting as scribe for Group 1, Rachel said, "Okay, so I'm going to write....move the cars until the truck gets out. Allison thought for a moment and then said, "No, move the cars until the ice cream truck can get out." After some back and forth posing of alternatives, both girls decided Allison's suggestion was the best choice. In another example, Joe, Ethan, and Nathan (Group 2) overlapped each other's sentences as they collaboratively revised their instruction on how to play with the mazes.

Evan	"You could write how to"
Nathan	"You could write start from the start. Try to"
Evan	"Try to get through the rooms"
Joe	"Try to get through the rooms and"
Nathan	"Try to get to the finish."

Even though the trio interrupted each other repeatedly, each suggestion was accepted and built upon by the others. In another instance, Emma and Tommy collaborated to write directions on how to play school. Emma suggested, "You could erase this and put turn the thing around." Tommy clarified by suggesting "Turn the big books around." Emma accepted Tommy's suggestion and added on saying, "turn the big books around and write the schedule."

Experimentation with Knowledge. Another form of experimentation during play was when students experimented with knowledge as they tried out new facts or concepts about informational text. About one third of the comments/actions from Group 1 and 3 were coded as experimentation with knowledge, while Group 2 had 50% of its comments/actions coded this way (see Table 3). Students in each group suggested informational text features to add to their book. For example, near the end of Group 1's first composing session, Rachel suggested they needed an index, glossary and bold words, while Stephen wanted a diagram and labels. For Group 2, Nathan mentioned diagram, labels, and photographs and Joe and Evan realized a need for a Table of Contents. Group 3 mentioned the need for a diagram. Table 4 lists the informational text features mentioned in each group.

Table 4

	Group 1		Gro	up 2	Group 3	
Text Feature	Mentioned by One Student	Mentioned by Other Students	Mentioned by One Student	Mentioned by Other Students	Mentioned by One Student	Mentioned by Other Students
Table of Contents	Yes	No	Yes	Yes	No	No
Heading	Yes	Yes	No	No	No	No
Photo	No	No	No	No	No	No
Diagram	Yes	Yes	Yes	Yes	Yes	Yes
Bold Word	Yes	Yes	No	No	No	No
Glossary	Yes	Yes	No	No	No	No
Index	Yes	Yes	No	No	No	No
Label	Yes	No	Yes	Yes	No	No

Text Features Mentioned by Group

It was while students were experimenting with their knowledge of informational text features that they had the opportunity to discuss text features and use text features to organize their writing. As can be seen in Table 4, each group had opportunities to discuss various text features that were then mentioned by another member or members of their group on either the first day it was mentioned or on subsequent days. Group 1 had the most references to informational text features, mentioning 7 of the 8 target text features that were analyzed in the pre- and post- interview. Group 2 referred to 3 out of the 8 features and Group 3 referred to 1 out of the 8 features. Sometimes the text features were mentioned during revisions when students were trying to make their writing look like an informational book and at other times it occurred during the initial composing process. For example when the teacher asked Group 1 what they wanted to add to their pages to make it look like an informational book, Rachel said she wanted to "do an index", "a glossary thingamabob"

and "bold words." Stephen said he wanted to "label the pages" and add a "diagram." On subsequent days, the students sometimes began referring to the text features first mentioned by others. For example, on the second day of composing by Group 1, Allison began using the term bold words and labels that Rachel had mentioned on the first day. Stephen had suggested they needed "details" to make their directions better and Allison suggested to Stephen, "(h)ow about the details of question marks, punctuation and bold words?" She also used the word label, which was first mentioned by Rachel on the first day, saying "you could make the table and then label cars, cards." Stephen also began using words mentioned by another member of his group. He suggested they needed bold words and an index for their book.

Groups 2 and 3 also had instances of experimenting with informational text features. Nathan, in Group 2, mentioned a diagram and labels and referred to photographs as "real person pictures". While deciding on a layout for their page about mazes, Nathan said, "I got a good idea. I just got it. We can make it kind of big and do a diagram of one of the mazes." Evan was excited about the idea and repeated the word diagram saying, "a diagram!" Later on that same day, the third member of their group, Joe, also referred to a diagram while making a suggestion for the layout, saying that in one section they needed "a diagram". Group 3 had one instance when they discussed informational text features to use. While trying to come up with an idea to explain how to play school on the first day of their composing, Emma flipped through an informational book and found a diagram. She excitedly told the teacher, "(w)e could do a map on it…" Another member of her group, Aubrey, indicated Emma was making a diagram and said," (s)he's showing all the materials and what they are."

In each of the groups, students built off of each other's ideas for informational text features. In some cases they referred to a text feature and in other instances they incorporated informational text features into their composing. The playful composing allowed students the opportunity to collaborate and use informational text features that they might not have used otherwise.

As is shown in Table 4, the groups varied greatly on the number of text features mentioned during their composing sessions. While having the highest percentage of comments/actions coded as experimenting with knowledge, Group 2 mentioned only three of the targeted text features; table of contents, diagram, and label. Group 1, with 37% of their comments/actions coded as experimentation with knowledge, mentioned seven of the eight targeted text features; table of contents, heading, diagram, bold words, glossary, index, and label. Group 3, with 36% of their comments/actions coded as experimentation with knowledge as experimentation with knowledge comments and label. Group 3, with 36% of their comments/actions coded as experimentation with knowledge only mentioned the informational text feature diagram while composing. The amount of experimentation with knowledge comments was not related to the number of text features discussed by the groups.

Experimentation with Imagery. On the final day of composing, when the last revisions and editing took place, there were more instances of experimentation with imagery than on the other days. The experimentation category of imagery consists of instances when students appealed to the senses by using color, drawings or items to make their books look appealing. The students wanted to make their books colorful, suggesting that the title and headings be typed in specific colors and drawing pictures of designs on the covers. Group 1, at 16% had, by far, the highest percentage of comments/actions coded as experimentation with imagery. In Group 2 and 3 had 0.8% and 1% of color for their book, reminding the teacher seven times about the colors she wanted. Evan, from Group 2, very much wanted a back cover for their book, although he seemed unclear about the purpose for it. He returned to the topic four times with suggestions such as "you could write little words on the back like, How Did You Like the Book?" and "should we write by....(our

names)" Emma, in Group 3, picked a red marker to write the title on the cover and told the teacher she wanted it printed in red.

Similarities Between Role Play and Composing

Comments/actions of the students during role play and while composing playfully were compared to determine if comments/actions during both parts of the play were analogous. Table 5 shows that, indeed, they were similarities between the comments/actions of the students during the role play on Day 1 and the composing play on Days 2 - 5.

Table 5

Comparison of Comments/Actions During Role Play and Composing

Play Characteristic	Role Play Examples	Composing Play Examples
Nonliterality	Students pretended they were	A student said she would
Simulations of reality	reporters by asking questions	pretend to be a teacher when
	and taking notes and	helping another student in her
	photographs.	group.
Transformation	1) Students stepped out of	1) Competed with each other
Roles are fluid	character to instruct those	over whose turn it was to talk
	they were observing.	or write.
	2) Students could be serious	2) Students teased each other
	and/or tease others while they	over their actions.
	were reporters.	3) Students whispered to each
		other to maintain intimacy.
		4) Students switched between
		conversations that were about
		the composing topic and conversations that were off
Experimentation	Students tried out what it	topic.
Experimentation Process over Product	looked or sounded like to be a	1) Students suggested alternative
Theess over Thouder	reporter.	words choices while
	reporter.	composing
		2) Students tried out format
		based
		informational text features for
		their
		own books.
		3) Students tried out different
		colors
		layouts or designs to make
		their work look appealing
Free Choice	Students made their	Students played with each
	own decisions about what	other or for the
	they observed, what questions	camera at times instead of
	they asked and how long to	composing.
	stay at each area.	~
Pleasure	Smiles, laughter, positive	Smiles, laughter, positive
	comments about the	comments about the
	play situation.	play situation.

For the most part, nonliteral actions were not explicitly stated by the students. They can be inferred by the way they asked questions, took notes and use the camera to take photographs during the role play. Similar actions were seen during the composing portion of the play. They understood their role was to write an informational book to explain their observations. Each day, they organized themselves and began working. As an example, on Day 3, Joe and Nathan started sketching out their ideas. Nathan turned to Joe and said, "You take the words one and I'll take the pictures." They both began the task they had set for themselves.

Transformation was seen in both role play and while composing because in both settings, the roles were fluid. At one moment, the students might tease one another and then quickly turn serious. While role playing, Joe laughed as he pretended to eat a piece of plastic food given to him by the girls who were playing house. An instant later, his smiled disappeared and he walked to a nearby table to take notes about what he observed. The same fluidity was apparent during composing. Stephen, in Group 1, liked to make his teammates laugh by suggesting silly things to add to their directions on how to play the game Spoons. After the second step in the directions, put three spoons on the table, Stephen suggested, "Gavin was eating fruit snacks" for the third step. Allison and Rachel laughed heartily and repeated "Gavin was eating fruit snacks." Allison turned serious and said, "That wouldn't make sense" and began writing the third step.

Experimentation was evident in both role play and composing. While role playing as reporters Allison, from Group 1, experimented with how to be a reporter by coaching her group members. Allison was taking photographs of classmates playing the game Rush Hour. She leaned toward Rachel and whispered, "Ask them a question" before turning to Stephen and directing him to "Ask a question." While composing, the students experimented with word choices, format based informational text features, and how to make their books look just the way they wanted. An

example of experimenting with word choice is when Tommy and Emma were writing directions on how to play school. Tommy suggested, "Make sure the teacher isn't bossy" and Emma countered with "No mean teachers." They agreed on "No MEAN teachers." Free choice during the role play was expressed by student actions. Nathan, from Group 2, was leaning against a table writing notes about what he had seen. He suddenly stood up and went back to where he was last observing and began asking more questions. Free Choice was expressed during composing as students wandered away from the spot where the group was working to talk to friends, or used pencils, notebooks or photographs as toys. An example comes from Group 1 as they were discussing the text features they wanted to add to their book. Allison suggested labels and Stephen suggested they should "label pictures". During this time, Rachel drew a picture on the back of her notebook. She nudged Stephen with her elbow and his jaw dropped. Then Rachel and Stephen began to laugh.

Pleasure could be seen during both the role play and the composing portion of the play intervention. While role playing, all students were seen laughing and smiling. While composing, the students laughed and smiled. They also showed their pleasure by stating how much they liked the activity. Ethan, from Group 2 said, "I like how you let me do this 'cause I didn't think I was going to." When the teacher said it was time to be done, Tommy groaned and said, "I want to do this all of the day." Months after completing the play intervention, Joe asked the teacher if they could do it again.

Artifacts Extend Play and Scaffold Writing

The references to artifacts while students were composing was noted because research on literacy play recommends the addition of props to enhance literacy learning (Neuman & Roskos, 1997; Stone & Christie, 1996). The ways in which the artifacts were used by the students in this study suggests the props increased their play and helped them incorporate format based informational text features into their writing. Table 6 shows that the students turned to their props frequently. The ways in which the props were used are discussed in the following sections.

The artifacts that students used were their (1) reporter notebooks in which they had written notes on Day 1, (2) photographs they had taken on Day 1, (3) informational trade books on a variety of topics, and (4) the games and toys students had been playing with while the participants observed as reporters. Table 6 shows group averages for referencing artifacts per composing session. Groups 1 and 2 had the greatest number of references to the artifacts while composing with averages of 11 and 13 times each per session, respectively. Group 3 had 6 references to the artifacts per session.

Table 6

Artifact References by Group

	Total References	Average Number of References Per Session
Group 1	45	11
Group 2	53	13
Group 3	24	6

It was expected that the students would use the reporter notebooks to help them remember what they had observed, use the photographs as illustrations for their books, and use the informational trade books as a reminder of informational text features that are commonly used in texts. Although the students used the artifacts in ways that were expected, as listed above, the students also extended artifact use in ways that were not anticipated. The students used the artifacts as 1) play objects and 2) as a scaffold for their writing. The artifact use is discussed in the following sections. Artifacts Used as Play Objects. While analyzing the data, it became clear the artifacts were used by the students as props for their play. In several instances, the students transformed the photographs from images on paper to objects for play. For example, while thinking what to write next, Rachel held a photograph to her forehead. With both hands on either side of the photograph, she bent it around her head in what seemed like an unintentional act. All at once, her face lit up and she announced in a British accent that she was wearing a tiara. At first, her other two team members, Stephen and Allison, acted unimpressed, but then they each picked up a photograph and pretended they were wearing tiaras, too. In another instance, as Rachel and Allison were debating the best choice of words to explain how to play a game, Rachel ran her fingers over the game pictured in a photograph as if the photograph was the actual game. She moved her finger as if it were a game piece on the board.

The artifacts also served as a focal point for shared jokes among the team members. In one instance, Stephen commented on the package of fruit snacks that was visible in a photograph. Saying the phrase "fruit snacks" became a way to make his team members laugh. Nathan and Joe shared a laugh when looking at a photograph of classmates. Allison got a laugh out of Stephen when she jokingly suggested they label the students in one of the photographs. Nathan pointed to the title of one of the informational trade books and he and Joe burst out laughing.

Emma, in moments when she seem disengaged from the composing process, was often seen to be flipping the pages of the book between her fingers. She was not looking at the pages, but rather it seemed like sensory manipulation which was done for the motion and feeling. Other students also handled the reporter notebooks as props. One students pushed a pencil through the spiral binding and called it a flag, while another student used a pencil pushed through the spiral binding as a handle by which to swing the notebook. Throughout the composing process, the students used artifacts as part of their play. To the casual observer, it may have even seemed that the artifacts distracted students from the task at hand. The results indicate otherwise. Much as adults might doodle in the margins of their paper while thinking or share a laugh with a colleague, children play with objects and each other. In this study, play was an important component of students' interactions with each other and their environment.

Artifacts Used to Scaffold Writing. The games and toys used for play by classmates during the observations were requested to be used by the reporters during the composing process. Extended play with the toys seemed at first to be a way to avoid the writing task and seemed a distraction to the students. Deeper analysis of the data showed otherwise. Playing with the toys seemed to scaffold the writing process. Group 3 was stymied by how to begin their "How To page" to play Zingo until they had spent time playing the game. Emma said that she knew how to play the game, but didn't know where to begin writing. She and Aubrey played with the game for a while then Emma began her writing with "I'm writing first grab a board. Second take the....." When they were revising their writing, Emma again asked for the Zingo game. She and Tommy began playing with the game. The physical action of playing the game seemed to inspire the writing process and Emma finished her composing. Evan, Nathan and Joe, from Group 2, used the photographs at first, to begin writing about the mazes, but ran out of ideas. Joe asked, "Can I get the mazes?" While playing with the mazes, Nathan noticed there was a start and a finish and pointed it out to the group saying, "See, there's start and finish right there", which was later incorporated into their directions. Later as Evan, Nathan and Joe revised their writing about the mazes, Joe went to the shelf and brought the mazes to the group. As Nathan was playing with a maze he said, "I think the castle maze is hard because there's a whole bunch of holes and it's really hard to get your hands real slowly." When he wrote a description of the castle maze in the text, he wrote, "(t) he castle maze is hard because there are so many holes." Playing with the mazes helped them decide what to write.

In several instances, the students used photographs to guide their writing. Instead of writing and then choosing photographs to illustrate their text, the students reversed the process and decided what to write based on the photographs. In many instances, the teacher told the groups they could take more photographs, but except for one instance, the students chose to use the ones they already had. For example, when Nathan was trying to decide what to write, he looked at the photographs and said, "I think that we have two pictures of writing. We should put them (here) and then I want to change that (part)." While Allison, Stephen and Rachel, from Group 1 wrote the directions to play Rush Hour, they made frequent use of the photographs. Although they knew the first steps they wanted to write, 1) go to the shelf and get the game and 2) set the game down, they were stymied about what to write next. The teacher suggested they look at the photographs. A photograph of a card with the directions spurred them to write, 3) get the directions out. After some discussion of a photograph that showed the game board being assembled based on the directions, Rachel suggested, "set the cars on the tray and make sure they match the cars" for the fifth step. The three students took turns looking at the photographs and using them to demonstrate their thinking during this entire exchange. Then Allison and Rachel collaborated to write the sixth step. Allison began by saying, "the next step would be..." and Rachel finished the sentence with "move them so the car can get out. Allison told her no, turned the photograph toward her and said, "Move the cars and let the ice cream truck move here and then get out." Rachel slid across the table, grabbed the photograph and said, "You move the cars so all the cars get out." Allison said, "No, no." Rachel began flipping through the photographs until she found one that showed the

direction card. Rachel appealed to Stephen who agreed with Allison and then Rachel wrote the last step. The photographs were looked at, shown to make a point and held as if they were the game board to clarify the directions throughout this three and a half minute exchange.

The photographs also served to spur conversations and helped students to generate ideas. While designing a page to explain Hangman, Joe and Nathan chose a photograph and placed it in the middle of the page. They called out suggestions such as, "she (Emma) could write about the fundamentals of playing hangman" and she could write "describing words of how you play the game." In another instance, Rachel and Allison used the photographs to settle a dispute about what constituted a match in the game Spot It. Using one of the photographs, the girls discussed how the game was played. Allison pointed to a pair of cards in the photograph and said, "See? A clock and a clock." Rachel examined the photograph, and said, "The cards are in her pile. And she is saying she got it and putting it into her pile. 'Cause you just put out two cards, right?" The photograph helped settle the dispute. These examples demonstrate that the photographs were an important part of the composing process helping students to choose the words they wanted to write as well as illustrate a point of clarification they were making.

When students were unsure of what to write next, they often turned to the trade books for ideas and looked through the books for extended periods of time. In many instances, the books were an aid in the writing process, helping students use informational text features in their own books. For example, Ethan paged through a book on sharks for a while. He was reminded by the teacher not to read the book, but just look through it. But, apparently his method made the most sense to him because moments later he said with excitement, "Facts! We could do Special Facts about the book!" In another instance, Rachel was finishing a drawing to put in their book and was satisfied with her work. Stephen apparently was not. He showed her an informational book and said, "So Rachel, you should point out what they are doing like labeling the thing." When Emma looked through an informational book to get an idea how to write about playing school, she saw a diagram but didn't correctly remember what it was called. With excitement she said, "laminate, laminate thing" as she referred to a diagram in the book. She then began to make a diagram using one of the photographs that William had taken of students playing school. She placed the photograph in the middle of the page wrote labels such as board, book, and marker with lines drawn from the label to the object in the photograph.

The students in this study made frequent use of artifacts. The artifacts were used for interpersonal play, to help students decide what to write or as a model for informational text features. In this study, the artifacts seemed to serve similar roles to props that younger students use while involved in dramatic play.

Conclusion

Analysis of the data overwhelmingly shows that the students in this study incorporated format based informational text features into their writing by infusing play into all of their reporting and composing. Overt playful actions with interpersonal play was present, but less obvious instances of transformation play included play with word choice. Nonliteral play was only seen in one instance as might be expected when students were working with a factual writing task. Students in this study frequently used experimentation to decide which text features to include or to make decisions about page layout or design.

The students used the artifacts in ways that were expected as part of the intervention. They used their notes to remember what they had observed, used the photographs as illustrations and looked through informational books as a resource for informational text features. They also used the artifact in ways that were unanticipated. The students used artifacts as props for play and conversation. The artifacts also served to guide the writing of the students rather than a supplemental support for writing. The trade books and the photographs spurred students to incorporate informational text features into their writing. The artifacts served the function of props as is seen in other forms of play and extended the play of these students.

Student Knowledge of Informational Text Features

To understand what second grade students know about informational text features to answer the second research question, the students were interviewed twice in this study; once before the intervention and once after the fourth day of the intervention. For both the pre- interview and the post- interview, students were handed an informational trade book that was at or near their reading level. Instead of reading the text, students were asked to look at each page and tell what they noticed about the informational texts.

Pre-Interview Data

Table 7 provides group data related to the pre- and post-interview. The pre-interview provided information about students' knowledge of informational text features prior to the play intervention.

Table 7

Pre-I	nterview So	cores	Post-Interview Scores			
Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	
0	0	0	4	4	5	
0	2	2	2	5	2	
1	2	0	2	3	3	
6	4	3	4	6	6	
1	0	0	3	1	4	
0	2	4	4	2	6	
5	4	4	6	6	4	
4	3	2	6	3	1	
17	17	15	31	30	31	
6	6	5	10	10	10	
	Group 1 0 1 6 1 0 5 4 17 6	Group 1Group 20002126410025443171766	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	

Pre- and Post-	Interview	Informational	Text Features	Scores by Group

*2 points were possible for each text feature; 1 for noticing and 1 for explaining

The average informational text feature scores on the pre-interview were six for Groups 1 and 2 and five points for Group 3 out of a possible sixteen points. This demonstrates that all the Groups had similar familiarity with informational text features prior to the intervention. With the exception of one student in Group 2, all of the students in each group noticed at least one of the diagrams in the book. The index and labels were also noticed by the majority of students. Headings, and photographs were noticed by few students, whereas the table of contents was not noticed by any student across all three groups.

When students noticed a text feature, they were prompted to "tell more about it." Five out of eight students who noticed a diagram were able to explain the text feature. For example, when Allison mentioned the table of contents, she explained it by saying, "It tells you what page to go on. Like "How Bees Are Born" is on page 4." The majority of students who noticed the index were able to explain it. Only two of the nine students who noticed a label were able to explain it. In all, text features were explained in eighteen instances during the pre-interview.

Qualitative analysis of the data revealed that during the pre- interview, some students talked about the information in the book much in the way they would on a picture walk before beginning to read a book. For example, Emma began by explaining the first photograph, saying, "I notice that it's sort of like the thing they're eating. And in this one (the photograph on the next page) I see that the ant is on a branch and it tells you what it has. When she noticed a full page diagram, she said, "This shows what the ant looks like." When she reached the page with the word glossary as a heading, she turned toward the interviewer as if she was finished with the interview. Even though she was on a page with a text feature that was noticeable and she was prompted by the interviewer to tell anything else about the book, she did not notice the glossary or continue to look at the book.

Tommy also began the pre-interview by making a general comment about the topic of the book rather than honing in on informational books. He said, "I know a lot about bees." As he turned each page, he commented on the pictures saying, "he's very big" after apparently noticing the heading, "How Big Are Bees". The interviewer had to prompt him twice about why he commented on the bee's size before he looked at the book and pointed at the heading. Nathan also noticed a heading – "How Bees are Born". When prompted to tell more about the heading he said, "It's kind of like announcing a chapter." Students made general comments such as "it looks like the bee is getting honey." At other times they made connections to the text with comments such as, "I was bitten by a red ant once." These comments were more general rather than related to informational text features. This indicates that although the students noticed and could explain some of the text features, they did not zero in on their importance. In much the same way a young child can name the letters of the alphabet and produce the sound associated with the letters, it is not until the letters are used to encode or decode a message, that the importance of letters and

sounds becomes clear. The students in this research noticed some of the text features and could sometimes explain what a particular feature was, but they did not recognize why the format based informational text features were used by the authors in the book.

Post-Interview Data

All students improved their performance from the pre to post-interview after participating in the intervention. Although the post-interview was completed three months after the preinterview and play for Groups 1 and 2 and more than two months after the pre-interview and participating in the play for Group 3, students were more aware of informational text features. Post-interview data is presented in Table 7 shown on page 90.

The average score in Groups 1 and 2 increased from six points to ten points. For Group 3, the average scores doubled, from five to ten points. The biggest gains were in the categories of table of contents, headings, and bold words. The scores for photographs and glossary doubled. Furthermore, more students were able to explain the text features they noticed. The number of text features that were explained by students more than doubled from 18 during the pre-interview to 39 occurrences during the post-interview.

There were also qualitative differences between the pre- and post-interviews. In contrast to Emma's rambling start to the pre-interview, she began the post-interview by discussing the title page and the table of contents by saying, "on the first page of every informational book, it says what are ants or what are bees..." Tommy began the post-interview with a focus on informational text features by saying, "I notice a diagram" and explained that diagrams "show you the parts of the body." When he read the heading, "What Do Ants Eat", and commented on it, the interviewer prompted him to talk more about the heading. Tommy said, "I was looking at the heading up there" and then explained a heading by saying, "... if you go into the table of contents it will tell

you what page it's on." He pointed to the heading at the top of the page and then flipped to the table of contents to explain how a heading is part of the organization of the book. This is in contrast to how he mentioned headings during the pre-interview, in which he simply pointed to the heading - "How Big Are Bees" – to indicate why he mentioned the size of bees. This indicates that during the pre-interview he not only didn't remember the word heading, but was unable to explain anything about headings. Evan did not notice the table of contents during the pre-interview, but did during the post-interview. While discussing the diagram of an ant near the end of the book, he flipped to the table of contents to illustrate his point. When he was asked what he was looking at he said, "the table of contents (sic) – so you don't have to look through the whole book. You open the book and see the table of contents. You can go anywhere you want." When Nathan was asked to tell more about headings in the post-interview, he elaborated much more than he had in the pre-interview. He said, "(w)hen you have a table of contents you usually have a heading so you know which chapter it is."

Comparison of Pre- and Post-Interview Data

During the interval between the pre and post-interview, the participants were not taught about informational text features. Tables 8 presents the average scores of each individual and group on the pre and post-interview.

Table 8

		Pre-Interview		Post- Interview		Growth	
		Individual	Group	Individual	Group	Individual	Group
Group	Name	Raw	Average	Raw	Average	Raw	Average
		Score	Score	Score	Score	Growth	Growth
	Allison	4		9		5	
1	Rachel	7	6	13	10	6	4
	Stephen	6		8		2	
	Nathan	7		14		7	
2	Joe	4	6	8	10	4	4
	Evan	6		8		2	
	Emma	1		9		8	
3	Tommy	8	5	13	10	5	5
	Aubrey	6		9		3	

Individual and Group Growth from Pre to Post-interview

Individual and group data are presented because the variability in growth by individuals is not as readily apparent when displayed as a group average. When presented as averages, the groups showed similar familiarity of format based informational text features prior to the play intervention and similar growth after the play intervention (see Table 6 and 7). At the individual level, however, it can be seen that some students demonstrated a greater knowledge of informational text features prior to the play intervention. Rachel and Stephen from Group 1 and Tommy and Aubrey from Group 3 showed the greatest knowledge of format based informational text features did not, however, translate into a higher score on the post-interview. Rachel (Group 1) and Tommy (Group 3) scored six and five points higher respectively on the post-interview. Stephen (Group 1) and Aubrey (Group 3) showed less of an improvement with two and three points increase, respectively. The corresponding pre-interview scores for the members of Group 2, Nathan, Joe and Evan were seven, four and six. Evan and Joe increased their scores on the post-interview by two and four points, respectively, while Nathan increased his score by seven points on the post-interview. This

suggests that having group members with greater awareness of text features is not necessary for students to learn more about text features during play or that knowing many text features necessarily primes students to notice more text features during play. Whether the data is presented in group averages or at the individual level, it can be seen that all students noticed more about informational text features in the post-interview. The play intervention seems likely to be responsible for the growth from the pre to post-interview.

Influence of Informational Text Features Use by Group Members

Social constructivist theories suggest that we learn through interactions with others (Bruner, 1983; Piaget, 1959, 1962; Vygotsky, 1935/1978). Therefore it is possible that students in groups that heard informational text features and saw how they were used by other group members may have been able to learn from these interactions. Thus, student conversations while composing were analyzed to determine which informational text features were mentioned by students in each group as well as which other students in the group began using the same words. This data is also used to illustrate the influence of informational text feature usage during play on individual's knowledge of text features during the post-interview. Hence, the data were used to answer both research question 1: How do students incorporate format based informational text features know about format based informational text features after role playing in a literacy enriched play setting?

In some groups, many text features were mentioned and subsequently used by other members of the group, while in other groups few text features were mentioned or used by other group members. Table 3 (shown on page 73) lists the text features that each group mentioned and which text features were then mentioned by other students in each group. Table 9 lists the text

features that students noticed in the post-interview, but not in the pre-interview and whether those text features were mentioned during the play by any member of the group.

Table 9

Name	Group Number	Text Feature Noticed During Post-	Mentioned During	Not Mentioned
		Interview	Play	During Play
		Table of Contents	X	
Allison	1	Glossary	X	
		Labels	X	
		Table of Contents	X	
Rachel	1	Heading	X	
Kachel	1	Diagram	X	
		Glossary	X	
		Heading	X	
Stephen	1	Bold Words	X	
		Glossary	X	
Joe	2	Heading	X	
		Table of Contents	X	
		Heading	X	
Evan	2	Photograph	X	
		Glossary		X
		Label		X
		Table of Contents	X	
Nothor	2	Bold Words		X
Nathan	2	Glossary		X
		Index		X
		Diagram	X	
A1	2	Table of Contents		X
Aubrey	3	Photograph		X
		Bold Words		X
		Table of Contents		X
Emmo	2	Bold Words		Х
Emma	3	Glossary		Х
		Index		X
Tommy	3	Table of Contents		Х
Tommy	3	Photograph		X

Text Features Mentioned During Play and Noticed During Post-Interview, but Not Pre-Interview

After analysis, the participants could be categorized into two distinct sets that cut across groups. The first set consisted of students who had heard a target word during play that they had not noticed in the pre-interview and subsequently noticed it in the informational text during the post-interview. The second set was composed of students who had not noticed some of the informational text features present in the book during the pre-interview, did not hear the word mentioned by group members, but noticed the text feature on the post-interview. All of the members of Group 1 belonged to the set of students who heard a target word and then noticed the text feature months later during the post-interview. All of the members of Group 3 belong to the set of students who did not hear targeted words during play that they noticed during the post-interview which was conducted months later. Group 2 was mixed with targeted words that were heard and noticed later in the post-interview and words that were not used during play, but noticed during the postinterview. The students were almost evenly divided between the two sets with five students hearing text features while composing and then noticing it during the post-interview and four students who noticed additional text features during the post-interview even though the additional text features noticed were never spoken by a member of their group while composing their text. Because these are opposing results, it is likely that more than one process was responsible for students becoming more aware of informational text features during the play intervention.

Informational Text Features Considered and Used in Student Texts

In addition to the interview data, transcripts of student talk during composing and students' writing were also analyzed to understand what students know about format based informational text features after role playing and provide triangulation. The student texts, shown in the appendix, demonstrates the actual use of format based text features by the groups while their conversation provided information about intended use of format based informational text features.

During Days 2-5, the participants wrote an informational text about the play choices they had observed on Day 1. On Day 2 of the cycle, each group began by composing a page or pages about one of the play choices. Because they were directed to write a book to explain how to play in the classroom, they wrote in an informational manner. They discussed which photos to use, designed the page layout and collaborated to write about what they had seen. After Joe, Nathan and Evan looked at the photographs of the mazes, they collaborated on how to explain the mazes. Nathan took a piece of paper and sketched as he described his ideas saying, "I think we should have How to Do the Mazes here" as he pointed to the top right hand corner of the page "and a picture here" as he indicated the middle of the page. He added, "We could add some lines over here." The planning continued with a discussion about how to explain a picture. Nathan said, "Label it." Evan agreed, saying, "Yeah, label it." Joe added on by saying, "like draw an arrow." Allison, Rachel, and Stephen began discussing how they should start their explanation of the game Spot It. Allison said, "For this one we should ... Well, each one we did different. For (Spoons) we said get the game. For (Rush Hour) we said go to the shelf and get the game. For this one I think we should instead, well... like Spoons. Can we say go to the shelf and get the game? Because how do you know where to get the game?" Stephen, who was acting as the scribe for the group that day repeated, "Go to the shelf to get the game?" Allison and Rachel both repeated, "Go to the shelf and get the game" and then continued to dictate directions for playing the game.

The day ended with students telling the teacher what they wanted her to do to make it look like an informational book. For example, at the end of the first day of composing Rachel and Stephen were looking at informational books for ideas to use in their book. Stephen pointed to a diagram and said, "Maybe this?" Rachel picked up on his thinking and said, "A people map?" Stephen continued with his thought by saying, "a free choice map." Each night the teacher typed up the work, corrected spelling and added the text features requested. Each of the subsequent days began with students revising the work from the previous day. The revisions were among some of the most passionate discussions among the students as they questioned the accuracy of the directions, debated the precise wording that would be best and tried to make their book look like an informational book. For example, in one long debate Allison, Rachel and Stephen from Group 1 used photographs and asked other students in the class for help to decide if what they had written was really how the game was played. Stephen began questioning the directions by saying, "You should say move the ice cream truck so..." Allison continued with, "until the car gets out." Stephen disagreed, saying, "until the ice cream truck gets out because..." Rachel interrupted to say, "But, you're not supposed to write ice cream. If you look at the card it's not always in the middle." In another instance Tommy and Emma were writing the table of contents for their book. Tommy realized there were several pages to explain how to play school in their book, but didn't know how to show each page correctly in the table of contents. He said, "I'm making a contents of this. Should I call it School? But it's not just School. It's all these other pages, too. So it should be called Games." Although the work was taken seriously, the atmosphere was relaxed as the participants ate their snack, used the restroom or stopped their work to converse with a friend who passed by.

Using informational trade books during composing allowed students to imagine possible text features to include in their own book. Collectively the groups mentioned a glossary, diagram, labels, headings, bold words, table of contents, photographs and index. Table 10 lists the text features each group planned to use and which text features were actually used by the groups in their writing.

Table 10

Text Feature	Group 1		Group 2		Group 3	
	Planned	Actually	Planned	Actually	Planned	Actually
	to Use	Used	to Use	Used	to Use	Used
T.O.C.	Х	Х	Х	Х		Х
Headings	Х	Х	Х	Sub Headings		Х
Photos	Х	Х	Х	Х		Х
Diagrams	Х	Х	Х	Х	Х	Х
Bold Words	Х	Х				Х
Glossary	Х	Х				
Index	Х					
Labels	Х	Х	Х			Х

Format Based Informational Text Features Used by Groups

Group 1 followed through on most of their plans. They scored 31 out of 40 possible points on the Text Feature Assessment (Appendix B). Group 2 included almost everything they spontaneously mentioned during their composing. They scored 16 out of a possible 40 points on the Text Feature Assessment. Group 3 only planned to use diagrams. They included many items regardless of not planning for them. They scored 28 out of a possible 40 points on the Text Features Assessment.

Many of these features were easy to place into books. Photographs were already available, diagrams, which appeared to be well known by the participants based on the pre-interview and the number of times diagrams were mentioned in conversation, already included labels. Some text features such as bold words leading to a glossary were more difficult to produce and were not included in two of the three texts. A table of contents, although well known to the participants, was too difficult an undertaking for students to complete on their own. In all three groups, the teacher had to provide a lot of assistance to accurately produce a table of contents. During the final day of composing for Group 1, the teacher reminded the group twice that they wanted a table

of contents. Finally, Stephen said, "but I don't know how to label the pages". The teacher directed him to an informational book, but that was not helpful. Allison had to help him get started. When the teacher checked to make sure she knew what they wanted, the table of contents did not match the pages. The teacher said, "We're going to have two page twos?" After moving the pages around several times with the teacher's help, the group had a workable table of contents. In Group 3, Tommy undertook the table of contents with Emma's help. Some sections of their book had more than one page which confused the two of them. Tommy said, "Chapter 2 is also Playing School. Chapter 3, Playing School. Chapter 4 is Zingo. I'm not putting a chapter on this because it doesn't have a label, 'cause it has to have a label to be a chapter." The teacher used an informational trade book to show them how chapters were usually more than one page and had subheadings. Then she related it to their book by saying, "so, your first chapter is School, right? So what do you want to call it? School? I think I have an idea for this. Write Chapter 1, School, and let's see how many pages it is. So let's start on page 1." Emma then looked at their pages on playing school and said, "It's 3 pages and began flipping through their book as she counted, 1, 2,..." Even with the assistance, Tommy was still confused. He countered that the book wasn't just about playing school. He said, "But it's not just School. It's all these other pages, too. So it should be called Games. As he began writing the table of contents he seemed to realize how to coordinate the subsections and said, "I messed up, see? This is chapter 1 and this is chapter 2" and began writing a coherent table of contents. No group undertook writing an index even though one group had initially planned for it. For the most part, teacher intervention was required to help produce the text features that were beyond the ability of these young students. Overall, the features each Group planned to include or included in their text indicates the variety of informational text feature of which the students were aware.

By themselves, the actual text features use by each group does not represent the knowledge of the students in the group. It is both the actual use and the intended use that represent their knowledge. This is not a surprising finding when viewed through the lens of play. Process over product is a key component of play for children. Play advances development even if there is no external marker of the development.

Conclusion

All students demonstrated a growing awareness of informational text features based on the pre- and post- informational text feature interview. Students seemed to have a greater awareness of text features even though the post-interview was conducted, for most students, 3 months after the intervention was completed. The number of text features mentioned by the group members varied, with some groups mentioning and using many text features, while some only made use of a few of the features. Some students seemed to become more aware of the text features because they were mentioned by other group members. But for some students, they noticed text features in the post-interview that were never mentioned by others in their group. The students seemed aware of more text features than they were able to produce independently. In some instances teacher assistance was required for complicated text features such as a table of contents to be produced in the books written by the students.

CHAPTER 5

Discussion and Implications

Using a theoretical framework that draws from socio-constructivist theory, multiliteracy, and play research, this qualitative study examined the value of play as a scaffold for second graders to develop a greater understanding of informational text features. This chapter supports and extends the tenets of these theories to show that academic learning is facilitated by the ways in which children naturally engage with the world around them. The students in the study played in a dramatic role as reporters, but also played with toys, books, photographs and each other while composing. The findings highlight that play is naturally intertwined in the activities of students and, as such, provides a platform for the collaboration of students. Play provided a familiar space that allowed the students to experiment as they attempted difficult tasks with support of others and support of props. The research questions that guided this study were posed to examine how play acts as a scaffold for academic learning and to investigate the effectiveness of play to help students learn about informational text features. The research questions are as follows.

1) How do second grade students incorporate their knowledge of format based informational text features into their writing during play situations?

2) What do second grade students know about format based informational text features after role playing in a literacy enriched play setting?

There are several key findings in this study. The first three findings relate to the first research question which asks how students incorporate their knowledge of format based text features during play situations. The fourth finding relates to the second research question which asks what students know about text features after play.

- Play permeated the activity of the students as they role played as reporters and collaborated to write an informational text.
- 2) The use of artifacts such as the reporter notebooks, the actual games and toys that the participants had observed other students using during play, informational trade books and the photographs taken by the participants were used as props to extend play and learning.
- 3) Using format based informational text features while composing, as well as the play surrounding format based informational text features, contributed to increased awareness and knowledge of informational text features for all the groups. Some students benefitted from the play with others to move their understanding of text features from a social to individual level, while some students benefitted from aspects of the play that moved their understanding from a public to private level.
- Play created an opportunity for learning for the students in this study. All students increased their knowledge of informational text features from the pre- to postinterview.

Incorporating Text Features during Play

Play In All Its Forms

The first research question asks how students incorporate their knowledge of format based informational text features during play. To answer that question, the conversational turns of students were analyzed to determine whether play was present during the role play as reporters and while composing as reporters. The conclusions for the analysis are presented in the following section. The results indicate that the reporter play on Day 1, composing play on Days 2 - 5, and

the use of artifacts as props to support the students' play all contributed to the incorporation of informational text features during play.

Play was evident on Day 1, while the students role played as reporters and on Days 2-5 while the students composed an informational text to explain the games they had observed other students in their class play. An average of 87% of the comments/actions from Day 1 were coded as play. On Days 2-5, 60% of the comments/actions were coded as play. The following section describes the types of play engaged in by the students and the parallels between the role play on Day 1 and the playful composing on Days 2-5.

While role playing as reporters on Day 1, these young students demonstrated their agility with nonliteral play as they began acting as reporters with no rehearsal or specific instructions on what a reporter does. The students had quick transformations of the play situation as they coached their subjects on how to act and changed the mood from serious to spirited and back again with teasing and laughter interspersed with serious questioning and note taking. The students experimented with how to act as a reporter as they asked questions, took notes, and used the camera to photograph their subjects. They asserted their right to free choice by choosing when to move to another observation. Pleasure was indicated by smiles and laughter. Coding of their comments/actions showed they played at being reporters with intensity. For Group 1, 92% of their comments/actions coded as play. Thus for all three groups, students' comments/actions on Day 1 aligned with the body of play research that has shown play to be multifaceted and readily engaged in by students. (Johnson, Christie & Yawkey, 1987; Smith & Vollstedt, 1985).

While composing on Days 2 -5, the students were nonliteral in the sense that they began composing when directed to continue their work as reporters in much the same way as they

launched themselves into their roles as reporters on Day 1. The transformation comments/actions of the groups demonstrated the quick shifts in mood or conversational topic while composing as they competed with each other to be author and scribe, teased each other, maintained intimacy through the telling of secrets and seamlessly switched between talk that moved their composing forward and talk that was off topic and back again. They experimented by posing alternative word choices, trying out format based informational text features to include in their book and choosing page layouts and colors to make their book appealing. Free choice and pleasure were evident as the students amused themselves by engaging in play unrelated to the composing and by their smiles and laughter. Although the intensity of play while composing was not as high as on Day 1, it was still very evident. The comments/actions coded as play were 62%, 76%, and 42% respectively for Groups 1, 2, and 3.

One avenue of play research that is pertinent to this study is that which has defined and described the play of children. Much of play research has focused on the dramatic play of children. Dramatic play involves imaginary situations, role-playing and the use of props (Bruner, 1983; Christie, 1991; Maduram 2000; Neuman & Roskos, 2001; Pickett, 1998; Putnam, 1998; Rowe, 1998; Wohlwend, 2008). Research in this area has built some consensus around, 1) the types of behaviors that are present during play and 2) that more than one behavior is generally present during a play situation. (Bruner, 1983; Johnson, Christie and Yawkey, 1987; Rubin, Fein & Vandenberg, 1983; Smith & Vollstedt, 1985). Students in this study were fully engaged in play during the role play and while composing. All students showed instances of each category of play while involved in the intervention. Thus, this research supports the description of play as has been established by earlier research.

However, there is little research that directly connects play to the composing of students, except Daiute (1990), who has extended the use of play categories to the collaborative writing of elementary school students. She investigated the approaches students use to compose text and found that play is a natural scaffold. Her investigation revealed that students had a tendency to use play rather than methodical planning seen in the work of mature writers. Applying a play lens to the collaborative writing of the students in this study, as was done by Daiute (1990), provided a bridge between the dramatic play on the first day and the playful composing of the students on Day 2 - 5 of the intervention. From this perspective, the playfulness which was seen during the dramatic play of the students on Day 1 was also present while students composed a book for future classmates on subsequent days.

Table 5 lists categories used by both play researchers (Fein, 1975; Johnson, Christie & Yawkey, 1987; Smith & Vollstedt, 1985) and by Daiute (1990) who investigated play as a composing strategy. This study is the first to directly link the similarities between the comments/actions of students when engaged in role play and collaborative composing. Although the categories of Free Choice and Pleasure are often included while rating students' play, they did not contribute directly to composing so they were not discussed in detail. This current research extends the work of Daiute (1990) by suggesting links between the nonliteral, transformative, experimental comments/actions of students during role play and the play that is evident as students collaboratively composed. Nonliterality, the suspension of reality, was seen during role play and while students composed. In both instances, students acted like they were reporters even though they had minimal directions and it is likely they have little experience with being a reporter. It indicates the students were comfortable taking an "as if" stance that is seen in dramatic play. Transformations were seen while the students were role playing when the students stepped out of

their role as reporters to give directions to students they were observing. In essence, their directions cued the other students on how to support their play. While reporters, the students switched between seriously asking questions and acting silly. While composing, the students also had transformations as they easily moved between being on and off topic and back again. They demonstrated their ease at adjusting quickly between conflicts about who was in control of getting their ideas on paper and cooperating to compose a sequential set of directions. Experimentation was seen during role play as the students tried out what it meant to be a reporter. The students asked questions, then wrote notes to help themselves remember the answer. While photographing the students playing, the reporters moved around and among their subjects looking for the best shots. Experimentation while composing was evident as the students posed alternative word choices, tried out informational text features and adjusted their page layouts to accommodate new ideas.

Research that focuses on young students has shown that play is pervasive (Bruner, 1983; Christie, 1991; Maduram 2000; Neuman & Roskos, 2001; Pickett, 1998; Putnam, 1998; Wohlwend, 2008). Play is a natural activity for children that was used by the students in this study during both the role play and while composing and thus supports existing research. It extend the research on play, however, by showing moves by students during role play and composing play are similar. Viewing collaborative composing of students as yet another way students play provides opportunities to create a third space for learning. Researchers such as Cook, (2005) and Moll, Amanti, Neff and Gonzalez (1992) explored using experiences which incorporate knowledge brought to school by students with an authentic experience helps to develop new understandings. In this study, children used play as a fund of knowledge along with an authentic experience of writing a text to help other students to create new understandings of format based informational text features.

Artifacts as Props Enhance Play

On Day 1, the students made use of their reporter notebooks and a camera to enhance their role play as reporters. They were excited to choose a notebook for their reporting. They used them to take notes while questioning other students. The act of writing the notes also seemed to stimulate their thinking because they sometimes then returned to students to ask more questions. All were eager to have their turn to take photographs with a real camera. The props seemed to help them feel like reporters. The use of props to enhance literacy related role play is well discussed in the literature (Christie & Roskos, 2006; Neuman & Roskos, 1993; Pickett, 1998; Smilansky, 1965; Stone & Christie, 1996) and is further supported by this study.

During their composing play on Days 2 - 5, the students made use of the following artifacts as props for their play: 1) their reporter notebooks, 2) photographs they had taken, 3) games they had observed others playing, and 4) informational trade books. Group 1 referenced artifacts an average of 11 times per composing session and Group 2 and 3 an average of 13 and 6 times respectively per composing session. This suggests the artifacts were valuable resources to the students and stimulated the use of informational text features in the students' writing. The reporters notebooks were used to help students remember what they had observed and to help them consider what to write about. The photographs were used to resolve disagreements among students about the directions they had written or to collaborate on the next steps to write. Students also asked to use the games they had observed others playing. At first, it seemed the students were avoiding the writing task by playing the games because they said they already knew how to play.

been stymied. The students also turned to informational trade books as a way to guide their writing. Browsing through the books often helped them think of how to present their information or which format based informational text features to use in their own books. Their interaction with the props made their work multimodal and contextualized which has been shown to be a natural way for young students to develop literacy (Harste, Burke & Woodward, 1987; Pahl, 2002; Sulzby, 1985).

The artifacts also seemed to promote intersubjectivity among the groups. Research on the value of play has focused on the need for students to make their ideas clear to one another – to create intersubjectivity (Bruner, 1983; Göncü, 1993; Whitington & Floyd, 2009). The students in this study pointed to images in the photographs when they wanted to clear up a disagreement or convince others their directions were correct. As they played the games, the students could agree on how the game was played allowing them to write clearer directions. The students shared their ideas with one another about the text features noticed in the trade books.

The importance of the artifacts as props to scaffold the use of informational text during play was not anticipated, but perhaps it should have been. Research on play and literacy recommends the use of props for emergent readers and writers (Christie & Stone; 1999; Dyson, 2003; Johnson, Christie & Yawkey, 1987; Neuman & Roskos, 1997; Vukelich, 1994, Wohlwend, 2011). In general, props allow young students to use nonliterality and experimentation to engage with literacy. When preschool age students pretend to write and mail a letter they are trying out different ways of being literate. Paper, envelopes, and stickers are props that advance their play as they try out new aspects of literacy. The present study extends this body of research by showing props can also enhance the role play and composing play of older students who have advanced beyond an emergent stage of literacy.

A review of the literature that specifically explores the use of play while composing has found props to be useful for students while they are composing narrative text. Rowe, Fitch and Bass (2003) found first grade students who composed after developing a storyline by playing with toys had more mature forms of narrative writing. Students in this research had similar responses to the artifacts even though they were older students who were writing expository text. On Days 2 -5, the students used the artifacts to move their writing forward and/or to explore informational text features. When students seemed unsure of the next steps while writing directions to explain a game, they turned to the photographs or their reporter's notebooks. As was seen in the research of Rowe, Fitch and Bass (2003), the artifacts were physical objects that provided "reminders of people, places and experiences that might provide a spark for writing" (p. 368). Handling the games they were writing about also helped them compose and write precise directions. Neuman and Roskos (1993) introduced props into dramatic play area and found the resources "invited exploration, curiosity and stimulat(ed) transformational behaviors" (p. 116). Likewise, the informational trade books were used by the students to help them imagine format based informational text features that could be used in the books they were composing. The diagrams, labels, call out box, page numbers and headings that were noticed in the trade books were incorporated into the student's books. Similarly, Wohlwend (2008; 2011) noticed that the use of props during story retellings and dramatic play helped kindergarten students try out new identities and extended their understanding of literature. When describing the use of props for storytelling, Wohlwend (2001) suggested students "took on character identities in play and extended their understanding of literature" (p. 26). This is analogous to the use of props for the second grade students in this study. But, instead of taking on the character identities from stories, they took on the identity of informational book author and extend their understanding of informational text

features. These students, who were older than the participants in other research on props as an aid to the composing process, benefitted from the physical objects to stimulate their writing. Thus, the present study extends the research because it shows that props are also helpful for students who are composing informational text.

Conclusion

In this study, play provided an authentic experience for students in an academic setting. The students role played as reporters, but also played while composing. They used the familiar world of play as a bridge for academic learning. In essence, play served as a fund of knowledge (Moll, Amanti, Neff and Gonzalez, 1992). Mead (1999) described the transference of play situations to life activities of adult by saying, "the child advances from his interest in using tools for the fun of it, to the sense of a valuable technique where he sees what he can do with them..." (p. 28). The students in this study seemed to do just that. They used play and props for fun, but were able to take steps toward the more mature use of format based informational text features that they used to organize their books.

This research supports the body of research that suggests play is a natural activity for students and that props are used by students to extend their play. Furthermore, it advances our knowledge by suggesting that students can and do use play when interacting with informational text. It also shows that second grade students benefit from play in an academic setting.

Knowledge of Format Based Informational Text Features

Play Supports Growth

The second research question asked what students knew about text features after playing in a literacy enriched play setting. The pre- and post-interview, which provided both a quantitative and qualitative answer to that question, are discussed below. The format based informational text features noticed by the students in the post-interview was cross checked with the text features mentioned by the students during the composing process. This helped determine if there was a connection between the words heard by students and the growth in knowledge. The growth in text feature knowledge did not neatly track with the text features mentioned during composing, suggesting more than one process was responsible for increase in knowledge. Possible explanations are discussed in this section.

A pre- and post- interview was conducted to track changes in knowledge about format based informational text features after the play intervention. All students demonstrated an increased awareness of informational text features based on the pre- and post- informational text feature interview. Group 1 averaged 27% growth in their knowledge of informational text features while Group 2 and 3 averaged 36% and 33% growth respectively. Students had a greater awareness of text features even though the post- interview was conducted, for most students, 3 months after the intervention was completed.

Aside from the quantitative growth seen in students, there were qualitative difference in students' responses between the pre- and post-interviews. The same prompt was given for both interviews, but the manner in which the students discussed the informational books during the post-interview indicated a greater awareness of informational text features. During the pre-interview, the students approached the task by looking at each page and describing what they saw. It seemed similar to how students use a picture walk to familiarize themselves with a book prior to reading. Format based informational text features were explained in eighteen instances during the pre-interview. During the post-interview, the students approached the task by naming text features they noticed and in many instances explaining the text feature they had noticed. The number of explanations during the post-interview were thirty nine, which was more than double

the explanations during the pre-interview. The explanation of the text features seem pertinent when considered in light of research on the incremental nature of vocabulary acquisition. It seems likely that student who were able to explain a text feature had a deeper understanding of the word than those who could only notice or name the feature (Beck & McKeown, 2007; Nagy, Herman, & Anderson, 1985).

This finding also supports research that has demonstrated the value of play as a scaffold for literacy development. Past research has focused on play to enhance literacy in the areas of emergent literacy, integrating new knowledge with existing knowledge, vocabulary development, encoding words, increasing literate behavior, and understanding basic reading processes (Christie, 1991; Johnson, Christie & Yawkey, 1987; Maduram, 2000; Neuman & Roskos, 2001; Pellegrini, Galda, Dresden & Cox, 1991; Pickett, 1998; Putnam, 1998; Smilansky, 1965; Stone & Christie, 1996; Vedeler, 1997; Wohlwend, 2008, 2011). This present research provides another aspect of literacy development that can be enhanced through play. Students in this study developed deeper understandings of format based informational text feature while playing as reporters., Furthermore, the results of this study extend the corpus of research on play as a scaffold for literacy development because it focuses on the play of students in an elementary school rather than younger students in preschool. Play is often considered important for preschool age students (Christie, 1991; Johnson, Christie & Yawkey, 1987; Maduram, 2000; Neuman & Roskos, 2001; Pellegrini, Galda, Dresden & Cox, 1991), but this research shows it to be a scaffold for learning for older students as well.

This study also extends the benefits of play to include play surrounding informational text. Research on play with informational text is sparse. In one instance, Maduram (2000), analyzed the pretend play of her daughter, Amy, from ages 3 -6 after hearing informational texts on possums, castles, and snakes among other informational topics. She found Amy often responded with dramatic play and writing to make meaning of the new facts she was learning. Early childhood teachers have also used dramatic play to help students engage with informational text and make meaning of new information (Dalton & Mallett 1995; Hoyt; 1992; Rowe, 1998). Just as Dalton & Mallett (1995) demonstrated students could learn about firefighters by listening to informational text, acting out the role of firefighters, and visiting with a firefighter, students in this study used a variety of play and artifacts to learn about informational text features. This study demonstrates that informational text is an appropriate platform for playfulness because it can help second graders learn about informational text features.

Social Nature of Learning

All students made gains from the pre- to post- interview, but the mechanism for growth did not seem to be the same for all students. While composing playfully, the groups of students were differentially exposed to the target informational text features. Some students heard many of the targets words from their peers in the group and some heard few. In Group 1, seven of the eight targeted text features were mentioned by peers in the group while composing. In Group 2, three of the eight text features were mentioned while composing. Group 3 only mentioned one text feature while composing. Although it seems likely that those who heard the greatest number of text features would show the greatest growth from pre- to post- interview, this was not true for all students. The amount of exposure alone was not a good predictor of the increase in noticing or explaining informational text features during the post-interview. This suggests that for some students, hearing specific informational text features mentioned by others helped students increase the knowledge of format based informational text features. It further suggests that some other aspect of the intervention helped students increase the knowledge of format based informational text features. Data presented in Table 9 categorizes the students into two distinct sets. The first set consisted of students who had heard a target word during play that they had not noticed in the preinterview and subsequently noticed it in the post- interview. The second set was composed of students who had not heard a target word during play, had not noticed it during the pre-interview, but noticed the text feature during the post- interview. The students were almost evenly divided between the two sets with five students hearing a text feature while composing and then noticing it during the post- interview and four students who noticed additional text features during the post- interview even though the additional text features noticed were never spoken by a member of their group while composing their text.

The increased knowledge of format based informational text features for both groups of students can be explained using tenets of social constructivist theory. Social constructivist theory suggest that students learn best through actions with others (Bruner, 1983; Piaget, 1959, 1962; Vygotsky, 1935/1978). For a fuller understanding of the mechanisms for growth, the Vygotsky Space, a model developed by Harré (1984) can also be used. It is explained here briefly before demonstrating how it informs our understanding of the results of this study. Harré (1984) added two continuums to social constructivist theory; social \Leftrightarrow individual and public \Leftrightarrow private. When students are introduced to a new concept or idea by direct teaching or modeling, their first attempts to use the new information may mimic what was modeled or taught to them. In Harre's (1984) model, when a student adapts the new learning to fit another situation, he or she is moving learning from the social to the individual domain. The public \Leftrightarrow private domain refers to whether cognitive activity is observable or not. The public end of the continuum represents the observable "thinking" of students such as when they talk or write down their ideas. The private end of the continuum refers to cognitive activity that is not observable. Learning can be social and public or social and

private. An example of learning that is social and public would be when a student writes a story that mimics the way the teacher modeled the story. The social and private dimension would be when a student thinks about writing a story that is like the model presented by the teacher. Because it is not observable, it is private.

Research that has examined students' strategies while composing have noted that playful collaboration seems to help students grow as writers because it taps into the natural, informal talk during of students during play (Crook, 1995; Daiute, 1990; Pellegrini & Galda, 1982). In this study, one set of students was scaffolded to become more aware of informational text features because of their playful collaboration with others. As they heard other members of their group say informational text features they appropriated the terms and made them their own. They moved along the social \Leftrightarrow individual continuum.

The first set, those who heard a text feature word used and then noticed it later, fit the pattern evidenced by research on the social nature of learning under the umbrella of social constructivist theories (Bruner, 1983; Piaget, 1959, 1962; Vygotsky, 1935/1978). These students learned about informational text features while interacting with others. While collaborating in the writing process, students heard and saw how other students used text features in their writing. For example Rachel, on the first day of composing, told the teacher she wanted a glossary in their book. Stephen agreed and used the word glossary, while Allison, also a member of this group heard, but never used the word glossary. Although neither Stephen nor Allison noticed the glossary in the book during the pre-interview, both noticed the glossary during the post-interview.

Another area of research that overlaps with collaboration is the investigation of intersubjectivity. Intersubjectivity is the attunement between individuals that allows for a common understanding. As individuals engage in discussions, speakers must fine tune their message when

listeners demonstrate a misunderstanding of the message (Göncü, 1993; Rogoff & Toma; Stone, 1993). Intersubjectivity is considered an important feature of the zone of proximal development (Roth & Radford, 2010). An example from Group 2 illustrates the intersubjectivity between the boys as they collaborated on a table of contents. Nathan was writing a section he called "Fundamentals of House", Joe was finishing a diagram, and Evan was looking through an informational book about bees to get ideas for his writing. He was commenting on how much he liked informational books, when he turned to the table of contents to find out if there was a section about bees hatching. Even though Evan directed his comments to the teacher, the other boys joined in to give suggestions to Evan about the table of contents. The section below is excerpted and contains just the specific comments about the table of contents between the three boys.

Evan	I like how they made these books. Like if you don't know about bees and ants
	and insects you'll know what they're like or how dangerous they are. Like if you
	want to know how they hatchWait, watch, I'll go to this. (turns to the table of
	contents page) We should do like con – like tell what pages they're on.
Joe	A table of contents

Evan *The first page was.... log mazes*

Joe You could do About Mazes

Evan Actually I could do what page the log maze is on, what page is snake maze and the castle maze...

Later the teacher asked what the heading should be for the page and Nathan answered, "Contents" even though a moment before he had been busily writing about a different section of the book. Joe concurred by repeating, "Contents". On the pre-interview, neither Evan nor Joe noticed or explained table of contents, but on the post-interview, both Evan and Joe noticed and explained

the table of contents suggesting that the collaboration and intersubjectivity may have helped them become more aware of this text feature.

For the other set of students, those who noticed more text features in the post- interview even though the features were not mentioned by a group member, a different explanation of the scaffolding seems to be necessary. This second set of students did not have a model to adapt as their own as can be seen when learning moves along the social \Leftrightarrow individual continuum of Harré's (1984) Vygotsky Space. They did not hear other students use format based text features that they could incorporate into their own thinking. As an example, Emma did not notice and/or explain bold words, glossary or index in the pre-interview, but included them in her post-interview. This occurred even though no one in her group ever mentioned those format based informational text features. Two students, Emma, who had the highest growth from pre- to post-interview and Nathan, who had the second highest growth n his raw score from pre- to post-interview will be used to illustrate learning that is unobservable. These two students illustrate the private end of the public ⇔ private continuum of Harré's (1984) Vygotsky Space. They showed a much greater awareness of format based informational text features after the play intervention even though the mechanism for their growth didn't match the targeted text features they heard from members of their group.

Prior to participating in the play intervention, Emma had a pre-interview score of one out of a possible sixteen points and had a post-interview score of nine. During the play, Emma showed little participation to the point that, at times, she seemed to be totally unengaged. On Day 2 of the play, the first day of student collaboration while composing, the teacher began by showing this group of students the photos they had taken while observing others play and asking how they wanted to start their book. For over six minutes, Emma made no comments and at times yawned and then sat staring with her eyes seeming at times to be unfocused. At one point, when the teacher prompted the two girls in the group to make a contribution by saying, "Tommy needs some ideas," Emma's eyes opened wide and she got a grin on her face. She told her group the sequence of events she had noticed when she observed the students playing house. Tommy began writing her suggestions. Prior to this moment of animation from Emma, she had been mostly silent. As I watched the group during the session, I assumed Emma was daydreaming and never guessed she was thinking about writing. Emma fits the public ⇔ private dimension of the Harré (1984) model. For most of the days of the play intervention, Emma contributed little to her group discussion. Her total number of conversational turns, at 78 was the second to lowest. Emma's total number of conversational turns was about half the number of the majority of participants, yet her growth from pre to post-interview was the highest. The impetus for her growth was largely unobservable.

Nathan also belonged to the set of students who noticed text features on the post- interview that were never mentioned by members of the group. Nathan's pre-interview score was seven out of sixteen and he had a post-interview score of fourteen. He had the second highest growth of all the students. He, like Emma, showed a greater awareness of text features even though he did not hear others use those words while collaborating to write their book. Like Emma, the mechanism to describe his growth was unobservable.

It is there that the similarities between Nathan and Emma end. Nathan, unlike Emma, was an eager participant, frequently asking the teacher prior to the intervention when he would have a chance to be a reporter. His total number of conversational turns, at 150, was among the highest. He was heard asking others if they needed an idea for their writing, looked over his peer's writing and giving feedback without prompting. He joined in the jokes of others and overall would be described as social and outgoing. Nathan was very involved in planning the page layouts for his group. He sketched out layouts for each page and figured out what kind of information could be placed in each of the boxes he had planned. He offered suggestions to others when they seemed to flounder for an idea and became domineering when the writing was not progressing. Although social and outgoing, Nathan also fits the public \Leftrightarrow private dimension spectrum in Harre's (1984) model because the mechanism for his growth was largely unobservable.

Conclusion

All students in this study developed a greater understanding of informational text features. There was a quantitative difference that was measured by the scores on the pre- and post-interviews as well as a qualitative difference in the discussions surrounding the text features noticed and explained from the pre- to post-interview. Format based informational text features were not explicitly taught during the play intervention. Students seemed to construct their own knowledge of the text features as they engaged in play. Some students seemed to learn the text features from hearing other students mention them and by them using the terms in conversations and while composing. Other students developed a greater awareness of format based informational text features without having heard or used the text features while composing. The play itself and the opportunities to use format based informational text features such as when Ethan worked to write a table of contents or when Group 1 searched for important words that they wanted to have as bold words in their book seem responsible for the growth. This suggests that more than one factor is responsible for the growth. The Vygotsky Space, developed by Harré (1984), provides a reminder that learning can happen along a social \Leftrightarrow individual or public \Leftrightarrow private continuum. The type of play cannot be broken into its individual components to describe the factors that lead to learning. For example, hearing a member of the group mention and use specific informational text features while composing did not guarantee that those same information text features would be noticed or

explained by others in the group during post-interviews. Nor was it necessary to hear a specific text feature for students to notice or explain it during the post-interview even if it had not been noticed during the pre-interview. It shows that play, itself, not one particular aspect of play is the contributing factor to learning informational text features.

Implications

The three main findings of this research suggest several theoretical and practical implications. The theoretical and practical implications will be discussed within the context of each finding. The first finding of the study is that the same play moves seen during role play were also seen during the composing of students. The theoretical implication is that the research on the benefits of play should be expanded to include the play of students engaged in an academic task. Play research has already shown that children use play to learn about their everyday world. The present research shows students also use it to continue learning about academic topics such as format based informational text features. From a practical perspective, this research provides support for teachers who encourage playful approaches to learning.

Another finding of this research is that the artifacts used by the students acted as props for their literacy learning. Existing research has shown the value of props to enhance literacy play for emergent readers. This research shows that props can enhance the literacy play of second graders. The implication for teachers is that students who are beyond the emergent literacy stage can benefit from the use of props. It should be noted that the props used by these students included the games they were trying to write about and not just the informational books and the reporter's notebooks that would seem to have the closest connection to literacy.

The third finding of this research relates to the observable and unobservable indicators of learning. Some students seemed to increase their understanding of format based informational text

features by hearing others use the words and by using the text features as they wrote their informational books. Other students increased their understanding of format based informational text features without hearing others use the specific text features and without using the text features in their books. For the latter group of students, play itself seemed to be the mechanism that increased their knowledge. From a theoretical standpoint, the research demonstrates that students learn best when they are active participants in their learning. As such, it confirms what has already been established about the nature of children and learning. There are, however, practical implications from this research such as learning is not always observable. Students such as Emma, who seem disengaged, can still be learning. Play research and this study provide evidence that it is the process and not just the product that encouraged development. Teachers can encourage development by providing opportunities for meaning making activities, such as play, that allows for collaboration with others because more than one aspect of play seems to be important for children to learn about format based informational text features.

Limitations

There are several limitations to this research. First, even though the students involved in this research were not my students, but due to the organization of the school, the students were familiar and comfortable with me, which may have made it easier for them to engage in the play. This was brought to my notice when another researcher who was unfamiliar to the students was present during two of the play sessions. Students seemed more subdued when they felt they were being observed. Using play to aid learning may be most effective when children are with familiar adults so the results of this research cannot be generalized to students who are working with unfamiliar adults. Secondly, each student in this intervention played for 150 minutes in a small group setting to learn about format based informational text features that are used in informational books. For many teachers, the time commitment may not be feasible with the challenging curriculums they are required to cover thereby making it hard for them to achieve similar results. For example, in this present study, while the teacher worked closely with three students at a time, the other twenty four students were required to work independently. Time was also required after school to type the texts, make the revisions and print photographs. This is time that was taken from the other planning and gathering of materials that was needed for other lessons. Third, the role of the teacher was not explicitly investigated in this study. The teacher's presence may impact how students regulate their play. For example, on one day of the intervention, the students in Group 3 worked without the teacher present. On that day, they did not move forward in the composing process as quickly as was seen on days with the teacher present. Thus the progress of lack of progress made by any group might have been impacted by the presence or absence of the teacher. Fourth, the findings of the study are not generalizable due to the small sample size. Fifth, only students in second grade were used for this research, thus the findings are not generalizable to other grade levels.

Future Research

Several possibilities for future research exist. First, future research might study if there are differences in students' play and learning when the teacher is familiar or unfamiliar to them. Second, the study was intentionally designed to allow students opportunities to explore informational text features through play without explicit instruction from the teacher. Future research that focuses students' attention on specific text might provide additional information about changes in student learning of informational text features with less investment in time. Third, an intervention that provided more structure in terms of group membership or composing requirements might explore if students remain more focused on informational text features and the

composing process even when a teacher is not present. Fourth, future research should be conducted with a larger sample size to see if the results are replicated. Fifth, future research which explores the advantages of play for different grade levels can examine whether play remains an effective scaffold for students in different grade levels. It can examine whether older students may not be as likely to play and younger students may need more adult assistance than is practical in a classroom setting.

APPENDIX A

Score:	/	16	
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Г	Name: Pre Assessment Interview Scoring	Date: Post Assessment Interview			
Г		Post Assessment Interview			
Γ	Scoring				
	1 point for each feature noticed. No additional points 1 point for each feature explained. No additional point				
Text Fea	atures Noticed:				
	Table of Contents				
	Student Comments:				
	Headings				
	Student Comments:				
	Photographs				
	Student Comments:				
	Diagrams				
S	Student Comments:				
	Bold Words				
S	Student Comments:				
	Glossary				
	Student Comments:				
	Index				
S	Student Comments:				
	Labels				
S	Student Comments:				
	Other Comments				

APPENDIX B

Score: ____/ 40

Student Name:	Date of Writing Assessment:			
Text Feature Assessment				
Points are awarded for each format based text feature included, appropriateness of use, and				
effectiveness of use.				
0 Does not include	ude this text feature and would have been inappropriate to do so.			
	ude this text feature, but it would have been appropriate to do so.			
	feature, but not effectively; the text feature is used incorrectly or			
	his feature would have been more effective			
	feature effectively to organize writing for assumed audience; use ature is sufficient.			
Table of Contents				
Headings				
U U				
Photographs				
-				
Diagrams				
Bold Words				
Scoring Comments:				
Glossary				
Scoring Comments:				
Index				
Scoring Comments:				
Labels				
Scoring Comments:				
Other				

Adapted from Purcell-Gates, Duke & Martineau (2007)

APPENDIX C

Script for Format Based Text Feature Interview

Interview will be audiotaped to verify accuracy.

Researcher comments to student:

1) Please look at each page of this book. I don't want you to read the book to me. Just tell me what you notice.

2) When a text feature is named by the student, the researcher will follow up with an open-ended prompt:

Tell me more about that. Why did you say that (specific format based text feature that was named by student)

Note taking procedure:

1) Check each format based text feature the student mentions.

2) Record any comments made about format based informational text features in the appropriate space.

APPENDIX D

Data Matrix for Research Question 1

Data Source	What it Measured	Collection	Analysis
Format Based Text Features Book Interview		15 minute Pre and Post interview with each student. Interviews will be audiotaped and transcribed.	Format based text features were analyzed using percentages. Descriptive analysis was used to summarize the data.
Videotape of Student Play	Student discussions during play that centered on actions, statements, note taking, editorial decisions, and collaboration.	Groups of students will be videotaped during play during a 3 week time period. Each group of student played for approximatley 150 minutes. Videotapes were transcribed.	Qualitative data analysis of student actions, statements and interactions among students
Written Text	Appropriate and effective use of text features.	Student writing sample of an informational text was collected on Day 5 of each cycle.	Researcher developed Text Feature Assessment will provide a score for each written text. Higher scores wil indicate greater use of text features.
Field Notes	Student discussions during play that centered on actions, statements, note taking, editorial decisions, and collaboration	Were written during or closely following the observation of student play	student acitons, statements and interactions among students
Reflective Journal	Documented congruity and changes about my thinking prior to and during data collection and analysis	Notes in the reflective journal will be ongoing during the research process	Review of the reflective journal, comparison to theory
Member Checks	Enhanced credibility of my analysis. Not a part of data collection.	Discussions with committee advisor and student participants.	Check for consistency between my coding and theory. Check for consistency between field notes and student comments.

APPENDIX E

Data Matrix for Research Question 2

Question 2: What do enriched play setting?	children know about format ba	sed informational text features a	fter role playing in a literacy
Data Source	What it Measured	Collection	Analysis
Format Based Text Features Book Interview	Ability of students to recognize and define text features in a commercial produced informational text.	15 minute Pre and Post interview with each student. Interviews were audiotaped and transcribed.	Format based text features were analyzed using using percentages. Descriptive analysis was used to summarize the data.
Videotape of Student Play	Student discussions during play that centered on actions, statements, note taking, editorial decisions, and collaboration	Groups of students were videotaped during play over a 3 week time period. Each group of student played for 150 minutes. Videotapes were transcribed.	Qualitative data analysis of student actions, statements and interactions among students
Written Text	Appropriate and effective use of text features.	Student writing sample of an informational text was collected on Day 5 of each cycle.	Researcher developed Text Feature Assessment provided a score for each written text. Higher scores will indicate greater use of text features.
Field Notes	Student discussions during play that centered on actions, statements, note taking, editorial decisions, and collaboration	Written during or closely following the observation of student play	Qualitative data analysis was used to code student actions, statements and interactions among students
Reflective Journal	Documented congruity and changes about my thinking prior to and during data collection and analysis	Notes in the reflective journal was ongoing during the research process	Review of the reflective journal, comparison to theory
Member Checks	Enhanced credibility of my analysis. Not a part of data collection.	Discussions with committee advisor Informal interviews with students	Checked for consistency between my coding and theory Checked for consistency between field notes and student comments

APPENDIX F

		1	t Role Play as Reporters
Type of Play	Definition		amples
Nonliterality	Simulation or	1)	Asking questions:
	Play with Reality:	a.	What are you guys doing?
	Students assumed the		How do you play that game?
	role of reporter by asking	2)	Note Taking:
	1) questions, 2) taking	a)	Students asked questions and then took
	notes and 3) taking		notes in their reporter notebooks.
	photographs of other	3)	Photographing:
	students.	a)	Students took turns taking photographs.
Transformation	Roles are fluid:	a)	Students gave instructions about how to
	Students define or		play: Allison said to students she was
	change roles as play		observing, "We are making a book for the
	proceeds.		kids next year so you guys just act normal."
		b)	Most reporter play took on a serious tone,
			but that could change midstream such as
			when Nathan teased a response from a
			student he was observing by asking, "Are
			you making Cookie Land?"
Experimentation	Process over Product	a)	Students coached each other on how to be a
	How does a reporter act?		reporter: Allison said to Rachel, "Ask them
			a question." The she turned to Stephen and
			prompted him with, "Ask a question."
		b)	Tommy circled around a group of boys as
			he was taking photographs. Then he picked
			up his notebook and took notes before
			taking more photographs.
Free Choice	Students made their own	a)	Nathan was writing in his reporter's
	decisions about what		notebook. He suddenly went back to where
	they observed, what		he was last observing and asked, "How
	questions they asked and		many mazes are there? Can you collect a
	how long to stay at each		bunch?"
	area.	b)	Allison took a photo of students playing
			Rush Hour. Then she said, "I'll take a
			picture of this."
		c)	
			another area. Aubrey said, "I'm still
			writing" and stayed several more minutes to
			finish her observations and writing.
Pleasure	Positive Affect/Pleasure:	a)	As Joe was talking to a group of girls
	marked by giggling,		playing house, he joined in the play by
	smiles, or positive		saying, "Can I have some? I want a chip."
	comments about the		When he was handed a pretend chip he
	activity		laughed and said, "It's plastic."

Types of Play during Student Role Play as Reporters

APPENDIX G

Type of Play during Student Composing

Type of Play	Definition	Examples
Nonliterality	Simulation or Play with Reality: Student put self in	Hannah said, "I'll pretend that Tommy's the teacher and Tommy can pretend that I'm the teacher."
	story or plays out roles	
Transformation	Roles between students are fluid: 1) competing 2) friendly teasing 3) secrecy 4) interaction with the text	 Competing: Rachel grabbed a pencil away from Allison to write down her idea. Allison grabbed it back, saying she was the writer for the day. <u>Teasing</u>: Nathan tried to get Stephen to write with friendly teasing when he said, "Why are you acting like that? I think you have camera fright." Stephen teased others in the group by saying, "And then you play the game" whenever they stopped to consider the next step in the directions." <u>Secrecy:</u>

APPENDIX G, cont.

T (D1		a . 1	a ·
Type of Play	during	Student	('omnosing
I ypc of I lay	uurmg	Student	Composing

Experimentation		1) Play with Composing:
	Product	a. While trying to choose the best words for their directions
	1) Play with	on how to play school, Tommy suggested, "Make sure the
	Composing	teacher isn't bossy" and Emma countered with "No mean
	suggesting alternate	teachers".
	word choices or	b. Evan, Joe and Nathan built on each other's ideas to find the
	phrases to partners	right words. Evan began by saying "Try to get through the
	2) Play with	rooms" Joe joined in and said, "Try to get through the
	Knowledge	rooms and" Nathan finally finished the sentence with,
	try out new	"try to get to the finish."
	concepts or facts	c. Rachel and Allison worked on the accuracy of their
	about informational	directions. Rachel: "Okay, so I'm going to writemove the
	text	cars until the truck gets out." Allison countered with, "No,
	3) Play with	move the cars until the ice cream truck can get out." Rachel
	Imagery	insisted, "I can just say truck." Allison prevailed by saying,
	add appeal through	"No, 'cause then they'll think that's the truck."
	use of design,	2) Play with Knowledge:
	stylistic features,	a. Stephen and Allison wanted bold print in their book.
	color, etc.	Allison suggested the heading, "Rush Hour", but Rachel had
	,	a different idea. She suggested, "important wordslike
		directions."
		b. Emma tries to figure out how to use a photograph to make
		a diagram. "We could do a map on it or whatever it's called."
		3) Play with Imagery
		a. Rachel had specific ideas about how their finished book
		should look. "Green and yellow. Every time we say Spoons,
		it should be green and yellow."
		b. When deciding on the colors for their cover, Emma said, "I
		want this to stay red."
		•

APPENDIX G. cont.

Type of Play during Student Composing

Free Choice	Other interactive play (talk to camera or tape recorder, talk to other children)	 Talk to the camera: a. Stephen mugged for the video camera. He sticks out his tongue and wags his head. b. Rachel placed a photograph against her head while thinking. Then her face lit up and she said, I'm wearing a tiara" prompting the others in her group to do the same thing. c. Emma twirled her notebook on a pencil and said, "My notebook is a flag."
Pleasure	Positive Affect/Pleasure: marked by giggling or smiles or positive comments about activity	 <u>1) Giggles or smiles</u>: a. There were instances when students acted goofy for their classmates, eliciting laughter. Allison used a silly voice when describing how to make a diagram, "You are Will, you are Eric" Stephen laughed with her. b. Rachel drew a picture on the back of her notebook and showed it to Stephen. They both laughed. 2) <u>Positive Comments:</u> a. When the teacher said there was not much time left in the day to work on the project, Tommy said, "I want to do this all of the day." b. Evan said to the teacher, "I like how you let me do this, 'cause I didn't think I was going to."

APPENDIX H

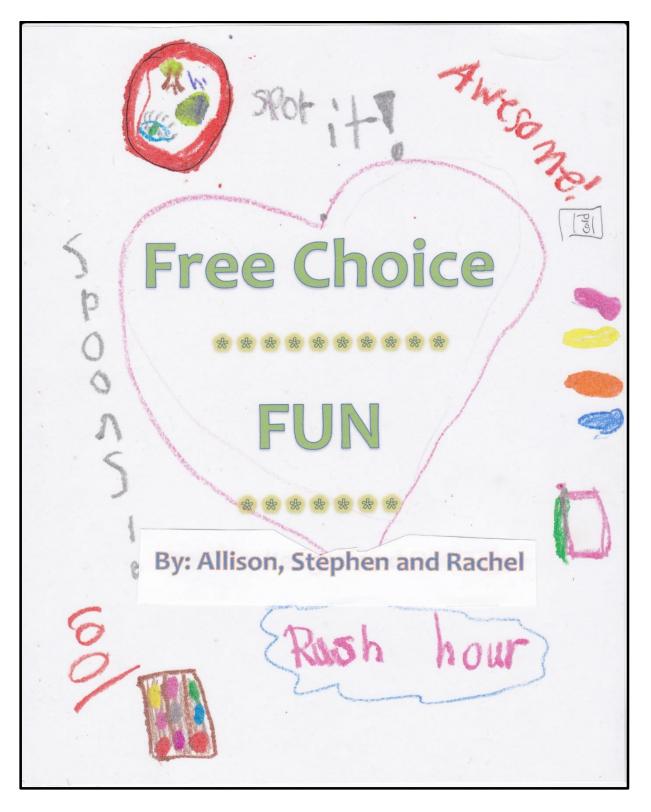
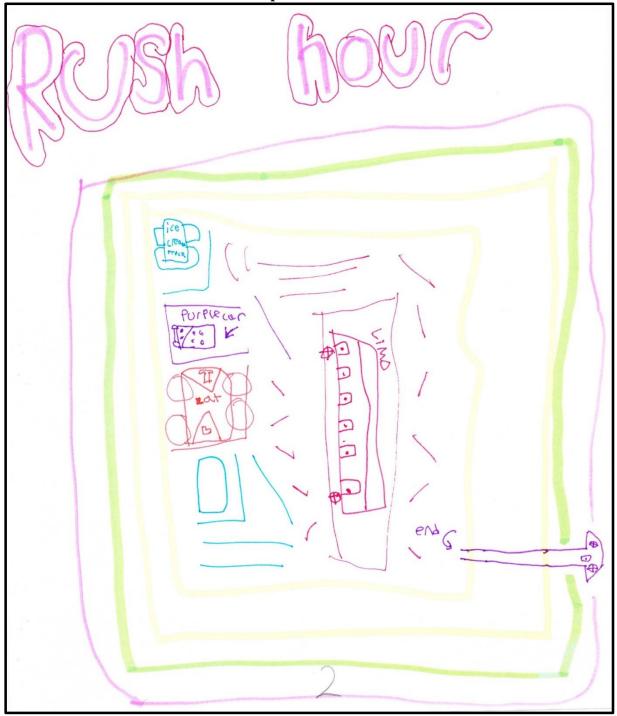


Table of Cor	ntents
Spoons	page 1
Rush Hour	page 2
Spot It	page 4
Free Choice Map	page 6
Glossary	page 7





Group 1 Student Text

Rush Hour

- 1. Go to the shelf and get the game.
- 2. Set the game down.
- 3. Get the directions out.
- 4. Make sure everybody knows how to play the game.



5. Look at the cards and make the cars the way the card is.

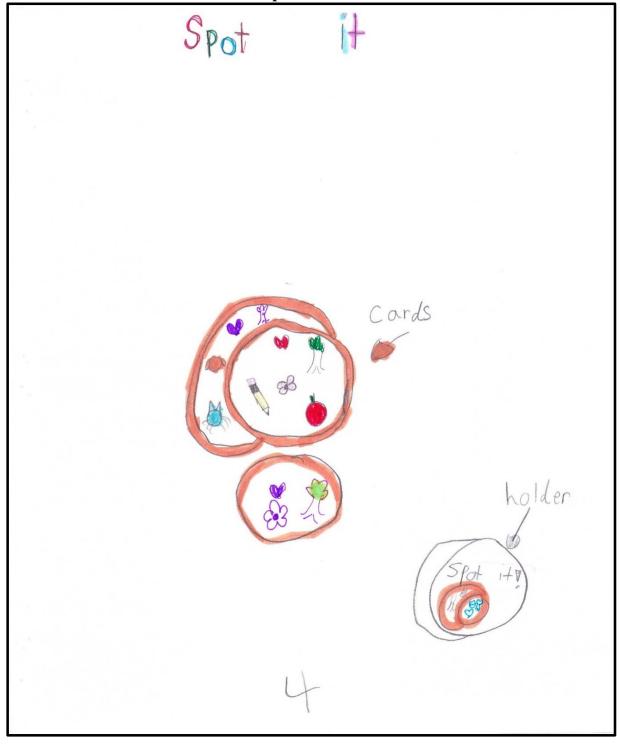


6. Move the cars until the ice cream truck gets out.





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Group 1 Student Text

Spot It

- 1. Go to the shelf and get the game.
- 2. Set the game down.
- 3. Get the directions out.
- 4.Sort the cards out.



- 5. Make sure everybody knows how to play.
- 6.Get two cards out on the table.

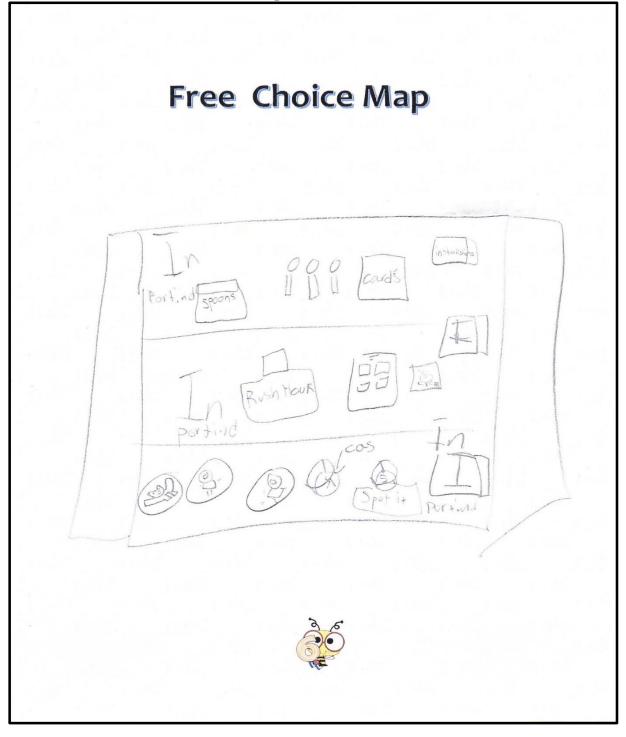
7. If you see a match **slam** your hand on the card.



8. Slide your hand to your pile.
 9. Put them in your pile.
 10. Keep on playing the game.



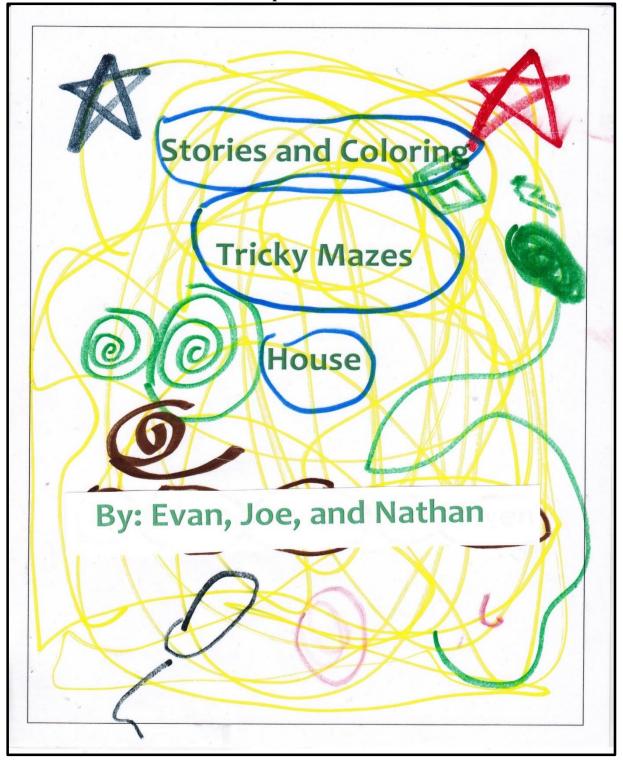




Group 1 Student Text

Glossary Directions: tells you how to play Equally: everyone gets the same amount Pile: the spot where your stuff is stacked up Slam: you put your hand down on something really fast

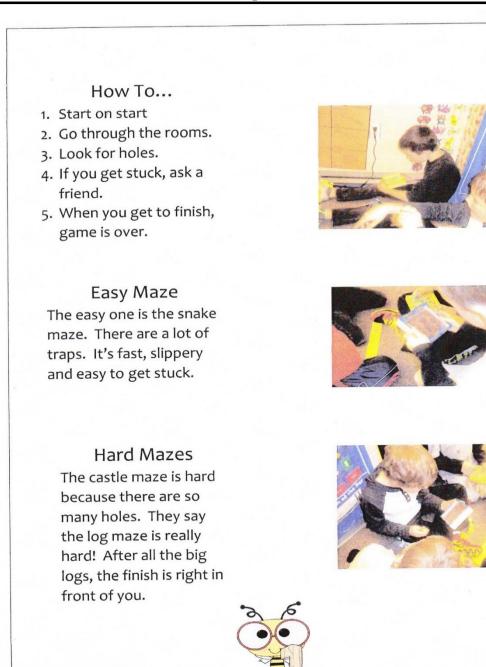
APPENDIX I

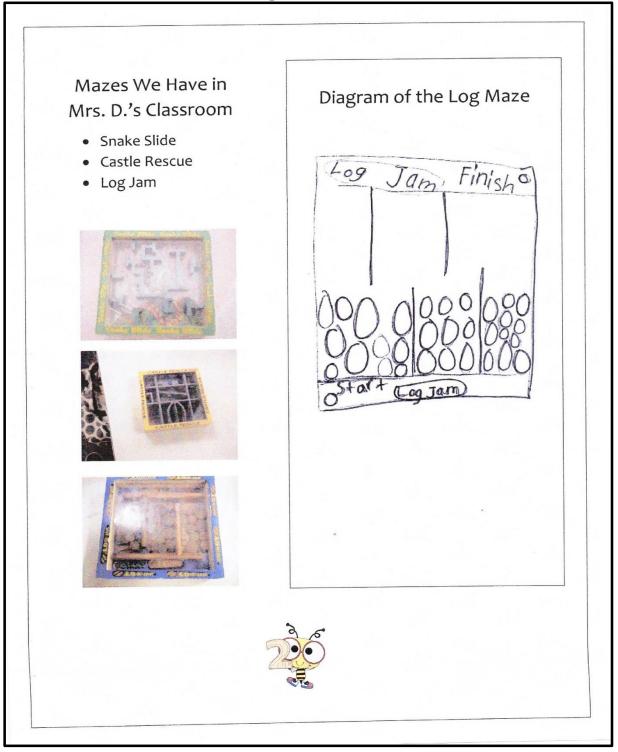


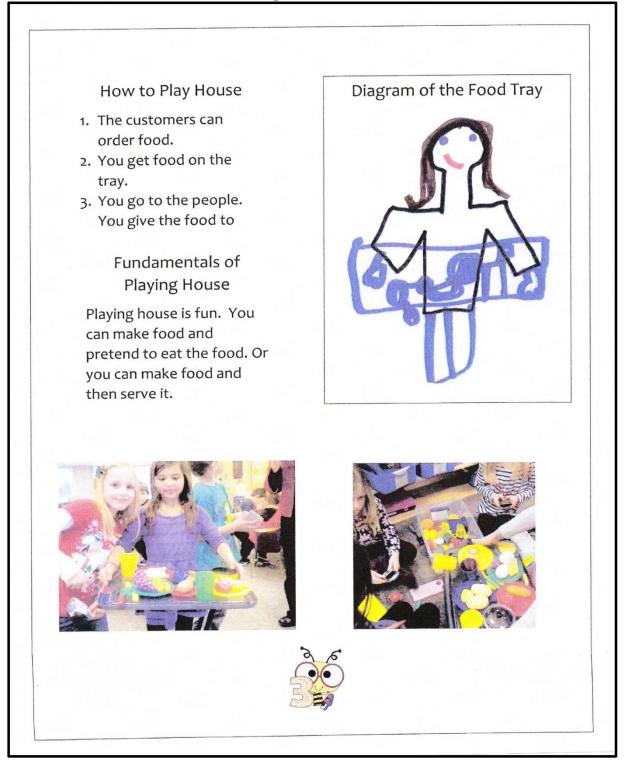
Group 2 Student Text

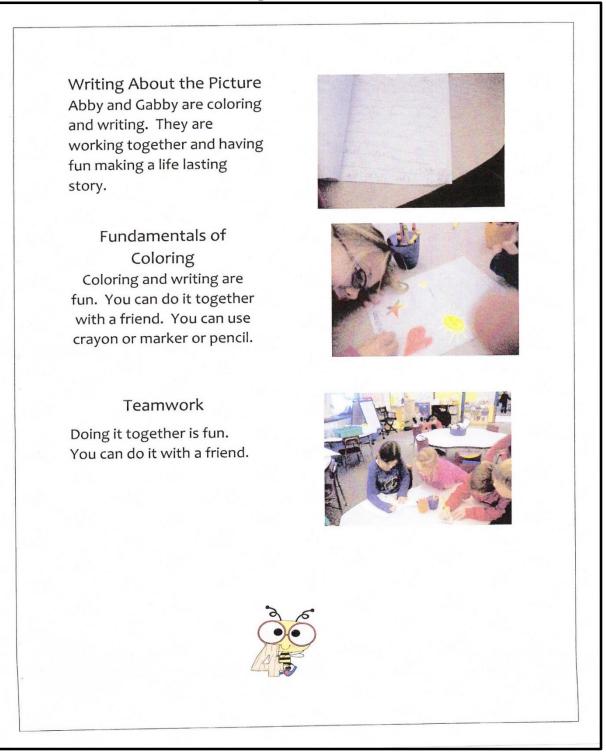
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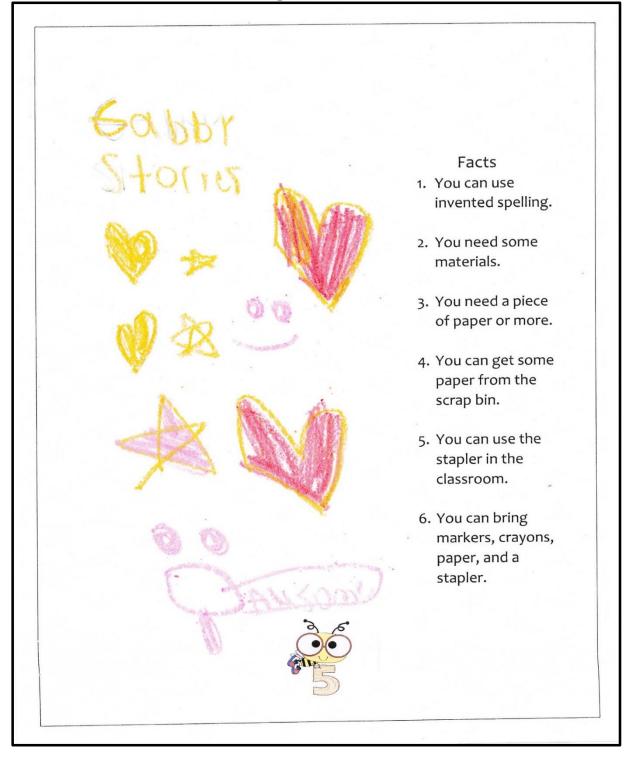
Table of Contents	
How to Do Mazes	1
Easy Mazes	1
Hard Mazes	1
Mazes We Have in Mrs. D's Classroom	2
How to Play Houses	3
Fundamentals of Playing House	3
Writing About the Picture	4
Fundamentals of Coloring	4
Teamwork	4
Facts	5



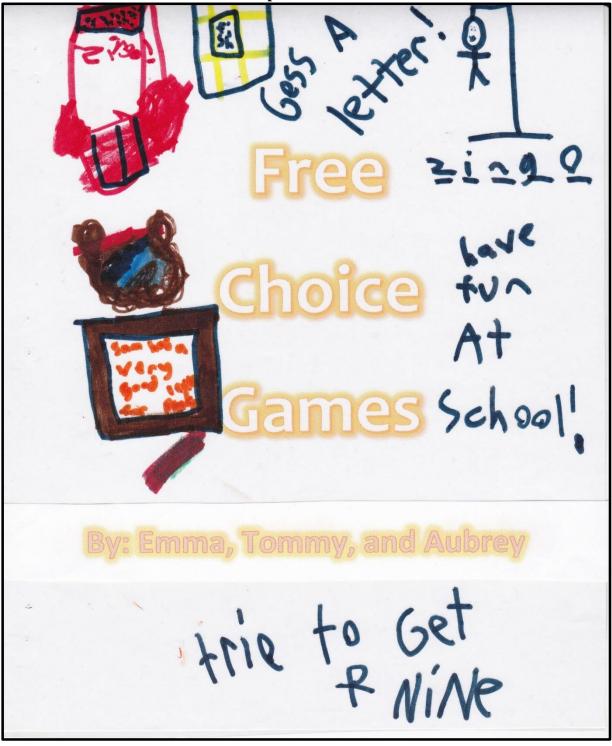


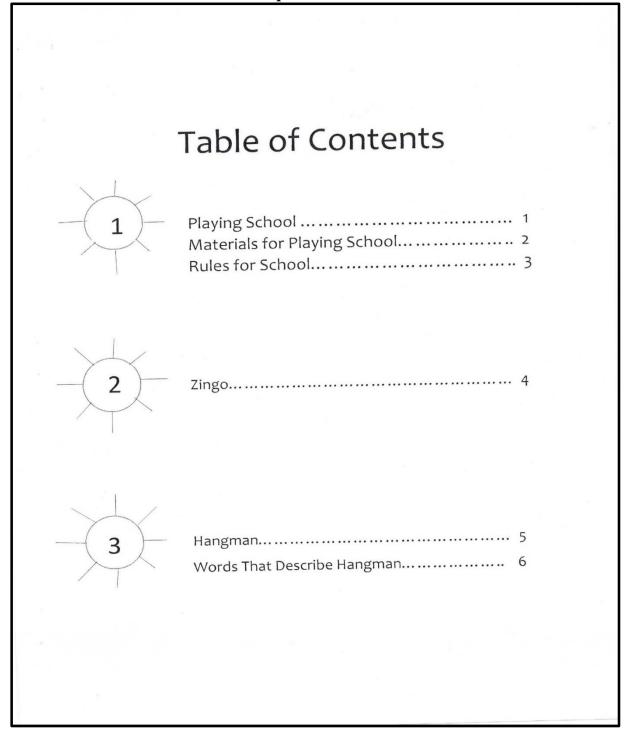




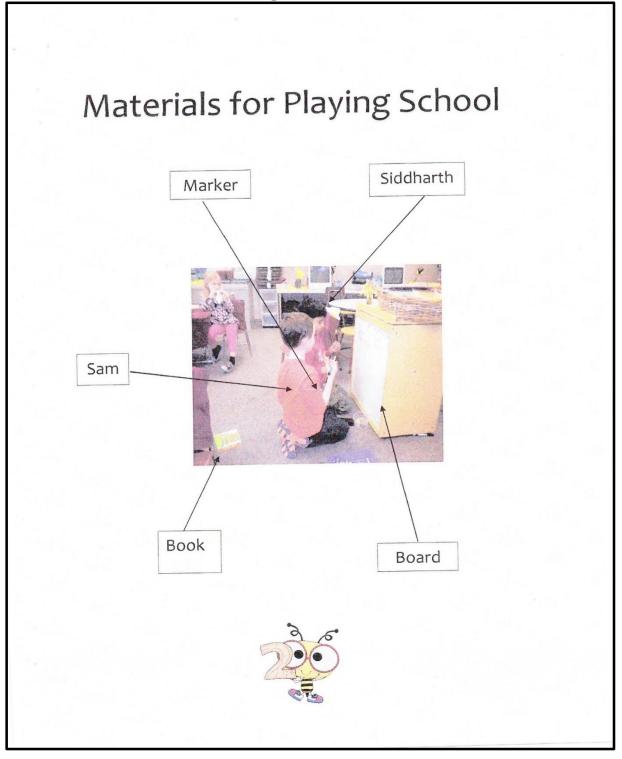


APPENDIX J









Group 3 Student Text

Rules for School



Ask 5 people to play.



Learn and play fun things.

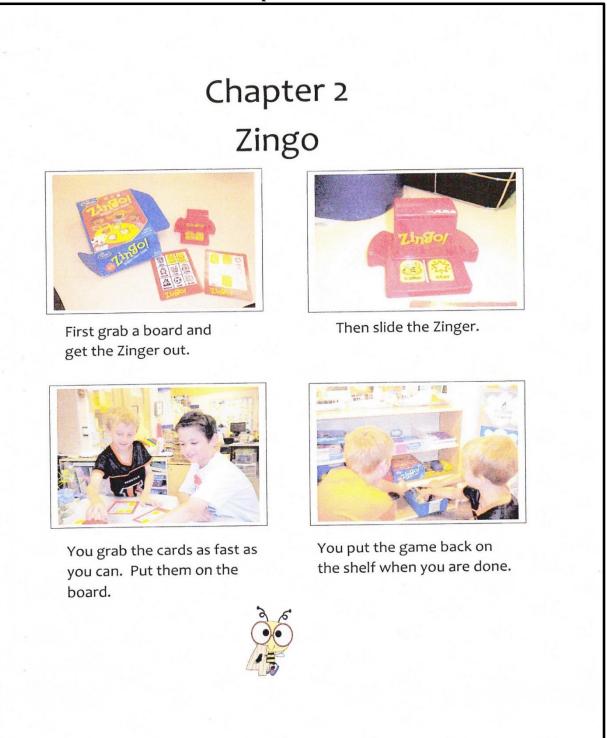


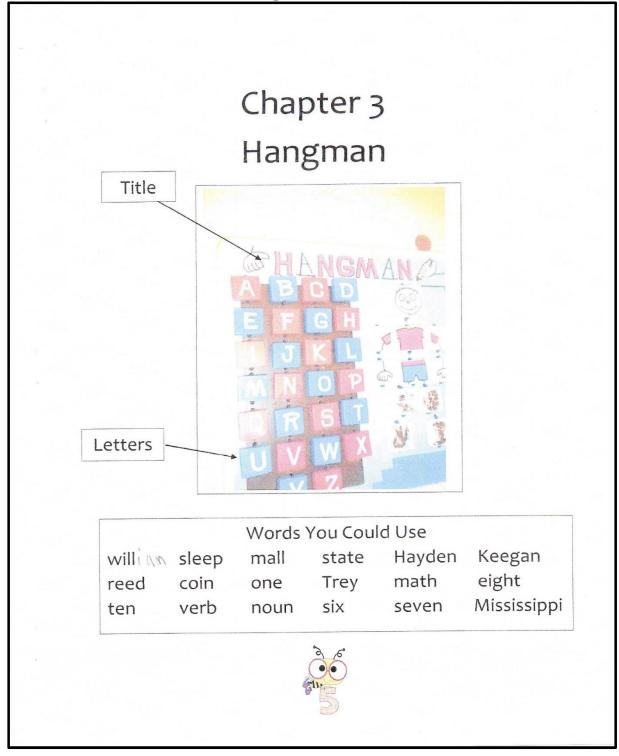
No MEAN teachers.



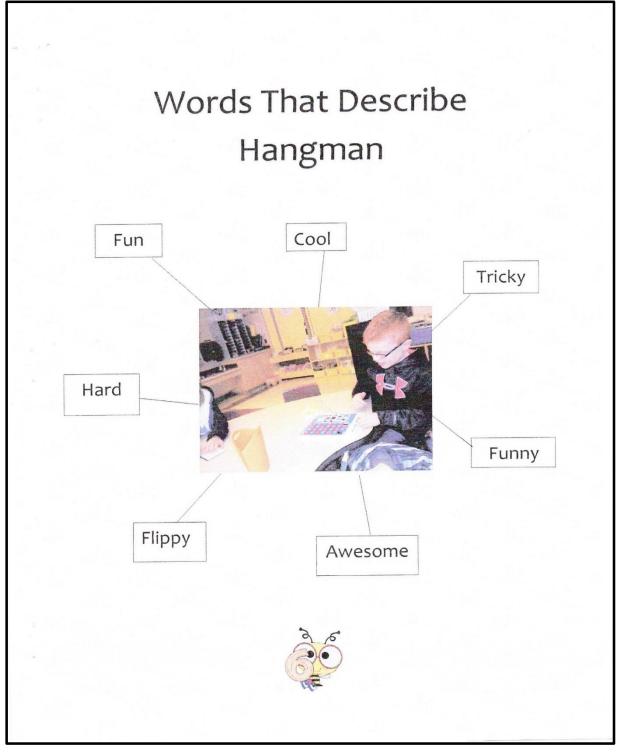
Make sure there is no fighting.











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ABSTRACT

CREATING OPPORTUNITIES FOR LEARNING: PLAY AS A SCAFFOLD FOR FORMAT BASED INFORMATIONAL TEXT FEATURES

by

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A play intervention was used with second grade students to help them develop a deeper understanding of format based informational text features. On Day 1 of the intervention, groups of students role played as reporters as they observed classmates at play. During Days 2-5 of the intervention, the same students wrote an informational book about the play they had observed. A pre-interview was used to determine which format based informational text features were noticed and/or explained by the students in an informational trade book. The text features that were included in the trade book were: table of contents, heading, photograph, diagram, bold words, glossary, index and labels. On the post-interview, conducted months after the intervention, all groups increased the number of text features noticed and/or explained. Analysis of the discussions during Days 2-5 was conducted to see what aspect of the intervention was responsible for the increased score on the post-interview. For some students, hearing other members of the group mention a text feature during the intervention was the catalyst for learning that text feature. For other students, text features were noticed on the post-interview that were never mentioned during the intervention by group members. For those students, the play itself created opportunities for developing a greater understanding of format based text features.

Keywords: play, format based text features

Autobiographical Statement

Susan Dandalides is an elementary teacher in Michigan. Her focus as an educator has been in lower elementary classrooms.