

Authentic Reading, Writing, and Discussion

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AUTHENTIC READING, WRITING, AND DISCUSSION

An Exploratory Study of a Pen Pal Project

ABSTRACT

In this exploratory study, reading, writing, and discussion were examined within the context of a pen pal intervention focusing on authentic literacy tasks. The study employed a mixedmethod design with a triangulation-convergence model to explore the relationship between authentic literacy tasks and the literacy motivation of elementary students (n = 180), while also seeking to document whether students demonstrated accountability to community, content, and critical thinking during small-group discussions. Data sources included pre- and postintervention scores on the Literacy Motivation Survey, transcriptions of small-group discussions, and transcriptions of interviews with 28 key student informants. Findings integrated across quantitative and qualitative data sources suggest that authentic literacy tasks have the potential to support and sustain students' literacy motivation. Analysis of the discussions revealed that students demonstrated accountability to community, content, and critical thinking. Implications for the use of authentic tasks in literacy instruction, as well as suggestions for future research, are discussed.

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N this exploratory study, reading, writing, and discussion were examined within the context of a pen pal intervention that focused on authentic literacy tasks. These tasks engaged grade 3–5 students in reading books, exchanging letters about the books with an adult pen pal, and participating in small-group discussions about the content of the books. While researchers have investigated readers' responses to texts by analyzing both discussions and writing (Almasi, 1996; Raphael,

Brock, & Wallace, 1996), we are seeking to contribute to the small number of studies that have specifically addressed issues related to task authenticity and literacy motivation (Purcell-Gates, 1996; Purcell-Gates, Duke, & Martineau, 2007).

Theoretical Framework for Authentic Literacy Tasks and Literacy Motivation

This investigation involved the complex interactions of reading, discussion, and writing as students participated in a pen pal intervention that focused on authentic literacy tasks; therefore, several areas of literacy research and multiple theoretical perspectives were considered. The areas of research that provided the frame for this study reflect the need for multiple theoretical perspectives to accommodate the various interactions of reading, discussion, writing, and sociocognitive aspects of literacy motivation and learning.

This study is primarily grounded in the sociocognitive theoretical perspective derived from the work of Purcell-Gates and her colleagues that posits that language exists within the context of actual use in practice (Purcell-Gates, 2002; Purcell-Gates, Jacobson, & Degener, 2004; Purcell-Gates et al., 2007). From this perspective, language is viewed as a tool that is essentially dialogic, and literacy events are viewed as instances of the social uses of language that mediate the social purposes of language (Halliday & Hasan, 1976).

Some scholars regard the concept of moving everyday life into schools to reflect more authentic literacy experiences as essential in the process of enculturating literacy learning (Brophy, 2004, 2008; Brown, Collins, & Duguid, 1989; Malloy & Gambrell, 2008; Neuman & Roskos, 1997; Scribner & Cole, 1973). In this study, authentic reading, writing, and discussion experiences are analogous to those that are encountered in the day-to-day lives of people, as opposed to school-like activities such as completing worksheets or answering teacher-posed questions. Authentic literacy tasks acknowledge and play into students' needs and desires to do things that are "real life." According to Purcell-Gates (2002), authentic reading, writing, and discussion activities involve meaningful, purposeful, and functional experiences that motivate and engage students.

Purcell-Gates (1996, 2002) offered two primary criteria for an event of reading or writing to determine the authenticity of the literacy task: (a) the text read or written exists outside of a learning-to-read-or-write context, and (b) the purposes for which the text is read or written are the same as that for which it is used outside of a classroom context. In addition, Purcell-Gates asserted that texts read or written in the explicit service of learning to read and write are distinctly different from authentic texts, in that texts that are read or written in the service of learning are not truly dialogic.

Social Practices and Cognitive Processes

The development of language for listening, speaking, reading, and writing involves both cognitive processes and social practices (Purcell-Gates et al., 2004). In the social constructivist tradition, as detailed by Vygotsky (1934/1978) and furthered by Bruning, Schraw, Norby, and Ronning (2004) and Wells (1994), the cognitive interpretations that are available for appropriation in the social context are a valued

learning resource. Therefore, both social cognitive theory (Bandura, 1997; Schunk, 2008) and social constructivism (Bruning et al., 2004) are relevant to the present study. Social cognitive theory describes learning as an outcome of purposeful observation, or modeling (Bandura, 1997). In a pen pal learning activity, for instance, a student might observe the ways in which an adult partner discusses a shared text and then attempt to respond in similar fashion.

Whereas social cognitive theory focuses on observation as the primary learning mechanism, one's participation in the social exchange of ideas is critical according to social constructivism (Bruning et al., 2004). Social constructivism theory is based on two assumptions regarding human learning. The first assumption is that learning occurs when a person constructs new understanding and memory by reorganizing existing ideas (formed in the personal cognitive workspace) with new ideas (appropriated from a shared cognitive workspace, such as a discussion; see Malloy & Gambrell, 2010). For instance, a student might reorganize the conceptual understanding of "taking chances" after reading a story about a child who takes risks and gets into trouble. The second assumption of social constructivism is that an exchange of ideas is critical to optimum cognitive reorganization and learning. Alone, for instance, that same student might construct an erroneous conceptual understanding (e.g., all risk is bad), but conversing with another person about the concept (e.g., discussing the book with an adult pen pal with more robust prior knowledge) may increase the possibility that the student will construct the appropriate concept (e.g., some risks are calculated).

Authentic Literacy Tasks, Social Practice, and Cognitive Processes

Authentic literacy tasks can be described as having three dimensions: meaning making, purpose, and ownership (Edelsky, 1991; Purcell-Gates, 2002). Reading, writing, and discussion tasks that encourage purposeful student cognition and result in the construction of new meanings would be considered more authentic than tasks that simply require extraction and recall of information. Authentic tasks, in Edelsky's view, would also provide some personal relevance and require some ownership or control on the part of the learner—a consideration that requires knowledge of what students and society value in terms of literacy events.

Street (1995) made a distinction between autonomous and ideological models of literacy. Autonomous modes position literacy as a collection of skills rather than a cultural practice. While skills are necessary for the cognitive process of reading, the practice of reading that prepares students for real-world literacy experiences is situated in an ideological model that provides activities and interactions that require meaningful exchanges and responses.

Authentic Tasks and Literacy Motivation

A number of current theories suggest that self-perceived competence and task value are major determinants of motivation and task engagement (Eccles et al., 1983; Pintrich & DeGroot, 1990; Pintrich, Roeser, & DeGroot, 1994; Wigfield, 1994). Eccles et al. (1983) and Wigfield (1994) have advanced an expectancy-value theory (EVT) of motivation that posits that motivation is strongly influenced by one's expectation of success or failure at a task as well as the value or relative attractiveness the individual

places on the task. The expectancy component of EVT is supported by a number of research studies that suggest that students who believe they are competent readers and who appreciate the value of reading are more likely to outperform those who do not hold such beliefs (Chapman & Tunmer, 2003; Marinak & Gambrell, 2010; Paris & Oka, 1986; Schunk, 1985).

Research that explored how students' motivation to read changes throughout the school years suggests that older elementary children value reading less and have less positive beliefs regarding their abilities when compared to younger children (Eccles, Wigfield, Harold, & Blumenfeld, 1993). In a large-scale national survey of elementary students, McKenna, Kear, and Ellsworth (1995) sought to determine the developmental course of reading attitudes for students in grades 1–6. The principal findings indicate that reading attitudes were most positive in the first grade but declined as students progressed to the sixth grade. Negative attitudes toward out-of-school recreational reading were more prevalent and declined more rapidly for low-ability readers. For in-school reading, however, the negative trend occurred despite ability. In short, proficient readers appeared to maintain positive attitudes toward reading outside of school, whereas proficient and less-proficient readers alike exhibit increased negative attitudes toward in-school reading. Low-ability readers developed sharply increased negative attitudes toward reading in both school and recreational settings as the elementary years progressed.

A number of studies indicate that there are gender differences in motivation. Research consistently demonstrates that girls are more motivated to read than boys (Kush & Watkins, 1996; Marinak & Gambrell, 2010; McKenna et al., 1995; Twist, Gnaldi, & Schagen, 2004). Given the consistency of these findings, it is not surprising that the debate about the role of gender differences, with increasing interest on the underachievement and low motivation of boys, has escalated in recent years (Mohr, 2006; Smith & Wilhelm, 2002). Researchers and educators agree that motivation plays a central role in literacy achievement. Research findings about the mediating role of motivation in increased literacy achievement underscore the important role that motivation plays in literacy development (Guthrie et al., 1996; Guthrie, Wigfield, & VonSecker, 2000).

Writing and Discussion as Responses to Reading

In the pen pal context of this study, students responded to the books they read by writing letters to their adult pen pals and by discussing the books and letters they received from their adult pen pal in small-group discussions. Given this context, the theories and research on writing and discussion as responses to reading are relevant.

Over three decades ago, Rosenblatt (1969, 1978) introduced transactional theory and the concept of reader response. Since then, a considerable body of literature has emerged related to theories of reader response (Beach, 1993; Fish, 1980; Rosenblatt, 1991, 1994). According to Beach (1993), the various theories of reader response share an emphasis on how readers make meaning from their interactions with text. More recently, theorists and researchers have been interested in how reader response theories shape classroom instruction and ultimately affect literacy development and, in particular, higher-level cognitive skills.

Writing our thoughts about what we have read forces us to reexamine, rethink, and recycle our ideas (Folse & Ivone, 2002). Writing as a response activity creates

choices for the reader-turned-writer. The writer's purpose is mainly to explain, analyze, summarize, or categorize a reaction that is evoked (Rosenblatt, 1994). Readers organize the content of their writing and often connect related ideas by finding and generating links. In discourse synthesis, readers-turned-writers select, organize, and connect content from texts as they compose their own texts in a spiral transaction relationship (Spivey & King, 1989). Cross-fertilization occurs from purposive selective attention and synthesis in writing as a response to text. Writing deepens the reader's understanding of the importance of paying attention to the diction, syntax, emphasis, imagery, and the conventions of the genre. According to Barksdale, Watson, and Park (2007), when students respond to letters written by a pen pal they are engaged in an authentic literacy tasks. Responding to letters from an adult pen pal requires the student to read a message and understand its meaning, as well as the formality of its code, in order to compose a meaningful and similarly structured reply.

Discussion is another valuable way to respond to reading. It is during rich discussion, which can take place while reading both narrative and informational text, that students acquire a critical skill—engaging in academic discourse. According to Pearson (2005), students need opportunities to learn the language of academic texts and the ways in which we talk about those texts. Discussion fosters growth and crossfertilization as a response to reading. Students interact with text as they read, and sometimes reexamine and rethink as they write about the text. These responses occur in the student's personal cognitive workspace (Malloy & Gambrell, 2011), or the active internal space where personal interactions with texts generate interpretations, and where verbal interactions with others can enhance or alter these developing understandings. Through discussions and written interactions with others, students bring the interpretations of text from their personal workspaces to the shared cognitive workspace that exists dynamically in the peer-group discussion format and in a deliberate fashion in the pen pal response format.

Researchers have recently focused on techniques for assessing the quality of small-group discussions (Almasi, O'Flahavan, & Arya, 2001; Michaels, O'Connor, & Resnick, 2007; Resnick, 1999; Wolf, Crosson, & Resnick, 2005). Resnick and her colleagues developed a tool based on the concept of *accountable talk* that includes the elements of group accountability to the learning community, knowledge, and rigorous reasoning (Michaels et al., 2007; Resnick, 1999; Wolf et al., 2005). Accountable talk provides a framework for evaluating academically productive group discussions (Michaels et al., 2007). In their framework, learning community refers to the students' accountability to their peers, knowledge refers to their understandings of the text, and rigorous reasoning reflects higher-level critical thinking. Of particular interest in this study was whether authentically situated small-group interactions about a shared text would provide a context for accountability to community (learning community), content of the text (knowledge), and critical thinking (rigorous thinking).

Clearly, research on the ways that readers respond to text holds much promise for expanding our perspective on literacy instruction. Separately, discussion and writing have been touted as powerful influences on cognition and learning (Almasi, 1996; Beach, 1993; Fish, 1980; Gambrell, 1996; Rosenblatt, 1991). Both discussion and writing are processes that make thinking public as ideas are expressed and therefore

enable higher-level thinking and the critical analysis of ideas (Malloy & Gambrell, 2010).

According to the sociocognitive theoretical perspective, it would seem at least probable that engaging in authentic literacy tasks, such as reading, discussing, and exchanging ideas with an interested adult pen pal, would serve to work synergistically to foster literacy motivation and critical thinking skills. Therefore, the purpose of this study was to explore the motivational aspects of authentic reading, writing, and discussion tasks for grade 3–5 students, and to document whether such tasks create a context for critical thinking.

Research Questions

Deep and thoughtful reading, effective and purposeful writing, and critical thinking are basic to high-quality literacy instruction. A basic assumption in this study was that authentic literacy tasks in social contexts can support students in being motivated to learn what they need to know in order to become engaged and accomplished literacy learners. Therefore, the research questions that guided this study were as follows: (1) Does engagement in a pen pal intervention that focuses on authentic reading, writing, and discussion tasks influence the literacy motivation (self-concept and value of reading) of grade 3–5 students, and are there differential effects for gender? (2) Does engagement in a pen pal intervention that focuses on authentic reading, writing, and discussion tasks provide a context for small-group interactions that reflect dimensions of accountable talk (community, content, and critical thinking)? (3) What do students report regarding their participation in a pen pal intervention that focuses on authentic reading, writing, and discussion tasks?

Method

Participants

Seven elementary teachers and 219 elementary students in grades 3–5 participated in the study (average class size: 33 students). Principals and teachers agreed that the intervention complemented the curriculum; therefore, all students participated in the intervention. Final data analysis was conducted on 180 students for the following reasons: there was no signed permission to use student scores, or the student did not complete the three-cycle letter exchange due to moving out of the school district. The teachers and students represented four schools from three school districts in a southeastern state. The student population in the schools was diverse (Caucasian, 65%; African-American, 26%; Hispanic, 4%; multiracial, 3%). Across the four schools, the percentage of students qualifying for free/reduced-price lunch ranged from 47% to 75%.

Design of the Study

This exploratory study used a mixed-methods design and a triangulation-convergence model (Creswell, 2003; Creswell & Plano Clark, 2006; Grant & Branch, 2005; Ross et al., 2004). The study did not involve random assignment of students; rather, it was designed to provide descriptive quantitative and qualitative analyses of the performance of students who participated in a pen pal intervention. Thus, the

study employed mixed methods within a pre-post quantitative frame with nested qualitative components. Data collection involved gathering quantitative information (e.g., using instruments) as well as qualitative information (e.g., key informant interviews) so that the data could be integrated to reveal a rich description of what occurred during the intervention.

The quantitative data were collected using the Literacy Motivation Profile, which was adapted from the Motivation to Read Profile (Gambrell, Palmer, Codling, & Mazzoni, 1996). The analysis focused on the constructs of self-concept and value and possible gender differences (research question 1). In addition, transcripts of students' small-group discussions of text were analyzed to determine accountability to community, content, and critical thinking (research question 2). Because we were interested in exploring the responses of students participating in the pen pal intervention, 28 key informants were identified to participate in semistructured interviews (research questions 1 and 3).

The Pen Pal Intervention

Professional development sessions. In order to support and maintain an emphasis on authentic literacy tasks in their classrooms, teachers participated in a series of 12 professional development sessions across a 7-month period. Initial professional development sessions, held prior to the beginning of the study, provided information on the implementation of the pen pal project. Subsequent professional development meeting topics included (a) improving literacy through strategic reading of high-quality literature, (b) writing to a pen pal in response to literature, and (c) using discussion strategies to foster critical thinking skills. The professional development sessions were highly participatory and were designed to support teachers in using the books, promoting the writing of high-quality pen pal letters, and implementing small-group discussion strategies. Throughout the study, teachers were asked to use the gradual-release-of-responsibility model as they provided instruction on discussion strategies including the following: pair-share, reader reaction circles, and peerled discussion circles (Daniels, 2002; Moore, 2004).

Procedures for implementing the intervention. In this study, authentic literacy tasks involved student and adult pen pals reading common books and exchanging letters about the books. Students also engaged in purposeful small-group discussions about important ideas in the books. The pen pal project was carried out in the participating schools over a 7-month period (a timeline of the procedures is provided in App. A). It was implemented during the reading/language arts period of the day and was in addition to the core reading program, primarily using the time typically devoted to language arts instruction (approximately 30 minutes each day). Classrooms used both basal materials and core literature for guided reading at various times throughout the school year. Students in the participating classrooms were matched with carefully screened adult pen pals recruited from various businesses, nonprofit organizations, and governmental agencies who volunteered to participate as part of a community service commitment. Employers and university faculty nominated individuals to participate in the program, and criminal background checks were carried out. The adult pen pals were provided with access to an online tutorial to guide them in writing letters to elementary students in a manner that would support literacy development. For example, to promote the dialogic nature of the

Table 1. Narrative and Informational Text by Grade Level and Genre

Genre	Text
Grade 3:	
Narrative	Julian's Glorious Summer by Ann Cameron
Informational	Washington, D.C.—A Scrapbook by Laura Lee Benson
Grade 4:	
Narrative	Justin and the Best Biscuits in the World by Mildred Pitts Walter
Informational	If You Lived in Colonial Times by Ann McGovern
	Colonial Life by Brendan January
	The New Americans—Colonial Times (1620–1689) by Betsy Maestro
Grade 5:	
Narrative	Class President by Johanna Hurwitz
Informational	If You Traveled West in a Covered Wagon by Ellen Levine The Oregon Trail by Elaine Landau

Note.—In grades 4 and 5, informational books of varying difficulty levels were provided and teachers matched students to books according to student reading ability.

letter exchanges, the adult pen pals were encouraged to pose questions that would support the student pen pal in thinking deeply about ideas in the books (e.g., Why do you think . . . ?) and connecting the content to their lives and community (e.g., Have you ever . . . ?).

The student and adult pen pal dyads were blind matched and only first names were used in the letter exchanges. Letter exchanges were read by both the classroom teachers and one of the researchers to ensure that no student or adult revealed any personally identifying information. Across a 7-month period, the students and adult pen pals exchanged three letters: an introductory letter, a letter about a narrative book, and a letter about an informational book (see App. B for an example of a pen pal letter exchange). The books were given to the students to keep. The narrative and informational books were selected by a six-member panel of children's literature professors and classroom teachers to be age/grade level/reading level appropriate, compelling, and diverse, with an emphasis on the themes of problem solving and resilience. The list of books appears in Table 1. In addition, a set of theme-related books was provided for the teachers to read aloud in conjunction with each genre. All the books used in the study were aligned with the content standards at each grade level.

First, the student and adult pen pal exchanged an introductory letter that focused on family, pets, hobbies, and interests. Then the adult pen pal and the student read a narrative book during the first book cycle and an informational book during the second book cycle. The books for the students were sent via U.S. mail to the classroom teachers for distribution to the students. The adult pen pal initiated each book cycle by writing a letter to the student that posed questions and discussed the book. The letters from the adult pen pals were sent electronically to the classroom teachers who screened the letters and then duplicated them for distribution. In class, on an appointed delivery day, each student received a hard copy of his or her pen pal's letter. Students read their letters and, over a number of days, participated in small-group discussions about the books and the ideas and questions shared by their adult pen pal in preparation for writing back to them.

Throughout the intervention students met in discussion groups (6–8 students) to talk about the books and the letters they had received from the adult pen pal about

the book. Students were invited to bring their letters from their adult pen pal to the discussion group immediately following the receipt of the letter. All students in each classroom participated in the small-group, peer-led discussions using strategies introduced by the teacher during reading instruction. During the discussions students talked about the ideas in the book as well as questions that they could ask their adult pen pals. The students then responded to the adult pen pal, and the next cycle began with the reading of the informational text. Students participated in at least two small-group discussions about each book before responding to their adult pen pal. The time devoted to each small-group discussion was approximately 20 minutes.

Data Collection

In order to address the research questions, data were collected from the following sources: students' pre- and postintervention scores on the Literacy Motivation Survey, transcriptions of small-group discussions, and transcriptions of postintervention interviews with key informants.

Literacy Motivation Survey. The Reading Survey section of the Motivation to Read Profile (MRP), developed by Gambrell et al. (1996) for use in grades 2-6, was adapted for use in this study in order to address the first research question regarding authentic tasks and motivation. The MRP is comprised of two components: the Reading Survey and the Conversational Interview. The Reading Survey is a selfreport, group-administered survey composed of 20 items and using a four-point rating scale. The instrument yields a total score and two subscores that reflect subconstructs of motivation: self-concept and value of reading. The Conversational Interview, designed to explore individual students' motivation to read narrative and informational text, was not used in this study; however, information was drawn from this section of the MRP to inform the development of the questions posed to the key informants during the postintervention interviews. Internal consistencies for the Motivation to Read Survey resulted in the following reliability estimates using Cronbach's alpha: Value of Reading = .82, and Self-Concept as a Reader = .75. In addition, consistency between the two components of the MRP (Conversational Interview and the Reading Survey) was .87, providing validation of survey items with student responses to interview questions (Gambrell et al., 1996).

For the present study, the Reading Survey portion of the MRP was expanded to include two items related to writing, resulting in the Literacy Motivation Survey (LMS). The two additional items were designed to yield information about students' motivation to write: Writing to someone about a good book I am reading is (1) a boring way to spend time, (2) an OK way to spend time, (3) an interesting way to spend time, (4) a great way to spend time; When I get a letter from someone, I feel (1) unhappy, (2) sort of unhappy, (3) sort of happy, (4) very happy. Three tests determined the reliability of the LMS. First, a test of Cronbach's alpha was conducted to determine internal consistency of the original 20-item survey. An acceptable measure of reliability was obtained, $\alpha = .89$. As a precautionary measure, split-half reliability of the survey was measured using the Spearman-Brown technique, which also indicated an acceptable level of reliability for the survey, $\alpha = .86$. Finally, a follow-up check of Cronbach's alpha was conducted to assess the impact of two additional items on the reliability of the entire survey (22 items). This test showed that the reliability of the survey actually increased when the two items were added ($\alpha = .91$).

	Total $(n = 180)$		Male $(n = 88)$		Female $(n = 92)$	
	M	SD	M	SD	M	SD
Pre:						
Self-concept	29.78	6.71	29.00	6.69	30.53	6.68
Value of reading	27.44	10.59	26.11	10.40	28.72	10.66
Writing motivation	5.27	2.63	5.05	2.61	5.48	2.64
Pre total	59-55	23.13	57.23	22.74	61.77	23.40
Post:						
Self-concept	30.75	5.29	29.99	5.05	31.48	5.45
Value of reading	28.49	6.08	26.94	6.25	29.98	5.55
Writing motivation	6.38	1.31	6.13	1.32	6.63	1.26
Post total	65.63	10.47	63.06	10.27	68.09	10.11

Table 2. Descriptive Statistics for the Literary Motivation Survey

See Table 2 for the means and standard deviations from the pre- and postadministration of the survey.

Administration of the LMS. The classroom teachers administered the LMS as a preand postintervention measure of literacy motivation. The questions were read aloud to students to control for differences in reading ability. The posttreatment administration of the LMS took place near the end of the academic year. Providing a 7-month separation between the pre- and postadministrations of the survey ensured that our research design was akin to others that have been published in numerous domains (see, e.g., a review of repeated-measures designs by Keselman, Algina, & Kowalchuk, 2001).

Small-group student discussions. Throughout the intervention, students met in discussion groups (6–8 students) to talk about the books and the letters they had received from the adult pen pal about the book. As the intervention progressed, the groups moved from more teacher-led to more peer-led discussions. During the professional development sessions, teachers were provided with strategies for implementing peer-led discussions. For each book, students participated in at least two small-group discussion sessions that lasted approximately 20 minutes each. During weeks 22, 24, and 26 of the intervention, teachers in the three grade 4 classrooms and the three grade 5 classrooms audio- or videotaped peer-led student discussions. Each week the teachers selected either an above-average reading group, average reading group, or below-average reading group for taping. There was only one grade 3 teacher and classroom participating in the study. Therefore, data from the small-group discussions from this classroom were not included in the analysis due to the threat of possible teacher effect. The small-group discussions from the grade 4 and 5 classrooms were transcribed for later analysis.

Interviews with key informants. Purposeful sampling procedures were used to identify the students who served as key informants for the postintervention interview. From each classroom, three key informants were randomly selected from three groups (below-grade-level readers, on-grade-level readers, and above-grade level readers), and one randomly selected student was chosen from each classroom to control for attrition, resulting in the identification of 28 key informants. The resulting sample size of 28 key informants for this study exceeded Polkinghorne's (1983) recommendation of between 5 and 25 key informants. The interviews were conducted postintervention.

The researchers who conducted the key informant interviews were not made aware of the reading ability levels of the students. The interview was semistructured and was designed to provide opportunities for the students to comment on their perceptions of the pen pal experiences and the reading, writing, and discussion tasks they engaged in as a part of the study. The interview questions are provided in Table 3. The researchers who conducted the interviews were asked to follow up with additional questions as needed in order to fully understand a student's responses. They were also instructed to restate a student's comments, if necessary, in order to check for understanding.

The student interviews took place in a small conference room or the school library. The researcher/interviewer ascertained the students' willingness to participate in the interview; all students agreed to participate. The interviews were recorded using a digital voice recorder and were later transcribed for analysis, and the transcriptions were used as primary data in a narrative analysis of student experiences related to participation in the reading, writing, and discussion tasks related to the pen pal experience. These data were used to provide an understanding of the motivational components of the students' experiences of the reading discussion and the writing that took place in the context of the pen pal exchanges.

Data Analysis

Literacy Motivation Survey. To address the first research question, data from the pre-post administration of the LMS were analyzed using a paired-samples *t* test to test for differences in students' pre and post responses. A series of one-way ANOVAs was conducted to assess any differences among students' change in survey responses pre to post by gender.

Transcripts of peer-led discussions. A total of 15 small-group discussions were transcribed for analysis for features of accountable talk using a deductive analysis scheme (research question 2). Two researchers independently read the transcript of each discussion and then reread each transcript to code student interactions. Each discussion was coded according to the categories of accountability to community, content, and critical thinking. Table 4 presents the coding scheme that was used in the analysis, Assessing Peer-led Discussions of Text: Community, Content, and Critical Thinking (APDT:CCC). In the coding of the discussions, a tally could represent a single student's comment or it could represent a series of connected comments across several students. Two researchers independently coded transcriptions of four discussions and established an acceptable level of interrater reliability at 81%. The two researchers coded the remaining discussions independently. Using constant comparative methods (Merriam, 1998), the interactions in each of the three primary coding categories (community, content, and critical thinking) were then grouped into meaningful subcategories and then described.

Key informant interviews. Analyses of the 28 key informant interviews were conducted to provide insights about students' literacy motivation (research question 1) and to explore students' responses to participation in authentic literacy tasks (research question 3). Audio recordings of the interviews were transcribed for analysis and student responses to each question were compiled. Two of the researchers read the responses to each question and identified meaning statements and meaning clusters that emerged using constant comparative analysis (Merriam, 1998). When

Table 3. Key Informant Interview

Question/Response	n	%
What did you like best about the project?		
Having a pen pal, sending and getting letters	18	57
Reading the books	11	37
Writing letters to an adult pen pal	10	33
Getting the books	6	20
Communicating with others	5	17
2. Tell me about some things you have done in class this week.		
Reading the books	14	48
Discussion	14	48
Wrote to pen pal	7	24
Reading aloud	4	14
Make a book/ writing an activity	4	14
Writing activities, making bookmark	4	14
Do you ever talk with your classmates about the books? Tell me the kinds of things you talk about.		
Talk about our favorite/least favorite part	10	40
Ask each other questions	9	36
4. Did you learn some interesting things by talking with your		
classmates about the books?		
New information	9	33
Understanding the book	3	11
5. Do you think having students read books and write to a pen pal is a good idea? Why?		
No	0	0
Yes—communication/sharing ideas	12	43
Yes—fun reading the books and learning new things	7	25
6. What is the most important thing you think you have learned from		
your experiences of reading books and writing to pen pals?		
Reading more	4	19
Interacting with someone	3	14
Writing	3	14
7. What activities that you do in class help you understand books better?		
Group discussion	9	43
Sticky notes	7	33
8. What do you think is the best thing about having a pen pal?		
Writing back and forth with pen pal	13	50
Learning more about the pen pal	8	31
Communication about the books	8	31
9. What is the most interesting thing your pen pal has written to you?		
Information about the book	8	36
Personal information	7	32
10. Would you like to participate in the pen pal project next year?		
Yes No	26	93
11. If you had to name one thing that was the most exciting thing about	2	7
the program, what would it be?		
Receiving the letters	7	28
Receiving the books	6	24
Having a pen pal	5	20

Note.—There were 28 key informants; however, not all students responded to every question. Responses that accounted for less than 2% of the responses are not included. Key informants often had more than one response to each question; for example, in response to the question, What did you like best about the project? a single child responded, "the pen pal, reading the books, and getting to keep the books."

Table 4. Peer-led Discussions of Text (APDT:CCC)

Accountability Indicator	No. of Occurrences	
I. Accountability to community:		
Expanding on ideas under discussion	13	
Summarizing, paraphrasing other students' comments	11	
Clarifying or defining terms/ideas under discussion	3	
II. Accountability to content:		
Providing evidence for claims	14	
Making specific reference to text to support arguments	11	
Using prior knowledge that is accurate and relevant	11	
Requesting factual information, elaboration, rephrasing, etc.	5	
Making clear reference to new knowledge gained	1	
Questioning unsupported claims	1	
Calling for definitions and clarification of terms	1	
III. Accountability to critical thinking:		
Connecting ideas across the text	15	
Making inferences and drawing conclusions	13	
Comparing and contrasting ideas	11	
Agreeing/disagreeing, providing supporting information	11	
Asking questions about concepts	10	
Referring to a variety of texts	2	
Refining or changing explanations	2	

Note.—Scoring of grade 4 and 5 discussions (n = 15 discussion groups, 6-8 students in each discussion group).

differences in assignment to categories occurred, the researchers discussed the response assignment until agreement was reached. From these meaning categories, themes were identified to address the research questions.

Results

This study explored elementary students' engagement in a pen pal intervention that focused on authentic reading, writing, and discussion tasks. In order to address the first research question, the LMS was administered pre- and postintervention to assess motivation. Transcripts of student discussions of shared text were analyzed for occurrences of accountability to community, content, and critical thinking. In addition, data from key informant interviews provided insights about students' literacy motivation and their perceptions of the intervention.

LMS Pre- and Postassessment

Four scores were calculated from each participant's pre- and postsurvey responses (LMS total score, self-concept as a reader, value of reading, and motivation to write). A series of paired-samples t tests were conducted to test for differences in students' pre and post responses. The first research question addressed whether the literacy motivation of students participating in the pen pal intervention changed significantly. Results revealed a statistically significant difference between the pre and post scores on the 22-item LMS, with the postsurvey means (M = 65.63, SD = 10.47) being significantly higher than the presurvey means (M = 59.55, SD = 23.13, p < .001). A Cohen's d calculation showed that the intervention yielded a small to moderate magnitude of effect (.39). With respect to self-concept and value scores, results in-

dicated that students' responses did not differ pre to post for either the self-concept items or the value items. However, results revealed that the students' mean responses to the additional two items on the post survey (M=6.38, SD=1.30) were significantly higher than the same two items on the presurvey (M=5.27, SD=2.63, p<0.001). The intervention yielded a moderate to large magnitude of effect, pre to post, according to calculations of Cohen's d (.65).

Because the literature suggests gender differences in literacy motivation, paired-samples t tests were conducted to identify possible gender differences in students' pre and post responses. Results revealed statistically significant increases in motivation for both boys and girls. For boys, the postsurvey mean (M = 63.06, SD = 10.27) was significantly higher than the presurvey mean (M = 57.23, SD = 22.74, p < .05). Likewise, for girls the postsurvey mean (M = 68.09, SD = 10.11) was significantly higher than the presurvey mean (M = 61.77, SD = 23.40, p < .05). The intervention yielded modest gains for both boys and girls, as assessed by Cohen's d (.34 and .35, respectively).

Four ANOVAs conducted on the students' post scores showed clear gender differences after the intervention. Whereas the ANOVA assessing students' self-concept scores was not significant (p > .05), significant effects were obtained for the value scores, F(1,179) = 11.91, MSE = 414.32, p < .001; for the motivation-to-write scores, F(1,179) = 6.93, MSE = 11.49, p < .01; and for the LMS total scores, F(1,179) = 10.95, MSE = 1138.04, p < .001. The strength of the relationship between gender and these post scores was moderate, as assessed by $\eta 2$, accounting for 6%, 4%, and 6% of the variance in scores, respectively. As can be seen in Table 2, girls' postmeasure scores were higher than boys' scores.

Small-Group Discussions of Text

Small-group discussions were analyzed for evidence of students' accountability to community, content, and critical thinking (research question 2). Across the 15 discussions, students demonstrated consistent reference to the text and discussion topic. There were only two brief instances of off-topic discussion, and both occurred in grade 4 discussions. In the sections that follow, the results for each category (community, content, and critical thinking) are summarized, and specific student comments are provided as examples of how the discussions reflected accountability within the three categories.

Accountability to community. In each of the 15 discussions, there was evidence of accountability to the members of the group through consistent student reference to the text and discussion topic. Across the 15 discussions, there were 27 occurrences of accountability to the community (see Table 4), which were then assigned to three meaningful subcategories: expansion of ideas under discussion (48%), summarizing or paraphrasing another's comments (41%), and clarification or definition of terms or ideas under discussion (11%). The following exchange (representing one tally in the coding on the APDT:CCC) is an example of an occurrence where students build upon the ideas of others:

Student 1: Her owners didn't disrespect her too much. . . . She was able to sit with them, and play with the daughter and son. . . .

Student 2: She got to eat dinner with them, but if company came, she got to sit at a table near them.

Student 3: She got to entertain the guests, and she's been over to other people's houses to tell them about her poems.

Student 1: . . . she got her own room, and all the other slaves . . . had to sleep in one little barn. They just did as much as they could for her. I remember the part that said that the lady that owned her kept on loving her, and loving her a lot, as a daughter.

Student 3: And she also had some friends of her own. They got to see each other once in awhile, and they got to write a letter to each other. . . .

Accountability to content. In each of the 15 discussions there was evidence of student accountability to content. Across the discussions, there were 44 occurrences (see Table 4). The majority of these student contributions were distributed across three subcategories. These included providing evidence for claims (32%), making specific reference to text to support arguments (25%), and using prior knowledge that was relevant (25%). In the following example, Student 3 provides evidence for a claim (coded as one tally on the APDT:CCC): "On page 13 it says she was writing on the wall. And I've put [student is reading what she previously wrote], 'I like this page because it shows how desperate Phyllis was to write and learn.' She was writing on the walls with chalk!"

Accountability to critical thinking. In each of the 15 discussions, students demonstrated accountability to critical thinking on 64 occasions (see Table 4) through the use of interpretive strategies. The majority of the comments reflecting critical thinking were in the following areas: connecting ideas across text (23%), making inferences and drawing conclusions (20%), comparing and contrasting ideas (17%), agreeing or disagreeing by providing supporting information (17%), and asking questions about concepts (16%). In the example that follows, students made inferences and drew conclusions, indicating that they were developing a series of topics sufficiently to come to new interpretations (coded as one tally on the APDT:CCC):

Student 1: They might have felt excited to get going . . . 'cause they wanted to see Oregon. 'Cause the people who came back from Oregon said all this good stuff about it, making it seem like a magical place.

Student 2: And when they got there, I bet they were just so excited, they probably screamed . . . they probably screamed for about five minutes!

Student 1: I'll bet they'd be in a hurry to stake out their free land, before someone else takes it.

Student 2: I'm sure there was probably more than one fight over a piece of land. **Student 3:** Probably was.

In the example below, the students' commitment to collaborating on a deeper understanding of the reading was revealed as they posed questions about concepts discussed in the text:

Student 1: On page 40, "For headaches the Indians chewed on bark from the willow tree."

Student 2: I have a question, . . . why did they eat bark from trees? **Student 1:** They ate it because they found out that it helps them with headaches . . . the bark contains an ingredient in aspirin.

Key Informant Interviews

Table 3 presents the guiding questions included in the key informant interviews along with a tabulation of responses. Some students mentioned more than one answer, and for this reason the percentages for each question do not add up to 100%. Also, categories that represented less than 2% of the responses are not included. The purpose of the interviews was to provide insight into student perceptions of their experiences of the pen pal intervention in general, as well as the reading, writing, and discussion experiences in particular (research question 3). Student responses to the individual questions were grouped into two general categories: their overall response to the pen pal intervention, and engaging features of the pen pal intervention.

Overall response to the pen pal intervention. Of the 28 students who participated in the interviews, 26 indicated that they would like to participate in the pen pal program again, and two students said they would not like to participate in the intervention program again. When asked why they would not participate, the students responded "not sure" and "we will probably do something different next year." Their answers to other questions on the interview revealed positive perceptions about getting the books and letters from their pen pals. Also, both of these students indicated that they thought it was a good idea to have students read books and write to a pen pal.

When asked the general question, What did you like best about the project? 57% of the respondents reported that they enjoyed having a pen pal to exchange letters with. They also indicated that they enjoyed reading the books (37%) and writing the letters (33%). In a similarly targeted question (What do you think is the best thing about having a pen pal?), 50% of the students stated that they enjoyed writing back and forth with the pen pal, indicating the consistency of an audience for their writing as a factor of the task. Students also valued learning more about their pen pals (31%) and communicating about the books (31%). One student summarized this theme well in stating, "The best thing about having a pen pal is we get to read the books and share our feelings with other people. And they're not just kids, they're adults that we get to share our thoughts with!"

Engaging features of the pen pal intervention. In their responses to the more specific questions about the various elements of the intervention, students reported on their perceptions of the outcomes of interactions about texts with pen pals and peers, as well as the reading of books and construction of letters. Students reported that reading a book in order to write with a pen pal allows for the sharing of ideas (43%). As a result, some students shared that their pen pals provided information about the book that was interesting (36%). Throughout the key informant interviews, students emphasized that the adult pen pals helped them to think critically about ideas in the text, as in the following student response: "I think it [having an adult pen pal] helps you to get different ideas on stories, and like different people have different perspectives. Like if you were reading one book about someone from Japan in World War II and you were from Japan, you would think it wasn't fair. But if you were from America you would think, maybe it was the right choice." In addi-

tion to the influence of the pen pal letters on their interpretation of the text, the key informants also point to growth in willingness to read (19% indicated that they learned to "read more") and willingness to write, as reflected in the following comment: "It [having a pen pal] helps me on my writing skills. I don't like writing, but I do like writing letters."

We were also interested in whether students would perceive a relationship between the pen pal experience and the development of literacy skills, particularly with respect to the ongoing activities in the classroom. As reflected in the following student comment, the most often-cited activity (48%) was participating in small-group discussions: "What I liked best was doing the discussions because people brought up things that I forgot about the book and it made the book even better." Key informants shared that they talked to each other about their favorite and least favorite parts of the books (40%) and that they learned from each other through their discussions. Specifically, students responded that they learned new information through their peer discussions (33%) and that the group discussions helped them to understand the books better (43%). These ideas are expressed in the following responses: "We talk about our answers to the pen pals questions. We also talk about things we were wondering about, things we can answer about the book."

Discussion

The purposes of this descriptive study were to advance the knowledge in the field about student engagement in a pen pal intervention that focused on authentic reading, writing, and discussion experiences with respect to literacy motivation, and to explore whether engagement in such tasks creates a context for critical thinking. For the students in this study, literacy motivation scores increased from pre- to postintervention for boys and girls. Qualitative findings from small-group discussions and key informant interviews provide evidence of student accountability to community, content, and critical thinking, as well as overall positive perceptions of their participation in the intervention.

The finding, based on the results of the LMS, that elementary students' motivation increased significantly from fall to spring is of particular interest in light of the robust findings in the research that reading motivation declines across the school year and as students progress through the grades (Eccles, 2000; McKenna et al., 1995). In addition, it appears from the responses of the key informants that literacy tasks centered on the student-adult pen pal exchange supported and sustained literacy motivation.

In this study, scores on the LMS increased significantly, pre to post, for both boys and girls. One possible interpretation of this finding is that the authentic and purposeful nature of the pen pal exchange with an adult carried sufficient social value for students to be more motivated to engage in reading, writing, and discussion tasks. While this study is descriptive in nature and the findings must be interpreted with caution, the key informant interviews revealed several aspects of the pen pal project that students reported as engaging. When elementary students exchange ideas with an adult who is personally interested, it may create a situational interest in the school-related tasks of reading, writing, and discussing a commonly read book (Nolen, 2007). These results are in keeping with theories and research on authentic

learning and suggest that literacy motivation may be enhanced when tasks and activities are based on authentic reading, writing, and discussion experiences (Brophy, 2008; Gambrell, 1996; Guthrie et al., 1996; Purcell-Gates, 2002; Purcell-Gates et al., 2007).

Future studies using experimental and quasi-experimental designs are needed to determine the causal effects of authentic tasks on literacy motivation and critical thinking skills. Such investigations are warranted because research has consistently linked motivation to read to the development of literacy skills and reading achievement (Chapman & Tunmer, 2003; Guthrie, 2008). According to Wigfield and Guthrie (1997), students who are more motivated to read create their own reading opportunities and read up to three times as much outside of school as students who are less motivated. In light of the research suggesting that reading achievement can be promoted by fostering reading motivation, it may be fruitful for us to expand our theorizing about the potential benefits of engaging elementary students in authentic literacy tasks. The present study documented that the authentic literacy tasks of reading books, exchanging letters, and engaging in small-group discussions are viable tools for creating a learning context that reflects student accountability to community, content, and critical thinking. While this study was not designed to allow for cause-effect conclusions regarding these skills, it was designed to determine whether students demonstrated these skills in an authentic literacy context.

The analysis of the small-group discussions provided evidence of purposeful student cognition. Students were accountable and responsive to comments made by peers and knowledgeable about the content of books, and they engaged in critical thinking about the content of the books. These novel and group-based interpretations may serve to enhance and extend the personal interpretation of the individual readers. In research by Almasi et al. (2001), this skill was noted in highly proficient discussions of text. Discussion makes thinking public as ideas are expressed, therefore enabling higher-level thinking and critical analysis. The findings of this study extend the research on peer-led discussions (see Malloy & Gambrell, 2011) and suggest that reading, writing, and discussion in a pen pal context support student engagement in interactions with peers, expression of knowledge of text content, and critical thinking about the text.

The qualitative results of the key informant interviews support Rhodes's (2002) contention that written exchanges with non-school-related adults can be engaging to students. When asked what they liked best about the pen pal experience, they most often mentioned that they valued having an adult pen pal with whom they could exchange letters (57%). For students, writing to an adult—not for a grade but because they are responsible for communicating effectively in order to continue the valued connection—becomes an open task that moves students to engage more fully in the necessary and academic elements of reading, writing, and discussing books.

While students most often mentioned the importance of having an adult pen pal, they also frequently mentioned that the classroom activity that helped them most to understand the books was the small-group discussions (48%). Student responses provide support for the social constructivists' view, which holds that students appropriate the tools for understanding through the socially embedded connections provided by discussions and letter exchanges (Vygotsky, 1934/1978; Wells, 1994). In this way, the students' personal workspace, or individual understanding of the text, was

enhanced through interactions with peers in discussion groups and in the letter exchanges with the adult pen pals.

On the whole, the responses of the key informants indicate that students found much to value through their participation in the pen pal project. They welcomed the interaction with an adult who provided a personal audience for writing and a source of information for understanding and interpreting the texts they shared. Similarly, they valued the peer discussions as a means of hearing multiple viewpoints and presenting opportunities to share opinions about the books. Students found reasons to engage in literacy tasks through the connected reading/discussing/writing cycles that brought a new value to the school tasks of reading books and writing and discussing a response.

As with any study conducted in the classroom setting, there are limitations that must be acknowledged. While this study focused primarily on the interactions between the student and the adult pen pal, as well as the interactions among the students during discussions, we did not focus on teacher-student interactions that occurred during the teacher scaffolding of the letter-writing activities. Future research should include attention to how teachers model, coach, and scaffold authentic literacy experiences in the classroom setting, particularly in the ways in which they support students in using comprehension strategies and other interpretive tools to prepare their personal workspaces for interactions with others. Future investigations using experimental and quasi-experimental designs are needed to explore the possible causal relationships among authentic literacy tasks, literacy motivation, and critical thinking.

The research of Guthrie et al. (1996, 2000) underscores the mediating role that motivation plays in literacy development. In the present study, using a pen pal letter context, we orchestrated authentic literacy tasks that closely approximate those found in the real world. In the adult world, we read books and then discuss them with others, in person or in writing. According to Neuman and Roskos (1997), participation in authentic literacy tasks not only provides opportunities for students to use their prior knowledge and to practice using interpretative strategies, it also provides a rich context for developing critical thinking skills in literacy development. The potential of authentic literacy tasks to synergistically enhance the reading, writing, and discussion skills of our students is an avenue of investigation that holds promise.

Appendix A

Timeline of Procedures: Intervention and Professional Development August

- Meetings with school principals regarding interest in participating in the study
- · Letters of interest received from school principals
- IRB submitted to the university/approval received
- Teachers volunteering to participate identified

September

- Permission to participate in the study obtained for students, teachers, and adult pen pals
- Professional Development Session #1—Pen Pal Project overview: authentic literacy tasks for reading, writing, and discussion

- Professional Development Session #2—supporting students in reading books and writing letters to an adult pen pal
- Administration of the Literacy Motivation Profile (preintervention)

October

- Professional Development Session #3—supporting students in reading books and writing to an adult pen pal
- Students and adult pen pals write and exchange introductory pen pal letters
- Professional Development Session #4—preparing students to write letters to their adult pen pal
- Adult pen pal reads fiction book, writes and sends letter to student
- Professional Development Session #5—preparing students to engage in small-group, peer-led discussions
- Students begin reading fiction book
- Professional Development Session #6—preparing students to engage in small-group, peer-led discussions

December

- Students receive letters from adult pen pals about fiction book
- Professional Development Session #7—preparing students to engage in small-group, peer-led discussions
- Students participate in small-group, peer-led discussions (on two different days) about the fiction book and the contents of the letters from the adult pen pals
- Students write letter to their adult pen pal about fiction book
- Professional Development Session #8—strategies for engaging students in small-group, peer-led discussions

January

- Adult pen pal reads informational book, writes and sends letter to student (see App. B for an example of a student-adult pen pal letter exchange about the informational book)
- Professional Development Session #9—strategies for engaging students in smallgroup discussions
- Students begin reading informational book

February

- Professional Development Session #10—strategies for engaging students in small-group discussions
- Students receive letters from adult pen pals about informational book
- Professional Development Session #11—strategies for engaging students in small-group discussions
- Students participate in small-group, peer-led discussions (on 2 different days) about the informational book and the contents of the letters from the adult pen pals

March

• Students write letter to their adult pen pal about informational book (see App. B for an example of a student-adult pen pal letter exchange about the informational book)

April

- Administration of the Literacy Motivation Profile (postintervention)
- Key informant interviews
- Professional Development Session #12—reflections on the Pen Pal Project

Appendix B

Example of Pen Pal Letter Exchange for Grade 5 Above-Grade-Level Reader

Informational Book

Adult Pen Pal Letter to Student about Informational Book Hi H.!

Your last letter was so interesting. It is so neat that you have ancestors who fought in the Civil War, and even neater that you know their story. I really liked reading about how he tried to escape the war.

You were elected Class President?? Congratulations! I was class president when I was in 5th grade too. (Something we have in common!) You have some really good ideas about raising money for more library books and helping kids when they need it. Sounds like you're a good president, just like Julio.

I thought *If You Traveled West in a Covered Wagon* was a really interesting book. I liked that there were so many pictures. It really helped me imagine what it would be like if I were traveling on the Oregon Trail. Can you imagine being in a wagon for six months? What is the longest trip you've ever taken? My family usually drives to Florida every year, which is about a 12 hour drive. I would have small chores for our trip like making sandwiches for lunch, but nothing like the kids on the Oregon Trail had to do. Are there any particular chores that the children in the book had to do that you think you'd be good at or like? I do not think I would like having to pick up the buffalo chips for fires.

If you were on the Oregon Trail, what do you think would be your favorite part of the journey? I think I would really like hanging out at night around the campfire telling stories and singing songs, kind of like camp. And it would be really neat to see all of the different sites along the way. Hopefully you'd get along with everybody in your wagon train, because you'd have to be with them for a very long time!

When I was in Elementary School, we played this computer game called Oregon Trail all the time. We got to choose things like what time of year our wagon would leave, who was coming with us, and what supplies we were going to pack. It was a lot of fun. Have you ever played it? If you had the chance to travel west in a covered wagon like they did back then, would you? I would, I love adventures.

I hope you enjoyed reading the book as much as I did. I can't wait to read your next letter!

Your pen pal,

Student Letter to Adult Pen Pal about Informational Book Dear K.,

How are you? I thought I might answer some of your questions. But first of all, I can't believe you were class president just like I am. You were probably a great president. And no, I couldn't imagine being in a wagon for six months because I couldn't stand doing the same thing all day, every day. The longest trip I have ever taken was to Cape Cod. It took nine hours to get there.

The book, I loved the book. I enjoyed reading with my friends and my imagination. My favorite part on the trip would be going hunting because my dad always takes me hunting and I really enjoy going. Some of the chores I could do on the trip would be milking the cows, fetching water, cooking the food, and also collecting wood for the fire.

But, no I have never played the Oregon Trail computer game. Well, I thought I might just answer some of your questions.

Sincerely,

H.

Note

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