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ABSTRACT

This study investigated the writing of elementary and high school students who participated in an on-line conference called Elementary Books over a two-year period, from 1992-1994. During this period, exchanges between a third- and a fifth-grade class and two high school English classes in different geological regions of Virginia were analyzed to determine message content, sentence structure, and the impact of writing for real audiences. Four different types of information were exchanged: story facts, personal information, story-related information, and references to other books. Students used three different types of sentences in their writing: simple (subject and verb), sentences that contained at least one prepositional phrase, and sentences that contained a conjunction to produce a compound or complex sentence. Findings indicated that telecommunications provided an authentic medium for communications with real audiences, fostered the establishment of personal connections between participants, and changed students's perceptions of writing. Through these experiences, students were able to take greater responsibility for their own learning tasks and practice skills in meaningful contexts. Findings are illustrated in two figures. (Contains 21 references.) (Author)

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An Analysis of Communications Between Elementary Students and Storybook Characters Participating in an On-line Conference

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Abstract

This study investigated the writing of elementary and high school students who participated in an on-line conference called Elementary Books over a two year period, from 1992-1994. During this period, exchanges between a third-grade and a fifth-grade class and two high school English classes in different geographical regions of Virginia were analyzed to determine message content, sentence structure, and the impact of writing for real audiences.

Four different types of information were exchanged. They were story facts, personal information, story-related information, and references to other books. Students also used three different types of sentences in their writing. They were simple sentences (subject and verb), sentences that contained at least one prepositional phrase, and sentences that contained a conjunction to produce a compound or complex sentence.

The findings indicated that telecommunications provided an authentic medium for communications with real audiences, fostered the establishment of personal connections between the participants, and changed students' perceptions of writing. Through these experiences, students were able to take greater responsibility for their own learning tasks and practice skills in meaningful contexts.

Introduction

From 1992-1994, ninth and tenth grade students in remedial reading and English classes at two different Virginia high schools used telecommunications to portray characters from popular children's books using Virginia's Public Educational Network (Virginia's PEN). The Elementary Books Project began in 1992 at Meadowbrook High School and expanded to Rocky Point High School the following year. This research examines how the presence of authentic audiences influenced the nature of the exchanges and the development of sentence structures of participants.

The reading and writing competencies of the high school students were far below grade level, and reading material at appropriate levels were demeaning and/or unacceptable. Hochella, the reading teacher at Meadowbrook during 1992-1993, was actively involved in the state's education telecommunications network. She became acquainted with a third-grade teacher, April Lloyd, who was also an avid promoter of telecommunications. Lloyd's students were using telecommunications to write to Ramona Quimby (from *Ramona Quimby, Age 8*, by Beverly Cleary), and Ramona (Lloyd) would respond.

Hochella and Lloyd decided that it would be beneficial and exciting if Hochella's students used telecommunications to portray additional characters from other children's books. Hochella felt that this activity would create interesting and authentic learning experiences for her students using developmentally appropriate reading materials while providing alternative learning experiences as well.

Hochella's students portrayed Harold the Dog from *Tales of Bunnicula* by James and Deborah Howe, Mr. Popper from *Mr. Popper's Penguins* by Richard and Florence Atwood, and Nate Twitchell from *The Enormous Egg* by Oliver Butterworth. Electronic accounts in the characters' names permitted the high school students to remain anonymous.

Objectives of the Elementary Books Project

The project had three main objectives. The first was to create risk-free learning environments where students were immersed in textual experiences. The second objective focused on increasing students' responsibility, control, and influence over their own learning tasks. The third objective was to provide students with opportunities to apply skills in new settings and gain confidence in themselves as learners.

The primary focus of the project was to create learning environments where students were free to experiment with language in creative ways and construct their own knowledge and understanding. The teachers wanted to design instruction based on individual students' strengths and weaknesses. They encouraged students to think and act on their own and to collaborate, make choices, and test predictions. They wanted to engage students in activities that presented complex problems with multiple solutions as discussed by David (1991). Finally, they felt it was important for students to see results based on their own strategies for learning and enjoy successful school experiences (Wang & Palincsar, 1989).

The second objective was to increase student empowerment by providing them with opportunities to develop confidence and become aware of their own expertise. Students were encouraged to shape and develop their own learning tasks by taking risks and collaborating on projects. In studies of high school students who were using computers to complete writing assignments, Fisher (1989) found that student empowerment increased when activities required problem solving and other higher-order cognitive behaviors. In a two year study of high school students who were using computers for writing projects, Tierney (1989) noted, "When using technology, students were more actively involved in designing and building curriculum projects and hence more responsible for constructing their own knowledge" (p. 14). By sharing multiple drafts, the students in Tierney's study gained a more objective perspective of their writing and expanded on ways to develop text.

The third focus was to provide students with opportunities to apply and practice skills in meaningful ways. Researchers (Graves, 1986; Atwell, 1987; Hansen, 1987; Calkins, 1991) have reported that students read and write with greater depth and accuracy when real audiences are involved. Riel (1986) found that many times students were asked to write without concern for purpose or audience and that writing improved when students understood their purpose for writing. Cohen and Riel (1989) noted,

The way that writing is taught and practiced in classrooms provides students with limited experience in writing to different audiences. Students are taught either directly or indirectly to channel their writing for teacher evaluation. (p. 146)

Cohen and Riel (1989) found that when writing was presented in this manner, it was not viewed as an act of communication, but rather as a demonstration of skills. They reported that when writing to real audiences, "students paid more attention to the informational content and clarity of their writing" (p. 159). Harris (in press) found that when writers felt a sense of connection to their audience, the focus became more personal and the length of compositions increased.

It appears that when high school students use computers for writing, they experiment with text in creative ways and want to compose comprehensible text to share with others (Tierney, 1989). Hiebert (1989) found that compositions written by third-graders on computers seemed to be more focused and elaborate. "Stories had more complicated plots and included more dialogue, suggesting that students tended to take more risks when writing with computers" (p. 13).

Finally, it appears that students prefer to use computers and telecommunications to write to real audiences. Erickson, Allen, and Mountain (1992) reported that students in a summer telecommunications project preferred to write to pen pals over writing poetry or personal opinion pieces because they were engaged in authentic correspondences. In a study of adults and students computer pals, Newman (1989) reported that participants wrote much more than expected and the writing was more free-flowing.

Methodology

This study investigated the writing of elementary and high school students who participated in an on-line conference called Elementary Books over a two year period, from 1992-1994. During this two year period, exchanges between a third grade and a fifth grade class and two high school English classes in different geographical regions of Virginia were examined to answer two specific research questions:

1. How did the presence of an authentic audience influence the nature of the exchanges between high school students portraying fictionalized characters and elementary students participating in an on-line conference?
2. What text structures were present in these exchanges?

Although four classes took part in the study, participation varied. During the first year, the students from the third grade class wrote to the high school students from Meadowbrook High School. During the second year, the third-grade students continued to

participate, and the project was extended to a fifth-grade class. Students from Rocky Point High School portrayed the storybook characters during the second year.

Data Collection

The Elementary Books Project was an electronic conference housed on Virginia's Public Education Network (Virginia's Pen). Electronic conferences are open forums and accessible to all users; therefore, all of the exchanges of the elementary students and characters were available on-line. The teachers and some of the students were interviewed to gain additional perspectives.

Data Analysis

Message content. A sentence by sentence analysis of the messages between the elementary students and the high school students portraying storybook characters was conducted to determine the types of information being exchanged, the nature of the interactions, and the impact of writing for real audiences. Analysis occurred during the second year of the project. All letters from the first year had been archived on Virginia's PEN and were available for analysis. The letters from the second year were downloaded from the actual conference itself. The content of the exchanges and text structures were examined to discover patterns and themes of communication.

At the time of the study, adult volunteers were also portraying storybook characters on-line. Correspondences from those conferences were also analyzed to determine if the themes and patterns initially identified were common to all correspondences or limited only to exchanges between high school and elementary students. All exchanges were coded independently by the two researchers and communication patterns were identified and compared. Sentence structures were also analyzed.

The following letters are between two elementary students, Richard and Abby, and the high school students portraying Harold the Dog (from *The Tales of Bunnicula*, by

James and Deborah Howe). These exchanges are typical and reflect the authenticity of writing to real audiences. Each sentence or group of sentences was analyzed to determine its content or nature. This analysis appears in parentheses.

Dear Harold,

My name is Richard and I,m in third Grade. (personal information - self)

You are Living with The Monroes and you ate That steak. (fact from story)

When Mr and Mrs Monroe came in the Room and said, "Poor Harold you can have That steak." (fact from story)

are you Making a anther Book Harold. about you. (requesting personal from the character)

I,m Righting and Drowing a Book about Tenage Muntain Ninja Turtles. (personal information - self)

I go to Speech. and I Have a tuter. (personal information - self)

I always play you when we Read your Book. (personal information - self)

are Techer is nice (personal information - self)

I have a Dog named Spot. (personal information - self)

are class have a Studt Techer. (personal information - self)
she is nice To. (personal opinion)

Richard

Dear Richard,

I certainly did enjoy that steak. (personal information - self)
It beats eating a stake any day of the week. (personal opinion)

I have actually written other books that you could read, such as Howliday Inn, The Celery Stalks at Midnight and Return to Howliday Inn. (factual information)

Have you read any of my other books? (personal question addressed to reader)
Toby and Pete have a vacation from school coming up this month. (facts from story)

Do You? (personal question addressed to reader)
Maybe you might read one of them then. (personal suggestion to reader)

I'm always working on gathering ideas for new books. (story-related information)
Writers do that. (personal information - self)

We keep our eyes and ears alert and ready for new ideas. (personal information - self)

(And our noses ready for steaks.) (personal information - self)

It sounds like your a writer and illustrator, too. (personal comment to reader)

Maybe I could read one of your books sometime. (personal comment to reader)

What does your dog Spot look like? (personal question addressed to reader)

I'm always interested in finding out about one of my fellow canines. (personal information - self)

Does your family treat Spot like the Monroe's treat Chester and me? story-related question addressed to reader)

Well, I'm pretty tired so I think I'll go curl up on my rug. Hope to hear from you again. (personal information - self)

Faithfully yours,	
	\ O O /
	OooooO
Harold X.	oooooo
(The K-9 Correspondent)	oooo
	ooo

In the following letter, Abby, who has been following the correspondence between Richard and Harold, joins the conversation. This letter contains personal information and a request related to the story.

DEAR HAROLD,

Hello! My name is Abby. (Personal information - self)

Guess what? I have a dog too. His name is Bart. He is a Eskimo Spitz. He is very white. And he is a teeny tiny bit smaller then you. And that is UNBELIVEABLE! Because he is HUGE! I mean I have seen dogs that my dog could swallow in one gulp! And he is just a puppy! But in this case, I guess it is the other way around! (Personal information - self)

So, how is Chester doing? Is he normal yet? (requesting story-related information)

Well, I've got to go,

BYE!
LOVE,
ABBY

In the following letter from Richard to Harold the Dog, Richard continues the conversation about the books he is writing and provides more information about his dog. As the elementary students and the storybook characters established a rapport, conversations between them became more personal.

Dear Harold,

My dog Spot have Black and wite Spots on his boby and he ate My two Cats. he Hide After he Did that. (personal information - self)

and one of my Books is Home Alone1 and 2 and NaTasha Lee is my iLlistrder. She draws the pictures for the Book. (personal information - self)

(Richard is dictating the rest!)

I go to library tomorrow. I am going to pick a book of what you wrote. And I will read it to my family. That's all. (personal information - self)

Bye

Richard

Sentence Structure. The frequency of sentence types was also examined and three categories emerged: simple sentences, sentences containing prepositional phrases, and compound/complex sentences. These categories were based upon those developed by Graves (1986) and reflect incremental growth or developmental complexity as related to language and writing.

For example, the second letter from Richard contains a combination of simple and compound sentences. The first sentence, "My dog Spot have Black and wite Spots on his boby and he ate My two Cats," indicates that Richard can read and write compound sentences, but may have difficulties with visual discrimination as indicated by the reversal of the letter "b" for "d" in the word "body." It is interesting also to note the grouping of sentences into paragraph form. This indicates that Richard has knowledge of organizational skills and can apply them.

Findings

This study examined two issues related to computer-mediated conversations. The first analysis examined the content of the exchanges between the elementary students and the high school students who were portraying storybook characters. Four major categories emerged from the data: story facts, personal, story-related information and references to other books. The Personal category was subdivided into two subcategories based upon whether the information exchanged was particular to the writer (elementary student) or the recipient (book character).

1) **Story Facts.** This category contained information that related directly to facts, characters and or incidents that occurred in the story. These appeared in the form of statements or questions and were initiated by either the elementary students or the characters. Although this was factual information, it was incorporated as part of the natural flow of conversation, not an inquisition or "quiz."

2) **Personal.** This category included all elements of a personal nature. These exchanges established connections between the writer and the audience and were most easily done through shared experiences (Robinson, Crawford & Hall, 1990). This category included information about self, personal opinions, compliments, expressions of gratitude, or comments to the writer of a personal nature. Questions that sought specific information about the characters were also included in this category. Based on the types of information exchanged, this category was subdivided into two areas: personal information shared by the writer, and personal information that dealt with the character.

3) **Story-Related.** The information shared in this category was for the most part imaginative but based upon characters and events from the story. Students sought information about the current status of characters and wished to know about future plans. Responses from the characters included conjecture and fabrication but they were always

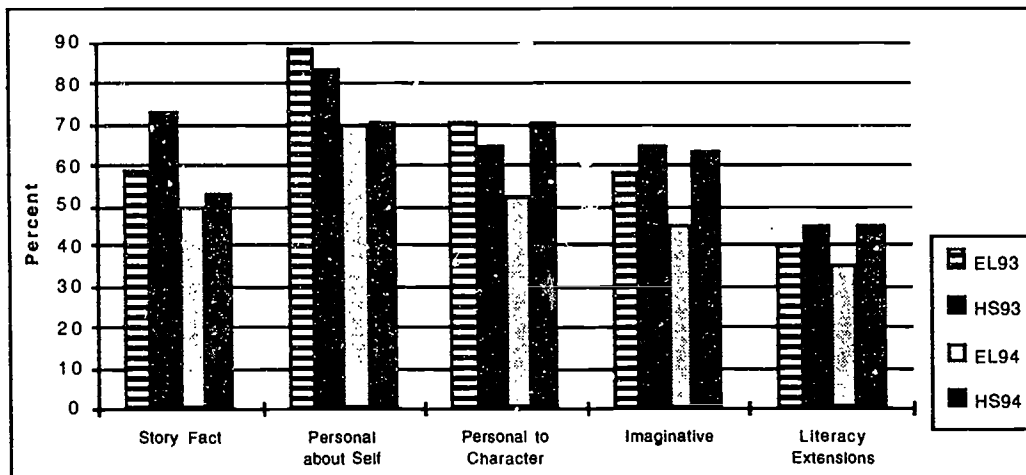
based upon information from the story. Maintaining voice and staying "in character" were primary considerations.

4) Literacy Extensions. This category emerged from the shared experiences of the book and occurred as a natural outgrowth. It speaks of conversations that literate people have concerning reading and writing. Students inquired about other books in which the characters appeared, or plans for the character to write additional books (as in Harold the Dog's case). In this category, students also shared ideas for writing. The high school students/book characters encouraged students continue to read and suggested other books. They also asked the elementary students about future writing plans.

All communication was initiated by the elementary students. They would send a letter to "Harold," "Bunnicula," or "Chester" and await a reply. The third-grade students were accustomed to writing to storybook characters on-line, but the high school students were not. Many of Harold the Dog's initial responses were terse and lifeless. Analysis of first letters written by high school students revealed that 100% of their responses contained specific references to the story or to information received from the child.

As students began to make personal connections, letters became more lively and conversational. In the second set of letters, only 65% of the responses contained factual information; however and the requests for personal and story-related information increased. The following chart illustrates the distribution of categories found in the letters.

Percentages were based upon the number of letters within the total number of letters which exhibited each category. For example, if a letter addressed facts from the story, the criteria of "Story Facts" would be represented once. If the same letter also contained personal or story-related information, that letter would also be counted in those separate categories. The presence or absence of a category determined whether or not the category was represented, not the number of times the category appeared in a letter. This was true of all the categories listed. The categories found most frequently were "Personal About Self" and "Personal to Character" as illustrated.

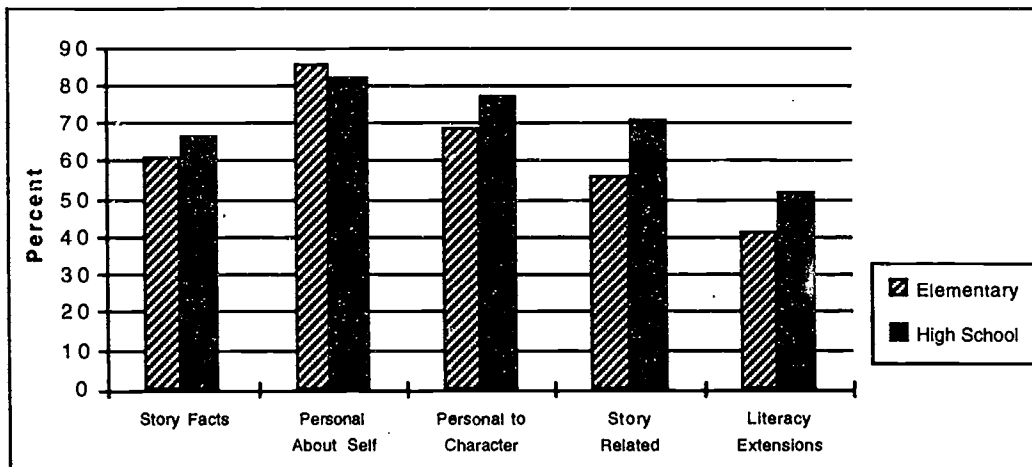


Categories of Communication Combined Comparisons

A comparison of the elementary and high school students across levels indicated that the elementary students revealed more personal information about themselves while the high school students revealed more personal information about the characters. Interviews with the elementary students revealed that most wrote in a state of suspended disbelief. Even though they knew that the storybook characters were not real, most wrote as if they were. A higher percentage of letters written by the high school students contained information that was personal to character. This finding is particularly noteworthy because the characters wrote in teams and had to create/invent any personal information they revealed based on the characters' personalities. This means that the high school students were incorporating elements of voice and style into their writing.

As part of the project, the high school students were asked to promote reading in their responses to the children in an effort to increase the high school students own interests in reading. When possible, the characters would encourage the elementary students to re-read a section of the book to find the answers themselves or to read other books by the same author. The chart below reveals that the letters written by the high school students contained high percentages of story facts, story-related information, and literary

extensions. These findings indicated that the high school students were indeed writing about reading to their young counterparts.



**Categories of Communication
Comparisons of Elementary and High School**

The second part of this study examined the sentences structures students used in their writings. Three types of sentences emerged from the data: Simple Sentences (subject and verb), sentences that contained at least one prepositional phrase, and sentences that contained a conjunction to produce a compound or complex sentence. The first category, Simple Sentence, included descriptive words but no prepositional phrases as illustrated.

Chester can be mean sometimes.
The Monroe family is doing fine.

Sentences in the Prepositional Phrases category were basically simple sentences that included one or more prepositional phrases.

Thanks for writing to me.
Then I write for many hours a day.
Harold wants his turn at the laptop.

The final category was Compound/Complex. These sentences contained conjunctions to produce a compound or complex sentence.

We are a fifth grade class who just finished reading Bunnacula.
Yes, I'd like to ride bikes, but my paws won't allow it.
I like Bunnacula too because he is a special friend and a good listener.

Analysis revealed that simple sentences were used most often by the elementary students, while high school students used fewer simple sentences. The high school students' writing contained a higher percentage of sentences in the Compound/Complex category.

Implications: Telecommunications and Real Audiences

There are three major implications from this study. First, telecommunications provided an authentic medium for communications with real audiences. Second, telecommunications fostered the establishment of personal connections between the participants, and third, communication with real audiences changed students' perceptions of writing.

In regard to the first implication, telecommunications provided unique opportunities for students to communicate with their audiences through dialogue. The dynamics of telecommunications permitted students to interact with their audience by asking additional questions, clarifying and validating information, and reformulating thoughts and ideas. For example, many of the elementary students incorporated inventive spellings into their writings. When asked about their ability to understand the elementary students' messages, one high school student replied, "They're just kids. If I don't understand it, I send it back and ask the kid what he meant." However, students expressed little concern about grammatical or spelling errors, except when they interfered with the meaning of the message. To make sense of the elementary students writings, high school students used

background experiences (thinking like a child), and shared experiences from the book to understand. As a result, the high school students developed "a fine command of the language" in terms of the dynamics involved in communication, particularly without face-to-face contact.

The use of telecommunications also led to the establishment of personal connections between participants. When this study was proposed, only two types of exchanges were expected, factual information and shared experiences related to incidents in the stories. It was not expected that elementary students would share personal information about themselves, their teachers and schools, or the methods of instruction. It was also not expected that the elementary students would view the characters as being alive/real. This led them to express opinions and give advice. Their writings also indicated that they wanted to establish friendships with the characters as evidenced in the following letter.

Hi Ramona, (*Ramona Quimby, AGE 8* by Beverly Cleary)
Has Willa Jean gotten ANY BETTER YET?
Have you gotten yourself out of playing with her with that "I've gotta go read my book. It's my homework." gag?
I have tried it, and it worked!
I have to try it more often.
It's almost time for recess, I've gotta go, BYE-BYE FOR NOW!
Abby

These personal connections increased an awareness of writing to convey thoughts and a desire to be understood. In interviews, both teachers and students stated that when writing to real audiences, they placed greater emphasis on the use of vocabulary, mechanics, and word choice to create meaning.

Changes in students' perception of writing was the third implication. Prior to this project, many of the students viewed writing as an assignment written to a teacher for a grade. However, Brozo and Simpson (1995) found that when students were writing for real audiences, the urgency of communicating ideas became a passion and a drive, as experienced by students in this project. Many participants had previously viewed writing

as an initial draft. However, as students collaborated with teachers and peers, they began to revise their work and develop an awareness of writing as "reading" that must make sense to others.

Conclusion

The Elementary Books Project demonstrated the power of telecommunications as an instructional tool to provide effective learning experiences. The use of telecommunications created real audiences and engaged students in active learning which allowed them to construct their own knowledge and understanding. They became more self-reliant, experimented with language more freely, and were no longer locked into instructional patterns where everyone learns the same things at the same time. In this environment, students applied skills in meaning contexts, were encouraged to take responsibility for their own learning, and were guided toward developing patterns for life-long learning. Assessment changed from individual performance on a test to assessment based on products, progress, and effort. This reduced the social pressure that causes some students to stop trying and changed the social structure of the classroom from competitive to cooperative in nature.

Finally, students were proud of their accomplishments and felt good about their experiences. When asked if they would like to participate in a similar project again, the students' responses were overwhelmingly positive. This underscores the fact that this type of learning is successful. Based on this, the use of telecommunications as a tool for learning should be promoted and investigated further.

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