Initial Findings from a Three-Year International Case Study Exploring Children's Responses to Literature in a Digital Library

SHERI MASSEY, ANN CARLSON WEEKS, AND ALLISON DRUIN

ABSTRACT

This article examines children's responses to self-selected books in a digital library and begins to identify patterns in those responses. As part of a larger longitudinal study, the study presented here is an analysis of 241 book response forms submitted by 12 children from 4 countries: Germany, Honduras, New Zealand, and the United States. The children described most of the books they read as being funny or happy and generally rated them with four or five stars (out of five stars). The most commonly identified types of responses were those expressing like or dislike, summarizing the text, or explaining how the book made the child feel. Two factors were identified that influenced response patterns from the study sites: the data collection instrument and adult mediation. This research has implications for library program development related to recreational reading and for changes in the procedures for data collection in this area of research.

INTRODUCTION

It is important that school and public librarians understand how children respond to the literature they read not only for school but recreationally so that they can effectively develop collections and programs that address and respond to children's interests. Library professionals serving children all over the world share this responsibility, which is amplified by the need to provide effective services to increasingly diverse user communities from Emporia, Kansas, to Wellington, New Zealand. While many studies have looked at cross-national assessments of students' school achievement in various subject areas (Forshay & Husén, 1962; Heyneman, 2004; Interna-

tional Association for the Evaluation of Educational Achievement [IEA], n.d.; National Center for Education Statistics [NCES], n.d.; Purves, 1973), few studies in the library and information studies literature have investigated the responses that children have to books read aesthetically, or recreationally. Virtually no international comparative studies have been done to explore children's responses to books read "for fun" across countries or cultures because until recently it has not been possible to provide identical collections of materials simultaneously in multiple locations.

Today, however, Internet technology makes it possible for users all over the world to access the same collection of materials on demand through digital libraries. With the development of digital collections, such as the International Children's Digital Library (ICDL), created in 2002, it is now possible to explore patterns in readers' responses to self-selected items in multiple international settings. By exploring patterns in readers' responses in different nations and over time, this research may begin to provide a greater understanding of children's interactions with books selected for recreational reading. This knowledge can then be applied to the tailoring of collections and services that better meet children's dynamic information needs. The work presented here offers a unique glimpse at international patterns in reader response and begins to address the paucity of reader-response literature in the library and information studies field. This article presents the preliminary findings from year one of a three-year longitudinal study designed to investigate that relationship. This research is guided by the following questions: What patterns exist in children's responses to literature? Do variations exist by country? If so, what factors influence those variations?

Previous Research: Reader Response Theory

Reader response theory posits that every reader constructs meaning from an interaction with a literary work. This constructed meaning is greatly influenced by factors such as feelings, beliefs, the structure and elements of the text, and the reader's context at the time of the interaction (Probst, 2003; Rosenblatt, 1978). Reader response theorists also hold that the reader's response may change frequently and dramatically during an interaction with a text (Newton, Stegmeier, & Padak, 1999; Rosenblatt, 1991). This one-to-one interaction between the reader and the text is known as a "literary transaction" (Hepler & Hickman, 1982; Rosenblatt, 1978).

Martinez and Roser (2003) report that, although adults and children process meaning in literature differently, young children are capable of making interpretations, thematic statements, and connections to their lives from what they read. Probst (2003) focuses on children's responses to literature, adding that, as individuals, children bring different experiences, histories, beliefs, contexts, and purposes to the act of reading, and, therefore, their responses and interpretations of what they read will differ. Meaning, he adds, is created from the interaction between the reader and the text.

Since the late 1920s, reader-response researchers in education have attempted to understand the transaction that takes place when children read a literary work (Probst, 2003). Although reader-response research has considered the context, or settings, in which reader response takes place—including the home, classroom, and society—little research has examined international settings since Purves's (1973) nine country study. In his research Purves examined the relationship between culture and reading comprehension and found that the environment (home and school) had a stronger effect on comprehension than did the school curriculum.

Library and information science (LIS) researchers also have begun to look at children's reading responses (Steinfirst, 1986; Vandergrift, 1987). Steinfirst (1986) examined the usefulness of reader-response criticism as a method for understanding children's engagement with literature. In an empirical study, Vandergrift (1987) analyzed students' responses to fantasy and discussed the implications those responses could have for collection development and program planning for children. In later research Vandergrift (1990) tested a model of children's meaning-making processes with ninth and tenth graders from three urban high schools in the United States. The model depicted readers moving from very personal, or "felt," responses, to more public, or "social," responses. Upon analysis of students' written and oral responses to "My Friend Bobby," a science fiction short story from *The Counterfeit Man* (Nourse, 1967), she found that the model was not disproved and that the students grew to appreciate their personal responses and to understand the social construction of meaning.

There is a need to continue Vandergrift's research by further investigating how reader-response findings can be used to improve library services to children. While educators have explored students' responses to literature in the classroom, LIS research may add to this body of work by exploring the responses that children have to books that are read for pleasure. With a better understanding of how children respond to literature, in both digital and physical formats, library and information science professionals can more effectively develop policies, collections, and programs that complement the needs and interests of their local youth populations.

The Research Study, Participants, and Locations

The ICDL is a research project that focuses on creating a digitized collection of international children's books available on the Web. A major function of the research is to develop a greater understanding of the relationship between children's access to a digital collection of multicultural materials and their attitudes toward books, libraries, reading, technology, and other countries and cultures (University of Maryland, 2002a).

As part of the ongoing research, the research team is examining the longitudinal effects of the digital library on young users. The research findings reported here represent a smaller piece of a more extensive ICDL

development and implementation project. The full study, including the aspects of the research being reported in this article, is being implemented in four locations: Wellington, New Zealand; La Ceiba, Honduras; Munich, Germany; and Chicago, Illinois. Site selection was based on the ability to identify children from diverse ethnic and economic backgrounds, as well as the opportunity to take advantage of existing relationships with schools and libraries around the world. The twelve children in the study were eight years old and in the third grade when the study began. Research team members asked a librarian or classroom teacher in each of the four sites to work with school administrators and other educators to identify the child participants. The site representatives were asked to identify children who were eight years old; who were able to speak and understand English to enable communication with the research team; who were likely to continue at the school for the three years of the study; and whose parents were likely to support the research. In addition, the researchers asked that the child participants be of both genders in each setting. The children were not meant to be representative of the entire population of the country nor the demographics of the school. Using the above criteria, the school staff selected the children for the study. Table 1 presents additional site information.

The Digital Library Materials

The ICDL is unique as a digital library for children in that it is a collection of fully digitized children's books from countries around the world. Readers have access to more than just pointers or bibliographic records leading to where the book physically exists. The entire content of each book is available online and without cost day or night (see Figure 1).

This new kind of library, which exists simultaneously everywhere and nowhere, makes research exploring international use of the same collection possible. At the time of this study, the digital library included books in multiple languages, both picture books and chapter books, fiction and nonfiction titles, and historic and contemporary materials. Materials in the collection are designed to be appropriate for and of interest to children ages three to thirteen years. The age range for the collection spans a wide spectrum of ability and interest levels, and not all materials are appropriate for all visitors to the library; however, the collection was sufficient for the purposes of this study.

The children in this study were provided with laptop computers containing a local version of the ICDL as it existed in the summer of 2003. At that time the library collection was made up of 261 books. Over half of the collection (151 books) was in English, representing primarily literature from the United States. Books in Arabic (29 books) and Spanish (22 books) published in multiple countries represented the next largest group of titles in the collection. The ICDL initially categorized books as either short or long. At the beginning of this study, picture books, or short books,

Table 1. A Profile of Each Study Site and Its Participating Children

	Germany	Honduras	New Zealand	USA
Country	Germany	Honduras	New Zealand	USA
City	Munich	Le Ceiba	Wellington	Chicago
Public/Private	private international school	private school	public school	public school
Student Ages	pre-K (age 3) to 12th grade (age 18)	1st grade (age 6) to 12th grade (age 18)	Kinder (age 5) to 8th grade (age 14)	Infant (6 months) to 8th grade (age 14)
Student Population	-600 students -65 nationalities -mid-high income -majority intact families	-300 students -primarily Spanish -middle income -majority intact families	-250 students -22 cultures -low-mid income -majority divorced families	-800 students -African-American -low income -majority single-mother families
School Curriculum	-international baccalaureate program -taught in English & German	-more traditional teacher-driven lessons -taught in English & Spanish	-child-centered constructivist pedagogy -taught in English & Maori	-teacher-centered with focus on discipline -taught in English
Library	2 libraries with 10,000 books total	1 library with 10,000 books (50% outdated)	1 library with 6,000 books	1 library with 7,000 recently purchased books
Facilities	-technology-rich -expansive physical space	-partial technology integration - expansive physical space with security	-lack of technology -lack of physical space	-technology-rich -expansive physical space (new building)
Parental Involvement	-parent advisory group	-parent advisory group	-Parent Board of Trustees who hire/fire school staff	-Parent-Teacher Association (PTA)
Child Research Participants	-1 German -1 German/British -1 British -2 girls & 1 boy -all speak English & German	-all Spanish -2 boys & 1 girl -all speak English & Spanish	-1 Maori (indigenous tribal culture) -1 British/Indian -1 continental New Zealander -2 girls & 1 boy -all speak English	-all African-American -2 girls & 1 boy -all speak English
Children's Pseudonyms	Gail, Manfred, Skylar	Antonio, Arcelia, Juancarlos	Ojas, Maata, Caroline	Kendis, Safara, Chalondra
Adult Research Participants	-6 parents -1 teacher -2 media center staff -1 principal	-6 parents -1 teacher -1 media center staff -1 principal	-3 parents -2 teachers -2 media center staff -1 principal	-3 parents -2 teachers -1 media center staff -1 principal

Source: Druin (2004).

http://www.icdlbooks.org/icdl/BookPage?bookid=abcagls_00030019&pnum1=10&pnum2=11&twoPage=true&rou

Pages 6-7

Home→Simple Search→Angels ride bikes and...→Book Overview→Pages 6-7 of 31

Mi casa

es ruidosa
y alegre como
mi familia

día y noche
no deja
de rechinar

como
los niños
del vecindario

quisiera
en la calle
también jugar

My House

is loud
and cheerful
like my family

day and night
keeps on
squeaking

just like
the kids from
the neighborhood

would rather
be playing
on the street

Figure 1. Sample Page from the ICDL

comprised half of the collection (141 books) and chapter books, or long books, made up the other half.

The majority of books in the locally loaded ICDL were not categorized by feeling or rating. Only 90 books included feelings and/or ratings data because only feelings and ratings data determined by children are included in the metadata. Assigning feelings and star ratings to books is an ongoing process done by six child researchers ages seven to eleven, who work regularly with the interdisciplinary research team at the University of Maryland that is creating the ICDL (Druin, 2002). Because the process is ongoing, only those books that had been read, reviewed, and categorized by children prior to the beginning of the four country study were able to be searched initially using the feelings and ratings categories. The children in the four country study were encouraged to contribute to the feelings and ratings data regarding the books that they read throughout the year.

In the locally loaded version of the ICDL used by the children in this study, most of the books that had been categorized by feelings were labeled as happy (43 books) and funny (32 books); sad and scary books accounted for 15 books. Of the 68 books with rating data, 34 were rated with four stars, 32 were rated with five stars, and 2 were given the three-star rating. The collection also was divided into fact and fiction, or True (32 books) and Make Believe (209) books. Finally, the ICDL collection contained both historic and contemporary titles from around the globe. Of the 261 books accessed locally by the children, the majority (152) were contemporary or "in copyright" titles.

Methodology

The team chose qualitative inquiry methods for this study because the research questions required in-depth information for answers rather than a one-time collection of statistical data (Neuman, 2003). These methods allowed researchers to study reader response holistically, resulting in the identification of patterns that emerged from the data (Bunbury & Tabbert, 1988; Creswell, 1994, 1998; Maxwell, 1996). In qualitative research, data are often collected from multiple participants in multiple forms in order to triangulate information sources (Creswell, 1994, 1998; Maxwell, 1996). For this study the sample was purposive, intended to "maximize the range of information collected" (Guba & Lincoln, 1982, p. 248). The twelve children from diverse settings contributed response data and therefore contributed twelve perspectives. These perspectives illustrated common characteristics within and across countries. Children's overlapping perspectives showed how they were able to respond to literature consistently.

Data Collection

The full data collected for this longitudinal study will include interviews, book response forms, Web pages, drawings, and observations in each of

the four sites over the course of three years. For this study-within-a-study, the authors chose to analyze the book response forms. The response forms were chosen for analysis because they represented a cohesive, consistent data source that allowed for a structured entry point into the information to be collected over the next few years. The book response forms analyzed in this article were collected during the first year of the research study. The forms will continue to be collected and analyzed throughout the longitudinal study.

The research team developed the initial book response form in the summer of 2003 as a mechanism for collecting preliminary exploratory data from the children during the study's first year. The form was introduced to the children by members of the research team as a pleasurable recreational activity. It was emphasized that the children's reviews would be of benefit to other children who visited the collection. The children were asked to review the books in the ICDL the same way a movie critic reviews movies. They were told that the data from their completed forms would then be transferred to the ICDL to help other children select books to read. The children were asked to independently select, read, and review four books from the ICDL each month. They could read different books each month or the same book multiple times. The children were free to read books written in any language. They also were free to complete their review in their mother tongue (native language) or English. During the first year, all of the children chose to review the books they read in English. The children completed a one-page "book review" or response form for each book.

The book response form was made up of five short sections. The first section collected information about the reader and the book: name of respondent, date, book title and author, and how many times the child had read that particular book. The second section of the form asked the child how the book made him or her feel. Here, the reader selected one or more of five identified feelings: *happy, sad, scared, funny,* or *other.* The feelings listed on the form had been identified by the members of the Maryland KidsTeam as the emotions that they most often felt when reading books. The *other* category was added for this study to enable the children to specify additional emotions that they may have experienced when reading. The third section of the book response form asked the child what the book was about—the most common response was a summary of the text. The fourth section asked children to rate the book with three, four, or five stars. The fifth and final section of the book response form, which will be analyzed in a future paper, asked the child to identify a book that he or she would add to the digital library. The response form is reproduced in Figure 1 of the Appendix.

The response form was available in both electronic and paper forms. The children in Germany, Honduras, and New Zealand completed the forms electronically using a word processing program. Due to the children's

need for significant guidance from the library media specialist, children in the United States most often completed their response forms on paper. In all of the sites, the children submitted their completed forms to the teacher or library media specialist each week. Once a month the teacher or media specialist compiled the book responses for the month and sent the forms via e-mail or postal mail to the team in Maryland.

Data Analysis

Content analysis was used to analyze response forms from the twelve children in four countries. Dale (1989) explains that content analysis enables the systematic examination and evaluation of text or media in order to ascertain its meaning or possible effects. In the content analysis method, materials rather than people are examined, so the research is often replicable with the same data set. This technique applies the quantitative technique of frequency analysis to summarize qualitative data that result in "quasi-statistics," from which inferences can then be drawn (Maxwell, 1996). While the twelve-child sample is too small to allow generalizations to be made regarding differences among cultures, it was possible to identify differences and similarities among the diverse children in the study.

To analyze the book review forms, it was necessary to define what constituted a response. In 1972, Purves and Beach explained that "[r]esponse consists of cognition, perception, and some emotional or attitudinal reaction; it involves predispositions; it changes during the course of reading; it persists and is modified after the work has been read; and it might result in modification of concepts, attitudes or feelings" (p. 178). Extensive research analyzing children's responses to literature has been done in the education field. Thus, reader-response theory served as the framework used to analyze the book response form data.

Reader-response pioneers Purves and Rippere (1968) developed a scheme called *Elements of Writing About a Literary Work* to enable educators to analyze the types of responses readers have to literature. The scheme includes four major categories: (1) engagement-involvement, (2) perception, (3) interpretation, and (4) evaluation. This study used the Purves-Rippere schema combined with clarifying information from Odell and Cooper (1976) and Probst (2003) to analyze children's responses to the books they read.

Each form was coded twice by a single member of the research team and reviewed by at least one other. The forms were coded first for feelings and ratings data and then again for reader-response data using the Purves and Rippere coding scheme. Due to the completeness of the compiled scheme, the need for additional codes did not emerge from the data. The table in the appendix presents the coding scheme along with examples of how each code was applied.

Table 2.   Total Year-One Book Reviews

Country	Dates	Number of Reviews
Germany	November 2003–May 2004	52 (23%)
Honduras	October 2003–May 2004	76 (33%)
USA	July 2003–May 2004	64 (28%)
New Zealand	November 2003–May 2004	49 (21%)
Total Reviews: 241		

FINDINGS

From July 2003 to May 2004 the children in this study read 241 digitized books, that is, they had 241 reading transactions during the first year. Table 2 shows that the number of responses submitted by site was similar, each site contributing about 25 percent of the total 241 responses.

The 241 completed forms each yielded five responses—one from each section. However, only three of the five sections were analyzed for this article. Responses to the first section of the review form were not analyzed because the information given was primarily used to identify the respondents and to connect the book to the review (for example, author and title information). The final section of the review form, which asked the children to identify books that they would recommend be added to the digital library, will be discussed in a future paper that will address the globalization and commercialization of children's literature. If each child had submitted one and only one response in each section, the total number of responses would have been 723 (241×3); however, in some cases the children gave multiple responses in a single section. Therefore, 804 usable responses from three sections of the response form were analyzed for this article. The results from the second (*feelings*) and third (*ratings*) sections of the form are presented first, followed by an analysis of the responses based on the reader response coding scheme.

Feelings

Overall, happy (38 percent) and funny (39 percent) were the feelings most often selected by the twelve children. The least-selected options in the feelings category were scared (2 percent) and sad (14 percent). Antonio,[1] a boy from Honduras, shared his thoughts on a counting book in which the main character shares and counts her favorite foods, entitled *Counting to Tar Beach* (Ringgold, 1999): "This book is about a family who goes to a picnic and start [*sic*] counting the things they brought. The book is fun!" (Antonio, November 20, 2003).

Several children wrote about *Blue Sky,* a powerful story about a little girl who loses her parents and is alone in the world but later is reunited with her mother in heaven (Huseinovic, 2001). The children reported that this book made them feel both happy and sad. A girl from New Zealand clarified, "[This book makes me feel] happy and sad because at the start

the girl is lonely and nobody loves her, and that's why it's depressing, but then she finds her mother among the clouds and then that really finishes the story off . . . I like that I have mixed emotions at different times, and the pictures really draw you in" (Caroline, December 5, 2003). Other children shared the different emotions they felt after reading *Blue Sky*. Some did so only through their ratings, while others shared comments in their writing. Maata, also from New Zealand, wrote: "This book makes me feel sad because the little girl's mum died. Happy because the little girl gets to see her mum again" (Maata, January 21, 2004). A boy from Honduras responded, "This book is about a girl who was lonely and only drew blue pictures" (Juancarlos, March 18, 2004).

Children used the *other* category twenty-seven times (11 percent). Feelings added included *joyful, annoyed, bored, interested, touched, nervous, silly, hungry, crazy, amused, weird,* and *curious.* Arcelia, a girl from Honduras, mentioned that the book *Blue Sky* made her feel blue as in sad but also blue as in the color blue. There was little differentiation among the children within a site regarding the feelings that they applied to the same books. The most noticeable difference to emerge among sites from the feelings data was the slightly higher number of books rated as *sad* by the children in the United States. This finding is discussed later in the article.

Ratings

The children were asked to rate the books with three, four, or five stars. The ICDL research team chose to allow only the three highest ratings to be applied by the children in the study because the books in the collection had already gone through a rigorous selection process developed by the ICDL advisory board (University of Maryland, 2002b). Five stars corresponded to books the children thought were exemplary and those they would recommend to their friends. Four-star books were ones they would recommend but were not as good as five-star books. Three-star books were good but not good enough to recommend to a friend. The children rated most of the books in the ICDL collection with four or five stars.

Over half of the books selected and read were rated with five stars, followed by 33 percent that were given four stars. Only 34 books of the 241, or 14 percent, were given the three-star rating. Caroline gave three stars to a historic book from the collection: "[This book made me feel] happy because Richard finds many a friend, including a lady friend. [I would rate this book with] three stars because it doesn't really interest me with the characters and plot" (Caroline, February 18, 2004). Books that were given low ratings usually did not appeal to the child's particular tastes. Ojas, a New Zealand boy, knew the story he read was important because it taught a lesson, but he did not find the story itself to be interesting. He wrote: "[This book makes me feel] happy because the girls learn to get on with one another. [I would rate it with three stars because] it was all about

Table 3. Feelings and Ratings

Site	Happy	Sad	Scared	Funny	Other	3 Stars	4 Stars	5 Stars	Total Responses	% of Total Responses
Germany	24	4	0	21	7	11	18	21	52	22
Honduras	30	8	0	32	7	7	28	42	76	32
New Zealand	32	9	2	5	6	12	23	14	49	20
USA	6	13	4	35	7	4	11	48	64	27
Total	92	34	6	93	27	34	80	125	241	100
	(38%)	(14%)	(2%)	(39%)	(11%)	(14%)	(33%)	(52%)		

teaching a moral but was not a very interesting story" (Ojas, January 16, 2004). Table 3 presents the feelings and ratings data from each country. The children in New Zealand and Germany were less likely to give the books they read a five-star rating than the other children. The children in the United States and Honduras were more likely to apply the five-star rating than the three- or four-star ratings.

Reader Response

After sections two and four of the forms were coded, reflecting the feelings and ratings data, they were re-analyzed according to Purves and Rippere's Reader's Response scheme. (More detailed information about the scheme is provided in Table 1 in the Appendix.) The second section of the book review form asked the children to indicate how a book made them feel. The responses in this section were analyzed reflecting Purves and Rippere's *Reaction to Content* (PC) category, in which the reader gives a statement reacting to the work and his or her feeling about the work. The PC response was used on 239 occasions, or 30 percent of the total. This response type was evenly distributed across all four countries. Children also went beyond checking off boxes or writing one-word responses when they added statements such as, "this book is a whole lots [*sic*] of poems and they are funny" (Safara, January 31, 2004). Safara, a girl from Chicago, read and re-read a series of poems about life in Singapore by Choo and Yee (1996a, 1996b, 1997). One boy in New Zealand explained how he felt about *Shark God* (Martin & Shannon, 2001), a book about a family that saves a shark and is in turn saved from an evil king by the Shark God. He explained, "This book makes me feel happy because everything turns out well for the children and there [*sic*] parents" (Ojas, November 28, 2003). Affective responses to the books were frequent and ranked among the top three response types, along with *narrational* and *appreciation* responses.

The third section of the response form asked the children to tell what the book was "about." The resulting text summaries fell into the *Narrational Reaction* (DN) category of the coding scheme. The DN category was used on 241 occasions, or about 30 percent of the total. This response type was distributed evenly over the four countries. Responses in this category ranged

from a few words—"The play tells different lessons" (Arcelia, December 28, 2003)—to longer plot summaries. Children were not restricted to reading books written only in languages in which they were literate. For example, Arcelia, who speaks English and Spanish, read *Sei Chi'mupanze Ane Mhanza* (Mbarga & Ndhlovu, n.d.), a book from Zimbabwe written in the Shona language. Although she could not read the words in this book, Arcelia wrote an extensive summary about this story and rated it *funny*. Her description of the story was based solely on her "picture walk" through the book and her interpretation of the narrative through the illustrations. The children frequently gave *narrational* responses.

Children were asked to rate the books in the fourth section of the response form. They could rate books with three, four, or five stars. In this case, the rating of books corresponded to the coding scheme's *Appreciation* (EA) category, in which the reader gives an affective evaluation of the work, expressing likes and/or dislikes. In response to a Croatian book about life on a small island, Ojas said: "This book was hard to review because it was in a different language and the pictures were messy and hard to understand so they were no help" (Ojas, November 6, 2003). Responding to *Iguanas en la Nieve y Otros Poemas de Invierno* (Alarcón & Gonzalez, 2001), a book of bilingual English and Spanish poetry about winter, Caroline wrote: "This book made me feel funny because the poems made me laugh out loud, and I liked trying to read the English poems in Spanish" (Caroline, December 5, 2003). Children sometimes rated books with more than one rating category. For example, after reading *Where's the Bear?*, in which children identify animals and read the animals names in English, French, Spanish, German, Italian, and Japanese (Bruegel, 1997), Antonio explained, "I would rate this book three stars and four stars" (Antonio, January 23, 2004). He was not completely sure about which rating to give the book and therefore chose to give multiple ratings. As was the case with dual *feelings* rating, this type of dual star rating response was common. Table 4 gives a summary of the reader response data.

Table 4. Summary Analysis of Responses

Site	Total Reviews	%	PP	PC	DN	DL	DG	IE	IC	EA	ET	EV	MU	Total Responses	% of Total Responses
Germany	52	22	1	51	52	0	0	4	0	51	0	0	0	159	20
Honduras	76	32	0	76	76	0	0	5	0	76	0	1	0	234	29
New Zealand	49	20	3	48	49	5	2	15	5	49	26	14	0	216	27
USA	64	27	0	64	64	0	0	2	1	64	0	0	0	195	24
Total	241	100	4	239	241	5	2	26	6	240	26	15	0	804	100

Note: PP—personal statement; PC—reaction to literature; DN—summary or retelling; DL—description of aspects of the work; DG—interest in genre; IE—interpretation of parts of the work; IC—interpretation of the whole work; EA—affective evaluation; ET—statement about the construction of the work; EV—statement about the meaningfulness of the work; MU—unrelated.

DISCUSSION

Overall, the response form data showed that children had multiple feelings during reading transactions; book ratings were likely to be high (five stars); and *Reaction to Content* (PC), *Narrational Reaction* (DN) and *Appreciation* (EA) responses dominated the types of responses children gave. In this section the reader-response data are analyzed to isolate possible factors that contributed to the previously identified patterns.

Feelings

The data showed that children participating in this study from all four countries often experienced more than one emotion when reading a single book. This finding suggests that the children in the study have multiple feelings during reading transactions and are aware of those emotions, which is consistent with Sebesta, Monson, and Senn's (1995) work showing that multiple meanings or, in this case, feelings, can emerge from one interaction with a text.

As noted above, the categories that children from all four countries used least were *scared* (2 percent) and *sad* (14 percent). The *scared* feeling usually was selected when the main character of the story was "doing something wrong" or was in danger. One girl explained that the book *Prietita and the Ghost Woman* (Anzaldua & Gonzalez, 1998), a story referencing the tale of La Llorona, made her feel "scared because a girl has to go into a forest where they shoot trespassers and you keep thinking she's going to be shot" (Caroline, December 5, 2003). *Sad* was used primarily for stories that started out sad but ended happily. The limited use of *scared* and *sad* ratings was consistent across all four of the study sites; however, child participants in the United States were more likely than the children in other sites to apply the *sad* rating to books they read. This finding could stem from the fact that the children were permitted to read books more than once. At the U.S. site Chalondra chose to read books that she categorized as sad multiple times. For example, she read *Blue Sky* more than once. From the data collected during the initial year of the study, it was not possible to determine whether she read *sad* books multiple times because she enjoyed the stories or if something more substantial was happening during her reading transactions. Chalondra's pattern of re-reading sad books, and the limited use of the *scared* and *sad* feelings in general, will be more deeply explored in the future years of the study.

Ratings

The children participating in this study were most likely to rate books they read with five stars, the highest rating possible. However, one boy wrote about the book *Sunflight* (McDermott, 1980), the story of Icarus's legendary flight and fall from the sky, "I would rate this book three stars, because it gets really boring because it's a legend, and I don't like legends" (Ojas, March 31, 2004). The children rated a book with three stars when they considered

it too easy or poorly written or illustrated, or when the book did not meet their expectations: "[I rated this book] 3 stars, because it is quite funny, but I expected more from this book because of it's [*sic*] amusing cover" (Caroline, March 21, 2004). The data suggest that when rating books the children considered elements beyond the story and the illustrations. They included their personal preferences, interpretations, and expectations of the book and included whether or not those expectations were met.

Reader Response

Two factors appeared to contribute to the types of responses the children gave after each reading transaction: the book response form and adult mediation. Preliminary research suggests that, even when children are given specific directions for a task, such as that provided by the response form, an adult can mediate or modify that task, thereby changing the types of responses the children give.

The first factor was the book response form. The most frequent response types given from all four countries were those explicitly requested by the form, which asked children to select or write how a book made them feel, write what the book was about, and rate the book using a star system. Responses to these three questions accounted for 90 percent of the 804 responses given. Surprisingly, *Explanation* (IE) responses were given when children wrote about individual characters to whom they could relate. This type of response was common among all four country sites and was not solicited on the form.

The second factor influencing the types of responses children gave was adult mediation, or the presence or absence of an adult when completing the response form. In New Zealand a classroom teacher was the primary contact; he incorporated the response forms into his language arts classes as an ungraded activity. Because of this integration and increased adult involvement, the responses from the New Zealand children were richer, or more in-depth, and provided more insight into why the children applied the ratings they chose. Hynds (1989) observed that the amount and kind of response a child gives is greatly influenced by the amount and strength of support and encouragement he or she receives at home and in school. Adult mediation and participation during response helps children think more critically about and respond more deeply to literature read not only for graded assignments but also for recreation. Based upon these preliminary findings from year one of the longitudinal study, the following changes will be in place for year two.

FUTURE RESEARCH

While many logistical practices, such as the manner in which reviews are submitted, will remain the same, year two will bring changes in both the book selection and response processes.

Selecting Books to be Reviewed

As reported in the methodology section, when the children in this study responded to the same book, they exhibited multiple perspectives. For example, seven children read the collection of poems *Whose Cat Is That?* (Choo & Yee, 1997). The children responded in a relatively consistent manner within sites, but there were differences between children in different sites. These similarities and differences suggest that there may be much to learn when the children all respond to the same book. The aggregated responses may provide a venue through which international patterns may emerge. Based upon this possibility, the book selection process for year two has been modified.

Over the course of seven months, each child will respond to fourteen books by completing fourteen response forms. The number of books the children will respond to has been reduced from four per month to two per month so that children will be able to spend more time engaged with the literature—thinking, writing, and drawing in reaction to what they read. Each child will select seven books ("reader's choice") to read and review. The remaining seven books will be identified by the researchers (preselected). None of the books will be used in conjunction with school assignments.

The self-selected, or "reader's choice," books will be any book from the ICDL collection that was added after the first year of study. The seven preselected books will be identified by the research team from the books added to the ICDL collection after the first year of the study. Through this modification the research team believes that it will be possible to more clearly identify both similarities and differences among individual children in various locations and similarities and differences in responses among the four sites.

Responding

After reading each book, the children will respond to three prompts:

- Write what you think is most important about this book and why.
- Write what you think or feel about the book and why.
- Draw a picture about what you read or how you felt after reading the story.

The children's responses will continue to be collected electronically in most of the locations. The form/writing part of the reviews will be done online in Germany, Honduras, and New Zealand and on paper in Chicago. The children will continue to report feelings and ratings data, as well as summary information about the book; however, rather than describe what the book was about, they will be asked to describe what was most important about the story. The children's drawings will be done on paper, then

scanned and sent electronically to the team in Maryland. The drawings will be analyzed as part of the overall book response. The team expects to learn more about how children felt about and responded to the book through the drawings, especially since the children are at an age where they are often better able to communicate their thoughts and feeling through drawings than in writing. Combined with the oral communication taking place between the children and the adult participants, it should be possible to triangulate data collection and develop a clearer picture of the children's thoughts and feelings during the response process.

For year two the use of adult intermediaries after the reading transaction will be encouraged. Adults will be asked to play an increased role in the research by providing a time and space for reflection, encouraging the sharing of ideas about the books read in the school and home environments, and encouraging the children during the response process. The expected result will be increased guidance for the children when they encounter difficulties in explaining their thoughts to others. Having an adult available will increase the amount of oral communication taking place during the review process. Adults will have the option of acting as note takers (typing or writing for the children) and will be available to ask questions to help clarify the children's thinking.

It is expected that, with fewer book responses required, open-ended prompts, and increased adult participation, the children will explore the literature more deeply, giving greater insight into how they feel about the books and what they consider most important during the reading transaction. These changes in data collection should greatly increase the richness and depth of the data pool generated for this research.

CONCLUSION

The preliminary results of this study reflect the findings of past reader-response theorists. Even though this study was conducted using digital materials, similar findings emerged concerning the power of task and adult mediation and the experience of multiple emotions during the reading transaction. These findings serve as the foundation for the revised data collection plan for year two and a continuing exploration of children's recreational reading responses and international patterns in those responses. Although there is a long history of reader-response research in education, the library and information studies field is just beginning to investigate children's responses to literature. Overall, little research has explored recreational reading or similarities and differences that may exist here and abroad in children's reading responses. This line of research has implications for better defining library services, programs, and collections that more clearly respond to the interests of children.

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NOTE
1. The children's names have been changed for privacy purposes, but they were given pseudonyms from the country they represented.

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Sheri Massey, College of Information Studies, Room 4121B Hornbake, University of Maryland, College Park, MD 20742, smassey@umd.edu; Ann Carlson Weeks, College of Information Studies, Room 4121D Hornbake, University of Maryland, College Park, MD 20742, acweeks@umd.edu; and Allison Druin, College of Information Studies, Room 4121H Hornbake, University of Maryland, College Park, MD 20742, allisond@umiacs.umd.edu. Sheri Massey is a doctoral student in the College of Information Studies at the University of Maryland where she also earned her M.L.S. She is currently working on the International Children's Digital Library (ICDL) as a graduate research assistant focusing on a longitudinal international case study. Miss Massey's research interests include digital libraries, multicultural children's

literature, the information-seeking and use behaviors of children, and diversity in libraries and education.

Dr. Ann Carlson Weeks is Professor of the Practice in the College of Information Studies at the University of Maryland, where she teaches in the area of school library media program development. She is the Director of Collection Development for the International Children's Digital Library (ICDL), and a Principal Investigator on the research team that is responsible for the project. Her primary area of ICDL research focuses on the use of the collection by children, classroom teachers, and school and public librarians.

Dr. Allison Druin is an Assistant Professor in the University of Maryland's College of Information Studies and is a member of the Human-Computer Interaction Lab. Since 1999 she has led interdisciplinary teams of educational researchers, librarians, computer scientists, artists, classroom teachers, and children in creating new educational technologies for elementary school children. Most recently she has been the lead Principal Investigator of the International Children's Digital Library and a Commissioner on the U.S. National Commission on Libraries and Information Science.

APPENDIX

Name:
Date:

Digital Library Book Review

Title:

Author:

Is this the first time you have read this book?   Yes   No

How many times have you read this book?   time(s)

This book makes me feel (choose one):

Happy   Sad   Scared   Funny   Other:

This book is about:

I would rate this book (choose one):

If I could add a book to the digital library, I would add:

Appendix Figure 1.   Longitudinal Study Book Review/Response Form

Appendix Table 1. Reader-Response Analysis Scheme

Code	Sub Code		Definition/ Scope Notes	Example
Personal Response	Personal Psychological	PP	A statement about the reader, an autobiographical digression; associational, self-reference; comments about one's self, personal statement; refer to one's associations; directed away from the work toward the reader's context, memories, friends, etc.	"This book makes me feel happy because listening to poems make [*sic*] me feel happy and smile with joy." (PC, PP)
	Reaction to Content	PC	A statement about the work, expressing personal engagement with it; reaction to literature, reaction to issues raised by the literary work; refer to one's feelings about the work and one's relation to it; directed at the work and the reader's feelings about it	"This book makes me feel amused because I enjoy how the hare does all this hard work to not get caught, but he does." (PC, IE)
Descriptive Responses	Narrational Reaction	DN	A retelling of part of the work; statement of facts, quotations, summary of content; description of the work	"This book was about animal poems, food poems and flat poems." (DN)
	Perception of Language	DL	A description of aspects of the work (language, characters, setting, etc.); perception of formal literary devices (structure, tone, rhyme, repetition); description of the work	"I didn't think this book was very good, partly because I didn't really like the plot and partly because I don't think it [*sic*] very well written." (EA, ET, EV)
	Classification by Genre or Context	DG	Noted interest in a specific genre	"[This book] gets really boring because it's a legend, and I don't like legends." (EA, DG)
Interpretive Responses	Explanation	IE	An interpretation of parts of the work; focus on the text; use of experience to explain behavior, interpretation of significance of a literary work, explaining characters, phrases, and other parts of the work; specific interpretation, explaining characters, phrases, and other parts of the work	"I really liked reading about the old man's point of view." (EA, ET, IE) "I like Axle and I think it's sad how he doesn't have much [*sic*] friends." (IE)
	Content-Ideational	IC	An interpretation of the whole work; focus on the text; generalizations drawn from facts, interpretation of significance of a literary work; general interpretation explaining the whole work	"[This is an] extremely cute book with a sweet ending." (IC, EA, ET)
Evaluative Responses	Appreciation	EA	A statement about the evocativeness of the work; like-dislike, affective evaluation; evocative power of work--can be positive or negative	"This book was hard to response because it was in a different language and the pictures were messy and hard to understand so they were no help!"
	Technical-Critical	ET	A statement about the construction of the work; evaluation of method; power of the construction of the work--can be positive or negative	"[This book] doesn't really interest me with the character and plot." (EA, ET)
	Evaluation of Author's Vision	EV	A statement about the meaningfulness of the work; evaluation of the meaningfulness of a work--can be positive or negative	"[This book] describes what happens and . . . it has a lovely ending." (ET, EV)
	Unrelated	MU	Unrelated, incomplete verbalization	N/A; Never used