

The Information and Reading Preferences of North Carolina Children

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Children's reading and information preferences have been a source of study for more than a century. This study is meant to add to this growing understanding of children's preferences. Two thousand responses to an open-ended survey conducted by the State Library of North Carolina were analyzed. Surveyed children's ages ranged from two to eighteen years old, and the distribution of genders was 53 percent female and 47 percent male. The results indicated that children's subject preferences when entering a school or public library centered on animals, science, sports, and literature. Secondary preferences included biography, history, computers, careers, the library collection, and transportation. The findings are similar to other studies of children's reading and information preferences, though this study indicated a higher preference for computers and poetry, and a lower preference for the supernatural than other research.

What do children find interesting? What topics do children prefer exploring? These questions have intrigued librarians, educators, and child psychologists for more than a century and many studies have attempted to answer them. Researchers have studied children's reading interests and preferences using a variety of methods (surveys, interviews, and reading logs), and have asked similar questions of children from preschool through adolescence. Practicing professionals (school library media specialists (SLMSs), public children's librarians, daycare workers, teachers, etc.) are also able to provide topics that interest boys or girls based on their daily interactions with these young people, and they have developed an understanding of the age and gender trends in children's reading. However, there still is no definitive understanding of what children prefer to read and when these preferences develop. Each child develops unique interests, and any attempt to track trends runs the risk of trivializing these individual differences. Different research methods may also account for different research results (Kincade, Kleine, and Vaughn 1993).

Why, then, have scholars been exploring children's reading preferences for such a long time? Librarians have found research particularly helpful in developing their library collections to fit their changing clientele—knowing what children prefer helps them manage their scarce resources more effectively. Coupled with circulation records, research may guide book selection and weeding, helping to ensure a collection that is appealing for both genders and the age range of children who use those facilities. Professionals have also found research useful in reference services (knowing children's information needs and reading preferences helps them fulfill those needs more completely and quickly), in programming (topics of high interest will draw participants into the library), in readers' advisory (reading preferences help focus or extend the readers' advisory interview), and in general marketing (displays of popular topics attract more

attention). For those working in school libraries, it is important to remember the constraints of the curriculum on all of these areas (and on the results of research that takes place in school libraries).

Teachers use the research to help design curriculum, to help children become excited about learning, and to help build an interest in reading. Knowing that young boys are often enchanted by cars, trucks, motorcycles, and other means of transportation may help teachers focus the child's attention on a lesson, making it both more interesting to the child and more memorable. Child psychologists have used their knowledge of children's interests to help in therapeutic interventions, to address children's cognitive and emotional development, and to deepen their understanding of who their young clients are.

Spangler (1983) clarified the distinction between reading interests and reading preferences. Preference studies are those that look at children's expressed attitudes toward reading, and they indicate what children *might* read if given the opportunity. Reading interest studies, on the other hand, examine actual reading behaviors of children by analyzing the books children have indeed read.

There is, however, a third distinction needed: information-seeking interests and preferences. At least one of the studies mentioned in this article asked a question similar to, "What would you like to know about?" At issue here is the difference between what a child desires for information versus pleasure reading. At the heart of this distinction is a fiction versus non-fiction debate and whether these should remain separate entities: a child may want *information* about animals but not an animal *story*. In the library setting, however, both of these desires would result most often in the recommendation of reading material, whether in print or online, so both could be classified as reading interests or preferences *in this setting*. In a video store, the context would certainly demand different interpretations. The other issue here is the distinction between *what* we read and *why* we read it. These issues have not been addressed in children's reading research. An interest in animals (the "what") could be done for information or for amusement (the "why"), and both fiction and non-fiction could satisfy this interest. It is unfortunate that many scholars equate information with non-fiction, as there is a wealth of information in fictional books, and the reading experience may, indeed, be much more pleasurable for children were they to be given fictional reading in response to an informational query. Though this rarely happens, it is fertile ground for speculation and inquiry.

This research study is meant to add to the growing body of literature on children's preferences. It explores the questions: (1) what are children interested in when they enter the library? and (2) do those interests vary by gender? It is important to remember, however, that none of these research studies is meant to be prescriptive; children have individual preferences, and all interactions with them should be on this individual level. Presuming to know a particular child's preferences based on any research is both unprofessional and risky; studies such as these are useful primarily as guidelines.

Literature Review

Studies of the reading interests and preferences of young people date back to the late 1800s (McKay 1968). One of the earliest studies was a survey conducted by Vostrovsky in 1899 in which she asked 1,269 school children (604 boys, 665 girls), ages nine to nineteen, "What was

the name of your last book?” She categorized the results and found that children’s interests fell into the following rank order: juvenile story books, fiction, history/historical biography, literature/literary biography, science, miscellaneous, and travels. In 1968, McKay found more than three hundred studies covering children’s interests and preferences, and many more have been conducted since that time (1968).

There are several methods by which researchers have attempted to discover children’s interests and reading preferences. Some studies have used preordained categories from which children are allowed to select their preferences (Carsley 1957; Ashley 1970; Bank 1986; Whittemore 1992; Snellman 1993). Others examine the titles that children select or claim to have read, and these titles are then categorized (Vostrovsky 1899; Grant and White 1925; Seegers 1936; Smith 1962; Kimmins 1986; Boraks, Hoffman, and Bauer 1997). Occasionally library circulation records are used to track children’s reading interests—though modern computer systems that erase patron records upon return of the item have made these studies much more difficult (McCarty 1950; Bard and Leide 1985). A few studies have relied on children’s oral reports and interviews (Stanchfield 1962; Byers 1964), although this method decreases significantly the number of responses a researcher can gather. This approach does, however, enable children to express their preferences in their own words, a useful tool in understanding children’s perceptions of their world, and it encourages deeper exploration and clarification of topics than is possible with a survey or title analysis. Perhaps the most often used technique is the survey, as it affords easy access to many children’s responses in a short research time frame. The open-ended survey (Rudman 1955; Lauritzen and Cheves 1974; Chiu 1984; Greenlaw 1988, as cited in Todd 1988; American Library Association 2001) enables the child to use his or her own language to express an interest, and it may encourage a greater variety of responses (Kincade, Kleine, and Vaughn 1993, 233). For a comparative table and detailed discussion of the methods and results of all included studies, see appendix A.

The results of these studies are difficult to compare due to changing data sets and methods. The studies vary by children’s age, number of children involved, context of the study (library, school, etc.), data collection method, and purpose of the analysis. Still some interesting trends are evident. The subject of animals is a consistent favorite with children of all ages, appearing on 13 of the 19 studies included in this literature review and usually within the top ten choices. Sports also rank high in interest (15 of 19 studies) though its position in each study is often not as high as animals. Mysteries appear in 11 studies, are usually ranked in the top five preferences, and have remained popular over time (Seegers 1936 through Snellman 1993). Imaginative literature (fantasy, science fiction, and fairytales) is also a strong favorite, though not as popular as mysteries. It is also more popular with younger children (Grant and White 1925; Smith 1962; Chiu 1984) and less so with older ones (McCarty 1950; Bank 1986). Religion and poetry are often among the least favored subjects (Seegers 1936; Stanchfield 1962; Chiu 1984; Snellman 1993; SmartGirl 2001). The popularity of science topics ranges from very high (Byers 1964; Lauritzen 1974) to very low (Seegers 1936; McCarty 1950).

Examining the literature by method reveals that, when children are allowed to express their preferences in their own words (open-ended surveys and interviews), they foreground animals and science. When children’s actual reading selections are analyzed (circulation records and titles selected or read), however, a different picture arises: while animals remain fairly popular, fiction—and imaginative fiction in particular—becomes the highest ranked category. When children are asked to select from a pre-ordained list of topics, mysteries and adventure topics

appear most frequently. Comparing these studies chronologically shows little change over time, suggesting that, while popular psychology and social trends may vary over time, children's interests and preferences for reading and information remain fairly constant. More thorough historical research needs to be done to verify this possibility.

Method

The State Library of North Carolina sponsored a reading enrichment program in summer 2000, titled *The Very Best Place to Start*. The project was funded by Library Services and Technology Act (LSTA) funds made possible by a grant from the Institute of Museum and Library Services and administered by the State Library of North Carolina, a division of the North Carolina Department of Cultural Resources.

One component of this program was the *Start Me Up!* game which ran during National Library Week (April 8–April 15, 2000). Children were provided preprinted cards when they visited a school or public library which they filled out and entered in a drawing for institutional and state-provided prizes such as computers, games, free tickets, and so on. These cards were double-sided; the front required the child to fill in such personal information as name, address, phone number, age, and the name of their library. The back of the card asked four questions: “What would you like to know more about?” “Ask your librarian where to start; by the way, who is your librarian?” “Where did your librarian tell you to start?” and “What was the most amazing thing you found out?”

The state library estimated that over 150,000 cards were returned as part of this program. They were combined and thoroughly shuffled prior to selecting the prize-winning cards, and then the cards were put, unsorted, into cardboard boxes. The data for this study were culled from 2,000 randomly selected cards drawn from this huge data set. As cards were examined for inclusion in the study, incomplete and illegible cards were destroyed. Many children had filled out multiple cards to try to increase their odds of winning the drawing; all of these duplicate cards were collected, and one was chosen using a random number generator publicly available on the internet (www.random.org/nform.html).

A Microsoft Excel spreadsheet was used to store the data as it was entered. Data points were last name, first name, gender, age, and the answers to two of the questions: “What would you like to know more about?” and “Where did your librarian tell you to start?” Gender posed a slight problem, as this was not an entry on the cards. Gender was inferred from the children's first names. This meant excluding some cards for which the gender was not immediately decipherable (most notably several names of international origin). While this limits the data set somewhat, the study makes no effort to explore ethnic differences, so discarding this data is much like discarding illegible data and should not bias the results.

Data Analysis

Once all of the data were entered into the spreadsheet, several duplicate entries were discovered and removed, and replacement entries were randomly chosen from the remaining cards, resulting in 2,000 unique entries. Each child's answer was then coded and assigned a category name that emerged from the data. In order to increase the reliability of the coding, two researchers assigned categories independently to the first 1000 responses and then compared their work.

Discrepancies were resolved through discussion, and category parameters were agreed upon (see appendix B for a complete list of category definitions). All 2,000 responses were then recoded with these refined categories, and a third researcher was asked to duplicate this effort. Intercoder reliability with this third coder was 75.1 percent (calculated using Cohen's Kappa). The categories with large numbers of responses (>125) were then recoded into subcategories to add depth to the analysis. Each category was ranked according to the percentage of the total response.

Limitations of the Study

Any study of children's interests or preferences faces the problem of overlapping categories. Studies that analyze the titles read must cope with cross-genre writing (such as, a book that is both mystery and fantasy, or one that is both sports and adventure). Studies that involve interviews or surveys deal with this issue during the data coding. For example, if a child expresses his or her interest as the name of a celebrity (for example, Michael Jordan); a researcher might categorize this as a biographical interest or an interest in sports. If the name of an author is expressed, however, the coding could be biography or it could be literature, as the child might be expressing an interest in reading a book by that author rather than about the author. Without follow-up to determine the reason behind the interest, precision may be compromised. To minimize this limitation during the current study, the written answer to the question, "Where did your librarian tell you to start?" was used to clarify the response whenever possible. The answer to this question, while not definitive, does reflect the results of whatever reference interview took place between the child and the librarian.

Only North Carolina children were involved in this study, so the generalizability of the study to the larger population is limited. Also, the tail ends of the age groups were underrepresented in the sample, and so the results, while including ages two to eighteen, are most pertinent to the seven-to-thirteen-year-old age range.

This study used existing data and a survey form designed for the Start Me Up! game, not for research. The question, "What would you like to know more about?" may bias the results toward non-fiction responses, though, again, this study is focused on what children read rather than why they read it. The open-ended question enabled children to express their preferences without constraint and in their own language, which yields a better indicator of their true preferences compared to forcing them to interpret pre-existing categories. It also, however, may indicate a momentary fancy rather than a long-standing interest; rectifying this issue would entail a longitudinal study of the *same* children over time.

Results and Discussion

As the cards in this study were randomly selected from the entire data set, the numbers of cards from each age and gender were uncontrolled. The distribution of responses between genders was fairly even: 1057 females (53 percent) and 943 males (47 percent) (figure 1). The age of the survey participants was less evenly distributed. There were very few children ages two to five, and most of those who were included had cards filled out by a parent or caregiver, which introduces a possible bias. Few fifteen-to-eighteen-year-olds filled out cards at the library, so again the preferences expressed by the respondents as a whole do not accurately reflect the preferences of these underrepresented ages (figure 2). Table 1 shows the ranked categories

mentioned by the participants, with total number of responses, and a breakdown by gender. By far the most popular topic was animals, which accounted for 33.9 percent of all the responses. Science (with an even distribution by gender) was followed by sports, which was predominantly a male preference. Literature (predominantly a female preference) was succeeded by biography, history, computers, careers, library collection, and transportation (predominantly a male preference). There are several interesting trends to notice from this table. Most of the topics are fairly evenly distributed between boys and girls; this is unusual in that other studies have found the one consistent factor that distinguished reading interests and preferences of children was gender. There are some differences that are reminiscent of these other studies: boys like sports, transportation, and military topics more than girls, and girls favor arts and crafts, health, and fashion/beauty topics more than boys. These are the gender stereotypes with which most school library media specialists are familiar. There is, however, an interesting difference in this data: girls mentioned computer topics more than boys, unless you include computer and video games (entertainment) which were favored more by boys. Another interesting finding is that girls chose legal topics more than boys. Although the total number of responses in this category (seven) is too small to be definitive, it is an interesting trend.

Figure 1. Gender Distribution of All Participants

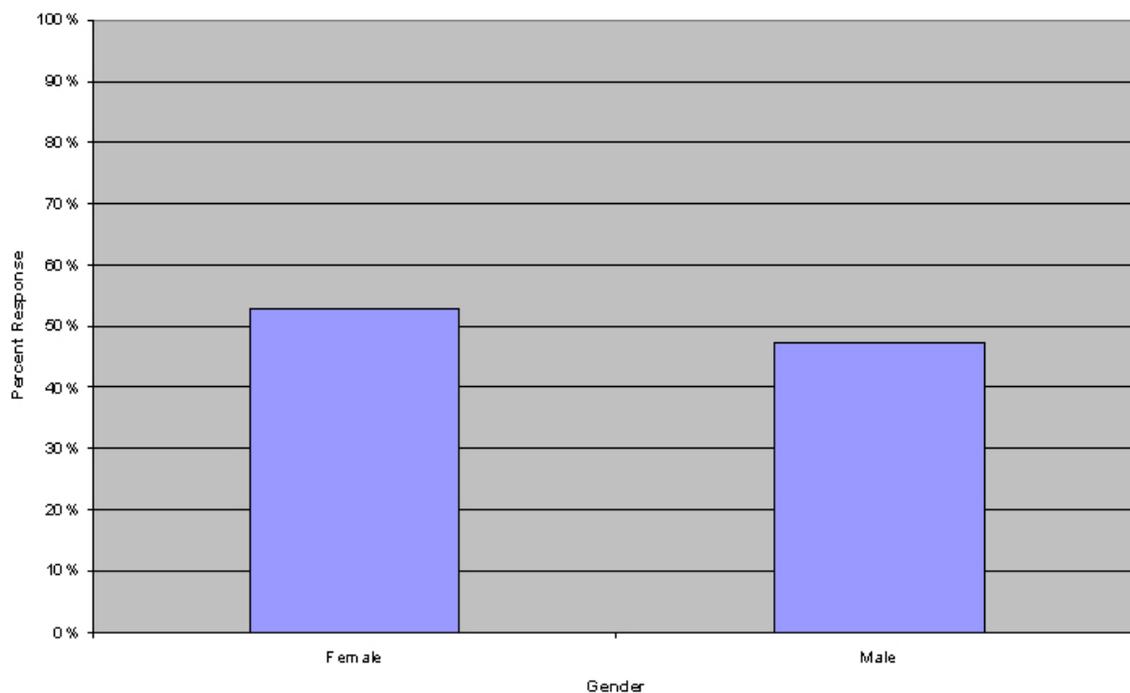


Figure 2. Age Distribution of All Participants

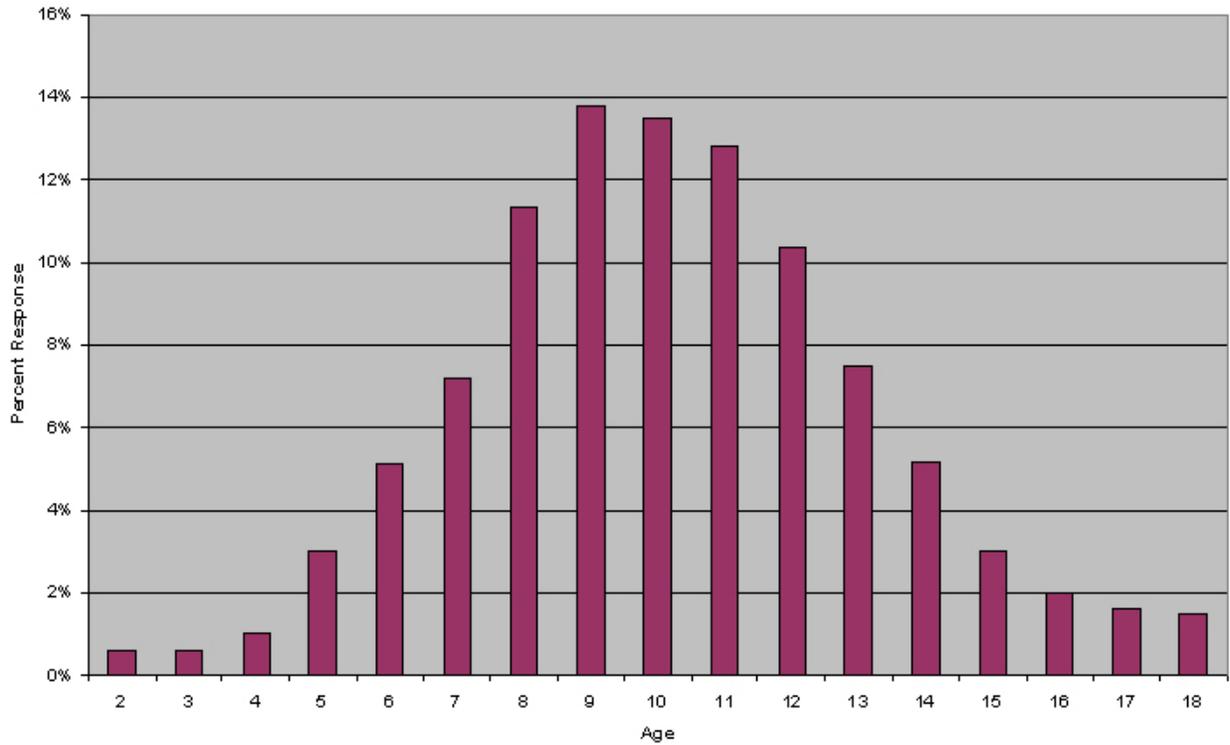
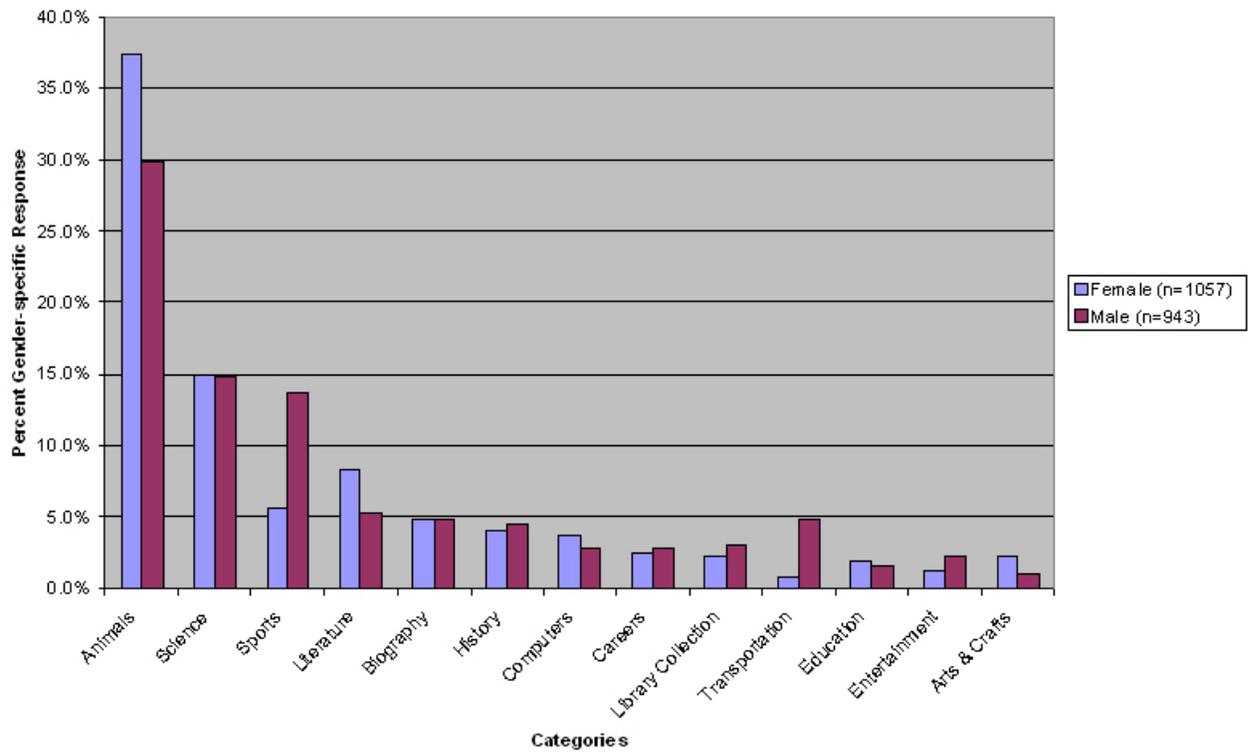


Table 1. Response Rates (Total and by Gender)

Category	Number of Responses (n=2000)	Gender	
		Female (n=1057)	Male (n=943)
Animals	678	396	282
Science	298	158	140
Sports	188	59	129
Literature	136	87	49
Biography	95	50	45
History	84	42	42
Computers	66	39	27
Careers	53	26	27
Library Collection	53	24	29
Transportation	53	8	45
Education	34	20	14
Entertainment	34	13	21
Arts & Crafts	32	23	9
Music	29	18	11
Health	28	21	7

Facts	26	13	13
Food	15	8	7
Supernatural	11	8	3
Holidays	9	5	4
Fashion/Beauty	8	6	2
Love & Sex	8	5	3
Architecture	7	3	4
Law	7	6	1
Magic	7	2	5
Military	7	0	7
People	7	2	5
Languages	6	5	1
Religion	6	3	3
Drugs	3	2	1
Finance	3	1	2
Social Issues	3	1	2
Criminology	2	1	1
Codes	1	0	1
Genealogy	1	1	0
Jokes	1	0	1
Photography	1	1	0

The following chart (figure 3) shows the percentage of the total response attributed to each gender regarding the top thirteen categories. The percentages are calculated to reflect only that gender's responses (i.e., gender-specific responses). In other words, 37.5 percent of the *girls'* responses were related to animals, while 30 percent of the *boys'* responses were animal related. This gives a better sense of the gender preferences than does a simple percentage of the whole. Again, the marked preference for animals is evident, as are the differing interests in sports and transportation.

Figure 3. Gender Differences in Thirteen Most Popular Categories

Perhaps an easier way to see these trends is to separate and rank order the responses by gender. Figures 4 and 5 depict these gender preferences. It is interesting to notice that the top four categories for both genders are identical, though the rank order is slightly different: animals, science, sports, and literature (for girls the categories of sports and literature are reversed). While the particulars of each category differ by gender (see figures to follow), overall the youth in this study showed little gender difference in their preferences.

Figure 4. Thirteen Most Popular Categories among Girls

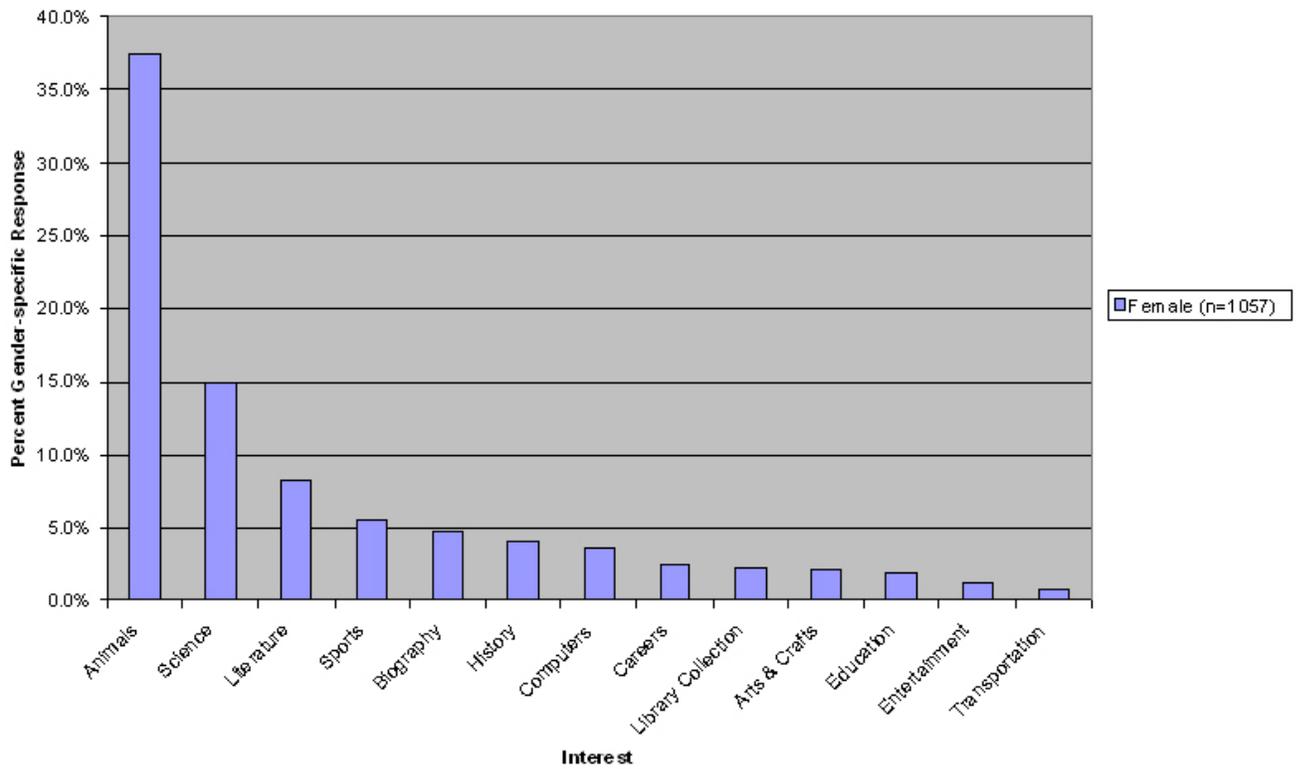
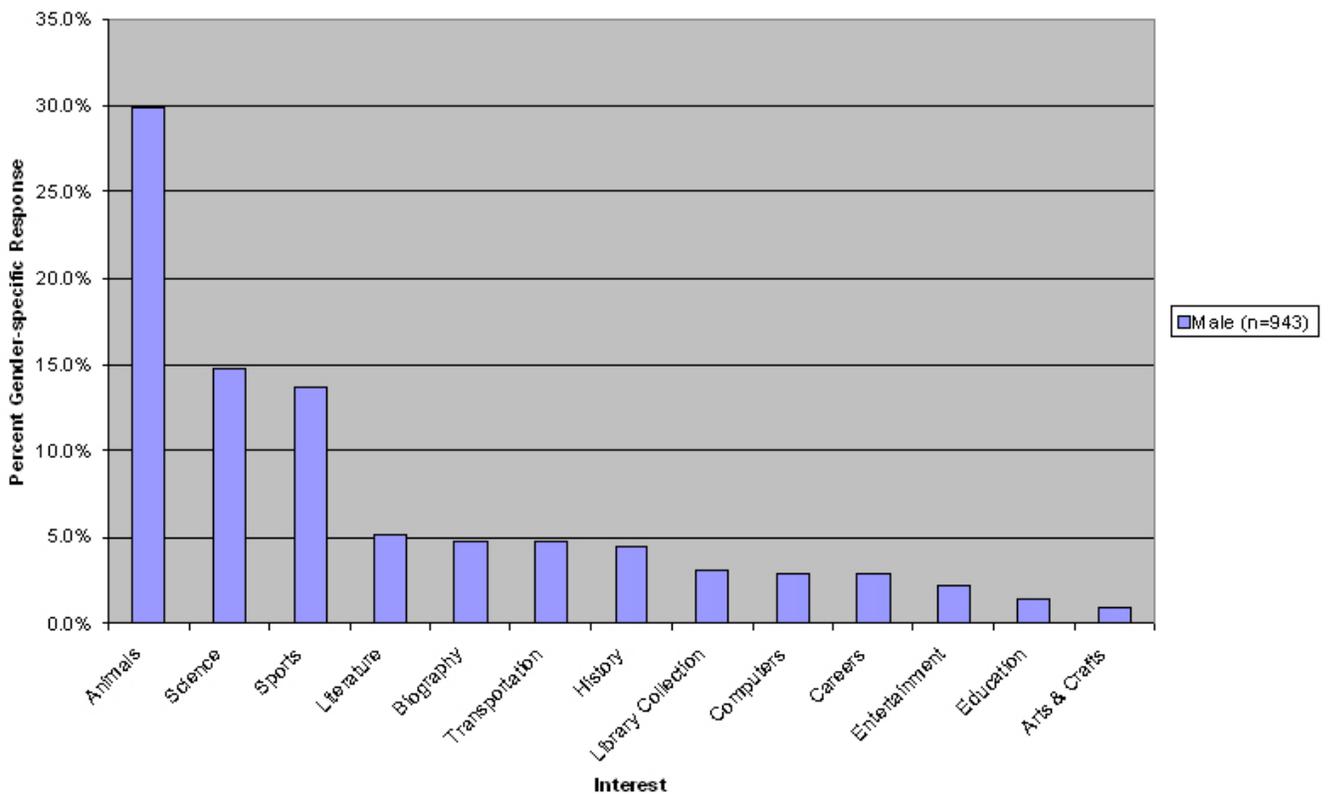
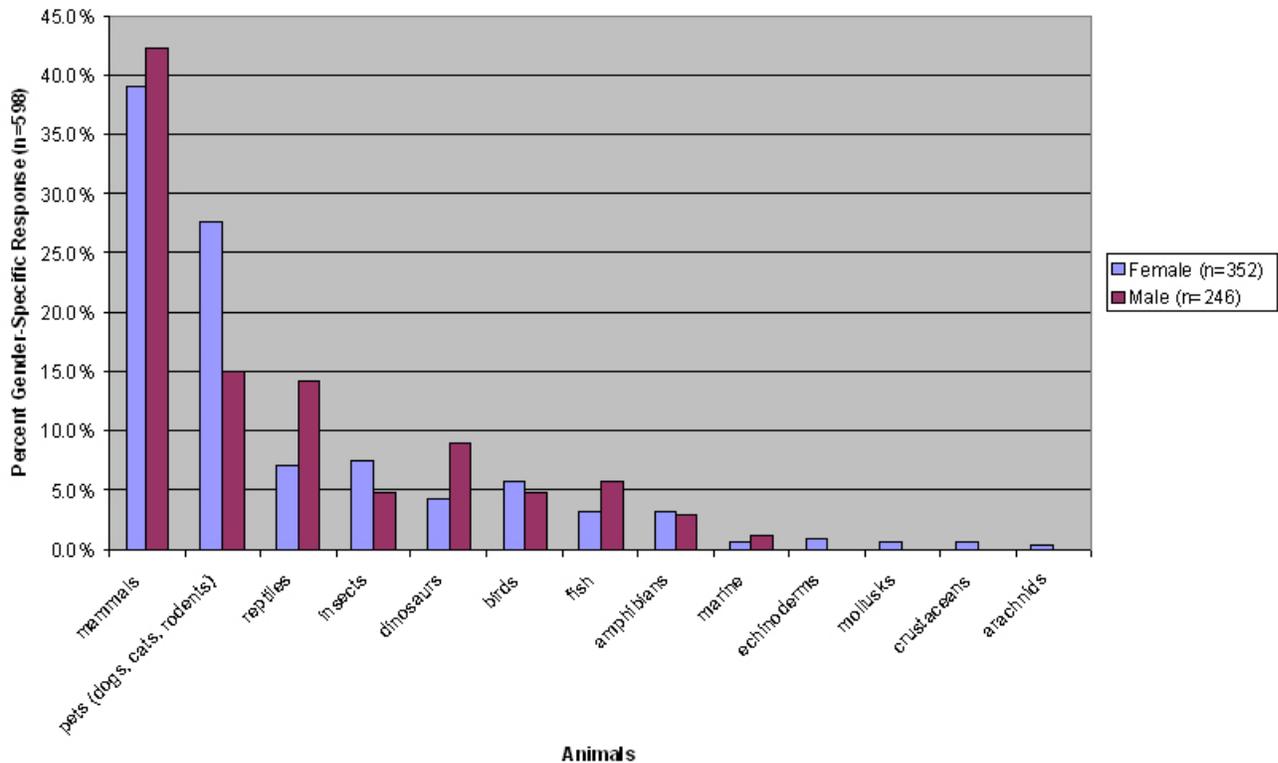


Figure 5. Thirteen Most Popular Categories among Boys



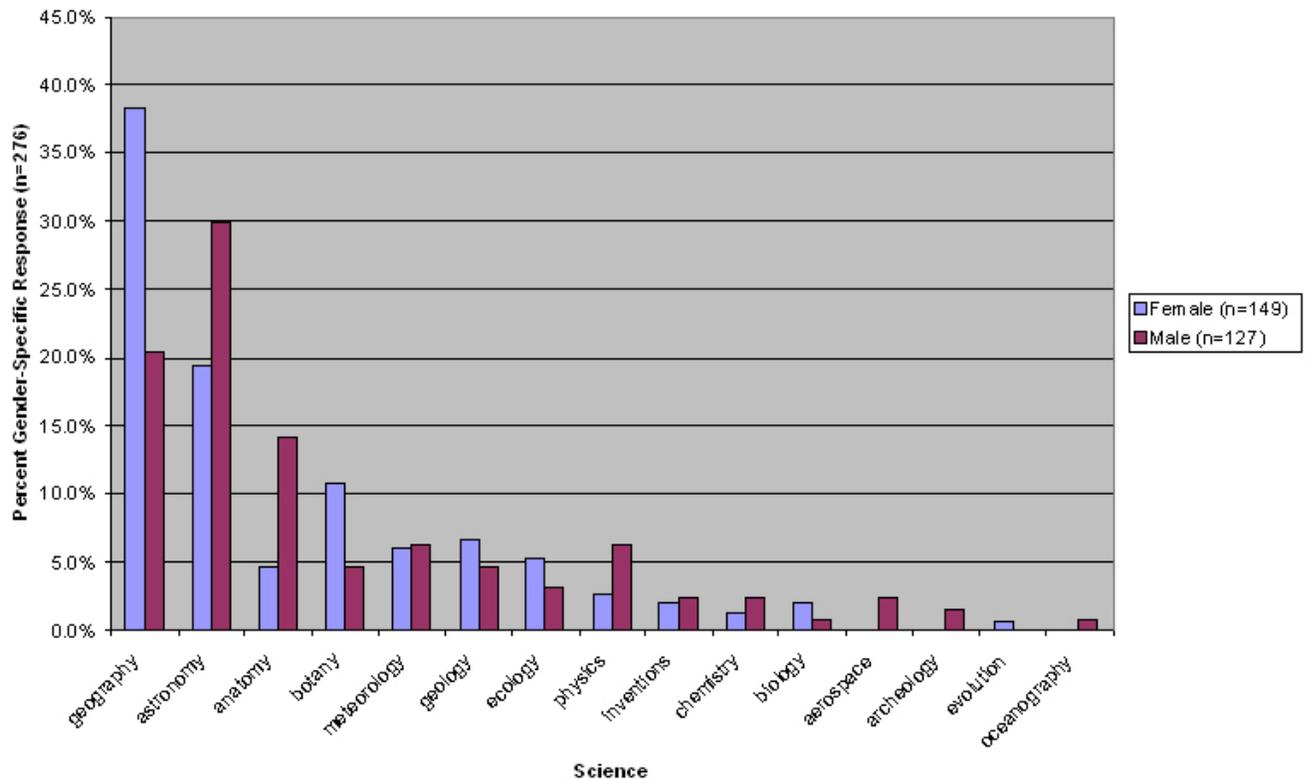
Those categories with more than 125 responses (animals, science, sports, literature) were subdivided to examine in more detail the kinds of answers given. The category of animals was divided into subcategories that emerged from the data. Most are self-explanatory, but the pets subdivision includes only dogs, cats, and rodents, such as hamsters. Horses, rabbits, pigs, snakes, and so on *could* be classified as pets, and this would certainly alter the resulting distribution of responses. For this study, pets were limited to the three mentioned unless specific care for the animal was mentioned (for example, raising snakes) which indicates treating that animal as a pet. Figure 6 shows the percentage breakdown for animals.

Figure 6. Gender Preferences for Animal Subcategories

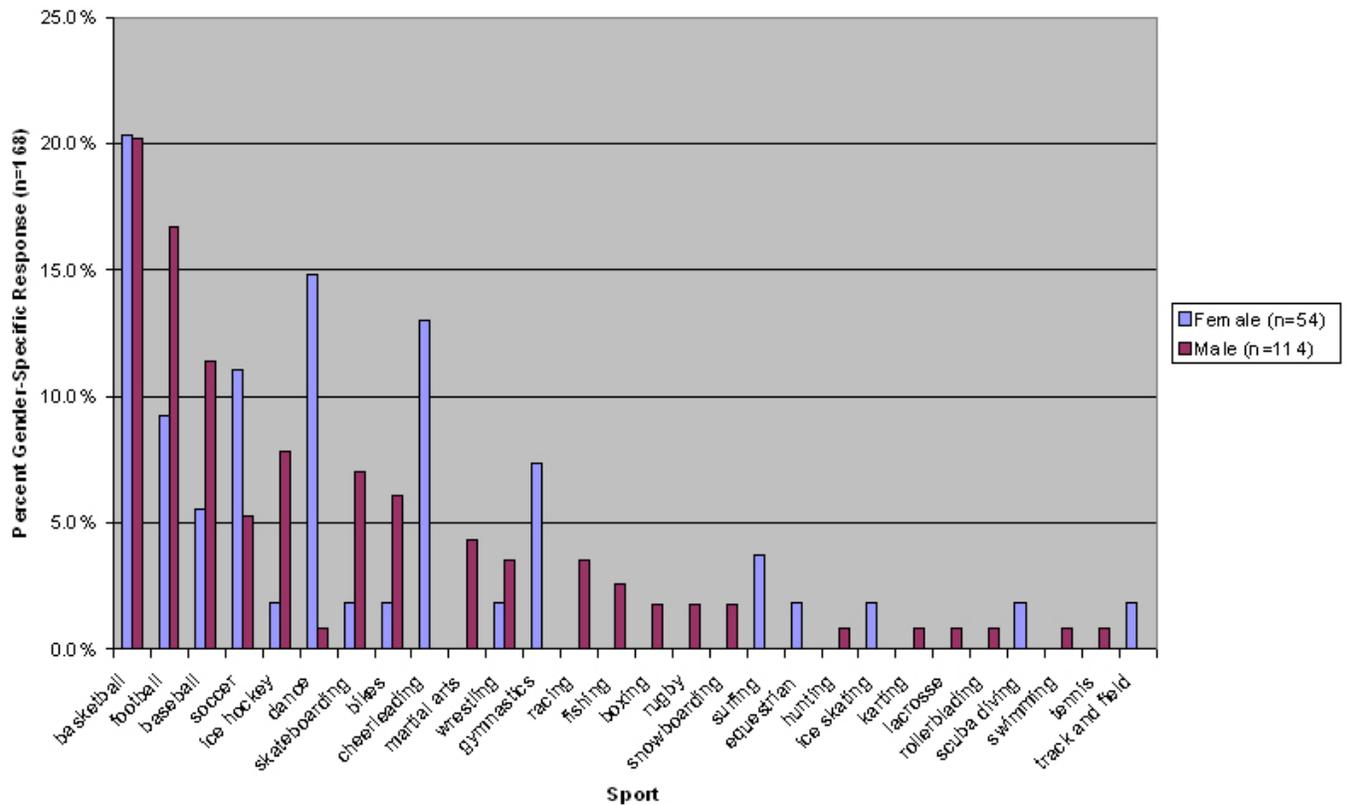


Wild and domestic mammals are by far the most frequent reading preference responses, and there is little difference between the genders. Pets topics are more often chosen by girls than by boys, and boys tend to select reptiles and dinosaurs more than girls. One item of interest is that girls slightly outnumber boys in their choice of insects as a topic of preference. This runs contrary to the conventional wisdom that boys are the ones who like “bugs and slugs.” Indeed, only girls mentioned any interest in sea stars, squid, crabs, or spiders (the last four subcategories in figure 6).

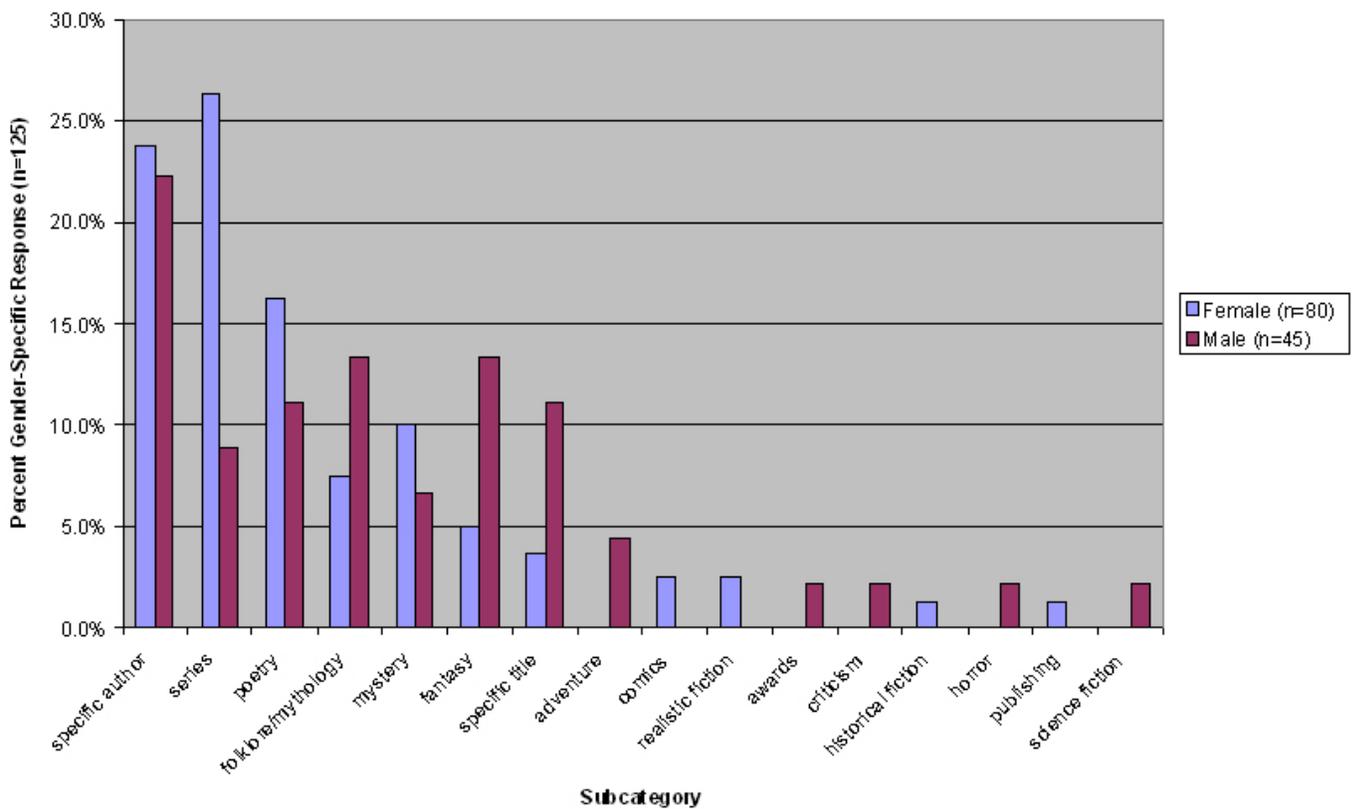
The science category was also subdivided to elicit more detail (figure 7). Geography was the subcategory of most interest overall, followed by astronomy, anatomy, botany, and meteorology. There were interesting gender differences as girls preferred geography and botany more than boys, and boys liked astronomy and anatomy more than girls.

Figure 7. Gender Preferences for Science Subcategories

The subdivision of the category of sports (figure 8) revealed that the four main sports in North Carolina children's consciousness are basketball, football, baseball, and soccer. These data may very well be state-specific due to the emphasis in North Carolina on these sports at both the amateur and professional levels; a national survey might find these differently ranked. There are interesting gender differences, although most are similar to the stereotypes and sporting opportunities for each gender. Boys mentioned football, baseball, ice hockey, skateboarding, bikes, and wrestling more than girls. Girls' preferences outnumbered boys for soccer and dance. Only girls mentioned cheerleading and gymnastics (male involvement in these sports is primarily at a college level), and only boys mentioned martial arts, racing, fishing, and rugby. The girls' interest in equestrian events reiterates their interest in horses (of the forty-five responses of "horse," thirty-six were from girls, and nine were from boys). It is also interesting that only girls mentioned surfing as a preference. Is it mere synchronicity that summer 2002 saw the release of the hit movie *Blue Crush*, featuring expert female surfers? This foregrounds, once again, the importance of context and social experience in the interests and preferences of children.

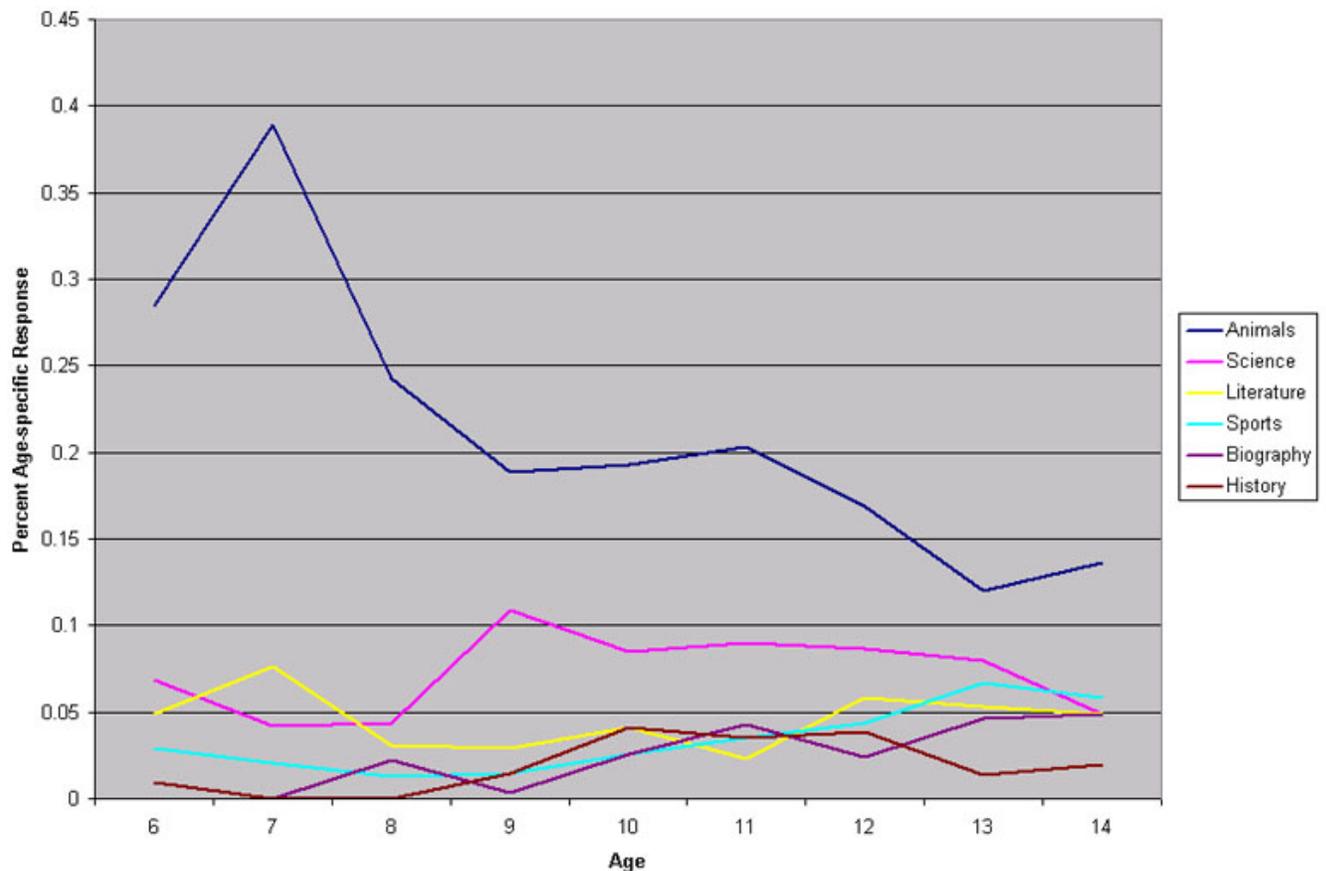
Figure 8. Gender Preferences for Sports Subcategories

Finally, the literature category was subdivided to see whether particular genres were more preferred by children (figure 9). Interestingly, more children requested books by a specific author, than they did for any particular genre; however, if the specific titles classified as such and those classified as a series were combined, then the largest number of responses would be for a specific title. Contrary to studies that claim that children prefer to browse for their books, this may suggest that many children, at least when it comes to literature, know what they want to find. The common knowledge of most librarians that children enjoy series books is also evident in these data.

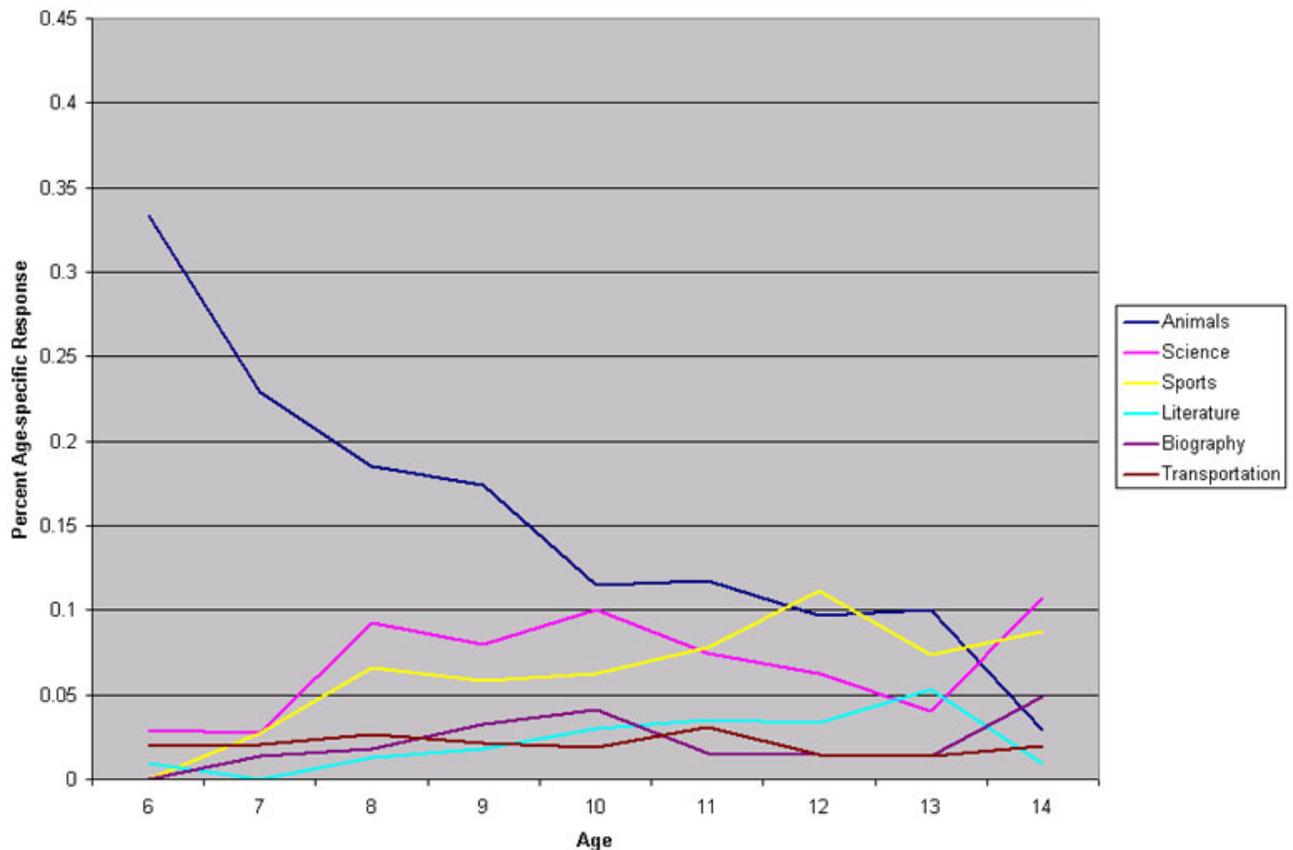
Figure 9. Gender Preferences for Literature Subcategories

While comparisons between genders were possible in this study due to the relative equality of the sample sizes, comparisons across ages were more problematic. The number of responses in each age varied widely (see figure 2), and so direct comparison was not possible; however, using an age-specific percentage instead of the raw data made the results more comparable. Age-specific percentages for each category and each gender were generated by selecting an age (i.e., six-year-olds) and a gender (girls) and calculating the percent response within a category (animals). The resulting chart would describe the percent of six-year-old girls who mentioned animals as a reading preference. Graphing these percentages for each category created charts to show trends in girls' and boys' preferences across ages.

Figure 10 depicts the cross-age changes in the top six preferences of girls (only ages six to fourteen were included due to the small sample sizes at the upper and lower age extremes). The preference for animals peaked at age seven and decreased dramatically thereafter, while the interest in science peaked at age nine and then gradually diminished. The preference for literature remained fairly constant (about 5 percent for each age), while sports and biography saw a slow but steady increase as the girls got older. The preference for history was highest among ten- to twelve-year-olds, but even then, it was mentioned very infrequently.

Figure 10. Top Six Preferences of Girls by Age

The top six preferences of boys are depicted in figure 11. Again, the preference for animals was highest among the young boys and quickly decreased thereafter. Boy's interest in science began slightly earlier (age eight) than the girls' and peaked a bit later (age ten). The preference for sports rose fairly steadily to a peak at age twelve, and the percentage was consistently higher for boys than for girls after the age of seven. A study with a larger sample size for the younger ages might give a clearer understanding of whether girls' preference for sports exceeds that of boys at younger ages (the earlier physical development of girls lends credence to this possibility). Boys' preference for literature, biography, and transportation remained fairly constant at relatively low levels.

Figure 11. Top Six Preferences of Boys by Age

Charting the preferences that ranked seventh through thirteenth did not prove useful, as the percentages were so small that trends were insignificant. One item of interest, however, was that the preference for computers increased slightly for both genders between ages thirteen and fourteen. It is important to remember that this does not indicate an interest in using computers but a preference for “knowing more about” them. While the percentage interest in this category was very small for both genders, this little rise may be indicative of either curriculum emphasis or higher level cognitive processing skills that develop in adolescence.

Conclusion

This research study found that North Carolina children between the ages of two and eighteen have myriad interests to explore when they enter a school or public library. Thirty-six categories describe their expressed preferences for information; of these, animals, science, sports, literature, biography, history, computers, careers, library collection, and transportation comprise the ten most often cited topics. Within the top four categories, the two most often cited subcategories include mammals and pets, geography and astronomy, basketball and football, and specific authors and series books.

These results are similar to several other studies. Grant and White (1925), Byers (1964), Lauritzen (1974) and Chiu (1984) also found that animals were the most often cited reading preference. Science was in the top three in several studies, including Smith (1962), Lauritzen (1974), and Kimmins (1986). Sports was the most popular defined category in the ALA (2001) and Kimmins (1986) studies, and it placed in the top three in the Rudman (1955) and Stanchfield (1962) studies. Literature was the principle interest in Seegers (1936), McCarty (1950), and Rudman (1955), and it was in the top three topics in Vostrovsky (1899) and many others, if one looks at the subcategories of mystery, adventure, or everyday life. Geography and the study of culture are also very important to these children, as they were for Rudman (1955) and Chiu (1984). Biography and famous people continue to be popular among children and young adults. Several other studies support this conclusion (McCarty 1950; Rudman 1955; Lauritzen 1974; Chiu 1984), though Seegers (1936) found that it was the fourth least interesting topic based on children's actual reading. When it comes to fiction reading, children still prefer series books, as they did in 1936 (Seegers). One of the most persistent trends, however, is that mystery, fantasy, and folklore remain highly ranked among children's interests (Carsley 1957; Ashley 1970; Lauritzen 1974; Chiu 1984; Bank 1986; Greenlaw 1988; Snellman 1993).

The lowest preferences, though often still listed as preferences, have remained fairly consistent over time as well. Religion was not very popular in this study, and neither was it in Seeger (1936), Lauritzen (1974), Chiu (1984), Bank (1986), Whittemore (1992), Snellman (1993), and ALA (2001). Fine arts and crafts have remained a relatively minor interest overall (Rudman 1955; Stanchfield 1962; Whittemore 1992; Snellman 1993; ALA 2001), although girls tend to like this topic more than boys.

Gender distinctions remain in effect in this study. Some have been recognized for years, such as the primarily male interest in transportation, sports, and war, and the predominantly female interest in horses, mystery fiction, romance fiction, and fine arts and crafts.

There were also some surprising results. Among the responses for the literature category, poetry ranked as the third most often mentioned. Many other studies have shown that poetry is either not preferred or actively disliked (Seegers 1936; Stanchfield 1962; Chiu 1984; Kimmins 1986; Snellman 1993). Its high ranking in this study is partly due to its inclusion in the larger category of Literature; ranked by itself, poetry responses (of which there were eighteen) would account for 0.9 percent of the total, and would appear near the middle of this study's ranking. This is still a markedly higher ranking than poetry has achieved in the past. Another surprise was the relatively low ranking of the supernatural category. Ashley (1970), Whittemore (1992), and Snellman (1993) found this to be of high interest in their studies. A possible explanation is that these three studies focused on older elementary and secondary school students, and the interest in ghosts and horror seems to grow with age (in this study there were eleven responses classified as supernatural, with one three-year-old interested in "monsters"; all the rest of the respondents were ages eight to twelve, with peak interest at twelve years old). A final surprise was the high number of children interested in the subcategory of geography. Responses that were classified in this subcategory related to countries and the cultures involved (i.e., Haiti, Mississippi, United States, etc.). Again, the interest was primarily from ages nine and above, and it may be related to the social studies curriculum in school, though the children's specific inquiries in this study were not tied to the social studies curriculum for North Carolina.

Another interesting change, though hardly surprising, is the increased interest in computers since the 1986 study by Bank (where it ranked forty-ninth of fifty-eight possible) and the 1992 study by Whittemore, in which computers were ranked last of twenty-four possible choices. The children in this study showed considerable interest in computers: sixty-six responses (3.3 percent) primarily from middle school adolescents with a gender distribution that slightly favors females (thirty-nine) over males (twenty-seven).

Future Research

Research usually gives rise to more questions than it answers, and there are many ways to extend the understanding of children's interests and preferences for information. A much larger study involving children from other states, and even other nationalities, would lend credence to these findings and enable cross cultural comparisons. A study that examined the contemporary social issues as well as the children's interests could shed light on some of the influences upon children's interests. Tracking interests across ages, either by acquiring an even distribution of data for these ages or by conducting a longitudinal study of the same children over time would add to the knowledge of how children grow into and out of their interests. There is also the need for studies that examine the impact of gender on interests, and for further research into the effect that different research methods have on the results of these interest studies. As scholars continue to explore this topic, they will further the understanding of children's information and reading needs and preferences, and, it is hoped, enable librarians, teachers, and other care providers to improve their service to this special population.

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Appendix A

Results of All Cited Studies

The research studies covered in the literature review are here explored in more detail. The chart (entitled “Comparison of Studies of Childrens’ Reading Interests” and accessible via its named hyperlink) and accompanying text below further explore the methods used, problems encountered, and results found in these studies. The chart is organized by methodology first, and then in chronological order by study. This organizational scheme should facilitate within and across methods comparisons.

See below to view Comparison of Studies of Childrens’ Reading Interests.

METHOD	CIRCULATION RECORDS		CHILDREN'S ORAL REPORTS/INTERVIEWS		OPEN-ENDED SURVEYS						
STUDY	McCarty 1950	Bard & Leide 1985	Stanchfield 1962	Bvers 1964	Rudman 1955	Lauritzen 1974	Chiu 1984	Greenlaw 1988	SmartGirl 2001	Sturm 2003	
Children's Age	13-18	6-12	10, 12, & 14	6	10-15	7-12	6-12	10-18	14 (mean)	2-18	
CHILDREN OF INTERESTS RANKED					reading preference	information need					
		General Fiction Adventure Fiction Animal Fiction Biography and Autobiography Mystery and Detective Fiction Miscellany Hobbies and Sports Fiction War and Defense Career Fiction The Arts Science History and Geography Humor Mythology and Fairy Tales Occupations	Imaginative Literature Information Books Realistic Fiction Mysteries	Outdoor Life Explorations & Expeditions Sports & Games Science Fiction, Sea Adventure, Fantasy Historical Fiction Humor Everyday life adventures of boys Outer Space Cowboys & Westerns Transportation Fables Bible Stories Teenage Romance Riddles and Puzzles Weather and Climate Mathematics Birds & Insects Occupations Fairy Tales Plants Music Plays Art Family & Home Life Poetry	Science & Nature pets birds fish and sea life plants reptiles wild animals insects amphibians Possessions Personal Experiences Family & Home Activities Outdoor Recreation Girls swimming horseback riding boating fishing basketball catch Boys fishing swimming horseback riding hunting skiing boating skin diving baseball catch football bowling Books Clothing Events Moving Pictures & TV Music & Recordings	Literature Animals Sports & Rec. Social Studies Machines and Applied Science Famous People Other School Subjects Miscellaneous Physical Science Biological Science Personal Problems Fine & Applied Arts	Social Studies Animals Other School Subjects Famous People Physical Science Biological Science Miscellaneous Machines & Applied Science Literature Sports & Rec. Fine & Applied Arts Personal Problems	Animals Mystery Science History People Make-believe Sports Social Studies Transportation Adventures Comedy House & Home Science Fiction Religion Hobbies Occupations Romance Other Other Countries Modern Situations Religion Social Studies	Animals Make-believe Mystery Jokes/Humor Adventure Sports Social Studies Comedy Adventures Transportation Science Fiction Religion Romance Poetry	Mystery Fantasy Jokes/Humor Adventure Sports	Many Passions Sports Reading Other Sports Music Animals Theater Romance Shopping Internet Friends/Family TV/Movies Religion School Art Related Writing Religion Babysitting

Preordained Categories

Carsley (1957) studied 2,040 British students (1,054 boys and 986 girls), ages ten to eleven, in fifty-five classes in thirty schools. He gave them a questionnaire, part of which asked the child to “indicate, by underlining, classes of books for which he had a marked liking or the opposite” (19). The data were tabulated by assigning a plus to an expressed preference and a minus to an expressed dislike, resulting in categories with both positive and negative numbers. The resulting ranking of preferences showed a marked preference for adventure and mystery stories and an extreme dislike of fairy stories. Some gender differences were also evident; girls liked school stories, nature study, and poetry (strongly disliked by boys), and they showed more interest in Biblical stories and animal stories than did boys. Boys, on the other hand, enjoyed books about “how things work,” which girls disliked, and they also showed more interest in sports and historical stories than did girls.

Ashley (1970) worked with similar aged children (grades 4 to 7) in Canada. Nine hundred children (440 boys and 460 girls) were given a survey containing forty reading topics and asked to give “their preferences—first choice, second choice and third—without guidance from adults” (1088) and to choose the three main categories that they disliked. The categories were kept simple to reduce the need for explanation. The results showed that children preferred mysteries, adventure, ghost stories, comics, science fiction, horse stories, animals-real, jokes, and humor. Their dislikes, in rank order, were love stories, Bobbsey Twins (series), grade readers, war, Nancy Drew (series), pirates, and animals-talking. Gender did account for some of these priorities. While the Nancy Drew series was overall fairly popular (ranking tenth in the total rankings), it was strongly disliked by boys; war, which ranked fourteenth in overall preference, was actively disliked by girls.

Bank (1986) gave a questionnaire containing fifty-eight preselected categories to 844 students in grades 6 to 12 from ten schools in New York. He found that these students reported their ten favorite voluntary reading topics to be young people or teens, mysteries, humor, adventure, love, sex, movies, famous people, romances, and horror stories. Using cross-tabulation, he compared the percentages of students responding to each topic by gender, grade level, ethnicity, native language, grades, and the teacher’s judgment of the students’ reading abilities, social class, and cultural exposure. While his results do not show trends (and he made no attempt at elaboration analysis to examine the underlying cause-and-effect relationships), the table he provides is a “tool which enables teachers concerned with the predictive promise of reading interest studies to increase the accuracy of their predictions about what a particular group of students is apt to be interested in reading” (13).

Whittemore’s 1992 master’s paper for Kent State explored the reading preferences of 449 high school sophomores and seniors. An eighteen-question survey was distributed during English classes with a variety of questions pertaining to reading frequency and reading preferences. For the reading preference component, students were asked to check as many of ten categories of novels and fourteen categories of “other reading” as they felt pertinent to their reading. For fiction reading, these students’ ranked preferences were for horror/occult/supernatural, mystery/spy/suspense, adventure/action/war, romance, realism/teenage problems, science fiction/fantasy, sports stories, western, and historical. Ranked preferences for other kinds of reading included short stories, poems, teenage books, true sports stories, autobiographies/biographies, and history books.

Snellman's (1993) master's thesis for the University of Virginia examined the reading preferences of sixth graders. Twenty-three children (ten girls and thirteen boys) were given a four-page survey containing yes/no, rating, and open-ended questions. One of the questions related to reading preferences asked students to indicate whether they "really like this type of book," and a list of thirty categories was presented. Results were tabulated as a percentage of the total and broken out by gender. Overall, students preferred the categories labeled mystery, humorous, adventure, magazines, scary/ghost stories, science fiction, science, and riddles/jokes/puzzles. In terms of gender differences, boys showed a markedly higher interest for science, science fiction, nature, and magazines than girls, while girls' responses were considerably higher than boys' for mystery, historical fiction, and friendship and families. The small sample size makes these differences slightly suspect, but the similarity between this and other studies is noteworthy.

Analysis of Titles Read or Selected

As mentioned earlier in the literature review, one of the earliest studies to explore reading interests was a title analysis by Vostrovsky (1899). Others soon followed with similar methods. Grant and White (1925) studied the reading interests of six hundred children in first through third grades. They asked these students to respond to the question: "what story of all you've read and heard do you like best and second best?" The resulting titles were categorized into broad topic areas and ranked by frequency of response. Their results showed that these children's favorite stories fell into the following ranked categories: animal, fairy, folklore, poetry, miscellaneous, informational, historical, children's experiences, Bible, fables, nature, humor, and riddles.

Eleven years later, Seegers (1936) worked with 924 city school children of an unspecified age to explore their undirected and uncontrolled reading of books done outside of school hours. The students were asked to list the books they had read and enjoyed over the prior year and to keep a three-month reading diary. Reliability was checked by conducting interviews with selected children. The results of the study were that these children favored the following kinds of reading material: juvenile fiction and series, standard fiction and relatively desirable modern fiction, children's classics, mystery/crime/ghosts, cheap and "sexy" prose fiction for adults, fairytale collections, extremely childish material, biography/travel/history, poetry/drama, scientific/semi-scientific, and religious books. There were gender differences, with girls mentioning far more titles than boys in most of the categories, but particularly in the standard fiction and relatively desirable modern fiction and cheap and "sexy" prose fiction for adults categories. Boys' responses outnumbered girls' in only three categories: scientific/semi-scientific, biography/travel/history, and extremely childish material. While the categories are neither exclusive nor particularly illuminating, the boys reading childish material is interesting as it reflects other studies of boys as recalcitrant or underachieving readers (Coles and Hall 2002; Cloer and Dalton 1999).

The reading interests of 113 first-graders in Wisconsin were the focus of Smith's (1962) study. She analyzed the children's primers and pre-primers to see what kinds of stories they contained, and she grouped them into twenty-three categories. She then analyzed the free reading selections of the children at the library and filed them under one of the twenty-three possibilities she had obtained from the primers to see whether the primers' content matched the children's choices. She found that while the primers focused on stories about children and their parents, real animals, and toys and games, the children's free reading interests favored humor/fantasy, real

animals, nature/science, holidays/birthdays, and fairytales. Wild West/cowboys, birds, travel/airplanes, children/parents, and astronomy completed the top ten interests.

Kimmins' (1986) master's thesis for Kean College of New Jersey addressed the reading interests of twenty-five emotionally disturbed boys, ages eleven to fifteen. She asked them to rank their three favorite titles; points were then assigned to each rank, and the titles were classified by subject categories. She also conducted individual interviews with each child and had them complete a reading interest survey. She found that these adolescent males' ranked reading interests were for sports, contemporary life, science, religion, history, biography, careers, fantasy, mystery, hobbies, science fiction, adventure, and humor.

A fairly recent study by Boraks, Hoffman, and Bauer (1997) examined the titles reported by 315 school children (154 boys, 161 girls) in grades 3 to 5, when queried about their most favorite book. These titles were then categorized by literary genre. Their results showed that children in grades 3 and 4 preferred fantasy, realistic fiction, picture books, and finally "other," including historical fiction, poetry, and nonfiction. Fifth graders, however, preferred realistic fiction, fantasy, "other," and picture books. This is consistent with other studies that show that older adolescents prefer realistic fiction to other genres (Traw 1993; Fronius 1993).

Circulation Records

McCarty (1950) examined the reading interests of seventh to twelfth graders in fifteen different schools by analyzing library circulation records during the academic year 1947 to 1948. A random sample of 4,814 records was selected for analysis, and the titles that circulated were recorded and classified into fifteen categories. McCarty found that most of the titles fell into the general fiction category. Adventure fiction and animal fiction were next, with biography/autobiography, mystery/detective fiction, miscellany, hobbies/sports fiction, war/defense, career fiction, and the arts following in rank order. Science, history/geography, humor, mythology/fairytales, and occupations were the least often read topics. Again, gender differences were evident: boys read more hobbies/sports fiction, adventure fiction, and war/defense books, while girls read more in general and in the specific categories of general fiction, mystery/detective, and career fiction. This study foregrounds the need to include the social context in which a reading study occurs. The recency of World War II and the changing role of women in the work force seem probable influences on the reading interests of these adolescents.

Bard and Leide (1985) studied the circulation records of books selected by students in one Hawaiian elementary school over a five-year period (1974-79). One thousand one hundred and sixty-nine circulation cards were included in the study from children grades 1-6. The book titles taken from these cards were classified into four categories (imaginative literature, realistic fiction, mysteries, and information books) and were then analyzed by grade and gender. Bard and Leide found that reading interests fell into the following ranked order: imaginative literature (53.72 percent of the titles and 57.15 percent of the circulation), information books (26 percent of the titles and 22.98 percent of the circulation), realistic fiction (16.34 percent of the titles and 14.42 percent of the circulation), and mysteries (3.93 percent of the titles and 5.46 percent of the circulation). Interest in imaginative literature decreased across the grades, interest in realistic fiction grew, and interest in mysteries and information books remained fairly constant.

Oral Reports and Interviews

As mentioned above, some studies include interviews (Kimmins 1986) as part of the research method, but there are a few studies that rely completely on this method of data collection. Stanchfield (1962) held hour-long conferences with 153 male students in the fourth, sixth, and eighth grades (fifty-one students at each grade level) to determine their reading preferences. The interviews began with a free-response time in which students were encouraged to answer the questions without interference. This was followed by suggestions from the researcher of other possible answers, and then the students chose their final answers to the questions. Fifty categories of reading interests and twenty characteristics of reading (such as, courage, excitement, weird elements, and so on) were explored. The results showed that these adolescent boys preferred stories about outdoor life, explorations/expeditions, sports/games, science fiction/sea adventure/fantasy, historical fiction, humor, everyday life adventure of boys, outer space, and mystery/war. They were least interested in reading about plants, music, plays, art, family and home life, and poetry.

Byers (1964) used taped recordings of first graders speaking during unstructured sharing time in the classroom. She recorded 1,860 students during 214 sharing periods, and then classified the topics that emerged into categories. These young people spoke most often about science/nature (mainly living things such as pets, birds, and sea life), possessions (their toys and show-and-tell items), personal experiences, family and home activities, outdoor recreation activities (sports), books, clothing, events concerning friends and the community, movies and TV, and music and recordings. While these are not *reading* interests, they do show what these first-graders feel is important in their lives. Byers concluded that books for this age should focus more on these topics of interest than they currently do.

Open-Ended Surveys

Rudman (1955) gave a three-question survey to 6,313 students in the fourth through eighth grades across America. The three questions asked were: “If someone were to give you a book as a present, what would you want it to be about?” “If a very good friend could answer any question you asked, what would you ask about?” and “When you went to a book (not a dictionary) not long ago to find out something, what did you want to find out about?” The answers were classified as read-about interests, ask-about interests, and look-up behaviors. The most frequent responses for the first question, in rank order, were literature (mystery, adventure, teenagers and children, cowboys, fairytales), animals, sports and recreation, social studies, machines and applied science, and famous people. Their ask-about interests were miscellaneous (ethics, school, religion), physical science, other school subjects (reading, math, science, history), social studies, animals, personal problems, and sports and recreation. Their look-up behaviors focused on social studies, animals, other school subjects (reading, science, language, history, geography), famous people, physical science, and biological science. This study is of particular interest as it foregrounds how differently worded questions elicit very different responses. It also points to the distinction between reading interest and preference and information need. Asking “What do you like to read about?” and “What do you want to know about?” may be asking two very different research questions.

In 1974 Lauritzen and Cheves, with the help of members of the Beta Upsilon chapter of Pi Lambda Theta, asked 811 children ages seven to twelve (382 boys, 443 girls) to fill out a reading

interest survey including the title of a book they had read and several open-ended questions designed to elicit their interests and reasons for liking or disliking their chosen title. There was no repetition among the titles listed, so the authors did no analysis of this data. The children's answers to the question, "I like to read about . . ." were tabulated into eight aspects of the book (plot, humor, mood, characters, and so on) and into twenty topics. There were 1,264 total responses to this question of which 933 were considered topics. The eight most often cited reading preferences, in rank order, were animals, mystery, science, history, people, make-believe, sports, and transportation.

Ten years later, Chiu (1984) conducted a similar study with 1,131 children (572 boys, 559 girls) in grades 1 to 6 in forty-nine classrooms throughout northern Indiana. Again, the open-ended question, "I like to read about . . ." was used as part of the interest survey they distributed. Answers to the questionnaire were classified into similar categories as in the Lauritzen and Cheves study, with the resulting rank order of the top eight preferences: animals, make-believe, mystery, people, sports, science, social studies, and comedy. Chiu also examined how the preferences changed over grade levels and by gender and found that animals were popular up until fifth grade, particularly with girls; make-believe was popular before fourth grade; the upper grades showed a strong interest in people and mystery; and sports were much more popular with boys than with girls.

Greenlaw (as cited in Todd 1988) worked with slightly older children (grades 4 to 12). She gave a questionnaire to 1,240 students, asking what they liked to read and how they chose their books. The data were classified according to genre, with the results showing an overall preference for mystery, fantasy, jokes/humor, adventure, and sports. There were marked gender differences as well. Boys chose science fiction, sports, how-to-do-it, and jokes/humor more than girls, while girls more often selected mystery, romance, biography, fantasy, and—by far the greatest gender distinction—poetry.

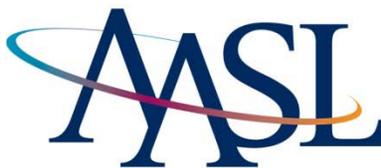
A very recent study (American Library Association 2001) was the result of collaboration between the American Library Association (ALA) and SmartGirl.com during Teen Read Week in October 2001. These institutions made accessible, on the SmartGirl Web site, an electronic survey asking for responses to a wide variety of reading and personal interest questions. There were 2,809 responses to this survey with the average respondent age being fourteen years old. Responses came from twenty-eight countries, although the bulk of responses (93 percent) were from the United States. Sixty-one percent of the respondents were girls, and 37 percent were boys (the remainder responded with "no answer"). One of the survey questions was, "What activity, subject, concept, or item are you absolutely passionate about?" Two thousand four hundred and ninety-seven children answered this question, resulting in the following ranked "passions": many passions, sports, reading, music and animals (tied for fourth), Internet and shopping and romance and theater (tied for fifth), and art and friends/family and TV/movies and school (tied for sixth). Writing, religion, and babysitting were of particularly low interest.

Appendix B

Categories and Definitions	
Category	Definition
Animals	Wild animals, pets, dinosaurs, etc.
Architecture	Building, construction, etc.
Arts and Crafts	Drawing, painting, quilting, and fine art
Biography	Names (other than authors)
Careers	Anything related to a vocation
Codes	Codes and ciphers
Computers	Computers, internet
Criminology	Crime and murder
Drugs	Drugs (not medicine)
Education	References to math, reading, college, etc.
Entertainment	Video games, TV, movies
Facts	World records, queries for general, factual information
Fashion/Beauty	Fashion, clothing, etc.
Finance	Money, stocks, business, etc.
Food	Edibles or drinkables
Genealogy	Ancestors, family trees, etc.
Health	Diseases, medicines, etc.
History	References to places and events of historical significance
Holidays	Christmas, Hanukah, etc.
Jokes	Riddles, puzzles, etc.
Languages	Foreign languages
Law	Legal issues (other than crime)
Library Collection	Anything to do with the library function or the collection in general
Literature	Authors, book titles, genres
Love and Sex	Sexual interactions, babies (not pregnancy)
Magic	Magic and magic tricks
Military	War, weapons, etc.
Music	Musical groups, songs, etc.
People	Kinds of people and cultures (more general than biography)

Photography	Photographic equipment or process
Religion	References to god, rituals, heaven, etc. (not religious holidays)
Science	Any of the hard sciences: biology, botany, geology, meteorology, geography, etc.
Social Issues	Environmental concerns, etc.
Sports	Generic sports or specific mention of a sport such as football, fishing, etc.
Supernatural	Ghosts, monsters, UFO, etc.
Transportation	Cars, trucks, planes, etc.

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