Valerie Nesset
Department of Library and Information Studies, SUNY at Buffalo, Buffalo, NY

A Look at Classification and Indexing Practices for Elementary School Children: Who are we Really Serving?

Abstract: As indicated in the findings of a larger study investigating the information-seeking behavior of grade-three students it is asserted that traditional classification and indexing methods used in school libraries and print reference materials targeted at young students often do not address young searchers' unique information needs and searching behaviors.

Résumé : Tel que l'a démontré une étude plus large sur les comportements de recherche d'information d'élèves de troisième année, la classification traditionnelle et les méthodes d'indexation utilisées dans les bibliothécaires scolaires et le matériel de référence pour les jeunes ne répondent pas à leurs besoins informationnels unique, ni à leurs comportements de recherche.

The findings from a broader study of the information-seeking behavior of grade-three students conducted in an elementary school located in a suburb of Montreal, Quebec, Canada indicate that the classification of print materials within an elementary school library may not be intuitive to young searchers. Furthermore, once a book was found, often the indexing practices did not facilitate information retrieval within the text itself. In order to address this problem, librarians and indexers need to be aware of the rapid changes in intellectual development that occur during a child's tenure in the first six grades of elementary school and how they can affect her/his information-seeking behavior.

The participants in this particular study were searching for information for a project on Canadian animals in winter using both print and electronic resources. This paper concentrates on the former. In the school library, it was observed that the students were not in the habit of consulting the card catalog before searching for materials but instead preferred to browse the shelves which in the non-fiction section were identified with simplified labels (e.g. Animals, Insects, etc.). As a result, they did not rely on the call numbers for locating suitable books; rather, they tended to use visual cues (e.g. book covers and shelf labels). For this particular study, at the teacher's request, relevant books were removed from the school library, shelved by call number and placed on a small bookcase in the classroom. This resulted in a rather artificial environment as it meant that it was not possible to observe the students search for print resources in the actual library. (Cooper (2002a) employed a similar technique in her study of the information-seeking behavior of seven-year-old children.) Yet, although it was somewhat artificial in terms of a public library situation, in the classroom setting this was a common practice and occurred even within the school library. For example, sometimes a teacher would request the library staff to select and remove books on a specific subject from the regular collection and place them together for easy access by the students in her/his class.

Even though there were relatively few books on the subject (under 100), observation over a period of weeks indicated that the students still had difficulties finding the books they wanted, often examining the covers of many different books before choosing one. It

should be noted that the students rarely read the titles of the books but instead opted to look for a picture of their chosen animal as an indicator of relevant information. Upon examining the book's cover and sometimes flipping quickly through the pages, if the child did not see a picture of the animal s/he wanted to investigate s/he would often return the book to the shelf and start the process again. Because the students relied so heavily on visual cues, very often they rejected books on the shelves that had information on the animal they were investigating simply because they did not find a picture. Similar behaviors were reported by Shenton and Dixon (2003) and Moore (2000). This also demonstrates the importance children of this age place on visual cues in helping them to locate relevant information (Cooper, 2002a, 2002b).

Observation of their searching behaviors in the classroom indicated that the students believed that the groupings would be consistent with their own thought processes. For example, if a student was looking for a book on bears, s/he expected that all books about different types of bears would be grouped together. This meant that a student who had found a book on polar bears but was looking for one on black bears often assumed that there were no other books to be found if s/he did not find a similar book beside the one s/he examined, when in reality there was another book located farther down the shelf. Since the books were classified and grouped according to a call number comprised of a simplified Dewey number (no more than two digits to the right of the decimal) followed by the first three letters of the (first) author's name, books on very specific animals were not always placed together on the shelf. After two weeks of re-shelving the entire "collection" according to call number, the books were then grouped according to specific subject (e.g. bears, rodents, large cats, etc.). This resulted in much more efficient browsing and retrieval by the students.

In terms of locating information within a book, in this study the rare times that the back-of-the-book indexes (or, for that matter, tables of contents) were consulted were only after a student had taken a book from the shelf to investigate it more thoroughly at her/his desk. Almost all of the children experienced difficulties consulting these metadata lists. Tables of contents tended to be too broad for the students to retrieve the specific information they required. For example, some of the students were observed making use of the contents lists to find information about their specific animal but with varied levels of success. A successful search of a table of contents was accomplished only in relatively short books where the contents list was more specific than in the larger books where they were far too general to be of much use in locating information about a specific animal. Even though in longer reference books the indexes would have been of more use to the searchers, the tables of contents were often consulted first due to their prominent position at the beginning of the book. Detailed back-of-the-book indexes were useful, but presented their own difficulties. Previous research has demonstrated that children have difficulties navigating through long alphabetical lists of index entries whether in print or online (Large, Beheshti, Tabatabaei & Nesset, 2009; Large, Nesset & Beheshti, 2008; Large, Nesset, Tabatabaei & Beheshti, 2008; Nesset, 2007; Shenton & Dixon, 2003, 2004a). This finding was also observed in this study. An example: a student was observed as he consulted the index of a large reference book for the word, "lynx"; the name of his chosen animal. Instead of starting at the letter "L" he started from the beginning of the entire index, slowly making his way through a few pages of dense alphabetical listings until he reached the correct letter. Then, as the second letter in 'lynx' is a 'y', rather than skipping down to the end of the entries beginning with the letter, "L" he laboriously examined each entry until he found the one for which he was searching. Had he been given more visual clues (e.g. the appropriate letter capitalized

and in bold typeface before each set of alphabetic entries) he might have been able to navigate the index much more easily and efficiently.

The difficulties observed in this study both with classification systems and indexing techniques highlights the question of who these techniques actually serve; the young students or the librarian. Since younger children comprise a user group that is unique in its information needs and information-seeking behavior (Nesset, 2008; Walter, 1994; Shenton & Dixon, 2004b) it follows that classification or indexing systems designed for much larger and broader collections and/or for older students and/or adults may not be appropriate. Although in school libraries, the Dewey Decimal System (or variants thereof) appears to be the most popular method of classifying non-fiction items, different methods of classifying materials have been developed over recent years in an attempt to respond better to young users' needs. Indeed, in some school libraries, the Dewey system has been dropped altogether in favor of such initiatives as the "bookstore model" which relies on grouping books together in terms of specific topic and/or author. In terms of printed indexes and tables of contents, new ways need to be found to accommodate children's inherent preference for, and reliance on, visual cues.

To conclude, for young elementary school students, print resources still remain an important means of accessing information but unless their information-seeking behaviors in these formats are recognized and accommodated, this may not remain the case. In order to keep up with changing trends in education and to reinforce the relevance that printed resources have in the education process, librarians need to work together with educators to design new ways to facilitate children's information-seeking behavior. As electronic resources become more accessible and easier to use, facilitating access to information contained in printed resources, especially for younger students who rely so heavily upon them, has become increasingly important.

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