This paper examines the following issues:

1. Is it possible to teach term selection?
2. What cognitive and reading comprehension skills are required in order to learn term selection?
3. What is involved in teaching term selection?
4. What are the responsibilities of the student vis-à-vis the teacher in the learning of term selection?

Term selection and indexing

Before examining these issues, we need to define term selection and establish certain assumptions about its application in indexing.

Term selection is the process of understanding the text information and then articulating that information in the form of main headings and subentries. The cognitive skills required for good term selection include reading comprehension, the ability to conceptualize, and the ability to articulate concepts in a concise and intelligible manner.

Term selection is essential to the indexing process. Poor term selection will result in an index that fails to provide users with complete access to the text information. While an inadequate index may contain all the names and organizations in the text, it may give access to little or, at best, limited conceptual information. Or the main headings and subentries may be so poorly worded and/or organized that the user is unable to identify where the needed information is listed in the index. Yet, for all its importance, teaching term selection is notoriously difficult.

Most indexing students recognize the importance of learning good term selection and are often frustrated at the perceived limitations of the term selection curriculum. Instructors, on the other hand, are frustrated with the complications of teaching term selection to students who struggle to learn and apply the techniques. And one result of this mutual frustration has been the growing assumption that indexing, specifically term selection, cannot be taught.

Is it possible to teach term selection?

If good term selection requires a strong set of cognitive skills, then the answer to this question becomes "it depends".

The ability to teach term selection depends on several interacting criteria. First, an instructor must be competent in understanding and applying term selection skills. The instructor’s competence is extremely important in the student learning process and cannot be taken for granted. In addition, instructors must feel comfortable interacting with student concerns and be willing to assess student work accurately. Again, these are concerns that cannot be taken for granted. There are numerous indexers who have superior term selection skills but, for a variety of reasons, would not make good instructors.

The third criterion of the term selection curriculum is the level of student cognitive abilities. This is vital to the learning process. If, as I have assumed, good term selection depends upon reading comprehension, the ability to conceptualize, and the ability to articulate concepts, then these cognitive qualities are also essential to learning term selection. Without these qualities a student will be unable to understand or apply the best term selection curriculum. Ongoing research on cognitive processes clearly establishes that there are inequalities even within the normal range of such abilities (Janssen et al., 2000). Students do not approach the term selection curriculum on an equal footing; some will have a tremendous cognitive advantage over others. Let us more closely examine the specific cognitive qualities necessary for good term selection.

Reading and cognitive comprehension skills

Reading comprehension can be defined as a covert cognitive process interlocked with the reader’s linguistic maturity and expectations. According to transformational theory it depends on (a) surface structure during which decoding occurs, and (b) the interpretation underlying the syntactic and semantic relationship of the sentence (Kleederman, 1976). Furthermore, studies show that reading comprehension is related to classification ability (Gillet and Richards, 1979; Hogan and Whitson, 1984). While there is a continuing debate over how much or even whether classification should be used in the indexing process (Mulvany, 1994), there is no question that the ability is germane to understanding term selection. Studies have also established an interaction between immediate memory span, category clustering, and reading comprehension (Powell and Wynn, 1976). Another study establishes a relationship between operational thought and reading abilities (Padak, 1982). It is apparent that numerous types of cognitive skills are intrinsic to reading comprehension.
During the course of teaching I have become aware of differences in student reading comprehension levels. There appears to be a link between reading comprehension and the ability to follow lesson instructions. Some inability to follow directions may be attributed to a lack of attention to detail and carelessness. However, in other cases the student is unable to comprehend the lesson directions accurately. I have also observed that a student’s failure to follow directions results in poor performance during the course.

The ability to conceptualize – to form concepts – is also necessary to the term selection process. According to Lin and Murphy (2001), concepts may be organized by similarities, by a kind of classification, or by external relations within scenes or events. They describe the first type of concept organization as ‘forming a kind (e.g. animal)’ and the second as external relations within events or themes (e.g. cake and candles). The focus of their study was on the latter – the thematic relation. Interestingly enough, thematic relations are more often found in children than adults. Lin and Murphy found that when adults use thematic relations there is a significant impact on their ability to construct meaning as well as on their inductive reasoning. They concluded that adults’ use of thematic relations strongly influences their conceptual representations.

So, exactly how does the use of thematic relations lead to good term selection and what are the implications for the indexing student? Lin and Murphy (2001) use ‘forming a kind (e.g. animal)’ as a type of concept organization. Animal species or genus classifications are examples of this ‘forming a kind’ organization. This type of classification is undesirable in a back-of-the-book index, though appropriate for database indexing. Good back-of-the-book index entries express the meaning within the context of the text rather than being simply a list of classifications. The index provides access points to text information and, as a result, the indexer must understand the text meaning in order to represent the information in the index accurately.

We define meaning as the message, or information, that the author intends the reader to receive. It is my belief that the ability to identify and express thematic relations is indispensable in, first, identifying meaning and, secondly, reconstructing that meaning in the index. For example, the thematic relations of animals in the context of ‘environmental issues’ might include entries such as ‘endangered species’, ‘poaching’, ‘species extinction’ and ‘pesticides’. The thematic relations of animals in the context of ‘pet ownership’ might include entries like ‘immunizations’, ‘selecting a pet’, ‘children’, ‘training’ and ‘breeding’. The thematic relations of animals in the context of ‘animal rights’ might include ‘animal testing’, ‘fur trade’, ‘cultural differences’ and ‘medical research’. Term selection can be seen as a four-stage process:

1. understanding the subject matter
2. identifying the meaning of the subject matter or topics (e.g. animal) in the context of the text message (e.g. environmental issues, pet ownership, animal rights)
3. identifying the thematic relationships between these topics and subtopics
4. reconstructing these thematic relationships as index main headings and subentries

It is evident, from the findings of the Lin and Murphy study, that using thematic relations is an uncommon trait in adults. Students with the ability to conceptualize using thematic relations have a distinct advantage in applying term selection, creating main heading/subentries groupings, and designing the index structure.

And finally, the ability to articulate concepts is essential to writing concise and understandable main headings and subentries. The process of creating an index is a form of writing. And, like all writers, the indexer must be able to write intelligible and credible phrasing for those entries. If the entries are poorly written or otherwise confusing, the index will be useless.

Indexing students should work on improving their reading and cognitive skills. However, such efforts need to be taken in addition to, not as part of, any indexing curriculum. Improving the cognitive skills of students is a task outside the scope of an indexing course.

What is involved in teaching term selection?

The first step in teaching term selection is to familiarize the student with the conventional indexing formats, including principles of cross-references and double posting. Instruction should be given on deciphering and interpreting publishers’ instructions. Students also need to be taught how to estimate index size and to consider the impact on term specificity. This kind of material is included in most indexing courses. The term selection curriculum should also include a reading list with material on selecting main headings and subentries (e.g. Anderson, 1987; Mulvany, 1994; Wellisch, 1995; and the current edition of The Chicago manual of style).

The second step is more challenging for both instructor and student. It is the application of term selection, usually in the form of indexing assignments. Practice indexes play an indispensable role in a successful teaching outcome, allowing the student to practice term selection and instructors to assess and give feedback. Such exercises are an ideal opportunity for students to try different approaches and refine term selection within the safety of an indexing course. Since term selection is, by nature, specific to text, individualized indexing assignments are particularly suited for term-selection development. This is also when cognitive skills become crucial to the learning process. The ability to comprehend the text material, conceptualize it, and then articulate those concepts into viable entries is decisive in learning how to create good entries.

What are the responsibilities of the student vis-à-vis the teacher?

As already mentioned, instructors have a responsibility to have competent indexing skills themselves. They should also feel comfortable interacting with students and assessing their work. Curriculum design is an essential component for the successful teaching of indexing. The teacher’s most important responsibility is to give substantial and constructive feedback to students. It is through feedback that
students can learn to assess their own work and improve their term-selection process. Many students are nervous about beginning an indexing course. Even if they have experience in the publishing industry, most have never attempted to index and are intimidated by the process. Instructors should be accessible and responsive to student questions and concerns.

Students also have certain responsibilities during an indexing course. They certainly have a responsibility to come to the course with a minimum of reading, language and writing skills. And, as previously discussed, students with highly developed cognitive skills are at a distinct advantage. Attention to the assigned reading and instruction will also aid the learning process. And, most important, students need to actively seek and accept feedback about their indexing assignments so that they can improve their work.

Conclusions

In this paper I have presented arguments supporting my premise that successful teaching of term selection requires students to have certain cognitive skills. There is ample research evidence to suggest that there will be inequalities of cognitive skills among students. These cognitive differences may explain why some students have an easier time learning term selection than others. Certainly instructors can facilitate the learning process by being a good source of information and giving complete feedback on practice indexes. The learning of term selection then becomes a collaborative effort on the part of teacher and student, with both bringing indispensable contributions to this process.

References


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