Looking at Textbooks

Guest Columnist: Kathy O'Connell

Within the growing field of universal design, buildings and interior spaces, playgrounds and landscapes, tools and utensils, are all being designed from their very inception to accommodate individuals with a wide range of abilities and disabilities. Building flexibility into these designs results in greatly increased accessibility for people with disabilities and improved products and spaces for all people.

In the field of education the same need for universal design is evident. Within the last decade there have been marked improvements in the design of the physical structures of American schools – they are far more physically accessible than the same spaces of 20 or 30 years ago.

But what of the learning materials that populate the classrooms in those school buildings? How accessible and accommodating are those for students with disabilities? As a part of a report for the National Center on Accessing the General Curriculum, we investigated what kinds of features are built in to the most common materials in the classroom – textbooks.

Looking at Textbooks

Most people are familiar, either from personal experience or from that of their children, with the textbooks students are using in school. These books deliver content (e.g., collections of stories, examples, and practice of skills, review questions, and illustrations and diagrams) directly to students.

The invention of the printing press made it possible to make many identical copies of the same book, one for every student. A corollary is that every student gets exactly the same book.

But students are not exactly the same. Each differs from the others in small ways, and some differ from others in very dramatic ways. Those students that we often label disabled (e.g., students who are blind, who have physical disabilities, who have learning disabilities) have great difficulty using textbooks as they currently exist. The same textbook that works for some students often erects barriers for students with disabilities. They offer few accommodations for individual differences, nor do they provide any built-in differentiation or flexibility that make them accessible to the full range of students who must use them. What differentiation, accommodation, and flexibility that does occur is found in the teacher edition.

Looking at the Teacher’s Edition

Many people are not familiar with the teacher editions that accompany most elementary and secondary textbooks. A teacher edition contains the range of information that a teacher might need on hand to deliver and support instruction for the content in the student book (e.g., background information and relevant vocabulary, objectives, lessons, and models for skills and strategies instruction; answers to the questions and practice exercises in the student text; and special "features" such as homework assignments, links to other content areas, and cross references to other program components). Publishers develop the content and methods for delivering this content to meet standards or specifications issued by local and state education departments as well as by national professional educational groups.

There is an additional burden that teacher editions are increasingly asked to bear, that of providing recommendations and suggestions, along with specific alternative activities, for adapting content and instruction to meet individual student needs. Whatever aspects of universal design are included in classroom materials typically are found only in the teacher's edition.

In order to examine the kinds of accommodations and adaptations for students with special needs that typically appear in teacher editions, we analyzed a sample of the teacher editions for programs across publishers, grade levels, and subject matter. We looked at both the frontmatter (i.e., the introductory pages that highlight for reviewers the methods and materials in the program) and the body of each teacher edition to determine what curriculum adaptations and enhancements to accommodate different learners are included in the materials.

Sample

We examined teacher editions for the elementary grades, one each in reading and mathematics, and two for secondary grades, one each for American history and biology. The teacher editions were from major textbook publishers, all with the most recent copyright available to ensure comparability based on current state standards. Our intent was to determine the range of offerings of publishers, not to cite relative merits of each publisher's approach.

Methods

We examined both the frontmatter and the content of the most recent copyright of the teacher edition available in each of four content areas. We compared what the publisher said they did to accommodate different kinds of learners in the frontmatter, and what the publisher included in the body of the text to accommodate different kinds of learners. In every case, we noted which populations of students each publisher
addressed as well as what kinds of materials they provided (e.g., activities or additional materials, print materials or computer, audio, videos). We also noted the labels used to identify activities or accommodations for different learners and the frequency with which the accommodations or labels were included.

**Summary of Findings**

It is difficult to make generalizations about the supports provided by particular publishers based on information in this survey. In a publishing house, different groups of individuals work on different texts. As was evident in the comparison of secondary history and biology texts, a publisher that provided the most support for teachers with diverse classrooms in one subject were sometimes the same publisher that provided the least support in another subject. However, all materials and suggestions for activities or modification that were found, were referenced in the teacher editions only. Any adaptation or support, then, depends on the teacher to provide it for the student.

Some other observations follow:

1. All provided mention of special populations although each used slightly different terminology. The target populations fell into three general groups: below level learners, gifted and talented learners, and ESL/bilingual learners. It was interesting to note that only one publisher labeled activities, not students. These activities were labeled language development, reading support, and cultural connections.

2. Suggestions for incorporating students with various characteristics into the classroom usually took the form of a page or two of general suggestions in the frontmatter; divorced from the specific activities and resources in the text itself. Rarely was there information about how to incorporate a specific activity in a diverse classroom.

3. Although some publishers mentioned certain specific populations and support in the frontmatter of a given teacher edition, they provide resources for altogether different populations in the body of the text itself.

4. Some publishers included resources that research has found to be useful for different populations, such as technology components, manipulatives, or concepts maps. Yet most did not label these resources as appropriate for students with special needs.

5. Those publishers that did provide support for different populations often did so in one of three ways:
   - They provided modifications or adaptations of existing activities; for example, an activity that required using new vocabulary might suggest pairing an ESL student with a fluent English speaker.
   - They provided additional activities, for example, a lesson on identifying adjectives would suggest simpler sentences for students having difficulty with the lesson.
   - They provided additional materials for the special populations, such as audiocassettes, leveled libraries, duplicating masters, CDs or videos for students with special needs.

6. Within a content area, all publishers included similar types of support. Yet individual publishers often included different types for different content areas. This difference is possibly due to state guidelines that influenced the program. Most often each type of material offered was designated for a specific population, (e.g., special activities for students with vision impairments).

7. The few publishers that did include and label activities as appropriate for more than one population often unintentionally made assumptions about the groups. For instance, in several texts, no activities listed as appropriate for students acquiring English were ever at a high, gifted, or challenge level.

8. In general, activities or references to materials were not well integrated throughout instruction. Often there was support for part of a lesson or single activity only, making it difficult for a teacher to make smart choices for differentiating instruction.

**The Problem that Publishers Face**

The methods of individualizing instruction described above are obviously inadequate. As the aggregate of information grows and methods of instruction are researched and refined, publishers face the task of including a greater variety and amount of information and instructional supports, and for a broader spectrum of students.

**Conclusions for a Better Future**

What is striking about the existing model of accommodating the needs of diverse students using the same textbook is that all of the information to do so is evident in the teacher edition only. The student edition remains exactly the same for each student; even the alternative versions in large print or in Braille. Even then, these versions often arrive in the classroom long after the material has been covered.

The future of universal design for learning cannot reside exclusively in the teacher edition, there is not enough space. The textbooks themselves must carry the burden of individualization and accommodation. This is impossible to accomplish in the world of printed books. But in the new world of digital textbooks, content and presentation can be separated – the same content can have many different displays. With that technology rather than print as the basis of curriculum delivery, different kinds of supports and accommodations for many different individuals can be included in the digital student textbook. That is the world where successful universal design for learning can begin.

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