

**HERP PROJECT**  
**CURRICULUM, TEACHING AND LEARNING COMPONENT**  
**GUIDANCE ON HOW TO FACILITATE THE REVIEW AND SELECTION OF**  
**TEXTBOOKS AND**  
**RELATED INSTRUCTIONAL AIDES**  
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**Introduction**

Selecting appropriate textbooks which fit the HEI's teaching and learning policy and student learning needs is one of the key components of improvement of quality of teaching and learning and effective teaching practices.

A key feature of effective teaching is the selection of instructional materials that meet the needs of students and fit the constraints of the teaching and learning environment. There are many pressures for educators to match the audiovisual stimuli of television, computers, and electronic games with which students are experienced. The speed of personal computers and the ease of authoring systems permit instructors to design and customize computer-based audiovisual presentations and to develop computer-based assignments for their students. The tremendous increases in rates of information transfer, access to the Internet, and posting of materials on the World Wide Web give instructors and students an almost limitless supply of resource material. In addition, the ease of electronic communications between an instructor and students, and among students, provides new opportunities for sharing questions, answers, and discussions during a course. At the same time, there remains a major role for student use of textbooks and for instructional use of demonstrations, films, videos, slides, and overhead transparencies.

Carefully scripted presentations and activities run the risk of emphasizing teacher delivery rather than student learning. Carefully planned and prepared instructional resources sometimes tempt instructors to race ahead and to cover more. The rapid-fire presentations combined with audiovisual overload can tempt students to remain intellectually passive. One way to avoid this is to intersperse activities which assess student understanding and encourage reflection and critical thinking. Another possibility is to reduce the pace of the class session, by pausing periodically to invite questions.

As stated in [1], instructional resources usually fall into one of two categories: student centered and teacher-centered. In the student-centered model, instructional resources can be used for tutorials, problem solving, discovery, and review.

## Using textbooks in teaching

When the teaching and learning activity is dominated by student centered manner, textbooks are important supplementary means for teachers lecture. Moreover supply and quality of textbooks are poor and English language proficiency of students is not in a sufficient level, teachers often transfer directly materials and information found from textbooks. Unfortunately this makes teaching and learning a teacher-centered. However existence of enormous marked of textbooks written in English, German and Russian besides textbooks written in Mongolian language is a big advantage.

There several types of obtaining textbooks written in foreign language including: purchasing and renting printed textbooks, purchasing and renting e-textbooks.

According to McKeachie (McKeachie 1994), for many people, visual processing (i.e., reading) is faster than auditory processing (i.e., listening to lectures), making textbooks a very effective resource and this indicates influence of textbooks in learning.

One important aspect of any science class is helping the student to make sense of the mass of information and ideas in a field. This can be done by showing students how to arrange information in a meaningful hierarchy of related major and minor concepts. Well-chosen textbooks help students understand how information and ideas can be organized.

Textbooks have several major limitations. Although a well-written book can engage and hold student interest, it is not inherently interactive. However, if students are encouraged to ask questions while they read, seek answers within the text, and identify other sources to explore ideas not contained in the text, they will become active readers and gain the maximum benefit from their textbook. In order to meet the needs of a broad audience, texts are often so thick that they overwhelm students seeking key information. Texts are often forced to rely on historical or dated examples, and they rarely give a sense of the discovery aspects and disorganization of information facing modern researchers.

Research on the effectiveness of textbooks has focused on two general areas: text structure and layout. The study of text structure has focused on how the reader builds cognitive representations from text. Recent work categorizes the structure of science text as either a proof-first or a principle first organization (Dee-Lucas and Larkin, 1990). The proof-first organization develops a proof or argument that builds to a conclusion, usually in the form of a fundamental concept, principle, or law. In principle first organization, a concept or principle is stated explicitly, then the evidence needed to support it is presented. The prevalence of the proof-first structure in contemporary textbooks may be due to the fact that most college science textbooks are written by scientists with little formal training in education. They present science the way it is practiced by experts. However, studies by Dee-Lucas and Larkin (1990) indicate that

the principle-first structure is more effective for long-term retention and understanding by novice readers.

Layout and illustrations are important predictors of a text's effectiveness. One of the most effective types of illustration, especially for students with low verbal aptitude, is a simple multicolor line drawing (Dwyer, 1972; Holliday et al., 1977). Although more visually appealing, and more prevalent in the current textbook market, realistic drawings or photographs are less effective at enhancing student learning. The organization of information on a page also affects student learning (Wendt, 1979).

### Selecting textbooks

Before selecting a text, it is important to know what books are currently on the market. Colleagues who teach the same or a similar course (in your department or at other institutions) are good sources of ideas and information. Your campus bookstore's textbook manager can provide the name and phone number for textbook sales representatives from many different companies. Science education publications carry advertisements from major publishers, and some feature a book review section or annual book buyer's guide. Professional society meetings also provide a chance to talk to publishers and see their new textbooks. Many companies will supply review copies to potential textbook adopters, in return for information about the course in which it might be used. There are a number of factors to consider when selecting a textbook. To be of greatest value to students, the objectives of a textbook must be consistent with those of the course. Authors often try to meet particular objectives in their books, and these may differ among the choices. Skim the preface to see whether you share the author's approach to the subject. Consider how the table of contents aligns with your course syllabus and teaching philosophy:

- Is coverage of topics broad or specific?
- Are key principles stated precisely and clearly?
- Are the explanations and interpretations consistent with your teaching style?

In addition to content, evaluate the text structure and layout as discussed in the previous section. Textbooks vary greatly in their level of difficulty with respect to readability, depth of theoretical treatment of information, and complexity of end-of-chapter problems. Colleagues who have adopted the book can provide insight about these issues. They are also helpful for determining whether a textbook contains errors, which have been shown to have a large, negative effect on student learning (Iona, 1987). The text itself is rarely the only resource available to the students and instructor. Many publishers have a separate study guide, often with chapter summaries and solutions to textbook problems. Upon adoption of a text, publishers often provide (or offer for sale at a reduced price) transparencies, slides, and computer test banks. Software to accompany textbooks is also becoming more popular. This software can vary considerably in quality and usefulness, so you may want to ask for a demonstration disk before purchasing it or requiring that students purchase it.

Once you have chosen a textbook, help your students use it effectively. A number of suggestions are given in the sidebar. Allow time during the first week of class to introduce the text and outline your strategy for its use. Encourage your students to use the text by asking them questions that require higher order critical thinking skills drawing on and extending its material, methods, or examples. Simple factual questions are of little value to long-term retention or true understanding. Higher order questions require students to think about the readings, ask questions, integrate material, and develop answers in their own words.

When appropriate, help students to understand that a textbook is not always the final authority on a topic, particularly in fields where new information is discovered at a very fast rate. Students may learn that it is okay to question the text if the instructor also openly disagrees with some interpretations or approaches in the book. The instructor can use different interpretations as examples of unresolved problems and illustrate critical thinking by presenting reasons and evidence for differing opinions. However, be careful not to develop such a negative attitude toward the text that students stop using it, or question the teacher's judgment for choosing it.

#### Suggestions to Students on How to Use a Textbook

- Study assigned readings before each class. Be prepared for questions, references to those readings, and other activities building on that material.
- Take notes in outline form as you read the text, indicate key points with a highlighter, note connections between sections, make lists of questions that come to mind or uncertainties, and pause frequently to summarize the key points of each section or chapter.
- Compare your lists of questions and your lists of key points with those of others in the class.
- Bring questions to class or recitation sections and ask the instructor to answer them.
- Review the text after the class to gain additional perspective.
- Look in supplemental texts to see how other authors present similar topics, especially if the points seem vague or unclear in the primary text. Remember that often the presentation that introduces new information, concepts, and vocabulary will seem foreign. Another presentation with a slightly different twist may help you see something differently or may confirm that you have identified key points.
- Review the text before exams and quizzes or periodically throughout the term.
- Study and review worked examples before attacking the homework problems. Read over questions, exercises, and problems that are not assigned and think about how to answer them.
- Group questions or problems by the topics they address or the methods required to solve them.
- Summarize by writing your own problems.
- Consult worked examples in other texts.

## **What If I Can't Find the "Perfect" Textbook?**

After a thorough search, you may find that the book you want simply does not exist. Publishers have realized this and have taken steps to customize their products to meet faculty needs. It is possible to select certain chapters of a given book to be bound as a volume. It is also possible to combine chapters of different books from the same publisher. This approach offers considerable flexibility, given that many smaller textbook publishers are now subsidiaries of larger corporations. Another option is to combine resources from several different publishers and to offer students a "coursepack" instead of a textbook. Many college bookstores and copy centers will work with faculty members to collect chapters, readings, and supplements. They obtain the required copyrights, and bind and sell custom-designed materials tailored for a particular course.

## **Textbook printing companies**

Here given list of companies which print textbooks. We also cited web addresses of companies so it's possible to contact with them and ask for sample copies. Some companies put certain criteria for university staff to send sample copies.

Most companies provide e-book selling and renting services and offer special discount or services for universities.

### **1. McGraw Hill Ryerson**

Web addressess: [www.mcgrawhill.ca](http://www.mcgrawhill.ca)

Address for sample copy

request: <http://www.mcgrawhill.ca/customer+care/review+and+comp+copies/index.php>

### **2. Nelson Education**

Web addressess: [www.nelson.com](http://www.nelson.com)

Address for sample copy

request: <http://hed.nelson.com/nelsonhed/requestReviewForm.do>

### **3. Oxford University Press**

Web addressess: [www.oup.com/ca](http://www.oup.com/ca)

Address for sample copy request: <http://www.oupcanada.com/request.php/>

### **4. Pearson Education Canada**

Web addressess: [www.pearsoned.ca](http://www.pearsoned.ca)

Address for sample copy

request: [http://www.pearsoned.ca/highered/main\\_content/instructor.html](http://www.pearsoned.ca/highered/main_content/instructor.html)

### **5. J. Wiley**

Web addressess: [www.wiley.ca](http://www.wiley.ca)

Address for sample copy request: <http://ca.wiley.com/WileyCDA/Section/id-302340.html>

## **6. W W Norton**

Web address: [www.wwnorton.com](http://www.wwnorton.com)

Address for sample copy

request: <http://books.wwnorton.com/books/aboutcontent.aspx?ID=4683>

## **7. Harper Collins Canada**

Web address: [www.harpercollins.ca](http://www.harpercollins.ca)

Address for sample copy request: <http://www.harpercollins.ca/services/academic-services>

## **8. Penguin Group**

Web address: [www.penguin.ca](http://www.penguin.ca)

## **9. Random House (for Vintage, New Amer Library, Knopf)**

Web address: [www.randomhouse.ca](http://www.randomhouse.ca)

Address for sample copy request: <http://www.randomhouse.ca/academictype/index.html>

## **10. University of Toronto Press**

Web address: <http://www.utppublishing.com>

Address for sample copy

request: [http://www.utppublishing.com/contact\\_edc.php?sectionID=90&subsectionID=8&pageID=1](http://www.utppublishing.com/contact_edc.php?sectionID=90&subsectionID=8&pageID=1)

## **11. Canadian Scholars' Press**

Web

address: [www.cspi.org](http://www.cspi.org)

Address for sample copy request: <http://www.cspi.org/instructors>

## **12. Springer publishing**

Web address: <http://www.springer.com/gp/instructors>

Address for sample copy request: <http://www.springer.com/gp/instructors/online-exam-copies>

## **13. Их дээд сургуулиудын хэвлэлийн газрын жагсаалт, веб хуудас**

<http://guides.emich.edu/c.php?g=188148&p=1871736>

## References

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2. Dee-Lucas, D., and J. H. Larkin. 1990. Organization and comprehensibility in scientific proofs, or "Consider a Particle p. . . ." *J. Educ. Psychol.* 82:701-714.
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2. McKeachie, W. J. 1994. *Teaching Tips: Strategies, Research, and Theory for College and University Teachers*, 9th ed. Lexington, Mass.: D. C. Heath and Company.
3. Wendt, D. 1979. An experimental approach to the improvement of the typographic design of textbooks. *Visible Language* 13:108-133.