Integrating Technology for Meaningful Learning

(Book review)

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Textbook details:
Integrating Technology for Meaningful Learning, Second Edition
Grabe, Mark (Professor and Head, Department of Psychology, University of North Dakota) and Grabe, Cindy
(Technology Facilitator, Grand Forks Schools, North Dakota)
1998, Houghton Mifflin Company, 222 Berkley Street, Boston, MA 02116 USA
(ISBN 0 395 87136 0)
Pages, 451; parts, 3; chapters, 11; glossary; references; chapter summaries; and graphics.

Integrating Technology for Meaningful Learning (ITML) was written to guide and assist teachers who are apprehensive toward the use of educational technology in their learning designs to being excited about its applications in the teaching/learning process. The goals of the authors were as follows:
1. present different roles technology may play in classrooms;
2. provide examples of each role;
3. inform teachers of applications to use in implementing the roles;
4. suggest ways to initiate applications with students; and,
5. promote teachers' thinking and reflection about uses of technology (p. xx).

The authors emphasize technology-facilitated classroom organizations and activities that stimulate students' cognitive activities. The Grabe's coined the acronym ACTIVE to remind readers of the learning tasks and mental activities of students. The acronym is used as a guide or reminder in the margins throughout the work.
A active
C cooperative
T theme-bases
I integrated
V versatile
E evaluation

It was the authors' intent to write a book that would be practical for teachers to implement taken largely from regular types of classroom settings and not from various high technology demonstration sites or centers. It appears that the writers achieved their goals.

Innovative and commendable features of the textbook include but are not limited to presenting scenes, screen images, and programs from contemporary school settings; providing information in focus boxes that appear throughout the text; introducing emerging technological advances that are available, but not widely distributed; contributing assessment ideas; including a large number of application ideas for students of different ages and levels of maturity and abilities; ending each chapter with several innovative, proven ideas for activities; and listing resources that will present even more information on the topic of each chapter.

Parts and Chapters

Part One of ITML contains Chapters 1 and 2 in which the authors introduce the readers to roles technology plays in education and its future. The major themes contained in the textbook, namely the tools approach, activity-based approaches to learning and teaching, active roles for learners, multidisciplinary-based programs, cooperative learning environments, and teachers as facilitators (and change agents), are all found in the early chapters of the textbook as well as the manner in which educational technology fits contemporary educational models or designs.
In addition to the coverage of the uses of technology in Chapters 1 and 2, the writers also give attention to the inequities in technology use, present an argument for change in points of view toward education, and urge for a revision to the way in which technology is used in schools. There are thought provoking ideas presented periodically throughout the work.

Another feature of the early chapters found in Part One is that of cognitive models in learning, fundamental properties of mental activity, metacognitive control functions, and conceptual models of active learning, among which is a very informative treatment of suggestions by constructivists for appropriate learning experiences.

Part Two of ITML consists of Chapters 3 through 10. The emphasis is on categories of software, frequently used computer tool applications, electronic mail, World Wide Web browsers, and multimedia devices. Uses of instructional software for subject matter learning, learning from programming experiences, using tools such as word processors (et. al.), implementing internet activities, applying multimedia skills in the classroom, learning to work with graphics and audio devices, and learning from student projects, all comprise Part Two of the work. A reader may assume that any use of educational media in the area of computers, computer software, and peripherals will be contained in this section in one way or another along with innovative ways of introducing, implementing, and pursuing valid learning experiences.

Finally, Part Three and its single, Chapter 11, conclude the text portion of Integrating Technology for Meaningful Learning. Contained therein are issues and concerns related to using educational technology responsibly. Among those items are equity concerns or questions, issues related to copyrights and intellectual property, and computer viruses. Some vital issues are presented.

Summary

Although the textbook is lengthy, it is an anthology that contains almost anything and everything that was known about educational media at the time it was submitted for publication. However, as indicated by the authors early in the work, things are changing so quickly in the area of educational technology and computer science that by the time the book was distributed, some of the information was outdated. Still, much of the information in terms of learning theories, classroom activities, assessment, just to mention a few items, will be of use for many years to come. This is a valuable resource to educators at all levels who make use of educational media.