



DIRECTIONS

Technology in Special Education

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June 2001

New standards, new pressures: Can computer use survive Back-to-Basics?

by Sue Swezey

Source: The Catalyst, Spring 2001, Volume 17, #3

New legislative imperatives have placed new demands upon teachers using technology in the classroom. Whether in regular or special education, teachers face increasing pressure to meet basic standards in academic subjects. Can the creative potential of technology be preserved? No one has all the answers, but in the following article experts share their concerns and three recent books provide suggestions - for those who have time to read them...

As if the daily business of education were not challenging enough, today's teachers are caught in the crossfire between opposing forces. On the one hand, the use of technology in the classroom has fostered a powerful thrust towards open-ended, student-centered learning. New opportunities are especially rewarding in special education, where technology has made full inclusion possible for many students. Teachers are encouraged (sometimes forced) to master computer and Internet and to design radically new materials.

On the other hand, teachers in both regular and special ed are faced with increasing pressure to raise standardized test scores by traditional methods. Recent changes in IDEA (Individuals with Disabilities Education Act) require children with disabilities to participate in state and district assessments, with appropriate accommodations if necessary. IEPs are increasingly based on proficiency standards which must be met (or at least appear to be met...)

Judging from the volume of parental clamor for students to become computer literate, technology would seem to be the all-purpose solution to educational shortcomings. Yet at the same time, the best use of technology is far removed from the drill and practice needed for improved test scores demanded by those same parents. Federal funding is increasingly based



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upon test scores, and some states, such as California, have initiated an elaborate system of bonuses for improved performance and penalties for backsliding, increasing the pressure to “teach to the test.”

Compounding the pressure of standardized testing/assessment is the simultaneous drive for smaller class sizes. In California and elsewhere, legislative mandates to reduce class size to 20 have resulted in an instant shortage of qualified teachers and acute lack of classroom space, with many special education classes rendered homeless. What’s a teacher to do?

The Experts Speak

A valuable perspective may be gained by looking to the UK, which is a step ahead in implementing both IT (instructional technology) and standardized testing on a nationwide basis. According to Dr. David Hawkrige of the Institute for Educational Technology of the Open University, the UK has invested heavily in IT and related teacher training, “so that the National Curriculum, which includes a good deal of use of IT, and which sets clear academic standards, can be “delivered” properly.” He notes that teachers in England were literally paid by results in the 19th century: “the inspector came, tested the children, and paid the teacher (or not). The tests are much more elaborate now; probably more valid and reliable, but still fail to serve the interests of large sections of the community. The Open University is the best example I know of the invalidity of school exams in predicting future performance!”

Regarding class size, Hawkrige goes on to say that “The UK is also expanding pre-school and reducing class sizes (though the research is unclear on the pedagogical rationale for this), but is not doing anything so stupid as to cut class size at a stroke so that thousands of unqualified teachers have to be appointed.”

A slightly different perspective is provided by *Catalyst* contributor Dr. Richard Riedl, who comments that there is a “pretty strong body of evidence (starting with meta-analyses of the 60s and 70s) that indicate the significance of small class sizes for learning. (It seems the improvement doesn’t show up until we drop below 16 or 17 students per class, so I am not sure what the latest push is going to really do in a system built to handle 25 students per class).”

“There is also a fairly large body of work indicating the importance of school preparedness (which used to be assumed as a by-product of the ‘successful’ nuclear family), offered by good preschool programs for children who come from homes that don’t provide that preparedness in the degree necessary.”

However, Riedl quickly offers a caveat: “As a consumer of educational research I will not stake my reputation on the validity of the research I am referring to above. The studies are used constantly to justify the latest movements: smaller class sizes and more preschool. For the most part I find educational research to be exceedingly flawed and allowing only the lightest of inferences to the broader issues of education. How’s that for a hedge?”

DIRECTIONS

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Publisher & Editor in Chief

Janet P. Hosmer

Editor

Kathy S. Knight

Technical Editor

Chester D. Hosmer, Jr.

Regular Contributors

Lorianne Hoenninger

Susan Lait

DREAMMS FOR KIDS, INC.

273 Ringwood Road

Freeville, NY 13068-5606

VOICE: 607.539.3027

FAX: 607.539.9930

Greetings@dreamms.org

www.dreamms.org

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Recent Books Worth Mentioning

If research is vague and the latest education mandates are based on grass-roots and legislative pressure, how can teachers do anything more than scramble to prepare for assessments? What happens to enthusiasm and innovation, particularly in the application of technology which concerns us here?

Three recent books may shed some light on the promise of technology and how its potential creativity may survive in an increasingly dogmatic educational climate. The first, *Educational Computing in the Schools*, is a collection of essays edited by Jay Blanchard, Professor of Education from Arizona State University in Tempe, AZ. Blanchard observes that society regards technology as a "fix" for all educational challenges and cautions that, in the future, educators who have no command of technology will be dependent upon those who do. The 15 writers whose essays comprise the book are both skilled writers and outstanding practitioners in their various fields, with particular emphasis on the use of technology in fostering literacy.

One minor problem with this book bears noting, as it may discourage the reader at the outset. Blanchard's enthusiasm is so great that, in my view, he has stumbled into a trap of his own making with the very first sentence of the book: "Education is the most erstwhile colony in the kingdom of technology" (p. 1). As if that statement were not puzzling enough, the introduction concludes in the same vein: "The kingdom of

technology is here. It seems to be the collective hope of this volume that the erstwhile colony of education will play an important role in preparing students to assert themselves in this emerging technological kingdom" (p. 4).

I have two concerns about these statements. One is that "erstwhile" actually means "former," surely not the author's intent. The word is sometimes used colloquially as "would-be" and perhaps that is what he intended, though e-mail inquiries have not led to enlightenment. The greater problem is that, in my opinion, technology should be seen as serving education, rather than the other way around. Such boundless optimism can result in backlash when technology seems to promise more than it can deliver. My observations may seem like nit picking, but the opener could turn readers away from an otherwise valuable and interesting book.

A second book, *NetSavvy: Building Information Literacy in the Classroom*, is a clever attempt to devise a clearcut method to help teachers make best use of the Internet. The Internet itself can be an additional stressor due to its formless nature and seemingly limitless volume of material, and some educators are overwhelmed at the prospect of incorporating it into already difficult schedules. The authors dub this syndrome "InfoWhelm" and sympathize with those who suffer from Information Dysfunction Disorder (IDD), categorizing its victims as *informationally oblivious*, with "a passive, accepting mentality that takes as gospel almost anything that comes out of a TV, radio, magazine, or computer;" *informationally paralyzed*, "overcome by the sheer

amount of information or frozen by fear of new technologies;" or *informationally dyslexic*, "bogged down because they are often confused as to how to view, process, analyze, authenticate, or apply (data), or (because) techno drool and technolust sidetrack them" (p. 7). Their proposed solution is strong medicine: creating entirely new lesson plans. The authors devise a strategy for organizing and presenting Internet information, both for teachers and students, and the bulk of the book sets forth their method. While at first glance their approach might appear to be yet another "recipe" to be followed step-by-step, it does provide a workable framework and can accommodate creativity as well as more conventional academic materials.

The third book, *Using Technology to Increase Student Learning*, explores the efforts of a traditional school to meet both state requirements and the promise of the Information Age. Author Linda Resken is principal of Walt Disney Elementary in Burbank, CA, a multi-ethnic school in a poor area which was transformed into an award-winning model technology program as well as a California Distinguished School. Resken places considerable emphasis on the role of the principal in fostering staff involvement, rather than as boss dictating policy. Interestingly enough, she discredits the notion of financial incentives for teachers to improve performance, a concept derived from Skinner's work with rats! "Current educational management has applied Skinner's theories by motivating educators...through giving extrinsic rewards (financial incentives) or punishments (competency exams) to

ACCESSIBLE LEARNING

by Lorianne Hoenninger

Many students with learning disabilities experience difficulty with the decoding and comprehension of written text. These difficulties have become more acute in the past few years, as in response to new state mandates, academic reading demands have intensified. Many parents find themselves attending middle school again, as they spend numerous hours reading textbooks and novels aloud for their children.

Schools often employ books on tape as a compensatory strategy. "Reading for the Blind and Dyslexic" is an organization, that for a nominal fee, records textbooks onto special, 4 track audiotapes. Through the use of special tape recorders available through the Suffolk Library System's Talking Books program, students can listen to their textbooks independently. The Talking Books program also provides, free of charge, a variety of novels and short stories on tape, that students can enjoy during leisure time. Books on Tape is an excellent program. But as anyone who has tried to listen to the tapes will tell you, discovering exactly where you are on the tape at any given moment is difficult, as there are no visual referents.

Today, another option is becoming increasingly available, E-text. E-text is simply a text file saved on the computer. E-text can be created by typing or scanning in text, or by downloading already saved files from the Internet. Through the use of software designed to support the reading of students with learning disabilities, such as Kurzweil 3000 from Kurzweil, WYNN from

Arkenstone, Wordsmith from TextHELP or HelpREAD (freeware) from <http://www.helpread.com>, saved text can be read aloud by the computer to the student. Word-by-word highlighting, variable text size, phonetic, auditory spell checkers and talking dictionaries further support the reading/writing process. Scanning textbooks into the computer can be as laborious a task, however, as actually reading the textbooks aloud. Many schools use volunteers to facilitate this process or purchase special computer systems. Before starting the process of scanning a book, it is worthwhile to check with the publisher as to the availability of a digitized version, as some states now require textbook publishers to provide digitized versions of their books to schools that request them. Finally, families and professionals should also explore the Internet for e-text versions of literature. Most public domain material has already been digitized and is available on the Internet for free. Edgar Allen Poe's works, for example, can be downloaded and read aloud with the click of a mouse.

The following list of Books on Tape and Internet E-Text resources was researched by David Jaffe, President of the Computer Applications SIG of RESNA. This list will be available on my website at <http://members.nbc.com/ALTA.1>, with updates as new sources become available. If you have any questions, do not hesitate to email me at accessiblelearning@erols.com.

Books on Tape: Recording for the

Blind & Dyslexic - 800/221-4792
<http://www.rfbd.org>

Internet Talking Bookshop
<http://www.orma.co.uk/intabs.htm>

Books on Tape - 800/626-3333

National Library Service for the Blind and Physically Handicapped - Library of Congress
<http://lcweb.loc.gov/nls/nls.html>

Digital Libraries: Institute for Learning Technologies' Digital Texts - E-text source for academic text.
<http://www.ilt.columbia.edu/academic/digitexts/index.html>

Gutenberg Project - "fine literature digitally re-published"
<http://promo.net/pg>

BiblioBytes - hundreds of free books to download; others to purchase;
<http://www.bb.com>

Camera Obscura - E-text sources
<http://www.hicom.net/~oedipus/etext.html>

Carrie: A Full-text Electronic Library - Text for Adults
<http://www.books.com/scripts/lib.exe>

Electronic Library - A free public service for the dissemination of electronic books.
<http://www.books.com/scripts/lib.exe>

Hanover College History Web Site Writings from literature, philosophy, politics, theology, and science.
<http://history.hanover.edu/texts.htm>

Children's Literature Web Guide - "an attempt to gather together and

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Oh, the Places You'll Go with E-Text

A Brief Adventure Exploring E-Text and Universally Designed Instruction

By June Behrmann

Source: *Teaching Exceptional Children*, Vol. 33, No. 5 May/June 2001

On March 2, Read Across America Day, CEC and CAST (Center for Applied Special Technology) celebrated the birthday of Dr. Seuss with the National Education Association by urging teachers to explore the ways that universally designed instruction increases access to the general curriculum. The full array of ideas from "Oh the Places You'll Go with E-Text!" is found at www.cast.org under the National Center for Accessing the General Curriculum. The following is excerpted with permission.

Teachers, if you are not yet regularly using electronic text, and especially e-text combined with beneficial features that can stretch your students' learning horizons, the National Center on Accessing the General Curriculum (NCAC), a project funded by the U.S. Department of Education, offers exciting ideas to help you make reading come alive for learners who have difficulty working with traditional books in print.

On its Web site, teachers can explore the new worlds of E-text, universal design in education, and other inclusive teaching techniques that trained teachers are using to enhance instruction, especially for students who learn in diverse ways. Universal Design for Learning (UDL) is an evolving and flexible instructional approach that helps teachers create more than one avenue for students to

learn and share what they know. It is based on new brain research, next stage technologies, and time-honored teaching practices.

UDL helps teachers provide an appropriate education for students with diverse backgrounds, skills, abilities, and interests, even when they are part of large groups and when they learn differently from one another. Built-in flexibility enables educators to tailor, to personalize, to differentiate, and to individualize teaching and learning.

While no curriculum is as yet fully universally designed, much is known about reforming classroom instruction using this approach so that students can connect with the curriculum, benefit from it, and measurably improve their performance. UDL helps meet mandates under Congress's 1997 amendments to the Individuals with Disabilities Education Act (IDEA) and the standards-based educational reform movement that seeks improved educational results and improved potential for everyone.

Log on at www.cast.org, click on the National Center and then on "Oh the Places You'll Go." Meanwhile, consider making the curriculum more accessible by:

*Teaching with books, e-zines, and other e-text sources

*Discovering electronic reader software that supports universally designed

instruction, such as CAST's e-Reader and other reader software programs

*Getting acquainted with Bobby, a free Web site accessibility evaluator that can help your district Webmaster broaden your school district's Web audience

*Join the National Consortium on UDL at CAST, an important emerging resource for universal design in classrooms

*Checking the ERIC Clearinghouse for publications on universal design

June Behrmann is the Project Coordinator for the National Center on Accessing the General Education Curriculum, Council for Exceptional Children, Arlington, Virginia. §

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News

THE PAUL G. HEARNE/ AMERICAN ASSOCIATION OF PEOPLE WITH DISABILITIES (AAPD) LEADERSHIP AWARDS 2001 Application Form Deadline: July 26, 2001

Up to ten people with disabilities who are emerging as leaders in their respective fields will each receive \$10,000 to help them continue their progress as leaders. They will also have an opportunity to meet national disability leaders whom they can cultivate as mentors at an awards ceremony in Washington, DC on February 27, 2002. U.S. residents with any type of disability are eligible to apply.

NEW VOTING ACCESSIBILITY DEPARTMENT

HalfthePlanet is pleased to bring you this new resource in partnership with the National Voter Independence Project and the New Hampshire Developmental Disabilities Council.

EQUESTRIAN THERAPY: HORSES THAT HEAL

Seven years ago, Jenni Rowe heard four words that would change her life forever. "You'll never walk again." That was what doctors said after she woke up in a hospital with a permanently damaged spinal cord as a result of a car accident.

For more information on these and other stories and issues, please visit HalfthePlanet at their website: <http://www.halftheplanet.com>

Press Release

PRENTKE ROMICH DEVELOPS PORTABLE COMMUNICATION DEVICE WITH LARGER DISPLAY FOR AAC USERS

WOOSTER, OH (March 21,2001) - The Prentke Romich Company has developed a new portable device for people who use augmentative and alternative communication that includes the same language software as their other products and has a larger display area than similar devices in the marketplace. The new product, called Vantage™, has a compact and lightweight design (weighing approximately three pounds) that makes it suitable for ambulatory users. It includes a high-quality dynamic display that is 70 percent larger than those found in other portable devices.

Vantage comes loaded with the Unity™ Enhanced vocabulary software based on the Minspeak language system. The device includes three coordinated versions of Unity and vocabularies ranging from 150 to 2,000 words, plus common phrases, games, and songs. Through an exclusive agreement with Semantic Compaction Systems of Pittsburgh, PA, the developers of Minspeak, all Prentke Romich products include this widely used language system.

"At Prentke Romich, we understand the needs of augmented communicators," said Barry Romich, CEO and co-founder of Prentke Romich. "That's why we developed Vantage as the newest dynamic display product specifically for people who require a powerful and very portable communication aid. Vantage is unique because it has a significantly larger active display area than many portable

devices and because it comes with language inside." Vantage employs recently upgraded operating system software that includes spelling and word prediction and contains simple on-screen menus to adjust the settings. The system also has the ability to load and save pages, import icons/pictures and view the user's manual on-screen.

For free information about Vantage, contact the Prentke Romich Company, 1022 Heyl Rd., Wooster, OH 44691-9786, or call (800) 262-1984. Or visit the Prentke Romich website at <http://www.prentrom.com>.

Conferences

Date: October 18-20, 2001 Closing The Gap - 19th Annual Conference (Pre-Conference Workshops, October 16-17, 2001)

Minneapolis, MN

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Phone: 507-248-3294

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E-mail: info@closingthegap.com Web
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Date: November 2-3, 2001 Fifth Annual Collaborative Conference: Achieving New Heights with Assistive Technology -- A Rocky Mountain Regional Collaboration Denver Holiday Inn Southeast Denver (Aurora), Colorado

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achieve goals. Research has shown that extrinsic incentives are not effective motivators for improving teacher performance. In addition, forcing teachers to comply with boss management through punitive measures results in only minimal performance and low-quality work, as the worker does 'only what is necessary to get by' (p. 4).

Resken's book contains a heavy dose of research findings, as well as boilerplate lesson plans, schedules, and grant applications. It is not as entertaining as *NetSavvy* but does represent a successful real-world effort to cope with the problems of accommodating the benefits of technology to the stresses faced by today's schools.

As a final thought, another ingredient in the pot is the emphasis of the

current Administration on returning schools to local control, mirrored by States such as California with "block grants" to local districts -i.e. allocation of State funds for districts to use at their discretion. The result, at least in the Golden State, has been for districts to siphon money away from special ed at every opportunity. But that is yet another stressor, and we already have enough for one article!

The three books mentioned in this article are available from Special Needs Project.*

Educational Computing in the Schools: Technology, Communication, and Literacy. Edited by Jay Blanchard. Haworth Press, Binghamton, NY, 2000. 113 pp. \$19.95 - (paperback) SNP# 11571

NetSavvy: Building Information Literacy in the Classroom, 2nd

Edition. Ian Jukes, Anita Dosaj, and Bruce Macdonald. Corwin Press, Thousand Oaks, CA, 2000. 144pp. \$29.95 (softback) SNP# 11579

Using Technology to Increase Student Learning. Linda Resken. Corwin Press, Thousand Oaks, CA, 2000. 161 pp. \$34.95, (softback) SNP# 11578 §

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categorize the growing number of Internet resources related to books for Children and Young Adults.”

<http://www.acs.ucalgary.ca/~dkbrown/>

Internet Public Library (Youth Division) - Links to childrens' picture books, short stories, poetry, myths, fables, and magazines.

<http://www.ipl.org/youth/>

Project Bartleby - An archive of actual texts of classic childrens' works on the web.

<http://www.columbia.edu/acis/bartleby/>

CD ROM Start-To-Finish Books Don Johnston - 800/999-4660

New: check on - <http://www.ldresources.com/#ElectronicText>

Here are some additional resources for digitized text or e-text. There is a nice article on e-text in the CAST (Center for Applied Special Technology) Interfaces newsletter - Spring 1998 issue. You can obtain an electronic format of this newsletter

from their website. <http://www.cast.org>

Additional E-text resources

Project LITT: Literacy Through Technology Website: Interactive Books on CD-ROM for Students with Learning Disabilities. Most books are in the Grades 1-4 reading level, a few in the 5-8 reading level. Each book has a software profile with extensive information on the interactive book that has been reviewed by this project. To be included in the future are results of studies looking at the effectiveness of CD-ROM-based storybooks and the results of a naturalistic study of the effectiveness of bilingual CD-ROM based storybooks for English language learners with learning disabilities.

<http://edweb.sdsu.edu/SPED/ProjectLitt/LITT>

Recording for the Blind and Dyslexic

Most books are at the secondary level. You cannot request textbooks to be put into e-text format but you have access to books that have already been put into this format. <http://www.rfbid.org>

Additional web sites that contain e-text:

Access 2020 - <http://www.access2020.com/ra.html>

The Wilkie Collins Etext Page - <http://www.cyberramp.net/~jrusk/>

Audionet CD Jukebox - <http://www.audionet.com/jukebox/>

Peru State College Library Etext Books Online <http://www.peru.edu/~lindsay/etext.html>

The English Server Fiction Collection <http://english-www.hss.cmu.edu/fiction>

Gopher site for Fiction - gopher://wiretap.spies.com:70/11/Book

Singapore Association of Visually Handicapped Etext Archives <http://www.dpa.org.sg/SAVH/etext.htm>

Howard Tilton Memorial Library Online Journals and Books <http://www.tulane.edu/~html/ejournal.htm>

Classic Short Stories - <http://www.bnl.com/shorts>

Middle English Bookcase <http://www.georgetown.edu/labyrinth/library/me/me.html> §



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