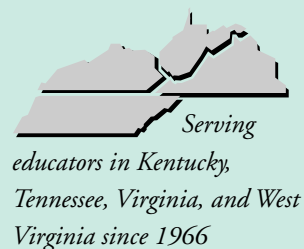


Vol. 19, No. 4

THE LINK

A PUBLICATION FOR EDUCATION PRACTITIONERS



Serving
educators in Kentucky,
Tennessee, Virginia, and West
Virginia since 1966

The New *hyperLink*

If you've been a *Link* reader for a while—more than 10 years or so—you might remember that it was once a little gray and wine booklet. And if you've been on AEL's mailing list for a *really* long time—back to the 70s—you might even remember *The Appalachian Educator* or the *Rx Bulletin*.

Those publications were laid to rest in 1981, but some of their parts and pieces lived on in their replacement—*The Link*. We chose that name because linking the two worlds of education research and practice has always been, and continues to be, at the heart of AEL's work. Well, *The Link* is about to transform itself again, and now the name will come to mean hyperlink.

Recently, AEL became the first education institution in the world to use the new Digimarc MediaBridge technology, which uses digital watermarks to instantly deliver a specified Web site. AEL's *Patterns of Promise* was the first Internet-enabled AEL publication.

Starting with this issue, *The Link* will

contain images embedded with a Digimarc—see the star on each page. When you hold the star up to a digital camera that is connected to your desktop computer, the Digimarc MediaBridge software reads the watermark, activates your Web browser, and delivers AEL's Web site to your screen. From there, you will be able to launch related Web sites and access a wealth of information for each topic—without typing long URLs. You can recognize any Internet-enabled page by the symbol you see at the right.

Please join us in exploring the benefits of this evolutionary technology. Go to <http://www.LookForTheD.com> to download and install the free Digimarc MediaBridge software. This technology is new and glitches may occur, but it promises to expand the way we read and use printed materials.

AEL extends sincere appreciation to Digimarc Embedding Institute for allowing us to participate in this exciting new innovation. Please let us know about your experiences with the new *hyperLink*.



Telephone:
304-347-0400
800-624-9120
E-mail:
link@ael.org



This symbol signals the use of new Digimarc MediaBridge technology. See the story at left to learn how it can enhance your use of this publication.

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The Link is free to educators in the AEL region.

Readers are encouraged to reproduce its contents, giving proper credit.

On request, AEL will provide camera-ready copy on white paper. Current and many back issues are available in PDF at <http://www.ael.org>.



Research Notes

Information Overload: It's for Real

A team of researchers at U.C. Berkeley's School of Information Management and Systems has published a study that attempts to measure how much information is produced annually worldwide. The analysts examined a variety of media including print, film, optical, broadcast, and Internet. The abstract begins: "The world produces between 1 and 2 exabytes of unique information per year, which is roughly 250 megabytes for each man, woman, and child on earth. An exabyte is a billion gigabytes, or 10^{18} bytes."

How Much Information? by P. Lyman, H. R. Varian, J. Dunn, A. Strygin, & K. Swearingen, is available free at <http://www.sims.berkeley.edu/how-much-info>.

Preschool Education

A forthcoming publication from the National Research Council's Committee on Early Childhood Pedagogy reviews and synthesizes the latest research on how young children learn and the impact of early learning. The editors of *Eager to Learn: Educating Our Preschoolers* explore the question of what it will take to provide better early education and care for our children between the ages of two and five.

Key discoveries about early learning are presented in language accessible to parents and educators. Included are findings about the interplay of biology and environment; learning variations among individuals from different social and economic groups; and the importance of health, safety, nutrition, and interpersonal warmth to early learning.

Eager to Learn reviews the elements of high-quality preschool programs and recommends effective teaching practices. While the committee does not endorse any particular curriculum, it suggests several principles of learning that should be incorporated into any curriculum:

- Teaching and learning will be most effective if they engage and build on children's existing understandings.
- Key concepts involved in each domain of preschool learning (e.g., representational systems in early literacy, the difference between counting numbers and fractions, causation in the physical world) must go hand-in-hand with information and skill acquisition.
- Metacognitive skill development allows children to learn more deliberately. Curricula that encourage children to reflect, predict, question, and hypothesize (*How many will there be after two numbers are added? What happens next in the story? Will it sink or float?*) set them on course

for effective, engaged learning.

Eager to Learn: Educating Our Preschoolers is edited by Barbara Bowman, M. Suzanne Donovan, and M. Susan Burns. The executive summary and ordering information are available on-line at <http://www.nap.edu/books/0309068363/html>.

High Poverty and Low Achievement

A recent study shows that high-poverty schools can reach high levels of academic achievement, although the link between poverty and low performance is still strong. Susan Perkins Weston, executive director of the Kentucky Association of School Councils, analyzed the results of Kentucky's 1999 Core Content Tests for all K-12 grades by looking at three areas: poverty level, top 20 scores, and bottom 20 scores.

Weston found that, overall, scores in all subjects increased as poverty levels decreased. For example, on the fifth-grade content indexes, differences between schools with 0 to 20% of students qualifying for free or reduced-price lunch and those with 81 to 100% qualifying ranged from 19 points on the practical/vocational subtest to 37 points on mathematics. Clustering results by school districts revealed that achievement strengths or weaknesses often go beyond individual schools to include whole districts, a finding that may indicate the influence of district policies on student achievement.

A disproportionate number of Kentucky's minority students attend low-achieving schools. Statewide, 10.5% of elementary students are African American, but they make up 22% of the student body at schools with bottom 20 results and only 7.2% of students at schools with top 20 results. Middle and high school proportions are similar.

The *Performance and Poverty* report concludes that (1) generally, poverty is a reliable indicator of low achievement, but (2) schools can beat the odds. The top



elementary science score in 1999 was achieved by a school with 94% of its students eligible for free or reduced-price lunch.

For a copy of *Performance and Poverty*, contact the Prichard Committee at 800-928-2111.

Inequities in Teacher Distribution

One way that high-poverty schools can break the link between poverty and low achievement is by putting high-quality teachers in every classroom. Unfortunately, according to a recent report from the Education Trust, this happens too infrequently. Even within a school, the “better” students generally get the fully certified, most experienced teachers, while the students in lower track classes may be taught by unlicensed, brand new, or out-of-field teachers.

Why do schools often assign the weakest teachers to the children who need the most academic help? There’s no single explanation, rather several policies and forces that contribute to the problem.

- differences among districts in resources to pay teachers
- differences within districts as a result of seniority transfer provisions
- differences within schools, when educators disagree about who should teach which students
- too few highly qualified teachers who want to teach in high-poverty schools
- a culture within teaching that ties teacher status to perceptions of student ability

The report offers four recommendations for actions that communities and states can take immediately to help remedy imbalances in teacher quality.

1. **Fix the bathrooms and the teachers’ room (and, while you’re at it, the restrooms for students).** The conditions of the schools send powerful messages about how we value the teachers and students who work in them.
2. **Get your data together and get it out.**

Share honest, clear data about teacher quality and the impact it has on student achievement.

3. **Convene a broad-based group to brainstorm and comb the country for possible solutions.** Ask the best teachers for their ideas and leadership.

4. **Get going.**

Honor in the Boxcar: Equalizing Teacher Quality is available free on-line at <http://www.edtrust.org> or by mail from The Education Trust, 1725 K St., NW, Washington, DC 20006. Include \$2.50 for shipping and handling.

Central Web Site for Research Reports

Research from the 12 National Research and Development Centers of the Office of Educational Research and Improvement can now be accessed through one site. Specific topics addressed by the Centers include early childhood development and learning, cultural and linguistic diversity, education of at-risk students, gifted education, and education policy. Summaries of two recent studies appear below, and links to many more are available at <http://research.cse.ucla.edu>.

From the Center for the Improvement of Early Reading Achievement (CIERA)

Print copies of the reports are available for \$6.50 each from CIERA/University of Michigan, 610 E. University Ave., 1600 SEB, Ann Arbor, MI 48109-1259. They are also available for free download at <http://www.ciera.org> under the “Newest Findings” bar on the home page.

Early Reading Programs in High-Poverty Schools: Emerald Elementary Beats the Odds by Charles Fisher and Martha A. Adler, CIERA Report No. 3-009

From 1996 through 1998, Emerald Elementary School’s students performed well above the district average and above or near

(continued on page 7)

Teens and School

Results of the 16th annual Metropolitan Life education survey were released in late September. Harris Interactive gathered information between March and May from students (3,961 in grades 7-12), teachers (1,010 in grades 7-12), and parents (2,017 with children in grades K-12).

The American Teacher 2000: Are We Preparing Students for the 21st Century? reveals challenges our school communities need to meet. Examples of the findings are presented on pages 5, 7, and 11; get the complete report from the Metropolitan Life Insurance Company at One Madison Avenue, New York, NY 10010 or visit the Met’s Web site at <http://www.metlife.com/Companyinfo/Community/Found/Docs/2000pdf.html>.



Announcements and Information

National Teacher Clearinghouse

The new National Teacher Recruitment Clearinghouse, funded by the U.S. Department of Education, is a comprehensive resource for teachers and districts and offers valuable tools for individuals considering careers in teaching. It provides links to more than 150 educational institution Web sites that provide resources on teacher recruitment, certification, salaries, and other issues.

The Clearinghouse allows prospective teachers to find out about jobs and seek answers to questions about a teaching career.

School districts and teachers can use the Clearinghouse to

- access on-line job banks and job listings
- find out how to prepare to become a teacher
- understand in which geographic and subject areas teachers are most needed
- find out about new incentives districts are offering to new teachers
- learn about proven strategies for finding and keeping teachers
- expand a district's reach to a national audience of prospective teachers

"At such a critical time, when so many districts face a shortfall in certified teachers, this free service may have a tremendous impact on the way school districts find quality teachers. Its easy-to-use format will make it all the more valuable," said U.S. Secretary of Education Richard W. Riley.

School districts and states can add their information to the Clearinghouse by completing a short, five-minute questionnaire on-line. By adding their job banks or listings, districts and states can increase traffic to their own Web sites and gain access to a national pool of teachers. Qualified

teachers looking for jobs can use the Clearinghouse to find places to post their resumé.

Visit the Clearinghouse Web site at <http://www.recruitingteachers.org>.

Equity Conference 2001

The Eisenhower Regional Consortium for Mathematics and Science Education and the Region IV Comprehensive Center at AEL will collaborate with the Virginia Space Grant Consortium to hold their annual equity conference March 21-23, 2001.

Access for All: Math, Science, and Technology will provide information and resources that address access for all students. Participants will have an opportunity to create networks and partnerships to promote access and to learn math, science, and technology strategies that will ensure access.

Early registration (through February 16) is \$100. The conference will be held at the Wyndham Roanoke Airport in Roanoke, Virginia. For more information or to register, contact Terry Foster or Angie Anderson at 800-624-9120 or visit AEL's Web site at <http://www.ael.org/eisen/access01.htm>.

Rural Schools Web Site

The U.S. Department of Education recently debuted a Web site for and about rural schools. *Navigating Resources for Rural Schools*, at <http://nces.ed.gov/surveys/ruraled>, links to several providers of information and services, among them AEL's Rural Center and the ERIC Clearinghouse on Rural Education and Small Schools at AEL. The new site also links to relevant Department programs, research and promising practices related to rural education, and the Distance Learning Resource Network.

Developed by the National Center for Education Statistics, the site provides data and information on current and changing conditions in education in rural America. Examples include data about

- enrollments
- National Assessment of Educational



Progress scores

- coursetaking, dropouts, and transition to college
- support for learning, including parents' satisfaction and involvement, community support, and financial support

Learn Media-Rich Teaching Methods

The 11th annual National Teacher Training Institute (NTTI) is a series of seminars at more than 50 sites across the country. This partnership of 30 American public television stations, spearheaded by Thirteen/WNET New York, will help more than 135,000 teachers learn to use free Instructional Television videos, the Internet, and hands-on activities to teach lessons, especially math and science. NTTI recruits and trains a base of master teachers who create, write, and model for their peers.

After training, on-line support continues with standards-based lesson plans; classroom activities that use technology, Internet, and video classroom strategies; on-line resources; and more.

For teachers who can't attend a seminar, NTTI offers Internet in Action: Web in the Classroom, on-line instruction in basic technological applications and skills. Course participants use dynamic on-line tutorials and resources that provide practical frameworks for integration. They identify and design Web-based activities to use in their classrooms, and keep reflective journals.

The winter session begins on January 5, the spring session on March 2. There are several options of study for Internet in Action. Through WNET, the charge is \$100 for the self-paced, self-study option (for 2 CEUs or noncredit); \$200 for the instructor-led option (for 4 CEUs or noncredit); and \$400 for one graduate credit. Rutgers University and other partner institutions have their own cost structures.

For a schedule of seminars and more

information about the on-line course, visit NTTI's Web site at <http://www.thirteen.org/wnetschool/ntti>.

Professional Development Awards Deadline

Application packages for the National Awards Program for Model Professional Development are now available, and the deadline for submissions is January 16, 2001. You can download an application from the Web (<http://www.ed.gov/inits/TeachersWeb>) or contact Jane Hange at AEL. Send e-mail to hangej@ael.org or use the phone numbers and mailing address printed on the covers of this issue. Jane will be happy to respond to questions about the program.

For more information about professional development planning, see the story titled "Enlist Colleagues in Reflection and Planning" in the Summer 2000 *Link* at <http://www.ael.org/link/v19n2/index.htm>.

On-line High School Ready to Go National

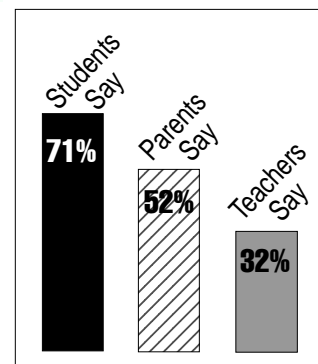
The Florida High School, a program featured in AEL's *Patterns of Promise*, is preparing to take its virtual classes to a national audience. The Web-based public school, recognized by AEL for effectively employing technology as part of systemic change, began in 1998 as a collaboration between two Florida county school districts. At the time, it offered 11 on-line courses.

The school's motto—"any time, any place, any path, any pace"—expresses its commitment to making education accessible. It has already expanded to include all Florida high school students and will welcome other students in the coming year.

For more information, visit The Florida High School Web site at <http://www.fhs.net> or read *Patterns of Promise* (for ordering information, see insert/order form or visit AEL's on-line catalog at <http://www.ael.org>).

Students Planning to Attend Four-year Colleges

When asked to describe their plans for the future, students, teachers, and parents had very different expectations for today's teens.



From the *Metropolitan Life Survey of the American Teacher 2000*. See *Teens and School*, page 3.

New Resources from AEL



Exploring Technology Educational Software Use: The 2000 Report

This report presents the findings of a SEIR♦TEC at AEL follow-up survey and puts a slightly different spin on an old adage: "You can lead a horse to water, but if you can get it to float on its back, you've really done something."

The 1999 survey demonstrated that merely leading teachers *to* the technology is not enough. Barriers exist between technology access and technology use. This latest report focuses on barriers related specifically to software in an effort to explain the high number of respondents indicating *never* using software in their classrooms.

The 2000 follow-up survey involved respondents from the previous survey. They represent a random sample of K-12 public school teachers in Kentucky, Tennessee, Virginia, and West Virginia.

The follow-up survey intended to ascertain current levels of training in the region and whether a lack of training can be a barrier to software use. Questions were intended to provide insight into beliefs about the importance of software use in teaching and learning, barriers to software use in the classroom, software selection practices, beliefs regarding the alignment of software and instructional goals, professional development experiences related to technology integration, and patterns of software use.

The results of this study offer encouragement about the progress teachers in the region have made regarding educational software use. It is reassuring that 81.6% of educators surveyed view software as an important element of their teaching and their students' learning. A surprising finding is that 53% of the respondents indicated that the available software aligns well or very well with instructional goals.

(continued on order form/insert)

Publications of Interest

Classroom Strategies that Work

What Works in Classroom Instruction features instructional strategies that research shows have the greatest likelihood of improving student learning. The 178-page publication is designed to help K-12 teachers and administrators easily select strategies and integrate them with existing programs or practices. The guidance offered in this manual builds on years of practical experience and efforts to synthesize the research on teaching by Mid-continent Research for Education and Learning (McREL). This publication is designed for K-12 classroom teachers, building-level administrators, and central office administrators. It is offered as a tool to enhance students' achievement in any content area. It was written by Robert Marzano, Barbara Gaddy, and Ceri Dean. Get it free at <http://www.mcrel.org/products/>

learning/whatworks.pdf or order a print copy from McREL, 2550 S. Parker Road, Suite 500, Aurora, CO 80014-1678; send e-mail to info@mcrel.org.

Technology and Young Children

Learn what technology can—and cannot—do in the education of young children. *Early Connections*, a Web site developed by Northwest Regional Educational Laboratory and its Northwest Educational Technology Consortium, provides research-based information and resources for those who work with children ages 8 and younger. It pulls together a range of information about child development; use of technology; and tips for teachers, parents, caregivers, and others. Visit the site at <http://www.netc.org/earlyconnections>.

(continued on page 10)



Research Notes

(continued from page 3)

state average on reading achievement. Half of its students were eligible for free or reduced-price lunch, and student mobility hovered at the 40% rate. Researchers explored Emerald's early reading program in an attempt to identify factors that placed it among the top-performing high-poverty schools in its state.

The study looked for patterns of resource allocation, arrangements between classes, and schoolwide structures that facilitate high levels of student reading performance. Information came from interviews with the principal and program staff, survey responses, school and classroom observations, informal conversations, artifacts, and public data. One critical component of success was a literacy rotation in which first-grade students had access to four small-group instructional approaches for two hours per week.

Emerald was often characterized as pragmatic and willing to engage in problem solving. Its planning and management structures ensured open lines of communication and enabled teachers to be proactive about the changing needs of each child. Professional development was highly valued and individual staff expertise was respected and utilized. Staff at all levels collaborated to increase reading achievement. Emerald viewed opportunities presented by federal and state initiatives such as Title I as chances to exercise creativity.

This report points out five key elements that contributed to Emerald's success: a focus on student reading outcomes; multiple reading programs in every classroom; shared responsibility for student success; strong leadership at school and classroom levels; and a veteran, knowledgeable staff. The authors hope their intensive study will point educators toward potential directions for program development and resource allocation at other schools.

The Contexts of Comprehension: Information Book Read Alouds and Comprehension

Acquisition by Laura B. Smolkin and Carol A. Donovan, CIERA Report No. 2-009

Comprehension is essential for skilled reading. Though teacher modeling of comprehension strategies is considered critical to mastering comprehension, the direct teaching of these strategies has recently decreased. Also, storybooks (which form the basis of many primary reading programs) may not support tasks such as learning new concepts from text—a comprehension skill that becomes increasingly important in later grades. In a recent report, researchers examine the strategies a first-grade teacher modeled while reading information books aloud in class.

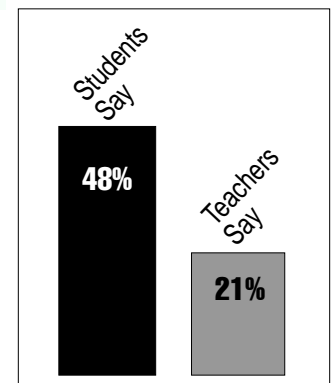
Working from tape-recorded read aloud sessions, the authors studied student and teacher responses during the reading of six storybooks and six information books. They considered whether the different genres prompted different types of participant interactions, and coded student and teacher talk to determine the number of comprehension-related remarks made during sessions.

The authors conclude that interactive information book read alouds may lead children to engage in more meaning-making efforts. The read alouds provided a context for scaffolding, modeling, and engaging in direct comprehension instruction, which offered students opportunities to engage interactively in discussions designed to clarify concepts and construct meaning. This interactivity is crucial; children's queries and comments compel teachers to make text meaning and their own thought processes explicit. Developing an interactional stance during reading, say the authors, is critical to promoting comprehension acquisition.

Informational texts are useful choices because they emphasize construction of concepts. They also tend to appeal to certain children—often boys and ethnic or racial minority groups—with whom traditionally European-American stories may not resonate.

Students Always Bored in School

When asked how engaged teens are in school, students and teachers had very different perceptions.



From the *Metropolitan Life Survey of the American Teacher 2000*. See *Teens and School*, page 3.

Grant Opportunities

Playground Grant Sources

When you need funding for equipment (other than instructional technology) it can sometimes be hard to find. The SchoolGrants Web site offers a special section on playground funding sources and fund-raising ideas.

Go to http://www.schoolgrants.org/Links/playground_funding.htm.

Federal Programs

NASA: Urban Community Enrichment Program

Purpose: To capture, channel, and enhance the interest of teachers and students in science, mathematics, engineering, technology, and geography.

This three-day program is specifically designed to serve urban middle school students and includes lectures, demonstrations, and structured classroom activities, as well as training for core teachers in how to conduct interdisciplinary aerospace activities.

Deadline: Open

Additional information available from NASA Headquarters, Education Division, Attn: UCEP Program Manager, Code FE, Washington, DC 20546

Department of Energy: Albert Einstein Distinguished Educator Fellowships

Purpose: To support the intellectual and professional development of teachers who wish to contribute their professional expertise and be involved in the advancement of science, math, and technology education.

Selected teachers spend a year in Washington, DC, working in a Congressional office, federal agency, or the White House. Award includes a monthly stipend and moving expenses.

Deadline: February 1, 2001

Information and application available on-line at <http://www.scied.science.doe.gov/einstein/index.htm>, by phone from Cindy Musick at 202-586-0987, and by e-mail to cindy.musick@science.doe.gov

Foundations

Bayer/NSF Award for Community Innovation

Purpose: To give students a high-energy, hands-on experience with science and technology while helping communities in the process.

Open to students in grades 6, 7, and 8,

this competition offers an all-expense-paid trip to Epcot Center, a \$25,000 Columbus Foundation Community Grant, and savings bonds for student team members. The cross-curricular activity sets a team of four students the task of identifying a community problem, looking into it, coming up with an innovative solution, and having fun as they do it.

Deadline: January 31, 2001 (register your team earlier, if possible)

Guidelines, coach's guide, student guide, and information available on-line at <http://www.nsf.gov/od/lpa/events/bayernsf/intro.htm>

Mathematics Education Trust: Toyota TIME

Purpose: To support innovative projects that enhance mathematics education within a school.

K-12 classroom teachers with three years' experience teaching mathematics can apply for up to \$10,000.

Deadline: January 10, 2001

Application and information available on-line at <http://www.nctm.org/about/toyota>, by e-mail to toyotatime@nctm.org, or by phone at 888-573-TIME

National Geographic Society: Teacher Grants

Purpose: To advance and help improve the teaching of geography.

Grant areas may include classroom, school, and district efforts to implement the new National Geography Standards; hands-on and field experiences that involve students and teachers; and professional development in geography for teachers. Grants will range up to \$1,250.

Deadline: March 15, 2001

Application available on-line at <http://magma.nationalgeographic.com/society/ngo/foundation/q11.html> or by mail from Program Officer, National Geographic Society Education Foundation, 1145 17th St., NW, Washington, DC 20036-4688



Verizon Foundation: Teacher Fellowship Grants

Purpose: GIFT (Growth Initiatives for Teachers) encourages innovative math and science teaching by providing funds for professional development and hands-on classroom projects.

This program for middle, junior high, and high school teachers begins with a one-week summer seminar and continues throughout the following school year. Each year 140 GIFT Fellows are selected.

Deadline: January 14, 2001

Application and information available on-line at http://foundation.verizon.com/04010_a.html

AAUW Educational Foundation: Community Action Grants

Purpose: To provide seed money for innovative programs or nondegree research projects that promote education and equity for women and girls.

Two types of grants are available: one-year grants for start-up projects, and two-year grants for projects focused on K-12 girls' achievement in math, science, and/or technology, and that involve community/school collaboration. The American Association of University Women has members and branches across the country, and grant proposals that involve collaborations with AAUW will receive funding preference.

Deadline: February 1, 2001

Information and application available on-line at <http://www.aauw.org/3000/fdnfelgra/cagbd.html>

AAUW Educational Foundation: Eleanor Roosevelt Teacher Fellowships

Purpose: To provide professional development in gender equity and math, science, and/or technology to women K-12 public school teachers; to support implementation of innovative curriculum projects to encourage girls' interest and achievement in math, science, and/or technology.

The fellowship year begins with a one-

week summer institute that includes intensive workshops and group discussions. Fellows develop study plans, refine projects, and learn about the latest research on gender equity and new teaching strategies.

Deadline: January 10, 2001

Information and application available on-line at <http://www.aauw.org/3000/fdnfelgra/ertfbd.html>

Other

Dow Chemical Company: Education Initiatives

Purpose: To benefit Dow communities and to promote systemic education reform in math and science.

School districts, school boards, and communities may submit proposals in three areas: math and science, teacher training, and parent involvement. (Requests may be for donations of cash, products, research grants, in-kind services, or volunteered time. Individual schools or teachers may not apply.)

Deadline: Open

Information and application available on-line at http://www.dow.com/about/corp/social/gen_fund.htm

Space Explorers, Inc.: NASA Marslink Initiative

Purpose: To provide innovative and motivating educational programs by bringing current NASA missions into classrooms across the country.

Marslink and other NASA programs are available to all schools that can pay the usual fees (\$500 for Marslink). This initiative pays \$275 of the fee so that grant schools need supply only a \$225 match. Grants will be given to one school in each congressional district on a first come, first serve basis.

Deadline: Open, but act quickly.

Information available on-line at <http://www.space-explorers.com>, by phone from Tim Lewaren at 800-965-3763 ext. 262, or by e-mail to tim@space-explorers.com

Earth & Sky: Young Producers Contest

The Earth & Sky radio series, heard daily on many public radio stations, discusses questions and issues related to science in a child- and youth-friendly format. Each year, with support from the National Science Foundation, the show's producers select five shows produced by students. Each must be 75 seconds long, in English, about any science topic, and produced by a team of up to four students.

Winners will receive savings bonds and their shows will be broadcast as part of the Earth & Sky series.

Entry deadline is December 15, 2000. Information and entry forms available on-line at <http://www.earthsky.com/Teachers/YP>, by e-mail at contest@earthsky.com, and by mail at Young Producers, c/o P.O. Box 2203, Austin, TX 78768.



Publications of Interest

(continued from page 6)

Data for Better Decisions

Schools hear more and more about the importance of data-based decision making, but too often the only data school leaders have at their fingertips are grades and test scores. A new toolkit from the School Change Collaborative, part of a Laboratory Network Program to which AEL belongs, introduces four self-study processes that can help schools gather targeted information for making reform and improvement decisions.

These research-based tools offer tested ways for a school community—students, administrators, teachers and staff, parents, and other community members—to work together to improve student learning.

- **Data in a Day** allows a school to involve many stakeholders and quickly gain data on instructional or climate issues important to the school community.
- **Structured Reflection Protocol** employs a time-efficient dialogue process centered on improving student learning and work.
- **Student-Led Focus Group** lets students speak out and enables adults to listen and use what they hear.
- **Analyzing Surveys with Kids** engages students as a school-data collection and analysis workforce.

The *Listening to Student Voices Self-Study Toolkit* is packaged in two parts. The first includes a 10-minute overview video, an introductory booklet, and four school stories that explain how the tools have been used in schools. The second is a “how to” toolkit with three videos that introduce individual processes and four guidebooks (one for each process). The guidebooks include additional school stories, blackline masters for handouts and overhead transparencies, and pragmatic advice for those who are leading the process and those who are using it.

For more information or to order, visit the Northwest Regional Educational Laboratory Web site at <http://www.nwrel.org> and search for the student voice toolkit.

Assessment that Fits the Student

In a perfect world, teachers would know each learner’s strengths and needs and be able to tailor learning experiences and assessments to fit. In reality, teachers must help all students meet common standards while recognizing that their paths to success may vary significantly—especially for those students whose language or culture is different. This publication provides research information and practical ideas for modifying assessments to make them more effective.

Making Assessment Work for Everyone: How to Build on Student Strengths was created by the Assessment Laboratory Network Program. It can help educators understand the essential characteristics of good assessment, uncover the strengths and cultural perspectives of diverse learners, increase the awareness of potential sources of bias or inequity in assessments, and use strategies to make assessments more equitable.

The 292-page book costs \$20 (discounts for five or more copies) plus shipping and can be ordered from WestEd, 730 Harrison Street, San Francisco, CA 94107; phone 415-615-3144 or e-mail Thomas Ross at tross@wested.org.

Testing and English Language Learners

A recent publication from the Council of Chief State School Officers aims to guide educators and other experts by identifying the phases during test development and implementation when intervention for English language learners should occur. It provides research-based information on developing and administering tests and lays out a framework to help determine if test items are accessible, to define elements important in writing accessible questions, and to provide advice for using specific types of tests.



The guide addresses specific recommendations to state education agency staff, test publishers, educators, policymakers, and other experts. *Ensuring Accuracy in Testing for English Language Learners: A Practical Guide for Assessment* costs \$15. Order on-line at <http://publications.ccsso.org> or phone the Council of Chief State School Officers at 202-408-5505.

Video on Assessment

A new video from the National Center for Research on Evaluation, Standards, and Student Testing (CRESST) shows the implementation of research-based assessments in Hawaii, using the downfall of the Hawaiian monarchy as a dramatic background. Topics include the research behind the models, assessment development, administration, and scoring.

In *Assessment Models*, teachers describe the value of the scoring process as well as their reactions to student performance. Middle and secondary school students discuss the challenging assessments, which require them to write comprehensive essays using what they learned in school and original source materials.

The video was selected as a 2000 Distinguished Achievement Award finalist by the Association of Educational Publishers and was accepted by the National Education Telecommunications Association for satellite broadcast around the nation.

The 23-minute video costs \$15 plus shipping and tax if applicable. To order, contact Kim Hurst at 310-794-9140 or kim@cse.ucla.edu.

The GatewaySM

The Gateway to Educational Materials (GEM) offers something to almost everyone involved in education. This consortium effort, a project of the U.S. Department of Education, offers quick, easy, and free access to the substantial, but uncataloged, collec-

tions of educational materials found on various federal, state, university, nonprofit, and commercial Internet sites.

Teachers can use GEM to search more than 140 sites for lesson plans, instructional units, and other free educational materials—and can submit their own lesson plans for use by other teachers. Students and parents can research education-related topics and programs.

Visit The Gateway Web site at <http://www.thegateway.org>.

Reaching All Families

Open houses, school-parent compacts, early home visits, and parent-teacher conferences are some strategies for opening up communication between educators and parents. A new edition of a popular booklet from the U.S. Department of Education explains these and other ways to help even seasoned teachers and administrators do a better job of making their schools family-friendly.

Accumulated knowledge and fresh ideas are combined with suggestions for action to make *Reaching All Families: Creating Family-Friendly Schools—Beginning of the School Year* useful to educators and community members. Get the free publication on-line at <http://www.ed.gov/pubs/schoolinvolvement> or order by phone. Call toll-free 877-4ED-PUBS.

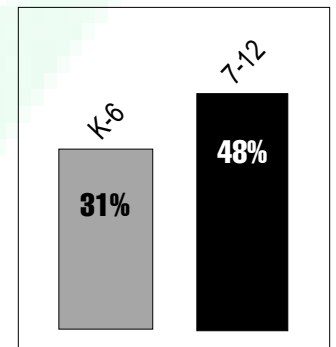
New Science Press

The National Science Teachers Association (NSTA) recently created the NSTA Press, an effort to ensure the continued development of new and innovative materials for science educators and to make them more widely available to teachers. One of the publisher's first ventures is the creation of Read It!, an on-line venue where teachers can preview the newest NSTA Press books

(continued on page 12)

Parents Feel Alienated from School

When asked if they feel that what they think doesn't count at school and if they feel left out of things going on there, parents agreed. Feelings of disconnection grew as children entered secondary school.



From the *Metropolitan Life Survey of the American Teacher 2000*. See *Teens and School*, page 3.

Publications of Interest

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and where full texts of selected books will be available free.

Electronic versions of some recent publications are already available, including *The Creation Controversy and The Science Classroom* and the Science-by-Design series of projects. Visit the NSTA Web site at <http://www.nsta.org>. To read NSTA Press books on-line, go to <http://www.nsta.org/store> and click on the Read It! icon. No special software is needed to read the publications.

Aligning Resources to Support Student Achievement

North Central Regional Educational Laboratory's (NCREL) newest addition to the Critical Issues series addresses how schools can make more productive use of their resources to improve student achievement. *Critical Issue: Rethinking the Use of Educational Resources to Support Higher Student Achievement* illustrates that as

districts begin to support schools in becoming increasingly accountable for results, they are finding that schools need more time and individualized attention for students in academic subjects, time and dollars for professional development and planning, and funding for new curriculum materials and implementation of teaching practices aimed at higher standards.

The audio-enhanced document shows that by building on an understanding of school needs, districts can realign resources to support changes and augment promising practices. After existing resources have been changed, the district will be able to argue more forcefully for support of any underfunded initiatives. Reallocation strategies used in high-performing schools are featured.

Visit NCREL's Pathways to School Improvement Web site at <http://www.ncrel.org/sdrs/areas/issues/envrnmnt/go/go600.htm>.

AEL is a private, nonprofit corporation. AEL serves as the regional educational laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.



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