

Director's Corner

Vision of a Transformed Classroom

Teachers and students are working together, on real products, real problems. Activities are rich in language, with teachers developing students' capacity to speak, read, and write English, and the special languages of mathematics, science, the humanities, and the arts. They teach the curriculum through meaningful activities that relate to the students' lives and family and community experiences. Teachers challenge students to think in complex ways, and to apply their learning to solving meaningful problems. Teachers and students converse; the basic teaching interaction is conversation, not lecture. A variety of activities are in progress simultaneously—individual work; teamwork; practice and rehearsal; mentoring in side-by-side, shoulder-to-shoulder, teacher-student work. Students have opportunities to work with their classmates. They all learn and demonstrate self-control and common values: hard work, rich learning, and helpfulness to others.

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Editor's Note: This issue of Talking Leaves continues the report on the 1999 AERA conference begun in the last issue (Vol. 3, No. 2), highlighting presentations and findings from CREDE researchers.

Looking Toward the 21st Century

CREDE's institutional monitor, Gil Garcia, chaired a panel discussion featuring Roland Tharp, Richard Durán (both of CREDE), and Lily Wong Fillmore, on 21st century challenges and opportunities faced by practitioners and researchers serving linguistically and culturally diverse students. It was clear from this session that the challenges may be developing slightly ahead of the solutions. As Fillmore pointed out, current policy issues, such as California's Proposition 227, which eliminated bilingual education (except for schools with waivers) and limited specialized sheltered English immersion to 1 year of instruction, have forced a reexamination of methods used to develop students' English language skills and academic content knowledge.

The presenters expressed some concerns about how well schools are serving diverse students. Duran posed four questions to researchers and practitioners to consider when evaluating schools: What is achievement? What activities facilitate achievement? What counts as evidence of achievement? What are the consequences of achievement? "There is an emerging consensus about what classrooms should look

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School Effects of Expenditures for Poor Students Using State-Level NAEP Data

In this symposium paper on the relationship between school expenditure and student achievement, David Grissmer (project 5.1) focused on the central question, "Does money matter?" He conducted a meta-analysis by reviewing a wide range of studies to extract information about money and academic achievement, and by analyzing National Assessment of Educational Progress (NAEP) scores. This investigation revealed a new, growing consensus: at current levels of funding, money put in some programs does matter for at-risk students.

The NAEP data provided comparable measures of achievement across 44 participating states. Once the effect of family differences (e.g., family size, family income, education of parents) was

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School reform is complex. It involves planning, finance, buildings, salaries, teacher certification, performance standards, and all the other elements of a major institution. Whether educational reform concentrates on class size, preservice teacher education, national standards and goals, teacher development, community partnerships, or any other aspect, nothing will have any effect on student learning until reform operates through the teaching and learning activities at the classroom level. Unfortunately, much of school reform is debated at other levels; little attention is given to that final common pathway toward learning. It is as though we are moving granite blocks around the construction site, at great expense and effort, but no one has a clear image of what the building should look like. If we had a vision of the ideal classroom, perhaps we could begin to move policies toward its construction.

CREDE research has described a vision of the ideal classroom for today's students and academic standards. That vision is available. We usually express this vision in terms of CREDE's five standards for effective pedagogy. Educational research and development professionals agree on its major features. Because these features are most often studied separately, we are only beginning to see the full implications of our knowledge. If we enacted

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all of what we know at the same time, if we assembled our knowledge into a coherent vision, classrooms of the common tradition would be utterly transformed.

Recently I had an opportunity to discuss this vision, and its research base, at the Education Policy Forum, a monthly event in Washington, DC, co-sponsored by the American Educational Research Association and the Institute for Educational Leadership. The audience included representatives from many organizations, including the National Science Foundation; the Senate Health, Education, Labor and Pensions Committee; local schools; and the National Association of School Psychologists. There was no disagreement

with the vision or with the fact that it represents an extraordinary consensus among researchers and educational developers and innovators. Sadly, we were also agreed that practice and research have grown alarmingly far apart in recent years. The greatest challenge facing those of us concerned with effective education for all children is this: How can schools be reformed to teach the way we all know to be best? Among all CREDE projects, that has emerged as the central question. We will be reporting to you, as soon as possible, on this next round of research findings. 🌸

- Roland Tharp

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statistically removed, low student-to-teacher ratios were associated with higher average state scores. This positive effect was greater in those states with more at-risk students. Higher average state scores on the NAEP exams also emerged (when other factors are equal) in states with large proportions of low income children in public pre-K classes.

Combining a reexamination of previous research with a continuing analysis of NAEP scores, Grissmer's work supports the thesis that placing resources in effective programs can boost the achievement of at-risk students. 🌸

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Integrating Science Learning and Language Development

In her AERA presentation, Trish Stoddart reported findings from a study (project 4.4) based on Language Acquisition through Science Education for Rural Schools (LASERS). LASERS is a collaborative project designed to provide quality science education to rapidly increasing numbers of K-6 language minority students in rural, central California schools. The researchers began the work by analyzing teachers' knowledge, beliefs, and practices relating to the integration of inquiry science instruction and language development. One component of the project was a summer academy offering professional development for teachers, and science and language instruction for students. When teachers entered the academy, they rated themselves as either science teachers or teachers of English language learners, but not both. After participating in the academy, however, all teachers

strengthened their skills in the area in which they had initially rated themselves lower. Most teachers improved their overall expertise in integrating language and science instruction.

The researchers also assessed the development of the language minority students' learning over the course of the summer academy. Students showed significant growth increase in science understanding, science vocabulary, and ability to use common and specialized scientific terms in life and earth sciences. Overall, students significantly increased their cognitive academic proficiency in both English and Spanish. These results indicate that students can learn academic content and language simultaneously and that teachers can learn to integrate content and language into their science teaching. 🌿

Learning, Teaching, and Assessment in School and Community Settings

Beginning in the 1960s, educational research concerned with ethnic minority students moved slightly away from studies that examined deficit and cultural disadvantage theories toward studies that acknowledged and investigated linguistic and cultural practices of ethnic minority communities. In the symposium, "Learning and Instruction," CREDE researcher Michele Foster (project 4.5) presented "Learning, Teaching, and Assessment in School and Community Settings," in which she discussed this small but growing body of research that positively exploits and scaffolds productive community and cultural practices in classrooms.

Some findings from this early research indicated that different contexts (e.g., classroom, church, home) affect how students use language. Far from being a neutral setting, the classroom has its own specific cultural and communication norms. Research in this area has helped explain discontinuities between home and school settings. The research has also been applied to classroom interventions—mostly to literacy interventions and less frequently to mathematics and science.

Literacy intervention programs include the Kamehameha Early Education Program (Tharp, 1982), a large scale reading project that uses "talk-story," a speech event common in the Hawaiian community, to teach Hawaiian children. Lee's (1995) ongoing work uses signifying, an African American speech event, as a bridge from community-based discourse style to teach literary interpretation. Foster's work (in press) investigates how call and

response, a highly interactive African American mode of discourse using tonal semantics, is used to help African American students both develop phonemic awareness and increase semantic knowledge.

A few studies are beginning to apply cultural knowledge to mathematics and science teaching. CREDE researchers Beth Warren and Ann Rosebery (project 4.1) are working with teacher researchers to help them develop culturally connected ways of teaching science content, for example, using African drums to distinguish between loudness and pitch (cf. Rosebery, Warren, & Conant, 1992). The Algebra Project, developed by Robert Moses, introduces African American, Latino, and other ethnic minority group middle school students to algebra, in preparation for advanced mathematics courses (Silva & Moses, 1990). The Algebra Project employs a curricular process that links students' existing social knowledge and experiences as well as community knowledge to the more fundamental and powerful ideas that undergird the domain of algebra.

Despite positive outcomes from these programs and research investigating the role of culture in learning, these practices are not widely mirrored in practice. Except in superficial ways, they are not recognized by educational researchers. More discussion and collaboration is needed among researchers who are examining the influence of culture on learning and those who are studying advances made in the disciplines. Without this cross-fertilization, equity will be elusive.

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Teachers, Students, and Family: Using the Entire Research Base

Gil Garcia, Office of Educational Research and Improvement, U.S. Department of Education

A recent *Education Week* article (Johnston, 1999) reported the results of a teacher certification and student success study conducted by the Dana Center at the University of Texas. The researchers assert that a child's home circumstances have less influence than teacher quality on his or her academic performance. This statement is problematic for several reasons. First, educational problems are rarely caused by one factor, or by one factor over another. Second, even if students with certified teachers achieved higher scores on the 1997 Texas state assessment, it does not necessarily mean that the only solution is placing a certified teacher in every classroom. Addressing a single factor rarely solves educational problems.

There are many factors that place students at risk of educational failure (see *Talking Leaves*, Vol. 2, No.1 for a list). Some of them are **personal and child-focused** (e.g., the child is limited English proficient); others are **environmental** (e.g., the child lives in a household with periodic or sustained poverty). Still others are related to **opportunities to learn** (e.g., a school district has many uncertified or unlicensed teachers). The first two types of factors place a student at risk of educational failure. The third type places a school at risk of failing students. Educators should be aware of these factors, and use sound educational research results from varied perspectives to design appropriate systemic responses that meet students' needs.

Findings from research, such as the Dana Center study, often become the impetus for reform, but they should be contextualized, not used in isolation. In Texas, for example, a state Representative has proposed requiring schools to notify parents if their child's teacher does not have the necessary certification. Reform statements like this tend to reduce education issues to simplistic levels rather than help educators and parents appreciate and understand the statements' complexity and significance.

Multiple lessons from educational research should be used to inform policy and to guide practice. The findings from the Dana Center study should be added to our knowledge of factors that place students at risk of educational failure. The study results validate some of what we know concerning teachers' readiness to teach—teachers who are well trained, who apply the principles of effective pedagogy, who use their students' funds of knowledge to guide instruction, and who spend time keeping up with the ever-

growing knowledge base are apt to be more effective classroom managers and better at teaching subject matter to diverse students. We need to use this information along with other knowledge gleaned from research to support reform.

I propose four steps educators can take to gain a comprehensive understanding of the factors and their implications for designing and sustaining effective educational responses for children and youth.

1. Identify the full complement of factors that define children and youth, especially those at risk of educational failure.
2. Understand how the factors bundle within individual students and across groups of students, to avoid overgeneralizing across subgroups of children and youth.
3. Determine what the factors imply for the typical array of educational and related social/health services, including the impact on professional development for all school staff.
4. Design appropriate educational and management (i.e., systemic) responses for students that stem from the results of steps 1 through 3.

School reform based on less than the four steps above increases both the probability that sound educational research results from varied perspectives will not be utilized in reform plans and expectations, and the danger of focusing on a limited number of factors and using them to craft quick, incomplete solutions to high and persistent failure rates for many students and their schools.

Reference

Johnston, R. (1999). Texas study links teacher certification, student success. *Education Week*, Vol. XVIII, 35, pp. 19-20.

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“Multiple lessons from educational research should be used to inform policy and to guide practice.”

Pedagogy, Research, and Practice: A Videodocumentary Case Study Of Change

In an interactive symposium, CREDE's Associate Director Barry Rutherford and researcher/professional development trainer Audrey Sirota presented *Pedagogy, Research, and Practice: A Videodocumentary of Change*. This 32-minute video, produced by Rutherford and Sirota, documents the transformation in teaching style of a veteran secondary school teacher, as inspired by his student teacher. Both teachers were also present at the symposium.

When Laura Ianacone began her student teaching in Jack Mallory's social studies class, she quickly recognized that a traditional, predominately lecture method of teaching was not effective with the multicultural, multilingual students. Sirota and Ianacone collaborated to design a classroom where Ianacone and the students could work together on meaningful activities requiring instructional conversation.

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Foster, M. (in press). Pay leon pay leon pay leon paleontologist: using call and response to facilitate language mastery and literacy acquisition among African American students. To appear in: S. Lanehart (Ed.), *Sociocultural and historical context of African American English*. Philadelphia: John Benjamins Publishing.

Lee, C. D. (1995). Signifying as a scaffold for literary interpretation. *Journal of Black Psychology* 21 (4), 357-81.

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Silva, C. M., & Moses, R. P. (1990). The Algebra Project: Making middle school mathematics count. *Journal of Negro Education*, 59 (3), 375-91.

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Inspired by the students' positive responses to this new instructional practice, Mallory shifted from his previous teaching style (whole group lecture and student presentation) to multiple, simultaneous activity settings. Ianacone and Sirota helped him create and implement these activity settings, also known as centers or workstations.

After the screening, the video's producers and featured teachers facilitated an active audience discussion. Regarding encouraging student involvement in multiple, simultaneous activity settings, one audience member remarked, "I've been teaching, all ages, for a long time and I remember centers from 20 years ago. I think it's crucial to involve students in the creation of centers right from the start."

Copies of this videodocumentary are available; please see page 6 for ordering information. 🌿

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like, but we lack an adequate action theory to bring about the new vision of education," commented Tharp. The challenge of learning how the research and development community can work with practitioners to make the new vision a reality is a crucial issue for linguistically and culturally diverse students. 🌿

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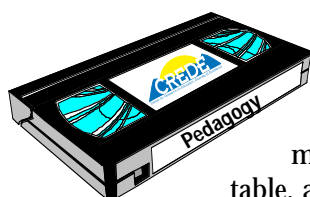
New Products from CREDE

Successful Transition into Mainstream English: Effective Strategies for Studying Literature



by W. Saunders, G. O'Brien, D. Lennon, & J. McLean

This report (EPR 2) is one of a series on various aspects of a multiyear Spanish-to-English language arts transition curriculum in the Los Angeles, CA area. The program uses 8-week literature units to promote first and second language acquisition and academic achievement in grades 2-5. The authors describe four effective instructional strategies used in the program: a) building students' background knowledge, b) drawing on students' personal experiences, c) promoting extended discourse through writing and discussion, and d) assisting students in re-reading pivotal portions of the text. (1999, \$5)



Pedagogy, Research, and Practice: A Videodocumentary of Change

This video documents a model of teacher and classroom change at a secondary school in Santa Cruz, CA. *Pedagogy, Research, and Practice* illustrates and specifically documents what reformed classrooms should look like in order to be effective, inclusive, equitable, and harmonious. The videodocumentary shows effective teaching strategies that helped teachers transform a high school social studies class. It explores the rationale for change, CREDE's Standards for Effective Pedagogy, the creation of multiple activity settings, and the professional development support required for teacher change. Actual classroom footage and interviews with teachers, students, researchers, and professional developers help the viewer reflect on the process of teacher change. (1999, \$20)

Also Available from CREDE

Research Reports

*RR 1 • From At-Risk to Excellence: Research, Theory, and Principles for Practice

R. Tharp

By summarizing findings from previous investigations that examined effective educational programs for these learners, and studies of effective educational reform in general, Tharp sets out principles for school reform. (1997, \$5)

*RR 2 • Scaling up School Restructuring in Multicultural, Multilingual Contexts: Early Observations from Sunland County

S. Stringfield, A. Datnow, & S. M. Ross

This report examines 13 culturally and linguistically diverse elementary schools, each of which is implementing one of six externally developed school restructuring designs. (1998, \$5)

*RR 3 • Becoming Bilingual in the Amigos Two-Way Immersion Program

M.T. Cazabon, E. Nicoladis, & W.E. Lambert

This report examines students' attitudes, through their school achievement in Spanish and English and through their responses to questionnaires, toward becoming bilingual in the Amigos two-way immersion program. (1998, \$5)

*RR 4 • Pedagogy Matters: Standards for Effective Teaching Practice

S. Dalton

This report presents CREDE's five standards for effective pedagogy: joint productive activity, language and literacy development, meaning making, complex thinking, and instructional conversation. (1998, \$5)

***RR 5 • Educational Reform Implementation: A Co-Constructed Process**

A. Datnow, L. Hubbard, & H. Mehan

This report presents initial findings from a study of two CREDE projects: one on the implementation of the school reform efforts in “Sunland County” schools, and the other on the implementation of the Advancement Via Individual Determination (AVID) untracking program in Kentucky schools. (1998, \$5)

***RR 6 • The Effects of Instructional Conversations and Literature Logs on the Story Comprehension and Thematic Understanding of English Proficient and Limited English Proficient Students**

W. M. Saunders & C. Goldenberg

In a study of English language arts transition programs for Spanish speaking students, researchers found that when teachers used both literature logs and instructional conversations with limited English proficient fourth and fifth graders, the students understood the literature being studied better than when teachers used only one of the techniques. (1999, \$5)

Educational Practice Reports

EPR 1 • Program Alternatives for Linguistically Diverse Students

F. Genesee, Editor

This report describes newcomer programs, transitional bilingual education, developmental bilingual education, and two-way immersion. In addition, second language/foreign language immersion is explained for students of majority language backgrounds who are studying through a second or heritage language. The report also discusses sheltered instruction, an approach that can be used with all students learning through a second language. (1999, \$5)

Directories

***Secondary Newcomer Programs in the United States: 1996-1997 Directory**

D. Short & B. Boyson

This directory contains profiles of 60 middle and high school newcomer programs in 18 states. Each profile contains information concerning program location, size, and length of enrollment; student demographics; features of instruction and assessment; program staffing; other services offered; and program contacts. (1997, \$15)

***Secondary Newcomer Programs in the United States: 1997-1998 Supplement**

D. Short & B. Boyson

This supplement contains profiles of 26 middle and high school newcomer programs in 12 states. Together, the 1996-1997 Directory and the 1997-1998 Supplement contain profiles of 86 newcomer programs in the U.S. (1998, \$10)

***Two-Way Bilingual Immersion Programs in the United States, 1997-1998 Supplement**

C. McCargo & D. Christian

This supplement contains profiles of 21 new two-way bilingual programs, adding two new states to the two-way database—Kansas and Oregon. Together, the *Directory of Two-Way Bilingual Programs in the United States, Revised 1995*, the 1996-1997 Supplement, and the 1997-1998 Supplement contain profiles of 225 schools in the U.S. with two-way programs. (1998, \$8)

Multimedia

Teaching *Alive!*

An Interactive Professional Development CD-ROM

Designed as a textbook for teacher pre-service or in-service education, this virtual classroom presents five principles for effective teaching of at-risk K-8 students; 35 minutes of real video clips of excellent teaching practices for all students, including those placed at risk by cultural, linguistic, racial, geographic, and economic factors; and transcripts of each lesson, which scroll down the screen in pace with the video. (\$49 for individuals, institutions; \$39 for students, university bookstores)

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