

# TRANSFORMATION

Fall/Winter 2005

Improving Low-Performing Schools: Policy Implications from Research

A Closer  
Look

## School Performance Coaches

Descriptive studies examine Tennessee's efforts to bolster low-performing schools with the assistance of recently retired teachers with specialized training.

TO BOLSTER SCHOOL REFORM EFFORTS IN LOW-performing schools, the Tennessee Department of Education established the Tennessee Exemplary Educators program in 2001. Exemplary Educators are recently retired educators who are selected to assist low-performing schools to improve student performance. In general, student achievement has increased in these schools. Reports prepared by Edvantia for the Tennessee Department of Education describe program features and student achievement in participating schools.

*Exemplary Educators.* Exemplary Educators work with schools to help them identify critical needs and implement changes that will result in higher student achievement. Currently, 95 of these school performance coaches work in more than 155 High Priority schools and 22 High Priority school districts in Tennessee. Seven cohorts of Exemplary Educators have been selected, beginning in November 2000. Each Exemplary Educator was selected through a rigorous application and interview process and receives more than 200 hours of intensive professional development each year from Edvantia.

Most Exemplary Educators hold master's degrees, and the majority have education beyond a master's degree. They have an average of 34 years of experience in the field of education and have held a range of positions in schools, districts, or other educational venues.

Although Exemplary Educators approach their work with a common orientation, Edvantia researchers looking across

schools have discerned no pattern linking specific Exemplary Educator characteristics or activities with schools' making adequate yearly progress. It appears that they provide highly individualized assistance to each school based on the school's needs and strengths.

*Student achievement.* Exemplary Educators have generally been assigned to provide assistance to schools that serve predominantly economically disadvantaged students. In general, student achievement has increased in schools where Exemplary Educators have provided assistance. The size of the increase varies from school to school, and increases have not occurred in some schools. However, the gains in schools assisted by Exemplary Educators overall are comparable to or greater than gains in typical and high-performing Tennessee schools. Schools assisted by Exemplary Educators for two years have recorded larger gains on average than schools that have been assisted for one year.

Edvantia researchers made these observations by comparing student achievement levels in mathematics and language arts prior to and subsequent to the introduction of

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## About This Issue

THIS FINAL PRINT ISSUE OF *TRANSFORMATION* presents findings from recent research and evaluation studies from Edvantia. Most of these studies took place in schools in Kentucky, Tennessee, Virginia, and West Virginia—the region served by the Appalachia Educational Laboratory at Edvantia. These investigations offer insights and evidence to inform policy discussions and decisions.

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## Coaches

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Exemplary Educators. First, they calculated an average on each achievement indicator for three years prior to the introduction of the program (1999, 2000, and 2001). Second, student achievement on the same indicator was computed for the years subsequent to the introduction of the program (2002 and 2003). Third, a gain (or loss) score was determined by calculating the difference between these two average scores.

Gain/loss scores were then compared with gain/loss scores for other Tennessee schools observed over the same period of time—Title I schools that rolled off the state list of schools needing assistance and additional comparison groups identified as “typical” or “high performing” according to reading and math Normal Curve Equivalent scores (for elementary schools) and

reading and math ACT scores (for high schools).

The researchers observe that, in general, the longer an Exemplary Educator assisted an elementary school, the greater the gains in student achievement—although the relationship between length of assistance and student achievement was not as clear in high schools. The sustainability of student achievement increases in schools that receive assistance from Exemplary Educators has yet to be determined.

**Notable insights.** The researchers note that the amounts of increase in student achievement vary from school to school, and increases in student achievement have not occurred in some schools. Causes of variability and factors contributing to the lack of success need to be identified, and procedures to counteract factors need to be implemented and evaluated.

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## Source of Research

James Craig, Aaron Butler, and Steven Moats, *An Analysis of the Attributes and Work of Exemplary Educators: Summary of Findings*, 2005; James Craig, Aaron Butler, Lori Parker, Kristine Chadwick, Chandra Wood, and James Garrett, *Status Report Review and Analysis: Summary of Findings*, 2005; *Gains in Achievement for High Priority Elementary and Middle Schools, School Year 2003-2004: Preliminary Report of Findings*, 2005; *An Initial Report on the Effects of Tennessee's Exemplary Educators on High Priority Schools*, 2004; *Key Features of Tennessee's Exemplary Educators*, 2004. All reports were prepared by Edvantia (formerly AEL) for the Tennessee Department of Education.

percentages of students qualifying for free or reduced-price lunch were 33%, 60%, 67%, and 78% and the percentages of students who were African American were, respectively, 27%, 35%, 34%, and 76%.)

The researchers note that none of the comparison schools had been designated by the state as low performing, while three of the four pilot schools had received this designation. They also state that a randomized experiment was not possible for several reasons—for instance, participating schools were selected by the superintendent and pilot school team members were selected by the principals.

The *full treatment* group consisted of 22 teachers at the pilot schools (two elementary, one middle, and one high) who participated in professional development sessions, attended twice-a-month meetings on implementing the professional development, and received ongoing technical assistance. One subgroup of pilot team teachers taught culturally responsive curriculum units; another subgroup did not. The *partial treatment* group consisted of 158 teachers from the pilot schools who did not participate in professional development sessions, attend meetings, or receive assistance. One subgroup taught culturally responsive curriculum units, and another

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A Closer  
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## Culturally Responsive Instruction

Intensive training and support can help teachers engage students who have various cultural characteristics, experiences, and perspectives.

A STUDY OF A CULTURALLY RESPONSIVE teaching intervention in four West Virginia schools indicates that the approach can have positive effects on teacher and student classroom behaviors—including time on task. However, findings reported by the Appalachia Educational Laboratory at Edvantia indicate that teachers need intensive training and ongoing support if schools are to realize the full benefits of the intervention.

Culturally responsive teaching is based on the idea that culture is central to student learning and teachers can be more effective when they tap into students' cultural characteristics, experiences, and perspectives. The Education Alliance at Brown University has examined research related to this concept and identified nine principles that guide culturally responsive teaching. The intervention examined in the

Edvantia study incorporated these principles: communication of high expectations; active teaching methods; teacher as facilitator; attention to culturally and linguistically diverse students; cultural sensitivity; reshaping the curriculum; culturally mediated instruction; student-controlled classroom discourse; small-group instruction and academically related discourse.

Eight schools in the same district participated in the 2003-2004 study, four as pilot schools for the intervention and four as comparison schools. The researchers used a quasi-experimental research design; that is, there was a control group, but teachers were not randomly assigned to full treatment, partial treatment, or control groups. The comparison schools were selected because their demographics and achievement levels most closely matched those of the pilot schools. (In the pilot schools, the per-

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subgroup did not. The *comparison group* consisted of 128 teachers in four other schools (two elementary, one middle, and one high) who received no training or culturally responsive materials.

Data collection methods included administration of various Edvantia-developed paper-and-pencil instruments, classroom observations, and analysis of student results on the statewide achievement test. Focus groups and interviews with project participants provided contextual data. Multiple perspectives were sought in order to triangulate data and increase the validity of findings.

Edvantia researchers found that teachers in the full treatment group who taught a culturally responsive instructional unit developed by Edvantia created a more positive classroom learning environment and demonstrated better use of class time than teachers in the partial treatment and control groups. These

teachers added the equivalent of 16.11 days of instructional time over the course of a year by keeping themselves and students on task over 90% of the time, which was more than other teachers.

These teachers also demonstrated a significantly higher quality of instruction and had more success engaging students in interactive instruction than teachers in other classrooms studied. At the close of the project, these teachers reported having a greater understanding of the causes of achievement gaps and the importance of culturally responsive teaching strategies in closing achievement gaps.

Researchers found that in pilot schools, students' perceptions of (1) belonging to their school community, (2) their ability to do well academically, and (3) their families' expectations of them all improved.

**Notable insights.** The study showed that the intervention was more likely to have a positive effect on teachers' beliefs,

perceptions, and behaviors when teachers received intensive training, experience in teaching culturally responsive curriculum units, and ongoing support from a skilled facilitator. For maximum benefit, Edvantia researchers also recommend schoolwide implementation.

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### Source of Research

A team of 10 researchers authored the original research report, *Effects of a Culturally Responsive Teaching Project on Teachers and Students in Selected Kanawha County, WV, Schools*, 2005. An executive summary is available from Edvantia at [www.edvantia.org/publications/pdf/MAACKExecutiveSummary.pdf](http://www.edvantia.org/publications/pdf/MAACKExecutiveSummary.pdf).

schools) found high levels of satisfaction with the content of the training. Statistical comparisons of teacher knowledge before the program began and after the completion of each module found significant improvements in each area. Data showed that, overall, average scores increased 21 percentage points.

Analysis of collected data indicated that introducing the online professional development program in the middle of a school year was difficult for some participants. As a result, the Tennessee Department of Education decided to introduce the program at the beginning of the school year thereafter. The researchers observed technology infrastructure difficulties at the school level, but most of these problems were addressed during the course of the training.

The researchers also conducted a cost analysis of development and delivery of the online program and compared the cost of delivering the same materials through face-to-face workshops. Costs were considered from the perspectives of the developer, the state (which paid for course development), and the schools that purchased course seats

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## Online Professional Development

Study suggests online courses can be a cost-effective way to increase teacher knowledge in literacy instruction.

IN THE SPRING OF 2004, THE TENNESSEE Department of Education began delivering an online professional development course to 56 elementary schools with Reading First grants. Researchers at the CNA Corporation collaborated with the course developers and implementers at Edvantia to assess the program's cost effectiveness and its effects on teacher knowledge in literacy instruction. Their analysis suggests that the online course was cost effective and resulted in positive effects on teacher knowledge.

The 16-week course, *Assessment and Intervention in a Comprehensive Literacy Classroom*, was developed by Edvantia to help K-3 teachers, K-12 special education teachers, and building-level administrators to incorporate formal and informal assessments into reading instruction and to use

the results of those assessments to guide instruction. The course includes five modules: (1) a conceptual model of a comprehensive literacy classroom in which all children can learn to read well by the end of the third grade; (2) the five essential elements of reading instruction; (3) the Tennessee assessment system and its assessment types (screening, diagnosis, outcome, and progress monitoring); (4) assessment instruments, implementation steps, and practice opportunities; and (5) use of assessment data to guide planning, grouping for instruction, and selecting instructional strategies.

An examination of feedback from four sources (online evaluations, threaded discussions among course participants, focus group surveys, and discussions with literacy leaders from the participating

**Online Professional Development** \_\_\_\_\_  
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for their teachers. Taking into account all development and delivery costs, they estimated that the provider spent \$24.81 per course seat on the creation and delivery of the training, a cost that will decrease as the enrollment in the course increases. This cost is less than half that of a similar face-to-face course, which the researchers estimated at \$70 per course seat.

Researchers noted that they had hoped to examine student outcomes in the 56 Reading First schools relative to student

outcomes in a sample of matched comparison schools. However, due to limitations in the public availability of the 2005 student achievement data (TCAP and TVAAS), they have not yet been able to fully explore the relationship between teachers' online professional development and its possible impact on their students' academic achievement.

**Notable insights.** Limitations in the availability of student achievement data underscore the difficulty of quantifying the relationship between professional development and student achievement.

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### Source of Research

John Ross, Carol Thigpin, Linda Cavalluzzo, Joseph Guzman, and Leslie Patterson, *A Study of Perceptions and Changes in Knowledge, Practice, and Student Achievement as a Result of AEL's Online Professional Development in Reading in Tennessee*, 2004. Linda Cavalluzzo, David Lopez, and John Ross with Miguel Martinez, *Cost-Effectiveness Analysis of Online Professional Development*, 2005.

### Case Study

## Linking Teacher Education and P-12 Learning

Internal and external factors affect universities' efforts to measure and improve the impact of teacher graduates on P-12 student learning.

ELEVEN MEMBERS OF THE RENAISSANCE Group, a 10-state consortium of 36 colleges and universities noted for their teacher education programs, are using a Title II grant to develop systems to measure and improve teacher candidates' ability to facilitate P-12 student learning. A 2003 study concluded that two components of the Title II Renaissance Partnership for Improving Teacher Quality Project (teacher work samples and development of an accountability system) have great potential for improving the teaching skills of graduates and effecting institutional improvement. Four participating universities have demonstrated progress that is above the group average on both components. A follow-up evaluation revealed that internal and external factors contributed to their progress.

The key component of The Renaissance Group's effort is the creation of a "circle of feedback" among teacher educators, program graduates (new and in-service teachers), and children's achievement in the classroom. Teacher work samples, classroom observations, and other measures assess the performance of individual

teacher-student pairs relative to national and state teaching standards.

Teacher work samples are exhibits of teaching performance (e.g., written narratives, assessment instruments, student work) that provide direct evidence of a teacher's ability to design and teach standards-based instruction, assess student learning, reflect on the teaching/learning process, and help all students learn. Work samples give both P-12 and university teachers direct evidence of whether their teaching is improving student learning on professional standards. This assessment method, known as the Teacher Work Sample Methodology, was developed at Western Oregon University and was modified by participating higher education institutions.

Edvantia researchers used a case study approach to identify factors contributing to above-average progress in instituting teacher work samples and establishing accountability systems. During two-day site visits conducted at each of the four above-average universities in the fall of 2004, 65 individual and group interview sessions

were conducted with a total of 209 people, including 18 university administrators and project coordinators, 79 faculty members and technology staff, 85 teacher candidates and recent graduates, and 27 cooperating K-12 school and district personnel. Edvantia also examined relevant materials and electronic data management systems.

**Teacher work samples.** The researchers found that the concept of teacher work samples as both a process and a product has become embedded in the cultures of the four universities and enjoys strong commitment from university leadership. Awareness and training sessions were offered for various stakeholder groups; also offered was formal training on scoring teacher work samples. At two universities, university-wide faculty councils were instrumental in making teacher work samples mandatory for all student teachers.

**Accountability systems.** All four universities have strong administrative support and commitment for developing and using a data management system. Routine reporting of data is becoming standard within each university. The universities built systems that are Web based and include both custom and commercial software programs.

Across the four universities, three key factors contributed to the institutionalization of accountability systems: external pressures, strong leadership, and resources. External factors included the need to develop data-based accountability systems for the schools' National Council for Accredi-

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tation of Teacher Education accreditation visits and the growing pressure on K-12 schools to implement data-driven instructional decision making. Strong leadership was evident in administrative support for system development and for a team approach to designing, developing, and implementing accountability systems. The Renaissance grant, which covered staffing and technology, provided vital support.

*Improving teacher quality.* Case studies at the four universities revealed several ways in which teacher work samples and accountability systems are improving teacher education and, thereby, improving teacher quality. (1) Teacher work samples, by design, shift the focus from textbook-driven instruction to data-driven instruction. (2) Faculty members' instructional successes and weaknesses become more

evident during reviews of their students' completed work samples. (3) The universities have used their experiences with teacher work samples to modify their curricula. (4) The teacher work samples and the accountability system have increased faculty conversations and cooperation within and across departments.

Edvantia researchers note that the universities studied have completed the first steps necessary to investigating the relationship between teacher-graduate performance and P-12 learning.

**Notable insights.** It is clear that the success of the four universities studied would have been much more difficult, if not impossible, to achieve without the financial support of the Renaissance grant and the synergistic information sharing that the Partnership project promoted among its participants.

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### Source of Research

Kimberly S. Cowley, Susan Voelkel, and Nicole L. Finch, *Teacher Work Samples and Accountability Systems: An In-Depth Study of Successful Implementation at Four Universities Participating in the Title II Renaissance Partnership for Improving Teacher Quality Project*, 2005. Kimberly S. Cowley, Nicole L. Finch, Merrill L. Meehan, and David Holdzkom, *Formative Evaluation of the Title II Renaissance Partnership for Improving Teacher Quality Project*, 2003. The formative evaluation received a first-place award from the American Educational Research Association in the School Evaluation and Program Improvement Division's Outstanding Publications Competition in 2004. Information about teacher work samples and the AEL (now Edvantia) independent evaluation of the Renaissance Partnership Project is available on The Renaissance Group's Web site (<http://fp/uni.edu/itq/>).

A Closer  
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## Improvement Specialists Can Help Schools Boost Student Performance

A three-year study identified several factors influencing the effectiveness of a districtwide intervention.

BETWEEN 2002 AND 2005, THE APPALACHIA Educational Laboratory at Edvantia worked in partnership with the Virginia Department of Education and a low-performing urban school district to design and test an intervention called the Partnership for Achieving Successful Schools (PA+SS IV). This initiative called for a system of external facilitation focused on data-based instructional decision making and strategic improvement planning. An evaluation prepared by the CNA Corporation (CNAC) found that implementation proceeded slowly at first due to mistrust of the intervention among school leaders, lack of support from the school board, and frequent turnover among professional staff (approximately 50% annually). It appears, however, that the external facilitators (called "school improvement specialists") were able to establish working relationships with school staff and to move forward with data analysis, school improvement planning, and cur-

riculum alignment. Available data show improvements in schools' professional learning culture and an overall increase in pass rates on Virginia's state exams for the majority of students at all grade levels.

The goal of the PA+SS IV intervention was to help the district schools meet all criteria for state accreditation. Improvement specialists worked in each of the district's 10 schools, and a specialist was also placed in the central office. Each specialist was an experienced educator who had successfully led a similar school in the past. All received training from Edvantia in the use of data for decision making, school improvement planning, curriculum alignment, monitoring instruction, and monitoring student achievement. They also received in-depth training in facilitation skills.

The specialists' role was to support schools by guiding school personnel in assessing needs and developing strategic improvement plans. School improvement

specialists were assigned to work on site at a school at least one day a week. The specialist assigned to the central office initially worked 20 hours a week, but the assignment expanded over time to four days a week. The specialists were involved in creating, implementing, and monitoring the school improvement plans. Two major thrusts of the specialists' work were (1) training and assisting teachers and administrators in analyzing data for instructional planning and (2) aligning the curriculum to state standards.

CNAC evaluators examined the fidelity with which the PA+SS IV intervention was implemented, its effects on the quality of school improvement plans, and its impact on school climate and instructional quality. They used a matched comparison group design, using school-level data to provide a rough initial measure of the intervention's success in improving student achievement.

The evaluators found that implementation of the intervention model was achieved through the multiyear presence of the improvement specialists and the atten-

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## Improvement Specialists

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tion that was paid at the building level to increasing each school's capacity for improvement. Analysis of school improvement plans indicates that the content of all school plans matched the PA+SS IV rubric indicators, but the evaluators were not always able to determine whether schools successfully implemented the plans because some schools lacked detailed documentation. Interviews with school improvement specialists and analyses of their weekly journal entries indicated that principals and central office staff showed a great deal of interest and focus in completing the plans, but little use was made of the completed documents in gauging school progress toward defined goals. "The challenge," said the central office school improvement specialist, "is to simply make the school improvement plan more meaningful."

A comparative analysis with matched control schools in another district showed that schools in the PA+SS IV district are making gains in student achievement that approximate or exceed the rate of gain in the matched control schools and state averages. Student achievement data show an overall increase in state assessment pass rates for the majority of students in the dis-

trict, and a trend line analysis shows that most of these pass rates increased at a greater rate following implementation of the program.

Researchers acknowledge that pass rates are not an ideal measure of student achievement but state that these were the only student achievement data available to them.

Staff responses to Edvantia's Continuous School Improvement Questionnaire, which measures commitment to continuous learning and improvement, revealed improvement on all six measures (shared leadership, effective teaching, school-family-community connections, purposeful student assessment, shared goals for learning, and learning culture). Responses to Edvantia's Measure of School Capacity for Improvement indicate that professional staff were less satisfied with their schools' capacity for improvement in 2004 and 2005 than they were in 2003 (the first year of the intervention). The evaluators state that such dissatisfaction may represent an "implementation dip," wherein staff become aware of how much change is needed for successful reform.

**Notable insights.** The researchers caution that because achievement data from only two post-intervention years could be

compared to the pre-intervention achievement data, more time is needed to see whether the PA+SS IV intervention will have the intended effects on student achievement. They recommend that school culture be measured beyond the three-year intervention period to determine whether the schools continue to develop capacity for improvement. To improve the likelihood of sustaining improvements, they recommend that the district institutionalize the central office school improvement specialist position and call on the staff member at each school who received the most training in data analysis to provide instruction in analyzing data for use in instructional planning.

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### Source of Research

Joanna Edwards, Karen Smith, Linda Marr, Laura Wyshynski, and Kristine Chadwick. *School Improvement in Petersburg: A Comprehensive Three-Year Study of the Partnership for Achieving Successful Schools Initiative Model IV Intervention* (Final Evaluation Report), 2005.

professional development and providing access to a "best practices" database, expanding services in terms of hours and/or subjects, exploring solutions to transportation challenges, investigating ways to recruit hard-to-reach students, and encouraging more involvement of parents and students in setting goals for individual students.

The evaluation had two major data collection components. First, statewide surveys were administered to populations of district and school ESS coordinators. Second, pairs of trained data collectors conducted two- to three-day visits to a sample of 24 elementary, middle, and high schools. Site visit data collection instruments included four different surveys, five interview protocols, a three-instrument classroom observation system, and an innovation con-

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A Closer  
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## Extended School Services

Kentucky's statewide program positively impacts student motivation.

In 2001, EDVANTIA AND ITS PARTNER, WESTERN Kentucky University, conducted a comprehensive evaluation of Kentucky's Extended School Services (ESS) program, which was established in 1990 as part of the Kentucky Education Reform Act. The ESS program was designed to address the needs of the state's K-12 students who are at risk of academic failure by providing additional instructional time before school, after school, and in the summer. Nearly all of Kentucky's 1,450 schools offer some type of ESS program.

The evaluation showed the ESS pro-

gram to be addressing its stated goals and having a positive impact on student motivation—and to be positively perceived by involved stakeholders. (Nearly all teachers and coordinators also reported increased academic achievement among participants, but student achievement data were not available for analysis.)

Evaluators offered several recommendations for improving the program but noted that several would require an increased level of funding. Recommendations included addressing the need to recruit and retain qualified staff, enhancing pro-

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figuration checklist. Evaluators were struck by the “marked consistency and high degree of corroboration both within and among respondent perceptions and data collector observations.”

The evaluators made several observations about program strengths, the nature of instruction, and student outcomes:

**Program strengths.** Coordinators and teachers agree that the most critical components for successful implementation are strong district- and building-level support. Process-linked support for implementation included targeting students as early as possible, dedicated staff, student transportation, collaboration between teachers and coordinators, flexible scheduling, low teacher-student ratio, and individualized instruction. Given that student mobility is high throughout the program, a unique strength is the program’s fluid and flexible

accommodations in identification, referral, and enrollment.

**Nature of instruction.** The quality of instruction was better in regular classrooms, but the level of instruction was more often appropriate in ESS classrooms, where it tended to be student-led and individualized. ESS classrooms often reinforced learning through the use of games, visual aids, practice, additional time, and incentives.

**Student outcomes.** Nearly all teachers and coordinators indicated increased academic achievement among participating students, but participating students and their parents also reported improved study skills and increased motivation to learn.

**Notable insights.** The evaluators recommended that “it should be clearly communicated to all stakeholders that the ESS program, as implemented under current laws and regulations, is not designed to be an enrichment program. A clear un-

derstanding of the specific nature and purpose of the statewide program may help avoid efforts to shift its focus from struggling learners to all students.”

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### Source of Research

Kimberly S. Cowley, Merrill L. Meehan, Nicole Finch, Kristine Chadwick, Caitlin Howley, Joy Riffle, Jennifer Blake, and Lisa Ermolov, *Comprehensive Evaluation of the Kentucky Extended School Services Program, 2002*. This report was prepared for the Kentucky Department of Education and is available on its Web site at [www.education.ky.gov/KDE/Administrative+Resources/Data+and+Research/Kentucky+Research/Achievement+Gap+and+At+Risk+Research+.htm](http://www.education.ky.gov/KDE/Administrative+Resources/Data+and+Research/Kentucky+Research/Achievement+Gap+and+At+Risk+Research+.htm).

disadvantage in attracting and retaining well-qualified teachers.

At the national level, the merits of a variety of practices are being examined and debated. A look at rural-specific and general literature shows agreement that effective recruitment and retention practices share four characteristics: They are (1) strategic, (2) specific to the schools or subject areas that are hard to staff, (3) sustained, and (4) rooted in the community.

A survey of literature on state and district strategies revealed five major strategies being used for recruiting and retaining teachers: (1) “grow-your-own” initiatives, especially those that help paraprofessionals become certified teachers; (2) targeted incentives to teach in schools or subject areas where the need is greatest; (3) improved recruitment and hiring practices; (4) improved school-level support for teachers, including formal induction and mentoring programs; and (5) use of interactive technologies to meet information and professional development needs.

A review of the research and practice literature suggests 14 promising strategies for placing high-quality teachers in rural classrooms and keeping them there. These

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## Rural Teacher Recruitment and Retention

A literature review, a national survey of rural superintendents, and case studies in Virginia highlight challenges and possible solutions.

IN 2004, EDVANTIA AND THE NATIONAL Association of State Boards of Education (NASBE) initiated an effort to identify successful strategies for recruiting and retaining highly qualified teachers in rural areas. They reviewed non-rural-specific and rural-specific research and practice literature, surveyed rural superintendents across the nation, and conducted case studies of three Virginia programs that support teacher recruitment and retention.

Generally, the literature shows that the problem of teacher shortages varies across geography, demography, and subject area. The schools that find it hardest to recruit and retain highly qualified teachers are those in highly urban and rural areas (especially those serving minority or low-income students) and schools in the Southeast, Southwest, and the West. Especially needed are teachers in spe-

cial education, bilingual education, math, and science. Edvantia/NASBE survey results and case studies amplify these findings and offer insights into challenges and promising practices in rural teacher recruitment and retention.

**Literature review.** Rural-specific literature identifies four challenges related to recruiting and retaining teachers in rural areas: (1) lower pay; (2) geographic and social isolation; (3) difficult working conditions, such as having to teach classes in multiple subject areas; and (4) NCLB requirements for highly qualified teachers (e.g., many rural teachers will need certification in multiple subject areas, and professional development opportunities can sometimes be scarce in rural communities). Collectively, these challenges can place rural schools and districts at a competitive

## Rural Teacher

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include the strategies mentioned above, plus others: base recruitment efforts on data analysis, increase the pool of candidates by expanding or refining recruitment efforts, include all vital partners in collaborative efforts, evaluate efforts regularly, encourage universities to customize teacher education programs, include building-level staff in the hiring process, improve the school's culture and working conditions, involve the community in welcoming new teachers, and invest in leadership development.

**National survey.** A total of 597 superintendents from a random selection of 1,565 school districts completed the survey with valid data, yielding an overall response rate of 38%. The responses of these 597 superintendents reflect the recruiting and retention practices of approximately 1,900 schools serving more than 718,000 elementary, middle school, and high school students from rural areas.

Survey results echo the literature review's finding that districts located near urban areas may have greater advantages when compared to districts not located near an urban area. Districts located near an urban area have more schools within the district and serve more students than those districts not located near an urban area. However, these same schools also report having fewer students qualifying for free or reduced lunches, indicating that rural and remote schools may have substantially more students living in poverty.

Rural districts reported that their greatest challenges in recruiting and retaining teachers are geographic and social isolation as well as being in close proximity to higher-paying districts.

The most frequently cited recruitment

methods were the use of statewide/local/Internet advertising, personal contacts, and networking. Strategies for locating potential teachers included involving building-level staff in the recruitment and hiring process, promoting the advantages of living and teaching in a rural area, and offering more competitive salaries. Given the resources present in rural districts, the limited reliance on the use of targeted incentives, housing and relocation assistance, and collecting relevant data on teacher supply and demand is not surprising.

Teachers who stay in rural districts are thought to do so as a result of enjoying their position and the overall school and community environment, as well as the salary and benefits or the stability and convenience of being in one area. While some superintendents indicate that teachers leave for personal reasons or to relocate, other reasons include poor salary and benefits, dissatisfaction with working in a small school and living in a rural environment, and reduced opportunities.

**Case studies.** In 2002, Virginia received a three-year \$13.5 million federal Teacher Quality Enhancement Grant to develop and implement strategies to train and retain high-quality teachers. The grant funded five recruitment and retention efforts. Edvantia and NASBE used a case study approach to examine three of these programs: the Teachers for Tomorrow Program, a precollege recruitment effort; the Career Switcher program, aimed at attracting midcareer teacher candidates; and the Teacher Mentoring Pilot Program, which supports a variety of new teacher induction programs.

Data were collected via document reviews and semi-structured interviews in schools in seven rural Virginia school divisions. Documents included Virginia De-

partment of Education reports and program descriptions and materials. Interviews were conducted with 51 individuals, including 3 state directors, 6 division and school administrators, 4 program instructors, 19 students, 6 teacher candidates, 6 mentors, and 13 beginning teachers.

Because the programs studied are in the early stages of implementation; it is too early to judge their overall effect on rural teacher recruitment and retention. Preliminary data indicate, however, that each program holds promise. The researchers concluded that two factors are critical to the programs' continued success: ensuring adequate funding and allowing rural school districts to adapt programs to meet their needs.

**Notable insights.** Clearly, highly rural schools are at a disadvantage when competing for teachers in the national pool of candidates. Promising strategies for countering this disadvantage involve increasing the pool of qualified local candidates who are already committed to staying in the community and supporting their entry and early success in rural schools.

*To learn more about the Edvantia/NASBE study of rural teacher recruitment and retention, contact Edvantia's director of communication, Patricia Cahape Hammer, former director of the ERIC Clearinghouse on Rural Education and Small Schools. She can be reached at [Patricia.Hammer@edvantia.org](mailto:Patricia.Hammer@edvantia.org).*

### Source of Research

Patricia Cahape Hammer, Georgia Hughes, Carla McClure, Cynthia Reeves, and Dawn Salgado, *Rural Teacher Recruitment and Retention Practices: A Review of the Research Literature, National Survey of Rural Superintendents, and Case Studies of Programs in Virginia*, 2005. Published jointly by Edvantia and the National Association of State Boards of Education.



# Editor's Spotlight

## Randomized Field Trials: Rosy for Rigor but

## Thorny to Implement

IN PREVIOUS COLUMNS, I HAVE DISCUSSED THE growing “evidence-based policy” movement in education and its positive effects on increasing the rigor and scientific value of education research. Consonant with these developments, randomized field trials (RFTs) are gaining saliency as the most powerful means of identifying the impacts of educational programs on instruction and learning. Unlike quasi-experiments, which compare pre-existing “treatment” and control groups (e.g., schools that use a new program vs. similar schools that do not), random experiments eliminate “sampling bias” by establishing treatment and control group assignments purely on the basis of chance. Despite this very important advantage, the inherent challenge for RFT researchers is convincing real principals or teachers to change what they do educationally, in the interest of furthering education science, according to the outcome of a “coin flip.”

Random assignment can take place at different levels, such as with individual students, classes (teachers) within schools, or schools within a district. In the case of individual students, the key question becomes whether the treatment and control programs (e.g., using textbook vs. computer-based exercises) can be implemented simultaneously without arousing parental objections or disrupting the normal classroom flow. An important precondition is that the control treatment represents reasonable (albeit traditional or routine) instruction that doesn't deprive students of needed interventions that, in the absence of the research, they would otherwise receive.

The situation, unfortunately, can become more problematic with complex interventions that affect the primary instructional programs used in a particular course or throughout a school. An example

might be adopting a new math curriculum or integrating laptop computer usage with science instruction. Prospective RFT participants (teachers and principals) may perceive a control-group designation as a “sentence” to a type of “reform purgatory,” requiring them to continue using the very strategies that haven't been successful in the past. How can random assignment in these situations be made feasible and palatable?

A creative solution called “paired awards” has been proposed by noted Johns Hopkins University researcher Robert Slavin. A simplified description of this approach is having districts apply for grants by identifying pairs of schools (or teachers within schools) willing to participate in the research. Those randomly selected as controls would continue using their regular programs for one year, but then be eligible to adopt the treatment under reduced costs or other concessions. In this way, everyone stands to benefit by gaining fairly quick access to the treatment. But an underlying assumption here, with which I strongly disagree, is that most treatments can be implemented adequately within the first year to demonstrate their true benefits. In my research experiences, I have frequently seen the opposite occur—what some call the “implementation dip.” That is, given new strategies to understand and put into practice, teachers may struggle for a while, with short-term negative effects on teaching and learning. It would seem ironic if increasing RFT usage concomitantly caused the effectiveness of many potentially valuable programs to be systematically underestimated.

As a refinement of the above paired-awards approach, I advocate that the treatment-control comparison last a minimum of two years. As an incentive for partici-

pating, all schools (or teachers) in the selection sample would be offered two years of either the treatment or two years of something else that is sufficiently attractive. The latter could be an alternative new program where a comparison study is feasible or resources or professional development in a different area of need, e.g., classroom management, parent involvement, technology resources, or classroom library books. While this approach involves more cost, it buys essential time for educational programs to be tested validly. Knowing more confidently what works should pay dividends many times over the RFT cost.

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## About *TransFormation*

Edvantia, Inc. (formerly AEL) publishes *TransFormation* twice a year to provide policymakers with interpretive summaries of significant reports and rigorous studies about school transformation, giving special attention to research with possible implications for improving low-performing schools. It is edited by Dr. Steven Ross ([smross@memphis.edu](mailto:smross@memphis.edu)), Faudree Professor and director of the Center for Research in Educational Policy at The University of Memphis. Current and past issues are available online at [www.edvantia.org/transform](http://www.edvantia.org/transform).

## Recommended Reading

Policy briefs from Edvantia (formerly AEL) offer research analyses and insights into issues of interest to policymakers and education decision makers. All briefs, including those described below, are available online.

- *Maximizing the Effectiveness of Online Accountability Assessments for Students with Disabilities* (2005) by Mary Axelson

This policy brief describes why and how states can use universal design principles to maximize the effectiveness of their new assessments for measuring the knowledge and skills of students with disabilities while improving the speed and usefulness of their assessment systems in general.

<http://www.edvantia.org/publications/PBAssessment.pdf>

- *Corrective Action: A Look at State Takeovers of Urban and Rural Districts* (2005) by Patricia Cahape Hammer

Interest in state takeovers aimed at improving student achievement may increase as states explore turnaround options for districts identified for NCLB-required corrective action. This

policy brief examines research and data related to state takeovers or urban and rural districts and suggests measures for increasing the effectiveness of similar corrective actions.

<http://www.edvantia.org/publications/pdf/PBStateTakeovers.pdf>

- *Alternative and Conventional Certification for Education Administrators* (2004) by Lars G. Bjork & James S. Rinehart

This policy brief looks at the ongoing debate on the merits of deregulation and alternative certification versus strengthening the existing systems of certifying administrators.

<http://www.edvantia.org/publications/pdf/PBJune04.pdf>

- *High-Quality Teaching: Providing for Rural Teachers' Professional Development* (2004) by Aimee Howley & Craig B. Howley

This policy brief examines the need for high-quality professional development that engages rural meanings and is appropriate to the structure and dynamics of rural systems.

<http://www.edvantia.org/publications/pdf/PBHigh-QualityTeaching.pdf>