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It's time to share the rural gold mine. It's time to recognize the wisdom and strength that good rural teachers and small schools can give to *all* schools.

The Rural Education Gold Mine

by Judy Smith-Davis
Counterpoint
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Many school reform issues raised in the 1980s suggest that small, rural, and remote schools may have a "gold mine" of solutions to share with the nation. According to Barker (1987), "Americans are rediscovering the small school. Education has proclaimed that 'bigger is better' for so long that many have become believers in a doctrine which they have not truly examined. . . . The restructuring of schools to smaller entities may remedy some of the problems facing today's educators" (p. 5).

Rural schools have a history of building strength from adversity. Among the constraints they experience are multi-grade classrooms, multiple preparations for teachers, lack of support services, limited information resources and supplies, expanded duties, low budgets, limited staff development, lower salaries, combined schools, cultural differences, geographic isolation, and communication difficulties (Miller, 1988).

At the same time, these constraints can also represent such advantages as enhanced possibilities for student-centered education; a greater sense of teacher autonomy; fewer bureaucratic layers and more flexibility in decision-making; lower pupil-teacher ratios; more individualization of instruction; closer relationships among students, teachers, administrators, parents, and the community; greater collegiality and networking among teachers; enhanced experiences for students in self-directed learning and the development of initiative (Barker, 1987; Chronister, 1981; Scott, 1984).

Further, in response to some of the characteristics of rural schools, many teachers and principals have become "competent generalists" with skills in individualizing instruction for all students, in planning instruction according to individual learning styles, in grouping children for instruction, in managing multiple activities, and in using creativity and ingenuity in working with children and using local resources" (Scott, 1984, p. 4). Particularly in multigrade schools, "veteran teachers . . . become experts at organizing peer tutoring and managing cross-age and cross-grade

activities. They know how to use whole-group sessions to develop inquiry and thinking skills in students. The situation in which they work enables them to grasp the relationships within curricular components" (Scott, 1984, p. 4).

The strengths, challenges, and requirements of small schools (prominently schools with multi-grade classrooms) are largely the strengths that are sought for educating students with disabilities in the mainstream—and for educating the increasing numbers of other students who are at risk of school failure. Across the nation, a striking percentage of the school population is not succeeding. The lack of solutions is demonstrated in America's high dropout rate (Office of Planning and Evaluation Services, 1989).

Although various "innovative" programs for reaching and teaching at-risk students are advanced, perhaps many answers lie not in innovation but tradition. Perhaps many rural and remote schools have had answers all along. Good teaching is what every school, everywhere, needs now. Good teaching benefits all students—disabled, at risk, and "normal." The small school can be a genuine laboratory for the development and dissemination of good teaching, and there is no better instructor than the seasoned rural teacher who has mastered this environment.

While rural education does indeed have a gold mine of experience and solutions to offer to America's schools, it also shares with all schools the problems of recruiting and retaining personnel (Charmichael, 1982; Condon, Simmons, and Simmons, 1986; Smith-Davis, Burke, and Noel, 1984). This problem is magnified today by the national shortage of teachers and other personnel in many educational disciplines (National Clearinghouse for Professions in Special Education, 1988). By capitalizing on its strengths, and by demonstrating that small schools can produce master teachers, rural education may translate some of its characteristics into effective strategies for attracting and keeping qualified educators.

The purpose of this article is to encourage teachers, principals, therapists, and others in rural education to recognize and share the gold mine of solutions and successes they can offer to American education, and to begin by developing networks through which they can share their practices and solutions (gold nuggets) with one another, within schools, districts, regions, states, and the nation. The only place to start to improve education is with individual schools and teachers. The key to effective schools "lies in the people who populate particular schools at particular times and their interactions with these organizations. The search for excellence in schools is the search for excellence in people" (Clark, Lotto, and Astuto, 1984, p. 50).

Gold Nuggets in Cooperative Learning and Peer Tutoring

As the numbers of students who experience difficulty in school increases, a central cause may be that education in America's urban centers has focused largely on the single-ability classroom, where reading ability is the major measure of students' overall abilities. According to Lynch (1982), this status generalization creates an imbalance in the learning opportunities available to "smart" students (good readers) and "dull" students (poor readers). The reverse of this situation is the multi-ability classroom (Lynch, 1982), where many dimensions of competence are assumed, where students are encouraged to help one another in reading or other tasks, and where the teacher structures learning tasks so that students can see that many different skills are necessary to complete them.

Further, the competitive nature of American education has long been seen as a deterrent to the learning styles of some children, most prominently those from other cultures

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(Kagan and Madsen, 1971). Multi-ability instruction, on the other hand, lends itself to unit teaching (involving the whole class in a common instructional focus) and cooperative learning (in which the classroom is structured to engender student cooperation in the service of common goals). It has most often been rural schools that have fostered these approaches.

Cooperative learning enables diverse students to work together in ability-appropriate and age-appropriate ways, and it has been shown to help students to master the social skills needed for collaborative work, such as leadership, communication, and conflict management (Anderson, Nelson, Fox, and Gruber, 1988; Johnson and Johnson, 1987). The three basic formats (Schriedewind and Salend, 1987) are common to the multi-grade or multi-ability classroom:

- The group project format enables students to share information and skills to complete an assignment or project (such as a bulletin board). Each student contributes in his or her own way within the group, while the teacher monitors and consults.
- In jigsaw, the teacher plans assignments so that each student must complete an individual task (e.g., some aspect of recreating an historical period), based on strengths and learning needs, in order for the group to reach its goal.
- Peer teaching involves arranging for one student to assist another in learning a skill.

Peer tutoring is particularly effective as an instructional resource for students with disabilities or other learning problems. For example, a volunteer group of secondary students at a Texas high school were trained to participate with all levels and ages of children with disabilities in one of the district's special programs. These volunteers became proficient in sign language skills; acquired basic skills as assistants in academic and non-academic settings; learned appropriate methods and terminology for assisting in related services; became able to carry out prescribed home programs for children with disabilities; and became competent to provide respite care and babysitting services for parents of children with disabilities (Harris, 1988). Clearly, these high school students also learned much that will be of lasting value to them.

Similarly, in Arizona, "when teachers at the Dysart Unified Schools' 1986 Migrant Summer School needed assistance in tutoring students in oral language skills, they called for a LIRT (Language Instant Relief for Teachers)" (Ausberger, 1987). LIRTS were district work-study students who received classroom instruction and hands-on training with students who had communication disorders. During the first summer of this program, the LIRTS worked one-to-one with 50 students on oral language skills.

Research has shown that peer tutoring is effective and that the achievement gains of tutors are often as great or greater than the gains of the students who are tutored (Jenkins and Jenkins, 1981; Slavin, 1986). In some schools, therefore, older low achievers tutor younger students, thereby gaining higher status, responsible roles, and an opportunity to review basic material in a situation that is not perceived as "baby work" (Slavin, 1986). The Missisquoi Valley Union High School in Vermont serves as an example, as reported by Roach, Paolucci-Whitcomb, Meyers, and Duncan (1983). A consulting teacher and University of Vermont professors joined in a year-long investigation of the effectiveness of having remedial and special education students tutor other low-achieving students in their regular secondary math classes. The results showed that well designed peer tutoring can have positive effects on the standardized test achievement of students with mild disabilities and lead

to stronger achievement gains than result from usual interactions, working alone within class instruction, or working in pairs.

In a larger and longer effort, researchers at Utah State University, Brigham Young University, and Purdue University (Osguthorpe, Top, Eiserman, and Scruggs, 1988) have trained hundreds of students with a variety of disabilities to be tutors to their non-disabled peers. The outcomes of this series of studies have shown that students with mild to severe disabilities can definitely learn to be competent tutors, to demonstrate, monitor, and give feedback to their schoolmates, if they receive preparation and supervision. In so doing, they can significantly strengthen their own skills.

Gold Nuggets in Secondary Education

Rural high schools experience difficulties in providing a full array of curricular and extracurricular options, ensuring vocational education opportunities, bringing students into contact with the larger world, integrating instruction for students with special needs, and in other ways. Many of the creative strategies that rural high schools use to overcome these obstacles would be helpful in urban districts as well.

For example, in 1979, Missouri's Rural Student Employability Project (Hobbs, 1981) initiated a Contract Vocational Program in which people from local businesses contracted with the school and family to provide specific occupational training to students at the business site. The training was based on the school's predetermination of competency-based performance criteria for each student, and the business person was paid as an instructor (rather than the student being compensated as a trainee). In North Dakota, the Mott School District #6 cooperated with six other districts to provide a mobile vocational program to students in isolated areas (Barker and Muse, 1985). Mobile vocational classrooms (fully equipped trailers with traveling instructors) moved each semester to a different district and offered instruction in several vocational areas.

Vocational student organizations can also strengthen rural schools by including many community members in chapter activities of such associations as the Distributive Education Clubs of America, Future Business Leaders of America, American Industrial Arts Student Association, Future Homemakers of America, Vocational Industrial Clubs of America and many others. According to Sarkees (1983), chapter activities can include "school-community projects, competitive events, social events, field trips, employer-employee activities, bake sales, car washes, dances, student recognition, club scrapbooks, public relations activities, guest speakers, scholarships, special sports events, bulletin boards, exhibits, window displays, and beautification projects" (p. 62). Of particular interest is a network called "Breaking New Ground," at the Department of Agricultural Engineering at Purdue University, which provides information on methods and equipment used by farmers and ranchers who have disabilities.

In prevocational education, special education students in Hobbs, New Mexico, create and paint ceramic jalapeno peppers that are sold throughout the state as Christmas tree ornaments and craft items. These students also feed and groom horses at the local stable, oil and clean saddles, and collect materials for recycling. Proceeds are used to pay for their extracurricular programs and field trips (Dunaway, 1989).

In White Plains, North Carolina, students with mental retardation (trainable) produce tin-punched Christmas ornaments for sale as an extension of their daily prevocational activities. Ornaments travel across North Carolina and to

other states; over a three-year period, more than 2,000 were sold and 300 were given as special gifts. Motivated by their success, the students have expanded their efforts to include Valentine's and Easter projects (Hollar, 1987).

Other students with trainable mental retardation in New Jersey registered for a county farm and horse show to exhibit rabbits they planned to raise themselves. The process included building cages, feeders, and other equipment, and becoming members of the local 4-H Club to receive instruction from local experts. One of the students won "Best in Show" for her rabbit, and the group intends to keep the project going for years (Foundation for Exceptional Children, 1988b).

Students with mild disabilities (and students with other learning problems) are often at a disadvantage "in social studies and science classes where they have difficulty reading and comprehending textbooks and relating to the traditional lecture method" (Frith and Edwards, 1981, p. 22). In Gordon County, Georgia, learning packets have been an effective means of supporting participation by such students. A learning packet is an individually designed blueprint that organizes learning for the student by showing what is to be learned, incorporating a variety of resources, and including a means of evaluation. Typically, a learning packet simplifies printed materials, lowers the reading level, incorporates selected activities from the text, and makes use of as many senses as possible (through the use of taped cassettes, colorful displays, tactile materials, hands-on activities, large print when necessary, and other adaptations). Packets may be used by students individually or in teams for purposes of enrichment, remediation, or supplementation. Within a school building, the sharing of packets among teachers can create a library of ideas and creative materials across many subjects and skills (Frith and Edwards, 1981).

The secondary school in the Littlefork-Great Falls district in Koochiching County, Minnesota, is practicing the concept of self-directed instruction in a learning center environment, managed by a learning facilitator. The center provides expanded curricular offerings to average, gifted, disabled, and disadvantaged (Title I) students in grades 7 through 12. Students' individualized programs are based on learning objectives achieved, rather than on diagnostic classification. Among the many instructional vehicles available to these students are video learning, computer-based learning, correspondence instruction, independent projects, and learning via audiovisual media (Clay, 1985).

Gold Nuggets in the Community

The school is often the center of rural community activities. In a study of one-teacher schools (Muse, Smith, and Barker, 1987), it was found that nearly half of the schools were also the site of community functions, including "parties, Bible study, various programs, plays, church services, dances, films . . . libraries for children, meetings of all kinds, adult and continuing education classes, voting, television watching, weddings, and receptions" (p. 21). The blending of school and community not only extends the resources available to the school and builds community support, but also helps to make education "more of a concept and less of a place" (Ishler, 1988).

A rich array of interactions has been developed in Hampton Township, New Jersey, where local government agencies, health services, businesses, recreation groups, township citizens, parents, and educators have joined in partnerships to encourage community participation with education, and to promote student awareness of the role that civic and community groups play in their lives (Lick,

1985). In a rural Iowa community, a partnership between two businesses and the schools gave students education and experiences in the computer field (Warden, 1986), and, in southern Georgia, the Marvin Pittman Laboratory School helps local districts to develop new teaching approaches (Warden, 1986). The Habitat for Humanity, headquartered in Americus, Georgia, helps local groups build housing with volunteer labor, donated materials, and contributions. This opens new doors for vocational opportunities and school-community interaction, and Habitat for Humanity is always searching for volunteers of all skill levels, rural and urban (SpecialNet, 1985b).

The Mount Ayr Community Schools in Iowa developed a report card by which parents report their views of teacher and school performance and any problems they perceive (Barker and Muse, 1985). Greater involvement was stimulated when the Macomb Intermediate District in Mt. Clemens, Michigan, created a marketing plan, which is a goal-oriented process that ensures community involvement. The Macomb Marketing Plan has generated better commitment to the schools and a community-endorsed plan, developed with educators, for school improvement (Banach, 1986).

Rural communities can also provide instructional resources, as is true in the Iditarod Area School District in Alaska, which developed a resource handbook for rural Alaskan teachers called *Village Science*. The mini-units in the book demonstrate seven basic science concepts as they relate to village life. Concepts such as friction, surface area, inertia, action/reaction, centrifugal force, and center of gravity are taught through activities involving boats, snow machines, cutting fish, sledding, use of hand tools, and other common elements of village life (SpecialNet, 1985d). "Education Through Historic Preservation" is a program in Luling, Louisiana, in which students adopt a community landmark each year. The landmark is documented and interpreted through art and creative writing, and students discover the roots of the past and the feelings and lifestyles of today through architectural research, oral history interviews, and role playing. (This program received an Honor Award from the National Trust for Historic Preservation in the United States because of its multi-level, multi-curricular approach) (SpecialNet, 1985a).

Volunteers and aides are another important resource in rural communities. With training, these personnel can extend the teacher's capacity to individualize instruction, provide one-to-one attention, and respond to diversity of instructional needs. The Multi-Aide Program developed in Clarkston, Washington, is a system whereby special education teachers and administrators train aides to work with students with disabilities, and train teachers to manage several aides. The instructional program functions through multiple aides managed by a single teacher (SpecialNet, 1984b).

Paraprofessional home visitors in Billings, Montana, implement the Sunrise Model for early education of children with disabilities. Aides complete training and work under the supervision of an early childhood education specialist, who makes periodic home visits with the aides to check children's progress. Each participating family has its own written Family Education Plan (Casto, Frakes, Hutinger, Tolfa, and Walker, 1981).

Parents act as listeners in speech classes in the Jefferson County School District in Tracy, California, filling out cards on student speakers and "always beginning with praise and then presenting suggestions for improvement" (American Association of School Administrators, 1981, p. 63). In Winona, Minnesota, the school district has cooperated with the local seminary whose trainees work with

young children and thus have increased the ratio of instructors to students in the early childhood and family education programs (Minnesota Department of Education, 1986). The Lubbock (Texas) Developmental Education Birth Through Two (DEBT) Outreach Program trained volunteers as home teachers for young children with disabilities. The volunteers included retired teachers, nurses, social workers, parents, foster parents, and grandparents (Hutinger and Smith-Dickson, 1981).

Senior citizens are becoming increasingly valuable assets for schools. Organizations such as the ACTION programs for older adults and Foster Grandparents are encouraging senior citizens' involvement with children (Buffer, 1980), and many rural schools have been including them for a long time. In Augusta, Wisconsin, an unused portion of the high school building was turned into a community center for senior citizens, including a meeting place, use of the gymnasium, and a small park (American Association of School Administrators, 1981). Continental District #39, in Amado, Arizona, (in a community of 12,000 retired people) collected names of many who were willing to share their time, wisdom, and experiences with children. The superintendent points out that "this is good public relations . . . because the retired community pays the major share of school taxes" (American Association of School Administrators, 1981, p. 63).

Gold Nuggets in Sharing, Networking, and Collegiality

The school reform literature is showing that teachers in successful schools are "true colleagues who work together, . . . talk to each other frequently about teaching, work together to plan and develop, and teach each other" (Mahaffy, 1988, pp. 4-5). In rural education, it is desirable to stimulate networking and sharing, not only within schools, but among educators across districts and distances.

At the district level, a teacher in Medicine Lake, Montana, set up a small empty house on her property as a studio where she and other teachers develop learning materials for their classes and share an enjoyable social experience at the same time (Discover American Educators, 1988). In Michigan, Madonna College has reached out to rural teachers in its area through its "Improve Your School Program and Earn Credits" initiative. "Applicants select their own course title, formulate objectives and propose an outline to be approved by college faculty. The course can include committee work, individualized programs, and on-the-job research or activity. Consultation with experts is available through telephone conferences or on-site visitations from college staff" (Pelton, 1983, p. 16).

Parents and families also cooperate and share. In Cumberland County, New Jersey, with rural isolation and relatively few resources, families of children with disabilities and United Cerebral Palsy put on a program of films about various aspects of handicapping conditions at a major motel that was centrally located. In this manner, families across a rural area were able to come together, share information, and gain new resources (Foundation for Exceptional Children, 1988a).

Teacher exchanges have been promoted through Nebraska's Comprehensive System of Personnel Development in various districts of the state, and efforts to establish a national teacher exchange program have been undertaken by a Montana enterprise (Information Processing, 1983). Student exchanges can also give isolated rural students an experience with different environments, which has occurred in the Jefferson County/Boone County (Kentucky) exchange program for gifted students (American Association of School Administrators, 1981). In their four-day

exchange trip to the rural district, urban students toured farms, watched sorghum being made and tobacco stripped, and sampled the food, music, and lifestyles of their hosts. On their visit to the urban district, rural students attended a pantomime performance, went to a disco-rock session and a museum, toured a housing rehabilitation project and a teaching hospital.

Rural and urban schools can also share by becoming "brother" and "sister" schools. The Southwest Minnesota Rural Education Center (undated) suggests the introduction of a partner school through a videotape or slide show, followed by setting up a school bulletin board where updates are posted on rural-to-urban and urban-to-rural school and community happenings. Activities can also include a pen-pal program and inclusion of weekly announcements from each school in the all-school oral announcements.

To connect educators with resources in its area, Southwest Texas State University established a locator service, or file of persons with all kinds of competencies across a wide range of activities (Kurtz, 1985). District and regional personnel, and others, call about a specific need and the service puts them in contact with the person(s) who can fill that need.

The Eastern Kentucky Teachers Network is a project of Elliott Wigginton's Foxfire Fund. Including 40 elementary and secondary teachers, the network focuses on engaging students in projects that are "experiential, community-based, and oriented to reading and writing" (Appalachia Educational Laboratory, 1988b, p. 3). Teachers and students create a booklet, book, report, periodical, record album, videotape, radio series, exhibition, or other product whose format they determine themselves. The Kentucky network is part of the larger Foxfire effort that includes networks in northeast Georgia, in Atlanta, and in the Finger Lakes region of New York; each network functions as a support group for the teachers within it (Appalachia Educational Laboratory, 1988a).

In South Dakota, six neighboring schools, South Dakota State University, and the Mid-Continent Regional Educational Laboratory worked together to involve the entire staffs of the schools in making better use of small class size to meet individual needs and respond to varying learning styles. The six schools also began to share teachers and create mutual programs (Nachtigal, 1982). Similarly, the Rural-Based Teacher Development Project sponsored by Oregon State College assisted rural teachers by providing development opportunities through the networking of resources. Through this network, teachers were able to meet certification requirements through individualized on-site course work; regional programs and teaching models were shared as resources; teachers had opportunities to visit and observe other teachers and programs; groups of teachers were organized within a subject area or grade level, across districts, to share resources and engage in curriculum development; schools and teacher groups were assisted in jointly sponsoring professional development activities; academic programs were enriched for rural pupils who also had opportunities for academic interaction among schools; and linkage was created between higher education resources and rural schools in the region (Slater, 1984).

A network of ten Teacher Centers in North Dakota serves all 279 districts in the state, most of which enroll fewer than 200 students. Although the average annual Center budget is only \$24,500, these centers "do a lot with a little!" In 1988, "the ten Centers checked out 25,097 teaching materials, responded to 12,904 telephone or mail requests, and were visited 18,900 times by persons who came to look at materials" (Harris and Landry, 1989, pp. 12-13). Consider-

ing that there are only about 7,000 teachers in North Dakota, the importance of their connection with these centers is clear.

It's time to see what rural schools can really offer to the nation. It's time to recognize the wisdom and strength that good rural teachers and small schools can give to all schools. It's time to share the rural gold mine, and it's up to every person working in American rural education to join in the sharing, networking, cooperation, and dissemination that will give students and teachers a better chance, in rural schools and in schools everywhere.

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