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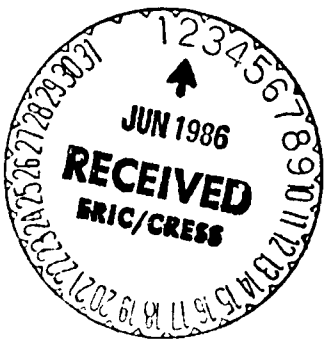
ABSTRACT

Ten rural school improvement clusters involving 63 districts, 7 colleges and universities, and 6 state departments of education have been developed in Colorado, Kansas, Missouri, Nebraska, and North Dakota through the work of the Mid-Continent Regional Educational Laboratory's Rural Education Project. Four essential steps appear necessary for forming a rural school cluster: identification of similar sized schools within reasonable driving distance of each other, commitment of technical expertise from neighboring higher educational institutions, contact with key persons in the state's educational agency, and development of an agenda for the cluster by participating districts. Clustering is a strategy that can be implemented in a wide variety of settings and that can address a range of diverse needs. A 5-district Colorado cluster is improving rural science instruction through inservice training, adoption of a common philosophy of science teaching and sharing of successful classroom strategies. A Kansas consortium is conducting professional development seminars on challenging gifted students, "effective schools research," and teacher evaluation. Three Missouri rural cooperatives are focusing on staff training in instructional and administrataive microcomputer use. Nebraska schools are participating in a joint K-12 curriculum development program. North Dakota cluster activity is exploring the role of rural schools in community and economic development. (NEC)

# CLUSTERING FOR SCHOOL IMPROVEMENT

## A REPORT ON RURAL CLUSTERS



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CLUSTERING FOR SCHOOL IMPROVEMENT
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## INTRODUCTION

"Cluster", "consortium", "cooperative", "sharing", by whatever the name, the concept of a number of neighboring school districts working together for the benefit of all, is an idea whose time has come. Furthermore, there is a growing realization that when such working relationships include institutions of higher education and intermediate service agencies (where they exist), and where such activities take place in close cooperation with the state education agency, the potential benefits are even greater. This document presents a progress report of the work of McREL's Rural Education Project in developing rural school improvement clusters.

### Origins of the Concept

The notion of developing clusters of small schools for the purpose of improving and expanding educational opportunities in those schools grew out of a national study of efforts to improve rural education ("Rural Education: In Search of a Better Way", Nachtigal, et.al, Westview Press, Boulder, CO., 1982). At the time of this study, most of the efforts which were being implemented to improve rural schools were initiatives which had been designed to address problems in larger schools and then were being transported to small rural school settings. For the most part, these efforts met with limited success. There was a problem of "fit" both in terms of the issues being addressed and the kinds of solutions which were being implemented. There were, however, a number of programs that were useful to rural schools. These programs

were judged to be of value because they were addressing specific problems identified to be important by the local constituents. The solutions, while often adapting ideas from the "outside", had a definite flavor of being "homegrown". Technical assistance was used and found to be helpful when local schools played a major role in deciding when and what kind of assistance was needed. In designing the McREL rural activity, efforts were made to take these, and other characteristics which made for successful rural school improvement, and incorporate them into a pro-active rural school improvement strategy.

Three assumptions underlie the strategy. First, existing organizational and instructional procedures of the public school are based on a mass production model. Numbers are needed to achieve quality. Small schools are, by definition, second best. Second, alternative delivery systems can be created which would go far in achieving equal access to educational opportunities for rural students. Finally, rural education needs a development capacity to create and test those alternative delivery systems. Such capacity will enable it to better define its problems and, with assistance, create solutions to those problems. The cluster strategy which brings rural school districts into a collaborative working relationship with institutions of higher education and state education agencies is building that development capacity.

Four essential steps appear necessary for forming a rural school cluster. Initially, the group of interested schools must be identified that are approximately the same size and within reasonable driving distance of each other. Schools of similar size are more likely to experience common problems and therefore more likely to arrive at

consensus around an agenda which would benefit all participants. Keeping the distances between the schools reasonable, allows for frequent meetings at a minimum of expense and facilitates the sharing of services and/or programs.

The second step is the identification of individuals within a neighboring institute of higher education that have the interest, technical assistance skills and commitment to work with a cluster of rural schools over time. These individuals not only add support but can contribute valuable outside "expertise" to the cluster members.

Third is the establishment of contact with key persons in the state education agency to work with the cluster. This involvement provides the necessary legitimacy for the activity and can assist in working through perceived or actual roadblocks to developing alternative programs for rural schools.

The final step is the development of an agenda to be addressed by the cluster which must be that of the participating districts, not that of the institution of higher education or the state education agency.

Of the four guidelines, the last has often been the most problematic. Local districts, particularly small rural districts, are not accustomed to working in a situation where the university and the state education agency are responding to their needs. Usually, the university is interested in delivering another off campus course or another inservice session. The state department is traditionally seen as a regulatory or supervisory agency, not as a partner in the development of new programs. Furthermore, local districts tend not to operate in a problem solving mode. Outside assistance is likely to be needed to help identify fruitful areas of work, but care must be taken

not to dictate programs. Only if the locals perceive the problem to be worth addressing, is it likely to get the commitment necessary for a cluster strategy to succeed.

The Changing Context

The willing of educational agencies, particularly small school districts, to work together has increased rather dramatically during the last few years. With the release of the series of national reports on school reform, beginning with the "Nation at Risk", new demands are being placed on schools for additional courses in math, science and foreign languages. State policy across the region is reflecting these new expectations; new accreditation standards are being put in place, requiring more course work and higher standards. Schools that once experienced little difficulty in maintaining their accreditation are now searching for ways to meet these new requirements. These problems are being exacerbated in many districts by enrollments that continue to decline and tighter budgets. In a region where the economy is largely agriculturally based, there is little relief in sight. Farmers are experiencing the toughest time since the depression. Cooperative action with neighboring districts is seen as a possible way to meet these new demands without significantly increasing expenditures.

A second contextual shift has taken place in recent years which, while not as clear cut, has also contributed to the willingness of districts to work together. Traditionally, the answer to small school inadequacies was another round of school consolidation; make the schools big enough so that they can afford to offer the additional courses. In some parts of the McREL region, such a solution might

still make sense, but for the most part the threat of further consolidation is not as imminent as it once was. There is the realization that students can be bused only so far. Politically, consolidation does not hold the appeal that it once did. Without this threat, districts are more comfortable about talking/working together. Such activities are not longer necessarily seen as the first step in losing "our" school.

Further evidence that the "cluster/sharing" notion is an idea whose time has come is the fact that the concept has found its way into law in at least one state. In Nebraska, LB 994, the Education Enhancement Bill (April 10, 1984) states: "The Legislature recognizes that the resources of the state should be used efficiently to support the public school system of this state. The Legislature intends to foster, encourage, and, where necessary mandate the cooperation of all public education service providers, including public school districts, educational service units, and the State Department of Education, in order to achieve a quality education system." The new accreditation standards, "Rule 15" go on to say: "Accreditation and approval standards shall be designed to assure effective schooling and quality instructional programs regardless of school size, wealth, or geographical location. The State Board of Education shall recognize and encourage the maximum use of cooperative programs, including the sharing of administrative and instructional staff, between school districts for the purpose of meeting the approval and accreditation requirements established pursuant to this section and section 79-328."

State by State Progress Report

Ten rural school clusters presently exist in six of the seven of the McREL states. (The cluster concept does not fit well in Wyoming where there are only 49 districts and distances are sufficiently great so as to prevent easy cooperative activity.) Sixty three districts are involved along with 7 colleges and universities, and 6 state departments of education. A brief progress report of these clusters follows.

COLORADO Five districts, Fleming, Holyoke, Haxtun, Julesburg and Ovid along with the Northeast Colorado Board of Cooperative Services and Colorado State University have formed a cluster for the purpose of improving science instruction in small rural schools. This activity began with a series of meetings with the superintendents to discuss various possibilities for a cluster agenda. As consensus began to build, a final meeting was held involving science teachers, principals and superintendents. They agreed to a series of inservice sessions for the science teachers through the spring of the 1983-84 school term as a trial effort. This work was deemed sufficiently valuable to get commitment to a full year program for the 1984-85 school term. Monthly half day work sessions are held to pursue activities which are of particular importance to the participants. They have discussed and adopted a common philosophy of science teaching, shared successful classroom strategies which get students more involved in the scientific process, worked with the Colorado science consultant on the state task force recommendations for K-12 science programs, and are developing ways to strengthen elementary science teaching so the students are

better prepared when they reach the secondary level. The school districts have provided released time for the teachers to attend the sessions; McREL has been responsible for providing a resource person from Colorado State University.

KANSAS The Kansas Rural School Consortium originally involved the districts of Alma, Onega, Vermillion, Wamego and Westmoreland working with the Center for Rural and Small Schools, Kansas State University. The administrators immediate interest was an ongoing set of seminars for their own professional development. Sessions were held for superintendents and principals on topics which included challenging the gifted student in the small rural school, examining the national reports regarding their implications for rural schools, the "effective schools research" and teacher evaluation. This year three additional schools joined the Consortium; Barnes, Riley and Valley Heights. This change in makeup of the group has spurred action to take on additional cooperative activities. A "computer consortium" patterned after the Missouri clusters, (see below), is being implemented to provide staff development and technical assistance in integrating the micro computer into the management and instruction functions of the school district.

MISSOURI At the encouragement of McREL, the State Department of Elementary and Secondary Education convened a meeting of selected superintendents and a representative of the University of Missouri to discuss rural school concerns and explore possible cooperative action to address those concerns. After a number of hours of discussion, which did not seem to go anywhere, one superintendent suggested the

need to look at how small schools could make better use of the micro computer to expand and enrich the instructional program. This sparked a common interest among the participants and the group agreed to come back and work further on the idea. After two more meetings, the schools of Ashland, Centralia, Fayette, Glasgow, Hallsville and St. Elizabeth formed the Mid-Missouri Small Schools Consortium; the initial undertaking of the Consortium would be to provide staff training in instructional and administrative uses of the micro computer. Almost as an afterthought, the State Department of Education, realizing that their staff needed the training as badly as those in the districts, requested the opportunity of participate as an equal member. A full-time trainer was hired; the first "computer consortium" was underway.

There are now three "computer consortia" operating in Missouri, involving 15 school districts, the State Department of Education, and the University of Missouri. Following the pattern of the first cluster, the two new clusters have hired a staff development person whose sole responsibility is that of provide training and assistance to teachers and administrators in the participating agencies. In addition to each district pursuing its own particular agenda, the schools have worked cooperatively with the University on a "computer writing project". Teams of 6 teachers from the participating schools attended an intensive summer institute which has combined the theory and process of the National Writing Project with computer word processing technology. The teachers then serve as resource persons for others in the district interested in integrating written communication into their instructional program.

The original consortium, (six school districts and the state education agency), has now gone through a number of evolutionary changes. One district left the consortium after the first year; they had received from the effort what they felt they needed. After two years of the program two other districts had staff of their own that were sufficiently trained to take over the responsibilities of the computer trainer. (One of these districts now has a full time computer assistance person.) As schools have elected to phase out of this particular consortium activity, other schools have picked up the available days of the trainer or new schools have joined the program.

These changes have tested one of the basic premises of the strategy, e.g. "...efforts have been made to keep organizational structure to a minimum. The survival of the cluster concept should be based on its usefulness to the participants, not on establishing another formal organization". (Appendix A: Clustering for Rural School Improvement, February 17, 1984). It is too soon to know just how the program will continue to evolve. Sooner or later this particular function is sure to have served its purpose. There is, however, a readiness to look at other agenda items which can be addressed in a cooperative effort.

One such example is a pilot project involving Keytesville and Salisbury, two schools in one of the new computer consortia. Neither of the schools had a Spanish foreign language teacher; both wanted to add a Spanish class to their curriculum. The two schools joined with the Department of Independent Study, University of Missouri, to explore other options for providing such a course. Through an intensive search, a set of video tapes, "Survival Spanish", was found that had

been developed in Dade County Florida. Using these tapes as the core of the instructional materials, Independent Study integrated audio and text book materials into a course that could be offered to students in those schools using non-certified supervision on site.

As with any new program, problems have occurred. Turn around time for assignments has been too slow; homework has been excessive for high school students; supervision at the local level has not been adequate at one of the schools. However, student achievement at the end of the semester, as measured by University, was good. Plans to administer a test used in a traditional program of a school of similar size will provide another reading on the achievement of these students. The program appears to hold promise as a way for small schools to offer a foreign language in a cost effective way.

The impact on the State Department of Elementary and Secondary Education, resulting from their involvement with the computer consortium, deserves special note. The Department requested to be involved so they would at least be able to "keep up" with what was happening out in the Districts. At the time the Department owned only one micro computer. The staff knew little if anything about its capability. Today, over 130 staff members have received training on the computer; the Department now owns over 30 micros. The Data Processing Department originally would not even talk about the role of the micro computer in data collection and analysis. They now have $12,000 worth of equipment and software requisitioned and are working with the Department of Supervision and Instruction on a procedure for collecting/updating annual report data on micro diskettes thus reducing the time and effort required by the local districts to fill out these reports.

NEBRASKA Project Innovative Curriculum involves the schools of Giltner, Harvard, Kennesaw and Trumbull in a joint curriculum development program, for kindergarten through grade 12 and covering all content areas. The idea for the project originated with the superintendent of the Trumbull Schools who was concerned about the adequacy of the curriculum being offered his students. In discussing his concern with neighboring superintendents, he found a similar interest and the decision made to convene a meeting with individuals from Kearney State College and McREL. Together they looked at various options for mounting a cooperative curriculum development effort. From discussions a number of priorities emerged. The superintendents did not want to go through just another effort to develop curriculum guides that never get used. They wanted to develop a curriculum that would prepare their students for the future, the year 2000. They wanted a curriculum that would build on the rural experience which students brought with them to the classroom. They realized that there was much to be gained by having teachers interact around curriculum development issues, rather than having each school, often with only one teacher in an area or grade level, trying to "go it alone". Although they wanted the advantages of working together, each school wished to maintained the freedom of tailoring the curriculum to the particular needs of each community and the strengths of each faculty. A plan was worked out to address these priorities whereby McREL would help find and pay for the necessary consultant assistance; the districts would find ways to free up the teachers to work on the project by providing substitute teachers and, on selected days, dismiss school so that all teachers could be involved.

Work sessions involving all staff members from the four schools have been held to provide a general orientation to the Project, and to work on content area goals and curriculum scope and sequence. Smaller work sessions have been held for the curriculum development leadership teams to work on overall school goals and plan the cooperative curriculum development activities.

This project is exemplary in terms of the level of local ownership. The idea originated with the local superintendents; they have played a major role in the planning and organization of the program from the very beginning. At their encouragement, the Project has sought out the best possible curriculum content people from both the State Department of Education and Kearney State College, making clear that their role was one of support, not doing the work for the teachers. One of the superintendents has heard Dr. Gerald Bailey of Kansas State University talk about a curriculum development model, and they requested this assistance in organizing and providing overall leadership for the activity.

A second Nebraska cluster is engaged in a joint planning activity and involves the schools of Bennedict, Howdville, Marquette and Polk. As with the above cluster, cooperating agencies include Kearney State College, the Nebraska State Department of Education and McREL. A program audit is being conducted with information being collected from parents, teachers, board members, administrators and community leaders concerning possible areas of cooperative action which could improve/expand the educational offerings of the four schools while making more effective use of the resources available in those communities. Much of the impetus for this activity has resulted from the new accreditation standards (Rule 15) being adopted by the state.

NORTH DAKOTA The cluster activity in North Dakota has grown out of two McREL supported studies, a study of North Dakota rural high schools and a study of the county superintendency, conducted by the University of North Dakota's Center for Teaching and Learning. The rural high school study identified a number of limitations of the small high school, e.g. lack of professional development opportunities, limited course offerings, low aspirations on the part of students and parents..., which might be addressed through cooperative programs. The county superintendency study recommended, in part, that the office gradually be phased out and replaced with a network of intermediate service agencies. (A legislative subcommittee requested that such legislation be drafted for the 1985 session. Unfortunately, budget constraints at the state evel are likely to preclude any legislative action at this time.) The University is currently working with 16 districts in Walsh and Pembina counties to determine how best to move ahead with the recommendations of these two studies.

Walsh and Pembina Counties have recently merged in the sense that they are now being served by one county superintendent. The person serving in that office is interested in exploring an expanded an expanded service function for the county superintendency on a pilot basis, in lieu of, or until, intermediate service agency legislation is passed. To assist in determining just what those functions should be, the Dean of the Center for Teaching and Learning and members of his staff have conducted extensive interviews with the superintendents of the 16 districts. As a result of these interviews, a report was prepared laying out a series of options where cooperative programs might be beneficial. At the last meeting of the participating

schools, decisions were made to (1) establish a common clear calendar for staff development and a common theme for the staff development program for the 85-86 school term; and (2) jointly employ two guidance counselors to serve the needs of 11 of the smaller school districts. They also agreed to explore the possibility of securing outside money to support a part-time "broker" position which would find ways for further cooperation among the districts in the two counties. Such a model could be an alternative to the more traditional intermediate service agency role.

A second cluster of five schools is being formed to explore the concept that rural schools have a more significant role to play in community and economic development. Traditionally, the school which is often the largest enterprise in the town takes as much as it contributes to the economic well being of the community. Local students and local dollars are "fed into the system". The school is perceived to be a success if the students go on to college and/or to the city to find jobs. If these human resources continue to leave, the small town gradually dies. It is the premise of this project that, through a study of the economics of the local area which the students will conduct, small entreprenuerial employment opportunities might be created that would allow at least a few students, who do desire, to remain in the community. Or, it may be that through the creation of a non-profit "school based economic development enterprise", services and/or goods needed by the community can be provided while enriching the learning opportunities available to the students in small high schools.

Summary

The above example suggest that "clustering" is a strategy that can be implemented in a wide variety of settings and address a range of diverse needs. Clustering is being used for staff development which includes a focus on "the effective school research", use of micro-computers, written composition...; it is a way of facilitating the sharing of teachers, and or the sharing of students and instructional resources; it is an efficient way to provide leadership development for small school administrators. Schools joining together for curriculum development benefit from sharing ideas, as well as, increase access to a wider range of consultants than would otherwise be available.

The clusters, with their linkage to institutions of higher education and state education agencies constitute the basis of a regional network for rural education research and development that is, as yet, largely untapped. Formal steps need to be taken to insure a better flow of information among the clusters. Ways need to be found to make better use of the cadre of expertise in rural education which continues to grow.

The "technology" of establishing successful clusters is now fairly well understood. This knowledge will be assembled in a "Handbook on Creating Clusters for Rural School Improvement" prior to the end of this fiscal year. Case studies of the more successful clusters are also being prepared. What is not yet known is the kind of ongoing support system that is needed at the state level for forming new clusters and keeping existing clusters alive and well. Neither is there a clear understanding of what it would take to create a truly

effective, regional network devoted to restructuring rural education in a way that it can, in fact, come closer to providing students equal access to educational opportunities independent of the size of school or where they live.