With declining enrollments and budget limitations, it becomes more and more difficult for small rural schools to offer state-approved programs (often based on the "bigger is better" model of education). For many already consolidated districts, further consolidation is not a viable solution to the problem. Cooperative arrangements are needed. The cluster strategy allows a group of neighboring schools to exchange ideas, share resources, and make more effective use of outside resources. The concept of "cluster" has grown to include a wide range of applications, with organizational patterns ranging from informal alliances to those embedded in public policy. Loose coalitions are formed between districts to share teachers or students for academic or extracurricular activities. Formal clusters are necessary when undertaking major projects such as developing programs or curricula, redesigning schools, or cooperating with colleges or universities. Institutionalized consortia are now emerging as a policy strategy in some states to improve quality, access, and efficiency in rural education. Successful implementation of clusters requires a common purpose, a time commitment, similarity of member schools, geographic proximity of schools, simple organizational structure, active participation of administrators, involvement of school boards and communities, involvement of support organizations, starting small to ensure early success, frequent meetings, shared financing, and accountability. This booklet also lists academic, economic, social, and political benefits of clustering, and describes several existing clusters. (SV)
Clustering

Working Together for Better Schools

A Publication of the Mid-continent Regional Educational Laboratory
By Paul Nachtigal and Sylvia D. Parker
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Changing the way schools operate looks so complicated. No wonder most schools decide to stick with "business as usual." There are so many issues to be faced: declining enrollments, scarce dollars, irrelevant curricula, students who don't know or care about how to learn. Solutions are lost in a web of overlapping concerns—where it's hard to know who should assume the responsibility or even if the problems can be addressed.

But change we must. Economic, demographic and social trends are creating needs that demand our attention. And the first rule is to forget the rules. Forget the prejudices and supposed-to's. Use common sense. There is no such thing as a "one best solution." There is only the effective solution—the one that works. The concept of clustering is presented here as a process that can help you address a number of educational problems but certainly not all of them.

How will you know when to form a cluster? You must analyze the problem first. If you look hard enough, you will find that the problem carries within it the beginnings of its own solution. If, for example, your curriculum is out of date and your teachers feel frustrated because they have no one in their subject area to bounce new ideas off of, then figure out how they can ease their isolation and join forces with teachers in nearby communities—a curriculum development or inservice cluster. When you find the inherent solution, the problem resolves itself. The difficulties arise when you try to impose a pat solution on a set of circumstances that don't fit.

Once you realize that many other schools are in the same boat that you are, you can begin to work together to find common solutions while maintaining your independence.

To succeed, small rural schools must begin to take advantage of their characteristics: their small size that allows for personal interactions and getting things done without struggling through huge bureaucracies; their self-sufficiency that enables them to figure out a better way rather than relying on outside experts with the "one-best" solution; their deep connections to their communities that allow for expanded learning environments and strong local support. Clustering is a strategy that, by its very definition, enables schools to work together to maximize their strengths and improve education for rural students.

To help you understand clustering and put the process in perspective, here is a collection of basics: what it is, benefits, how to implement and some necessary conditions for success. This booklet is a good place to begin your search for a better way.
Clustering:
Working Together for Better Schools

Small rural schools provide public education for the majority of
students in the upper Midwest and throughout much of the rest of
the nation. It goes without saying that students who grow up in
the rural areas of this country should have equal access to quality
education programs — that they should not be penalized for the
size of their schools or where their parents choose to live.

Most small rural schools have been through at least one round of
consolidation and are generally continuing to experience declin-
ing enrollments. With enrollment declines and budget limita-
tions, it becomes more and more difficult to offer state-approved
programs (since they are most often based on the “bigger-is-bet-
ter” model of education). For a growing number of districts, fur-
ther consolidation (the traditional solution to the problem of
small size) is no longer viable. Distances and energy costs are too
great and students can only be bused so far. Alternative models
for providing quality education are needed to alleviate the high
costs and declining efficiency which results from operating a mass-
production model of schooling with small numbers of students.

Traditionally in rural areas when a job is too large to accomplish
alone, people band together to get the job done. In the past, rais-
ing a barn or harvesting the crops could be accomplished more ef-
ficiently when nearby folks worked cooperatively.

Providing a comprehensive/quality program in small schools has
also become too large and too expensive for rural districts to go it
alone. Cooperative arrangements are needed if quality programs
are to be provided.

The cluster strategy grows out of the notion that individual small
schools do not have the resources to address these problems
alone. A group of neighboring schools working together allows
for the exchange of ideas, the sharing of resources, more effective
use of outside resources, and provision for the moral support
necessary for experimentation with alternative organizational and
instructional routines.

To be sure, when a district enters into a cluster activity, it gives up
some of its autonomy. Cooperative action by its very nature re-
quires working together. However, when one compares the los-
ses with the fact that one can maintain the local school operation
and increase the opportunities for learning, it is a price worth
paying.
What is Clustering?

"Cluster," "consortium," "cooperative," "sharing" — by whatever the name, the concept of a number of school districts working together for the benefit of all is an idea whose time has come.

Clustering differs from the intermediate service agency concept — clusters usually involve fewer schools and generally engage in implementing procedures which directly impact students as opposed to providing services to school districts.

While a "cluster was originally conceived as an informal arrangement between neighboring schools to share the cost of in-service training or to bring together teachers to share ideas for curriculum planning, the concept has grown to include a wide range of applications. Organizational patterns range from informal alliances to those imbedded in public policy. The purpose and complexity of operation determine where on this organizational continuum a cluster will fall.

**Loose coalitions** are often formed to meet individual district needs when they see the advantages of teaming with others in similar situations. Cooperation can facilitate inservice education and curriculum development. By pooling instructional staff from several schools, teachers can share ideas, develop curricula and create new instructional materials. Clustering teachers also makes it more affordable to bring in consultants to work on improving curricula and teaching skills.

The sharing of students can create a sufficient number to stage musical and/or drama productions that might be beyond the capabilities of a single small school. The concept works equally well for offering specialized classes or for forming sports teams (although in some states pooling students for sports is strictly forbidden!).

**Formal clusters** are more likely to be needed when undertaking significant development activities. Districts wishing to implement new programs or to undertake a redesign of their schools need more structure to assure that the institutional commitments needed for the program to evolve are present. Examples include expanding the schools mission to incorporate community development; exploring new organizational arrangements with colleges and universities to provide advanced placement courses to high school students; and developing curriculum-based performance assessment measures for judging teaching and learning.

**Institutionalized consortia** are now emerging as a policy strategy to achieve improved quality, equal access and greater efficiency in rural education. The Minnesota "education district" legisla-
tion provides the policy framework, including some taxing authority, for clusters of districts to work together to provide a wide range of instructional and administrative services.

North Dakota's House Bill 1507 provides three years of incentive money for school districts to work together to make more efficient use of limited educational resources, and expand and improve the quality of educational programs. This program, which has as one of its objectives the reduction of the number of very small school districts, requires that the question of re-drawing district lines be brought to the residents of the consortium at the end of the three year courtship.

Here are descriptions of several clusters to help illustrate.

Concerned with the quality of science instruction at both the secondary and elementary level, six rural schools in Northeastern Colorado formed a “science cluster” to provide staff development and to work towards the creation of hands-on science curricula. The school districts agreed to release their teachers a half day a month so that they could work with each other with the assistance of a science educator from a neighboring university. The cluster served such a critical need and the university science educator found the work sufficiently rewarding that 12 additional clusters have been formed across the state involving approximately two third of the school districts in the state. Cooperative funding by local districts and the state commission on higher education have provided program continuity.

The I-70 Clusters in Eastern Colorado originally formed as part of Project LEAD and focused on networking administrators. The local Board of Cooperative Services has facilitated the activities of 15 schools affiliated in three separate clusters as well as a super-cluster.

In-service for staff was a high priority and consultants were brought in for special sessions. Over time, participants have recognized that they have a great deal of talent within their own membership and are doing more of the organizing and training themselves.
Special events such as a “Super Scientist Day” and “Young Author’s Day” have been set up for elementary students. Other cluster activities include a Teacher Resource Team/Mentor Program, Teacher Visitations, Community Resource Database, a Career Fair, Artist in Residence Program, establishing a common calendar, inservice for a pool of Substitute Teachers, cooperative purchasing, sharing of students for low enrollment classes, Summer School program, special Gifted and Talented conferences and workshops, transportation planning and scheduling, as well as writing contests, Odyssey of the Mind and Math Olympiad. The organizational structure remains very informal for carrying out these activities.

The Mid-Missouri Small Schools Consortium was formed in 1982 by six schools wanting to increase the use of computers in their schools. A former teacher was hired as a computer specialist to provide technical assistance and training to teachers and administrators. The goal was to increase the effective use of computers in the classroom and to encourage writing across the curriculum with word processing technology. One of the schools agreed to act as the fiscal agent employing the specialist but all of the schools shared the cost equally. The specialist divided his time between the schools and also offered special general sessions to all members.

The membership and training program have continued to evolve. Two other clusters were formed in Missouri using the same basic model and three computer consortia continue to operate successfully in the neighboring state of Kansas.

In North Dakota, clusters of schools have formed in response to legislation providing incentives for cooperation. The Greater Nelson County Consortium started by forming a board representing all of the members and a part-time coordinator. They hired two guidance counselors, an art teacher and a Spanish language teacher to rotate through and serve all of the member schools. Several of the schools have shared students for sports teams, jointly purchased textbooks and made other informal arrangements in the past. The incentives of the 1507 legislation, however, have caused them to actively consider other arrangements such as pooling high school students into one town and middle school students in another while keeping elementary schools in each of the communities. The important point is that the schools are moving beyond mere cooperation and good will and are agreeing to re-distribute power, status and authority and they are doing it themselves.
Benefits of Clustering

ACADEMIC
- more and better quality course offerings for students and other community members;
- regular exchange of ideas, expertise and new knowledge;
- a reinvigorated teaching staff;
- improvement of teaching/learning practices;
- support for creating and testing restructured/alternative delivery systems;

ECONOMIC
- more "bang for the buck" with increased purchasing power;
- greater efficiency from sharing (e.g., hiring one teacher between several districts instead of each school hiring part-timers);
- reduction of redundant efforts;

SOCIAL
- if districts share students for extracurricular activities (orchestra, athletic teams, theatrical productions, etc.) students are able to participate who would otherwise be denied;
- a rural town can extend its own sense of community beyond the city limits;
- students realize that they are part of a larger community of learners;
- a small, rural school which believes that it cannot accomplish a worthwhile project or maintain a quality program is reinvigorated when (through cooperative efforts with other districts) it is able to overcome the inherent obstacles;

POLITICAL
- improved educational equity;
- opportunity for reciprocal relationships between schools and universities, schools and other schools, and schools and other agencies;
- if small schools can demonstrate significant improvement in effectiveness, they have the basis for forming political alliances and heading off further school closings.
Implementing Successful Clusters

1 Organize the cluster around a common purpose

PURPOSE: You can organize a cluster for any purpose where there is a clear advantage to be gained from cooperation and/or the pooling of funds.

Clusters currently exist for a variety of purposes: staff development, sharing of teachers, implementation of specific programs, course delivery for low enrollment subjects, and strategic planning.

It is essential that the cluster addresses problems defined by and common to all the participants. An agenda brought in by an outside agency will have less credibility and will have less chance for success because of a lack of "ownership" and commitment.

By the same token, the cluster will be more successful if it generates "homegrown" solutions.

2 Participation requires a time commitment

TIME COMMITMENT: Participants should go into cluster development with a minimum of a three-year commitment.

A cluster approach to rural school improvement is not a "quick fix." The commitment to the cluster should be long-term.

Time is needed to interact and to establish a trust relationship among the participants; to begin "thinking in a cooperative way;" to evolve a common agenda; to develop and implement programs that serve the needs of the participating schools, and to assess their impact. Time is also imperative to develop trust relationships among local school personnel and outside agency personnel.
Member schools should be similar

**MEMBERSHIP:** Schools of similar size are more likely to maintain a successful cluster.

Clusters seem to work best if the member schools are of similar size since they are more likely to experience common problems that need common solutions.

The optimum number of schools appears to range from three to eight, although this can vary depending on the activities undertaken by the cluster. There is a school improvement research cluster that has been operating nicely for four years with only two schools while another cluster designed to share personnel and in-service activities involves 16 districts.

A cluster should have enough members so that there is the opportunity to share and benefit from each other but not so many that the organization turns into another huge bureaucracy and progress grinds to a halt.

Geographic proximity may be necessary

**LOCATION:** Distances between member schools must be reasonable to allow for frequent meetings and to facilitate the sharing of services and/or programs.

Travel costs must be kept within reason. How "within reason" gets interpreted will vary considerably depending on the sparsity of population and the norms of the area.

Accessibility to support agencies such as intermediate service agencies and institutions of higher education is also an important consideration when forming a cluster and looking for outside assistance.

For clusters that are implementing distance technologies, however, distances and location may not be an issue.
5  Keep the organizational structure simple

ORGANIZATION: A simple organizational structure is sufficient in order to accomplish successful clustering.

Efforts should be made to keep the organizational structure to a minimum. The survival of the cluster should be based on its usefulness to the participants, not on establishing another formal organization.

For example, one computer cluster formed when a participating school agreed to be the fiscal agent. That district then hired a computer trainer and billed the other participants for their share of the expenses.

While the structure may be simple, it should clearly define the roles and clarify the expectations of the cluster as a whole and of each of the members individually.

The cluster should also be structured with an ongoing communications mechanism which allows/forces members to share information regularly.

Over time the cluster may become institutionalized and take on a more formal structure. Just remember that the structure should serve the needs of the members not the other way around.

6  Active participation of school leaders is essential

LEADERSHIP: Commitment and active participation of a person wielding clear authority is essential.

In most cases, it is critical that the superintendents take an active role in the operation of the cluster. Their involvement lets the others in the organization know that this is an important undertaking. Since they are key decision-makers, they can move from interest in an idea to active consideration and adoption very quickly.

While formal leadership in a cluster is not necessary, someone needs to assume the role of facilitator or convener. A party with no vested interests, such as an individual from a local institution of higher education, can serve this function if the necessary trust exists. This will allow local school personnel to operate as co-equals without one district seeming to “take charge.”
Early involvement of the school board will pay dividends

BOARD INVOLVEMENT: The school board and community members need to be involved.

Clustering activities will involve some organizational modifications of district operation and are likely to have financial implications as well. Consequently, the board and the community need to be as actively involved as possible initially and throughout the life of the cluster.

The first thing that comes to mind when districts start talking about cooperation is the possibility of school consolidation resulting in the community losing its school. The board and community need to be reassured that the shared efforts are for the purpose of strengthening the school program and that through cooperative activities of the cluster the school is more likely to remain in the community.

Support organizations can play a key role

ROLE OF SUPPORT ORGANIZATIONS: Representatives of support organizations serve as resource providers, facilitators and links to state and institutional policy development.

Ready access to technical assistance is needed by the cluster. The role can be filled by interested/committed persons from a neighboring institution of higher education, an intermediate service agency, state department of education or regional education laboratory.

Support organizations should focus on organizing, facilitating, assisting and providing information, rather than assuming the posture of "the expert."

As much as anything, they help to keep the momentum going, serve as objective facilitators, provide continuity over time, and lend legitimacy to activities that might not be possible if districts undertook them on their own.
PROGRAM ACTIVITIES: Activities should be helpful to all involved schools; early success is important.

A cluster strategy can be used to address a wide range of problems and services. The following categories show the variety of possibilities:

Technical Assistance & Staff Development - providing inservice for teachers, administrators and staff; assisting with curriculum development; organizing cluster-wide projects.

Personnel - sharing teachers in all areas but particularly in foreign languages, computers, fine arts, advanced science and math, and counseling; also sharing administrators. Having a common list of substitute teachers who have been properly oriented and who have been successful in the classroom is another possibility.

Students - bringing interested students together from participating schools for specific classes, activities, team sports, drama productions, music events, and student enrichment activities such as a "Young Author's Day" or a "Super Scientists Day."

Business Services - cooperative purchasing of expensive laboratory equipment such as computers, paper products, health and liability insurance; other business services including accounting and transportation scheduling.

Libraries - services, materials and audiovisuals can be shared, as well as subscriptions to data base services. If the cluster schools were to inventory and computerize their library holdings and make them available to everyone when needed, the resources would increase exponentially. Then new acquisition decisions could be made jointly to avoid duplication.

Transportation - particularly for special education students but also for students in shared activities.

Whatever the needs are, start with something small that is an issue for everyone, and make sure the cluster's early activities are successful. As things work out and trust builds and as schools recognize that they can cooperate without losing their independence, you'll be able to take on bigger challenges.
Frequent meetings are required initially

FREQUENCY OF MEETINGS: Frequent meetings are required initially. Fewer meetings are needed later on, but they should be held at regular intervals.

Cluster members need to meet frequently, perhaps once a month in the beginning. Once programs are underway, fewer meetings will be needed but they should be held at regular intervals to keep the cluster activities on track.

Frequent meetings reinforce the support and importance of cluster activities; keep the consortium idea on track; maintain the cooperative working relationships essential to consortium effectiveness; and allow for the generation of new ideas that can be addressed by the cluster.

Cluster meetings should provide opportunities to share successes and problems, learn new skills needed to solve problems, plan and evaluate activities and develop collegiality.

Shared financing can result in substantial programs

FINANCES: Combining small amounts of money in a cooperative effort often provides sufficient economies of scale so that substantial programs can be initiated.

Resources for developmental activities or additional services are becoming more and more difficult to find. Clustering provides for more efficient use of scarce resources. While small districts get their proportional share of certain entitlement programs, that share is often too small to do anything with. Combining these small amounts of money in a cooperative effort will often provide sufficient economies of scale so that much more substantial programs can be initiated.

Discretionary money from agencies, such as foundations and state or federal governments is often more available to a consortium of districts rather than one district acting alone.

Member districts must be willing to commit human and usually financial resources to cluster activities. Financial commitments
should be kept at a minimum in early consortium activities. If the consortium decides to pool funds from each school to hire a consultant, buy specialized equipment, etc., it works best when one school serves as fiscal agent and employing district. Each district contributes an agreed amount to the fiscal agent school which then takes responsibility for paying consortium bills, accounting for funds and so forth.

12 Clusters must be accountable for their activities

ACCOUNTABILITY: Documentation of cluster activities helps participants make periodic assessments of progress and serves as a good public relations tool.

Clustering activities, since they involve public resources, require some form of accountability. And, if a healthy cluster is to develop, periodic review and assessment of progress is essential.

At the very least, a cumulative record of activities along with a set of minutes of cluster meetings is necessary. If well documented, cluster programs can provide good public relations for the districts.

Responsibility for ongoing documentation is best taken on by either the higher education or state education agency facilitator. Reports based on the documentation can be used to report to local boards and form the basis for an annual review process to determine how well programs are responding to the participants' needs. These reviews can be used to make any adjustments that might be needed in cluster membership and activities.

The annual assessment of the cluster's activities and planning for the future logically should take place in the spring of the year. Do it early enough to allow any personnel involved enough lead time to plan for their future.
Necessary Conditions

While these conditions will not guarantee the success of a cluster, their presence is important to getting off to a good start.

- There must be an "official" recognition that small rural schools may have unique educational problems and potential.
- An outside organization should serve as a neutral catalyst for an exploratory meeting.
- Superintendents must be the representatives of the school district in initial, exploratory meetings.
- The people who are directly affected by the problem must have a role in initiating the solution.
- The problem being addressed must be important and the solution relevant.
- Outside organizations that have knowledge, skills and/or resources to contribute to the idea should be active collaborators.
Next Steps

**TAKING THE FIRST STEP:** The initiator should be someone with the vision of what might be accomplished and the time and energy to follow through.

**FINDING THE RIGHT MIX OF PARTICIPANTS:** Look for natural groupings of schools and resource institutions; include individuals who have an interest in and commitment to rural education and who are advocates of interagency collaboration.

**GETTING ORGANIZED:** Examine the potential organizational structures (formal vs. informal, etc.). Decide what the relationships among the participating organizations will be. Will power be shared equally or will individuals or sub-groups dominate? Determine the mechanism for sharing resources.

**PLANNING:** Develop a common database which identifies common problems and areas of potential cooperation. This will expedite the planning process.

**GETTING HELP:** Make use of any and all resources available to help the cluster get started. Don’t be afraid to ask institutions of higher education and the state department of education for help.

**MOVING FORWARD:** Develop and use resources within your own cluster. That’s what clustering is all about.

Keep in mind that if the ultimate purpose of the cluster addresses problems defined by and common to all participants, if the ideas for collaboration are both exciting and practical, and if cluster membership eventually includes the right mix of districts and resources, the cluster will have a good chance for success. Start small and build on your success. As someone once said:

*If you can put one stone on top of another you can construct a cathedral. But temper your ardor with patience and start with a doghouse just for practice. You will soon get the hang of it.*

And the bottom line will be improved education for children in your area.