

A Comparison of Four Models of Group Efforts and Their Implications for Establishing Educational Partnerships

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School-based partnerships are a vehicle for teacher professional development and curriculum enhancement in rural schools, yet the characteristics of effective partnerships are unclear. Four models of group efforts appear in the literature which may inform the development of partnerships and help differentiate effective from less effective partnership efforts. The cooperation vs. collaboration model is based on the participants' level of involvement in the group effort. A model describing the level of interaction among the partners classifies group efforts as operating in the partnership vs. relationship domain. Helping hands, project-driven, and reform-based partnerships are identified in a model based on the level of impact which the group effort has on instruction, student learning, and education reform. A mathematical model based on the level of organization within the group effort describes team, pack and chain configurations and their approaches to problem solving. Common characteristics across models of effective partnerships include dynamism, mutual goals, parity, and commitment. Examination of the models in the light of observation and experience suggests that, in spite of identifiable commonalities, partnerships in any context are highly situational in nature.

Partnerships between schools and agencies have been advocated as a vehicle for professional development and educational reform for the past decade. Collaboration among educators at all levels, state and local policymakers, business and industry, parents, and the community at large is seen as a key strategy for successful systemic reform (Earle & Wan, 1995). At the national level, partnerships have been endorsed as a way to improve education by the White House Task Force on Education and Economic Growth, the National Commission on Excellence in Education, and the National Science Foundation (Britt, 1985/86). The 1996 NSF invitational conference theme, *Dynamic partnerships: Seeding and sustaining education reform*, for example, illustrates that agency's "emphasis on collaborative partnerships as the best means to achieve lasting reform in science education" (L. S. Williams, personal communication, December 13, 1995).

Reagan declared the academic year 1983-84 as the National Year of Partnerships in Education to recognize the cooperative activities already in progress and to stimulate the development of additional partnerships. In 1984, a national survey of all school districts by the Department of Education found over 2000 districts with formal partnerships involving over 46,000 agencies. By 1989, the De-

partment estimated that over 140,000 school-business partnerships existed nationwide (Rigden, 1991), mostly in urban and suburban areas.

School-based partnerships offer many benefits for rural schools, including improved classroom instruction, teacher empowerment, and increased parent involvement (Bainer, Barron, & Cantrell, 1996/97). Partnerships arise for a variety of reasons. Many partnerships arise from special studies or task forces of community organizations or school officials concerned about education in general, or science and mathematics education in particular (Blair, Brownstein, Hatry, & Morley, 1990). For example, the State University of New York at Oswego's Project SMART "Kids at Work" program intends to enhance instruction in rural areas by linking classroom problem-solving activities with real world applications of science and mathematics through site visits to nearby businesses and industries (Weber et al., 1997). Partnering for Elementary Environmental Science, a program in rural Ohio, enhances science instruction by partnering teachers with local natural resources professionals who provide content expertise (Bainer et al., 1996/97).

Good partnerships help improve the quantity and quality of links between schools and the rural community, providing needed resources and opportunities for all those involved. Agencies and businesses can provide financial support, share human resources, provide role models for students, and give advice regarding organizational structure and management techniques to rural schools which often lack sufficient resources and an influx of creative, workable ideas.

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Agency and business partners benefit from school-based partnerships as well. Schools provide their partners with ways to fulfill their social goals and responsibilities, improve their image in the community, and influence the skills and knowledge of potential employees (Hall, Castrale, & Zimmerman, 1993). Partnerships with schools enable resource professionals to learn about the obstacles to improving education in America's classrooms, to better understand the roles and responsibilities of today's educators, and to recognize how to best apply their varied talents toward creating lasting change in schools which provide an education for their own children (Alberts & Toomi, 1995). Further, interaction with educators and students has been shown to enhance resource professionals' communication skills, provide them with a new way of looking at and processing job-related information, and offer challenges and stimulation at critical times during their careers (Bainer, Barron, & Cantrell, 1995; Bainer & Halon, 1997; Miller, 1993).

It is uncertain, however, if many of these promising partnership endeavors result in fundamental changes in instruction and student learning or in education reform. Miron and Wimpelberg (1989), for example, found that only eight of the 450 local school-business partnerships they investigated led to instructional change. Further, perhaps because each partnership displays unique organizational and personal interactions, it is not known why some partnerships succeed and persist while others soon disband. Cobb and Quaglia (1994) point out that we need to know more about partnerships in order to ensure successful school reform.

The purpose of this paper is to explore the literature for theoretical foundations upon which partnerships in rural schools can be built and which can direct their evolution. It summarizes four prominent models of the way groups, such as partnerships, interact. Whether these are truly theoretical models or merely different dimensions of partnering is open to question. Nevertheless, the paper describes the characteristics of various group efforts presented by these models and synthesizes them in search of commonalities across models. Further, it explores the implications of these theoretical models for those individuals attempting to establish school-based partnerships in rural settings.

For the text of this paper, the term "partnership" refers to a relationship between two or more individuals or agencies, at least one of which is an educator, school, or school district. The term "resource professional" refers to an individual who engages in a working relationship with educators for the purpose of sharing that expertise to impact education. Resource professionals are generally from business, industry, or government agencies, but may also be private citizens such as farmers who have some content expertise.

Model I: Level of Involvement— Cooperation vs. Collaboration

Cooperative and collaborative approaches, described in the context of evaluation efforts by Wichienwong (1988), are two kinds of joint efforts for involving members in a partnership. Hord (1981) describes cooperation and collaboration as two types of efforts in which two or more parties work together, each requiring different kinds of input and different levels of commitment and yielding different types of returns. The two approaches in this model are positive working interactions along a continuum of behaviors, with a lack of cooperation at the opposite end of the continuum. In this model, the continuum is based on the level of involvement by the participants in the partnering effort. Thus the distinction between these two approaches can be considered in terms of the level or degree of involvement in the partnership, rather than as discrete types of involvement.

According to Hord (1981), a group effort is *cooperative* when two individuals or organizations work together to reach some mutual agreement. Each individual or organization has its own goals in working together, and the goals may either complement or compete with each other. Further, a different level of commitment is required from each partner. In a cooperative effort, some participants' contributions to the partnership process may be relatively small. In partnerships between resource professionals and teachers, this is seen when teachers assume the major role in conceptualizing partnership goals, setting objectives and topics or themes, planning implementation strategies and activities, identifying and conducting the implementation of activities or programs, and generating evaluation results. In a cooperative partnership, the joint effort among partnership members is seen only in some particular stages of the partnering process. For example, some members of the partnership team may facilitate the implementation of the partnership program by leading activities, visiting classrooms, or identifying resources when assigned to do so, yet remain passively involved with the partnering process as a whole.

Collaboration has a broader meaning in that it requires a great deal more effort and involvement than does a cooperative effort. Appley and Winder (1977) define collaboration as a relational system in which: (a) individuals in a group share mutual aspirations and a common conceptual framework; (b) the interactions among individuals are characterized by 'justice as fairness'; and (c) these aspirations and conceptualizations are characterized by an individual's consciousness of his/her motives toward the other, by caring or concern for the other, and by commitment to work with the other over time, provided that this commitment is a matter of choice. Mergendoller (1981) summarizes three general characteristics of collaboration as: (a) the estab-

lishment of parity among collaborators; (b) the maintenance of the reciprocal relationship among team members; and (c) the establishment of a common language and communication. Hord (1981) describes collaboration as a joint effort which includes joint planning, joint implementation and joint evaluation among all partners. Collaboration requires that partners work together to a greater extent with enhanced commitment, equal responsibility, and parity. Specifically, members of the partnership start working together at the initial stage of the partnership and continue throughout the process until the program is implemented, evaluated, and reflected upon. Further, in a collaborative effort partners share expectations, mutual goals, resources and expertise. Relatedly, partners spend more time working together than working separately.

Operationally, Hord (1981) distinguishes between cooperative and collaborative efforts. At the beginning of a cooperative effort, an organization or individual identifies a problem area. This party then approaches and receives permission from the other party to complete the task, to solve its problem, or to achieve its goal. The organization or individual which needs cooperation from another may provide funds, resources and expertise while the cooperating agency provides access, setting and situation. In a collaborative approach, both individuals or organizations initially share their interests and concerns. Then they work together to develop common goals from an agreement on their expected results, products and services. Both offer products or services to each other and share resources and staff. Responsibility is delegated and control is shared equally in collaborative organizations.

Wichienwong (1988) identified and utilized five proxies to indicate if working relationships are cooperative or collaborative in the context of program evaluation. These can be extended to determine the level and type of involvement of participants in the partnering processes related to education and schooling.

Early and Ongoing Involvement

Roles, relationships, and activities seem to evolve in partnerships in four specific developmental stages. Initiation is the first stage, characterized by activities such as making introductions, setting goals, identifying target audiences, delineating problems and concerns with the partnering process, exploring potential topics or themes, and identifying questions or types of information needed in order to begin the partnering process. The Planning stage includes activities such as determining parameters, designing the partnering program, allocating resources, identifying roles for key personnel, identifying and contacting resources, facilities, and equipment available, building a long-range action plan, scheduling, developing lesson topics, general plans, and assessment. Implementation, the third

state, is delineated by enacting the action plan by developing detailed lesson plans and activities, presenting those lessons and activities, evaluating the effectiveness of the lessons and activities, modifying the plan in accordance with evaluation or environmental factors, communicating to other teachers, resource persons, district personnel, and the media about the partnering activities, and informally expanding the partnership team. The final stage of the partnering process, Reporting, includes activities such as preparing a summary presentation, completing formal evaluations, evaluating and reflecting on the partnership process and effectiveness, and considering continuation and/or modification of the partnership.

According to this model, if the participants' involvement in the partnership started at the Initiation and Planning stages and continued through the Implementation and Reporting stages, the partnership is more representative of collaborative involvement. Otherwise, if the members participate in only one or two particular stages, the partnership effort is cooperative.

Communication

Interaction among the participants in a partnership starts at the beginning of the partnering process and continues until the final reports are given. Continuous communication is important to maintain the interaction among partnership members, and has been identified as one of the factors that accounts for a successful collaborative effort (Glaser & Taylor, 1973; Patton, 1978). Communication provides an opportunity for the members to exchange knowledge and opinions about partnering and the action plan. New activities, resources, and ideas can be shared. Information can be clarified to reduce ambiguity and misinterpretation. Feedback can be shared regarding teaching performance, student learning and satisfaction, and program effectiveness. The theme or topics can be revisited and revised.

According to this model, indications of a strong, collaborative partnership effort include frequent interpersonal communication among team members throughout the partnering process. This interaction is between individual group members as well as among the group as a whole, and takes place both formally and informally.

Parity among Partnership Members

Parity or equality among all members of the partnership also accounts for the success of a collaborative effort (Hord, 1981; Pine, 1981; Tikunoff, Ward, & Griffin, 1979). If a partnership is characterized by cooperation, one or more teachers often assumes the major responsibility in the partnering process. The teacher conceptualizes and implements the action plan most of the time by him/herself. The

other teachers and resource professionals serve as guest speakers and consultants, or help facilitate activities which the dominant teacher leads. Decision making about the general and specific nature of the action plan belong to the teacher. In this case, there may be limited parity or equality between the members of the partnership as the central control is held by one or more dominant teachers. In terms of a power context, these teachers have more influence in the process of planning and implementing the partnership action plan than do other members of the team.

In collaborative partnerships, the members of the partnership work together as colleagues or co-educators. Although trained in different areas of knowledge and professional expertise, their knowledge and work experience are considered as equally valuable to the partnership process and its action plan. No person's knowledge or perspectives are considered to be better than or superior to the others'. Parity in this sense means equal status for all members of the partnership in the planning, implementation, evaluation, and reporting of the program. Members share knowledge and opinions. As goals and expectations are shared, a sense of gain is induced in all members of the team. They assume equal responsibility in identifying, planning, implementing and carrying out the action plan from start to finish. All members are involved in helping each other in making decisions about the partnership and classroom program. Control of the program or partnership is dispersed among the partners.

Whether or not a partnership is collaborative or cooperative, then, can be determined by the extent of parity among the members of the partnership. According to this model, partnerships are deemed as collaborative when their members carry equal weight. The participants share their expectations, and these are reflected in the partnership and classroom program's goals and activities. All members' opinions about the program and partnership are utilized in the classroom program and plan. Suggestions from all members are considered of equal importance. Otherwise, the partnership is considered cooperative.

Commitment

Commitment refers to the extent to which the participants are involved in the activities of the partnership, are alert to the needs of the partnership and program, and identify themselves with the partnership and program. A collaborative relationship requires greater participation in the partnership activities than does a cooperative relationship. The more involved participants are with the partnership and classroom program, the more they may identify with the activities.

Commitment to the partnership and its program may be evidenced in several ways. Partners have a strong desire to see the program through to the end and want to see it

produce results in the school, classroom, and students. Relatedly, the partners are highly involved in the partnering process and its program. Further, they spend considerable time involved with the partnership itself and with the classroom program. The more evident these qualities are, the greater the likelihood that the partnership is collaborative rather than cooperative, according to this model.

Time Spent in Group Effort

A collaborative effort requires that participants must be willing to devote a sufficient amount of time to the effort (Hord, 1981). In a collaborative program, individuals fully participate as members of the partnership team. All members take equal responsibility in all activities of the partnership process. Partners work together in setting goals, identifying topics or themes, seeking activities and materials to implement those themes, identifying teaching and evaluation strategies, implementing the action plan, and completing evaluation and reflection concerning their partnering endeavor. Because there is consistent involvement from the beginning stage and all through the process of the partnering effort, more time is needed to achieve a successful collaboration than a cooperative effort. Lack of time allocated to the joint effort may result in a less successful endeavor. Time has been identified as a critical factor among team members utilizing a team approach. Empirical studies have shown lack of time to discuss problems together and to complete job duties, time not used productively, and insufficient time allotted for each activity as problems for multidisciplinary teams (Fleming & Fleming, 1983; Pfeiffer, 1981).

Therefore, partnerships which can be described as collaborative rather than cooperative are characterized by partners spending a large amount of time engaged in partnering activities, using the time allocated to partnering activities efficiently, and arranging their time for partnering activities.

Model II: Level of Interaction— Partnership vs. Relationship

Cobb and Quaglia (1994) provide a model of group efforts based on the level of interaction among participants in a partnership. After examining many school-business partnerships, Cobb and Quaglia suggest that there are organizational and personal dynamics which need to be present for successful relationships between schools and other agencies. Their model offers insights regarding the dynamics and characteristics of partnerships that appear to be effective in instituting fundamental curricular change or school reform. They delineated seven "common themes" from the literature and various programs studied which provide understanding of the theoretical constructs surround-

ing partnerships. While many partnerships function in the partnership domain, Cobb and Quaglia (1994) suggest that the more effective partnerships function in the relationship domain. The *partnership domain* is characterized as: (a) static, (b) having an established structure, (c) focused on organizational needs, (d) insulated from self-evaluation, (e) exhibiting a clearly defined power base, (f) yielding one-way benefits, and (g) status-conscious. In contrast, the *relationship domain* is characterized as: (a) dynamic, (b) establishing relationships among people, (c) focused on individual needs, (d) self-examining, (e) exhibiting multiple power bases, (f) yielding multiple benefits, and (g) task-oriented.

While Cobb and Quaglia (1994) present their model as dichotomous, the common themes they identify are continuous in nature. It may be more appropriate, then, to conceptualize their two domains as endpoints along a continuum of interactions among individuals within a partnership. Detailed below are the seven themes that differentiate between partnerships working in the partnership and relationship domains, according to this model.

Static vs. Dynamic

According to Cobb and Quaglia (1994), less effective partnerships function as static entities. A static partnership is one-dimensional and is driven by the structure of the organizations involved. More effective partnerships operate through a dynamic process of interaction, which is characterized as multidimensional and is designed to accommodate individual needs as well as organizational needs. Resource professionals from business, for example, sometimes naturally impress their sense of corporate urgency upon education. It is not unusual for these partners to serve as in-house advisors and to facilitate the setting of measurable goals and the identification of outcomes which focus on student learning (Rigden, 1991). Further, business partners often encourage teachers and schools to be more innovative. In partnerships which are dynamic and relational, these actions are not rendered in an offensive way, nor at the expense of the individual needs of students and teachers.

Establishing Structure vs. Establishing Relationships Among People

Most partnerships have a well defined structure in place for the partnering process and program. In less effective partnerships which function in the partnership domain, the structure is rigid and takes the place of person to person associations among partners and between the agencies involved. In effective relational partnerships, associations among individual participants are established and encour-

aged to enable those partnerships to represent the needs of all parties involved.

Organizational Needs vs. Individual Needs

In less effective teams, the partnership responds to organizational needs at the expense of individual needs. While it is the needs of the organizations which often brings the agencies involved together, if the needs of people in those organizations are not recognized, individuality is lost. For example, a business engaged in a partnership with a local school may provide needed science equipment. If the partnership is working effectively in the relationship domain, the business partners will work in collaboration with the school staff to determine what equipment is needed and to provide opportunities for training by finding, funding, and/or creating pertinent staff development programs regarding how to use the equipment and how the equipment can expand the science content and curriculum in that school. As David (1991) found, effective partnerships realize that in order to bring about change in teaching and learning, extra time and intensive professional training is often required.

Self-evaluation vs. Self-examination

According to Cobb and Quaglia (1994), most partnerships do not engage in evaluation because their goals are not clearly articulated. Further, most partnerships do not see the need for evaluation. Successful partnerships believe evaluation is important and essential for continual progress and growth. Otterbourg (1990) reports that many ineffective partnerships either do not perform assessment or tend to merely summarize their efforts (such as number of hours volunteers served, program monies spent, or descriptions of activities). Program assessment, however, should contain two foci: project outcomes and project effectiveness as it pertains to reform (Otterbourg, 1990; Rigden, 1991). In effective partnerships, full-time, independent, experienced personnel are often appointed to help facilitate the program's long term operations and evaluation (David, 1991; Rigden, 1991).

Defined Power Base vs. Multiple Power Base

Hierarchical structure often stagnates partnerships in terms of originality, participation, and individual ownership. Multiple power bases in heterarchical structure, which characterize partnerships in the relationship domain, are more open to individual ideas and give participants a greater sense of ownership and responsibility (Cobb & Quaglia, 1994).

One-way Benefits vs. Multiple Benefits

Successful partnerships operating in the relationship domain have clear benefits for as many people as possible. Many school-agency partnerships, however, seem to benefit only education. According to Cobb and Quaglia (1994), multiple benefits usually occur when a forum for creativity is established and encouraged by individual participants rather than benefits being solely determined by the organizational structure of the partnerships.

Status-conscious vs. Task-oriented

Successful partnerships are task-oriented devoting more attention to activities than to structure. They designate time and resources to create and complete all planned activities. Less effective partnerships, according to Cobb and Quaglia (1994), are status-conscious. Instead of directing energies toward accomplishing a shared goal, disproportionate energy and resources are used to establish and maintain the structure and visibility of the partnership. While this may have wide public appeal and public relations benefits, it does little for the people invested in the purpose and goals of the partnership.

Model III: Level of Impact—

Helping Hands vs. Project-driven vs. Reform-based

In terms of their level of impact on the school and, more importantly, on instruction and student learning, a model of partnerships presenting a continuum of impacts has been presented (Rigden, 1991, 1992). The model is characterized by three primary configurations of school-agency partnerships: adopt-a-school, project-driven, and reform-based partnerships.

Adopt-a-school

The most basic level of partnership involvement between a school and another organization is the *adopt-a-school* approach. These programs, which mainly involve relationships between businesses and schools, developed during the 1960s to improve innercity schools and thereby give disadvantaged students better employment opportunities (Britt, 1985/86). These partnerships take a variety of forms ranging from providing equipment, volunteers, or financial support to the school with no direct involvement with teachers or students to “popping in and doing a few ‘gee whiz’ things” (Sills, Barron, & Heath, 1993). Generally, agencies involved in adopt-a-school partnerships avoid getting involved in decisions that impact curricula and educational systems. Further, there is often limited interaction between the agency and students and teachers. However, these relationships develop the sense of trust and confi-

dence in the participants which lay the foundation for other types of partnerships.

Projects-driven

Projects-driven partnerships, have greater impact on schools and teachers. They provide short-term interaction with limited connection to student learning. Project-driven partnerships are formed to address specific academic or social problems (Rigden, 1992). Project-driven partnerships are often vehicles for enhancing the curriculum and extending learning opportunities for students by importing successful programs created and tested elsewhere, finding and/or for funding pertinent staff development programs, or by overseeing academic programs run by universities. Some projects-driven partnerships appoint full-time consultants or advisors to facilitate the long-term operation of the partnership program. Thus, project-driven partnerships have a stronger impact, and can influence changes in attitudes and practices in the classroom, school, and school system. Unfortunately, as Cobb and Quaglia (1994) describe, these practices are sometimes done with little regard for the individual needs of students or teachers if agencies act as in-house advisors and facilitators to impress their corporate “sense of urgency” upon the educational enterprise. Further, it is uncertain if these partnerships result in fundamental changes in instruction or student learning. While they achieve worthwhile objectives, many fail in their attempts to improve student learning (Sills et al., 1993).

Reform-based

Reform-based partnerships (Rigden, 1992) are “the next generation of partnerships” according to Sills et al. (1993). Often developed out of relationships established through other types of partnerships, reform-based partnerships intend to go beyond compiling good projects to impacting instruction, student learning, and teacher empowerment in the whole school system. They involve long-term commitments among the participants in the partnership geared toward lasting changes in curriculum, instruction, and assessment. In these partnerships, resource professionals work with educators to plan and develop links within the wider community. The reform-based partnership makes good use of the resource professionals in the classroom by avoiding the temptation to just ask them to be “surrogate teachers” in giving a talk to the whole class and involving them in a variety of roles, including providing resources for display, talking with small groups of learners, advising individual students, giving feedback to individuals or the class on their work, and helping to evaluate classroom activities (Miller, 1993). Successful reform-based partnerships: (a) are innovative and pioneering; (b) are guided by

jointly developed goals; (c) exhibit a collaborative, class-room-focused relationship; (d) provide activities that are hands-on and age appropriate; (e) reflect national and state education goals; (f) include assessment strategies; (g) embed changes within the system; and (h) exhibit multilevel, long-term support from both the school and the partnering agency.

Model IV: Level of Organization— Teams vs. Packs vs. Chains

Wright (1994) explores the situational nature of partnerships and group endeavors and develops a model of group efforts based on their level of organization. While the psychology of group organization is often richly described in qualitative terms, Wright applies algebra to obtain a mathematical model of group productivity based on Rasch measurement. Noting that group success is influenced by the way group members work together, Wright develops a mathematic (“composition analysis”) which defines the different ways group members might work together such that their individual abilities can be combined mathematically to calculate an expected measure of group effectiveness. Three measurable group compositions are discussed.

Teams

Teams work as unions of perfect agreement. Team strength is derived from the strengths of individual group members, partly because they agree with and support each other. That is, Teams are “concatenations of relative strengths, accumulated in linear form” (Wright, 1994, p. 30). Team members are relatively strong, and they utilize that strength to help the Team solve problems. Individual strengths are, in fact, stronger than the problems the Team experiences. The Team configuration is most effective at solving easy problems or working in relatively problem-free contexts as ideas easily converge into one perhaps obvious course of action. Because of the lack of disagreement, however, the Team is the least effective configuration for solving difficult problems or for working in a difficult context. Wright (1994) likens the Team composition to a team of football players huddled to call a play. Win or lose, they intend to act united. Should one of them err, the Team would be hurt. Thus Team success is jeopardized by weaknesses or disagreements within the team.

Packs

Packs work as collections of perfect disagreements. That is, Packs are concatenations of absolute strengths accumulated exponentially. The regular disagreements among Pack members collectively benefit the Pack as it works

through problems to build homogeneity. Because more members increase the diversity within the Pack, an increase in Pack size also increases its strength. The Pack configuration works best with intermediate and hard problems, where divergent thinking results in effective synergistic problem solving. An example which Wright (1994) provides is a search for lost keys. Should all members agree to look in the same place, as would the Team configuration? Difficult problems such as lost keys are better solved when all members agree to disagree as to where to look and spread out in search of the keys. Pack configuration is the best way to find lost keys.

Chains

The third group composition is the Chain. Wright (1994) ventures an example of mountain climbing to illustrate the way Chains work. Climbers rope together for safety. As one person climbs, others in the chain hold on. If one climber slips, his anchored allies may be able to save him. If, however, a supposedly anchored colleague is not hanging on or moves out of turn, then all the climbers may fall. The Chain configuration is the best way to climb mountains. Chains work as connections of imperfect agreements. That is, Chains are a “concatenation of connections of absolute weaknesses in exponential form” (Wright, 1994, p. 31). Disagreements are harmful to Chains and, for this reason, Chain strength decreases as the size increases, because this increases the likelihood of disagreements. While their ability to deal with difficult problems in stressful contexts is somewhat limited, Chains are more effective at solving difficult problems and working in difficult contexts than are Team configurations.

Discussion and Implications

In considering the four models proposed to describe group efforts, three observations emerge. The first observation is that each of the four models seems to describe two or more points which define a continuum of partnering behaviors, rather than one distinct, clearly identifiable partnership model. As the models are presented, their authors imply that behaviors at one end of the continuum result in more effective partnerships: collaborative partnerships are “better” than cooperative partnerships, for example, and relational-based efforts are superior to those in the partnership domain. Yet, ironically, the authors conclude from their observations and experience that partnerships are “highly situational in nature” (Cobb & Quaglia, 1994). Sills et al. (1993) share their opinion that there is not one “cookie cutter” for effective partnerships because they are situational. Hord (1981) notes that the fact that different types of interaction are undertaken in partnerships indicates that individuals and organizations apply unique approaches when

working together to achieve mutual goals. As in any joint effort, Hord suggests that the choice of approach depends on the needs and expectations of the partnering individuals or agencies. Rigden (1992) reiterates this by stating that the direction a partnership takes, the methods it uses to promote school change, and its success with different strategies are all strongly influenced by local needs and policies.

This may be one of the sources of confusion within partnering efforts. Project directors may attempt to establish partnerships which are collaborative, relational, reform-based Teams. Yet there is no research-based evidence that partnerships operating at this end of the continua are more effective at achieving their goals or at initiating education reform than are other configurations. If partnerships are to be established and replicated, we need to explore what is meant by "effective" and how the partnership's configuration impacts its effectiveness and endurance. Further, we must explore the impact of the context or situation on the partnership configuration and its effectiveness. This means, for example, that before importing an urban-based partnership program into a rural setting we must identify which characteristics of the program are its essence and which are contextual. While we may import the essential aspects of the program, we need to modify other characteristics of the program if it is to be effective in a rural setting and to meet local needs and policies.

While some may find it offensive to derive and discuss group interactions as a mathematical model, Wright (1994) moves us in the direction of understanding the situational nature of partnerships. Wright's work recalls the adage from architecture and interior design that "form follows function." His work suggests that the form or configuration of a group effort follows the context in which the group effort must function. Because the education world is characterized by varied contexts, this would predict that effective partnerships vary in configuration based on their context. Further, it would predict that in situations where the context is dynamic, effective partnerships would change in configuration based on the nature of the context or the problem at hand. This reiterates Cobb and Quaglia's observation (1994) that effective partnerships focus on activity and goals to be accomplished rather than adhering to a preestablished structure.

The importance of the models, then, may be to warn us that we should not be prescriptive about the kind of partnerships we try to establish in education. Rather, we should empower the partners to seek their own place along the partnership continua given the context in which they work. This is especially important as partnership programs are imported from urban and suburban areas to rural and small schools. Rural schools may have greater needs while small businesses and agencies have fewer resources than the urban counterparts upon which the program was originally based. More communication and negotiation and a clear

focus on mutual goal-setting in the early stages of the partnering relationship are essential to adapting the partnership program to a rural school context. Our role as leaders is to facilitate the formal and informal communications among the members of the partnership and between the agencies involved and to work to establish an environment in which the group effort can develop.

A second observation that arises from describing the models of partnerships is that the model continua are not mutually exclusive. The advocates of each of the models approaches partnering efforts from a different perspective, thus actually describing different dimensions of group efforts: Hord (1981) from investigating organizational systems and interaction methods; Wichienwong (1988) from describing interactions during program evaluations; Cobb and Quaglia (1994) from reviewing the literature on partnerships between businesses and schools; Sills et al. (1993) from experience establishing partnerships between businesses and schools; and Wright (1994) from theoretical mathematics and measurement. Yet there are four commonalities across the models which may characterize "effective" partnerships. The first commonality is that effective partnerships are dynamic. That is, the partnership is made up of people in motion who maintain their equilibrium by focusing on mutual goals. Wichienwong (1988) points out that the most effective partnerships are highly interactive. Relatedly, frequent communication at a variety of levels takes place throughout the life of the partnership. This personalized, purposive interaction among members is the central premise of the model of effective partnering established by Cobb and Quaglia (1994). Further, Sills et al. (1993) state that it is the relationships among the members of the partnership, not the agencies, which brings about educational reform. This is supported by early work by Bainer et al. (1995).

Linked to the notion of dynamism is the second commonality across the four partnering models. It is that effective partnerships share common goals and direct their dynamism toward solving a mutual problem. Common goals provide the equilibrium for the partnership as outside forces exert pressure on that group effort. The partnering efforts in Wright's model (1994) are defined in terms of their approach to and success with problem solving. Sills et al. (1993) specifically characterize partnerships which bring about change in education contexts as those which have jointly developed, classroom-focused and somewhat innovative goals.

A third commonality across models is parity or equality among group members. Wright (1994) speaks in terms of group members being linked together during the problem solving efforts in configurations which imply parity. Wichienwong (1988) and Hord (1981) emphasize that parity throughout the partnering project accounts for the success of the effort. They further associate full participation

among group members with the effectiveness of that partnership. Cobb and Quaglia (1994) found multiple power bases and multiple benefits recorded in the literature as characteristics of the most effective partnerships.

A fourth commonality connecting the four models is commitment, especially a commitment to devoting time to the partnership and its projects. Researchers, including Fleming and Fleming (1983) and Pfeiffer (1981), have identified time constraints and inefficient use of time as roadblocks to group efforts. Sills et al. (1993) say that not just time, but also a long term commitment by partnership members to spending time with teachers and students is necessary for educational change. Wright (1994) speaks of all group members making a commitment to solving a problem as essential. His work implies that by assuming one group configuration over another, a group may maximize the time required to initially establish a partnership in a given context or to solve a particular type of problem. Further, the appropriate choice of a group configuration may increase the efficiency and effectiveness of the partnership and, because it is saving time, reinforce the commitment of the members to the partnership effort.

Recognizing these commonalities across theoretical models is essential to establishing partnerships in rural settings. Most of these qualities are relational, so they work in favor of school-based partnerships in small communities where relationships among potential partners have already been established outside the school setting. The danger, of course, is the threat to the educational partnership if a relationship and commitment sours and there are limited options for replacing a team member. The social politics of a small community may make rural partnerships more vulnerable than their urban or suburban counterparts.

Seeking commonalities across the four models of partnerships leads to a third and final observation: the continua or models of partnerships are still not well understood. One question that arises is, are these models accurate? Are the observations on which they are based valid or merely flukes of local observation or the whims of those involved with pet programs? Further, are the models describing one phenomenon or variable (i.e., partnerships), or are several variables being identified under the same term or label? Relatedly, do the commonalities across the models provide characterizations of partnerships which are truly most effective? If so, should these four qualities be prescriptive when we establish partnerships? Are they the essential, base line requirements for effective group efforts? These models need to be explored, validated, and field tested if they are to be wisely applied to partnering efforts.

Another question that arises from considering the models is that if partnerships are situational, when and how do they adjust? How do partnerships cope with change? Why are some partnerships dynamic and active from their inception, while others suffer trauma to their membership or

context yet endure, and others, which seemed quite promising at the start, never really get off the ground?

Finally, if there is not one "cookie cutter" for effective partnerships, what configurations do exist in educational partnerships? That is, how do Wright's configurations apply to educational settings? And, more specifically, do effective rural partnerships differ from urban ones? Do different configurations of educational partnerships lead to different end results or effects in classrooms and schools? If so, can we identify and articulate configurations which seem to have certain desired effects in different contexts, thus reducing the time consuming and sometimes traumatic start-up period for partnerships. This would be especially advantageous in difficult contexts such as rural schools which are understaffed or which experience rapid staff turnover.

Cobb and Quaglia (1994) cite a need for formal, accurate assessments of partnerships and of their impact on instruction and student achievement. Bloom (1993) points out that the challenge of partnering that organizations face is to ensure that their group effort is truly effective in improving the educational experience for young people today. Yet in spite of the support garnered at the local and national levels for partnerships as agents of educational reform, evaluation of and research related to partnerships and their direct impact on teachers and pupils is sorely lacking. In short, we do not yet know if partnerships truly facilitate school reform or promote student learning. This may be especially true in rural settings. By linking theoretical notions of partnering with practical efforts in rural school settings, and by carefully and validly investigating their impacts, we are challenged to determine if partnerships hold promise for instructional enhancement in rural schools or if they are merely another educational bandwagon.

References

- Alberts, B. M., & Toomi, J. (1995, Spring). Educating students for the 21st century. *On Common Ground*, 4, 6-7.
- Appley, D. G., & Winder, A. E. (1977). Values, attitudes, and skills: An evolving definition of collaboration and some implication for the world of work. *The Journal of Applied Behavioral Sciences*, 13(3), 279-291.
- Bainer, D. L., Barron, P., & Cantrell, D. (1995). [The impact of reform-based partnerships on the professional development of resource professionals]. Unpublished raw data.
- Bainer, D. L., Barron, P., & Cantrell, D. (1996/97). Enhancing science instruction in rural schools through partnering. *Rural Educator*, 18(2), 12-16.
- Bainer, D. L., & Halon, C. (1997, March). *The impact of school-based partnerships on the job-related skills of professionals*. Paper presented at the annual meeting

- of the American Educational Research Association, Chicago, IL.
- Blair, L. H., Brownstein, P. J., Harty, H. P., & Morley, E. (1990). *Guidelines for school-business partnerships in science and mathematics*. Washington, DC: Urban Institute.
- Bloom, M. R. (1993). *Evaluating business-education collaboration: Value assessment process* (Report No. 104-93). Ottawa, Ontario, Canada: The Conference Board of Canada.
- Britt, L. A. (Ed.). (1985/86). *School and business partnerships*. Bloomington, IN: Phi Delta Kappa.
- Cobb, C., & Quaglia, R. J. (1994, April). *Moving beyond school-business partnerships and creating relationships*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- David, J. L. (1991, April). *Partnerships for change: Research*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL. (ERIC Document Reproduction Service No. ED 354 866)
- Earle, J., & Wan, J. C. (1995). The National Science Foundation and systemic reform. *On Common Ground*, 4, 10-11.
- Fleming, D. C., & Fleming, E. R. (1983). Problems in implementation of the team approach: A practitioner's perspective. *School Psychology Review*, 12(2), 144-149.
- Glaser, E. M., & Taylor, S. H. (1973). Factors influencing the success of applied research. *American Psychologist*, 28(2), 140-146.
- Hall, R. F., Castrale, E. G., & Zimmerman, S. (1993). *Business-education partnerships: Developing a collaborative relationship with business and community*. Macomb, IL: Western Illinois University.
- Hord, S. M. (1981). *Working together: Cooperation or collaboration*. Austin, TX: Research and Development Center for Teacher Education, University of Texas. (ERIC Document Reproduction Service No. ED 226 450)
- Mergendoller, J. R. (1981). *Mutual inquiry: The role of collaborative research on teaching in school-based staff development*. San Francisco, CA: Far West Laboratory for Educational Research and Development.
- Miller, A. (1993). *Building effective school-business links: A practical guide to improving quality*. London: Westex Publications Centre.
- Miron, L. F., & Wimpelberg, R. K. (1989). School/business partnerships and the reform of education. *Administrator's Notebook*, XXXIII(9), 1-4.
- Otterbourg, S. D. (1990, April). *Partnerships in education: Measuring their success*. Paper presented at the annual meeting of the American Educational Research Association, Boston, MA. (ERIC Document Reproduction Service No. ED 321 404)
- Patton, M. (1978). *Utilization-focused evaluation*. Beverly Hills, CA: Sage Publications.
- Pfeiffer, S. I. (1981). The problems facing multidisciplinary teams: As perceived by team members. *Psychology in School*, 18, 330-333.
- Pine, G. L. (1981, February). *Collaborative action research: The integration of research and service*. Paper presented at the annual meeting of the American Association of Colleges for Teacher Education, Detroit, MI. (ERIC Document Reproduction Service No. ED 199 221)
- Rigden, D. W. (1991). *Business/school partnerships: A path to effective restructuring*. New York: Council for Aid to Education.
- Rigden, D. W. (1992). *Business and the schools: A guide to effective programs* (2nd ed.). New York: Council for Aid to Education.
- Sills, B. A., Barron, P., & Heath, P. (1993, June). School reform through partnerships. In *Report of the Synergy Conference: Industry's role in the reform of mathematics, science and technology education* (pp. 68-71). Leesburg, VA: Triangle Coalition.
- Tikunoff, G. J., Ward, B. A., & Griffin, G. A. (1979). *Interactive research and development on teaching study: Final report*. San Francisco, CA: Far West Laboratory for Educational Research and Development.
- Weber, S., Beyerbach, B., Suskin, E., Keen, A., Labbe, N., & Russo, P. (1997, March). *From crystal building to crystal gazing: Problematizing the meanings of a professional development project*. Symposium presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Wichienwong, W. (1988). *The relationship of administrators' involvement in the evaluation process and evaluation attitudes*. Unpublished doctoral dissertation, The Ohio State University, Columbus, OH.
- Wright, B. D. (1994). Composition analysis. *Mid-Western Educational Researcher*, 7(2), 29-36, 38.