This study analyzed the opinions of exemplary middle school principals concerning what constitutes highly effective interdisciplinary teams. The schools that the principals represented were chosen according to the Department of Education's, Phi Delta Kappa's, and the Association for Supervision and Curriculum Development's assessment of threshold criteria dealing with academic achievement, student behavior, teacher morale, and local, state, and national reputation for excellence. Sixty-three percent or 82 out of 154 of these principals participated. Interpretative categories were gleaned from the principals' responses to a survey. The findings demonstrated that teachers who dedicate themselves to the academic and personal success of their students; work hard with students to build a feeling of unity and belonging; involve parents; and foster participative planning among students, parents, and administrators, belong to the most effective teams. Furthermore, administrators who vigorously instigate and prolong these teams actually promote their effectiveness. In addition, the results indicate that the interdisciplinary team is an essential element of effective middle level education. (JAM)
Highly Effective Interdisciplinary Teams: Perceptions of Exemplary Middle School Principals

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Introduction

In the spring of 1987, a comprehensive survey was circulated to principals in approximately 154 of the nation's supposedly best middle schools. The sample of schools was developed from nominations received from a panel of experts, from the inclusion of the schools in projects sponsored by Phi Delta Kappa, the Association for Supervision and Curriculum Development, and the Department of Education (DOE), and from schools known by the researchers to satisfy certain threshold criteria dealing with academic achievement, student behavior, teacher morale, and reputation for excellence at the local, state, or national level. Separate components of the survey dealt with the organization of the school; student grouping; advisory programs; decision-making procedures; and the strategies principals pursued to ensure the long-term maintenance of high quality programs in those schools. Sixty three percent of the principals returned the survey, and the responses of 82 of those principals are included in this analysis as the "very best teams."
In this study, principals of schools with records of excellence were invited to identify and describe, in great detail, the "very best team" in each middle school. The survey sought data regarding the organization of each team, attributes of the team and its activity, characteristics of teachers on outstanding teams, and principals' "secrets" for maintaining the effectiveness of such teams. The basic aim of the study was to obtain comprehensive descriptions of the most effective teams in some of the nation's most exemplary schools, painting a portrait of the "very best teams in some of the very best schools." The assumption of such an "outlier" study is, of course, like most teacher and school effectiveness research—that all teacher teams, in all middle level schools, can learn from studying the strategies pursued by the best.

Overview of Findings

The data obtained from the eighty-two principals who described their "very best interdisciplinary teams" was rich and detailed. From our study of the respondents' subjective reports, we are convinced more than ever of the efficacy of interdisciplinary teams of teachers and students in the middle grades whether or not they are located in a middle school. Whenever close communication about students' personal development as well as their academic growth are at stake, this organizational scheme makes excellent sense. The successes shared in these data deserve the most serious consideration possible by educators working with students in the middle grades.

The data provide such wide-ranging, multidimensional characterizations of "very best teams" that we have elected to report it via two frames of reference. First, wherever possible, we have
tried to identify attributes of teams that were reported so frequently that they constitute a major theme in the data. These major themes might be regarded as important qualities to seek to build in all teams while also serving as appropriate benchmarks for assessing already existing teams. Second, we have tried to pass along the richness of the data by reporting many of the details that appear to be supportive of the major themes. A result of this combination process of analysis and synthesis is that we have not knowingly described any single team that could be seen in operation at any known school. Rather, we have supplied what we believe are enough details from "very best teams" that an "ideal team" is easily imaginable.

How Are "Very Best Teams" Organized?

The reader in search of a recipe for organizing teachers and students into exemplary interdisciplinary teams should examine these findings carefully and cautiously. While the data suggest some noteworthy prevalent practices, it does not prescribe a single organizational formula. In fact, we were struck by the wide range of organizational features we found: teams that were as small as two teachers and 45 students to teams five and six times larger staffed by up to 10 teachers; teachers concentrating upon a single subject matter area as well as teachers with as many as five preparations; teams that had a single weekly team planning period contrasted with ones that enjoyed daily team planning sessions. In spite of the absence of a single prescriptive model, however, the data did produce some distinctive trends that—taken as a whole—offer what we believe is a trustworthy demographic framework for teachers and principals who are reexamining their already-existing teams as well as for those middle
level educators who are contemplating change to an interdisciplinary team format. Strictly demographic data from the "very best teams" are featured first.

**Grade Levels**

Three of every four teams designated as "very best" taught at sixth or seventh grades. Fifth grade inclusion on exemplary teams was reported only as part of multiage teams such as 5-6, 5-7, and 5-8, and these combinations constituted only 10 percent of the data.

**Number of Teachers and Students Per Team**

Almost half of the teams reported were made up of four to five teachers and approximately 100 to 130 students—relatively large groupings in which to generate interpersonal familiarity. Given the enormous variety among the remaining teams, therefore, it was helpful to refocus upon teacher-student ratios. For a third of the teams that ratio was approximately 1:25; for another third it was 1:30. While seven teams functioned with ratios as large as 1:32 and 1:34, twenty teams ranged from 1:22 down to 1:15.

**Subject Matter Responsibilities**

Seventy percent (70%) of the teachers taught either one or two subjects. The data did not make distinctions indicating subject matter combined with grade levels for individual team members, so it is not possible to specify the number of daily preparations per teacher. The remaining teams were made up of teachers who had from three to as many as five different subject matter responsibilities, however, indicating that a significant number of teachers were responsible for multiple preparations.
Planning Periods

Every respondent reported two types of planning periods: common team planning time and individual teacher preparation periods. Forty-six percent (46%) of the team enjoyed a daily planning time that involved all team members. Another third of the teams met two to three times per week. Only ten percent (10%) met just once a week. Seventy percent (70%) of the teachers were provided at least one personal planning period per day; only two teams reported that teachers had no daily preparation period.

To us it seems evident that for teachers to do their very best work on teams, they must have adequate planning time for both team responsibilities and instructional ones. These data indicated that forty-three percent (43%) of these "very best teams" had the benefit of daily periods for both team planning and individual preparation. Team meetings were described as highly task-centered and efficient. An agenda was prepared and followed, and minutes were kept to document discussion and decisions, to guide the team's subsequent focus, and to make certain the administration knew what was being considered and accomplished.

Certification

These exemplary teams were almost entirely made up of teachers whose preparation was either at elementary or secondary levels. A third of the teams were evenly balanced in this regard, while almost half were predominately elementary. Thirty percent (30%) of the teams were comprised entirely of teachers with elementary preparation, and only ten percent (10%) were exclusively secondary-trained. Just one school reported an exemplary team made up entirely of middle grades
certified people, but that is not surprising in light of the relatively new movement toward specialized certification.

Selection of Team Members

Our data showed that the vast majority of decisions about which teachers should be placed on which team are made by administrators. While it is common practice for the principal to make team assignments, on the very best teams, that decision is usually made only after extensive conferencing that solicits teachers' ideas about composition and personal preferences about teammates. Given the closeness with which "very best team" members negotiate and implement programs, every effort is made to put together teams of people who are willing to work together for common purposes. Several schools use a form of confidential survey, so that the principal has information as candid as possible for making such important assignments. Approximately one-fourth of the schools reported that teachers work out team assignments among themselves.

Principals described at length the importance of assembling teams, for the greatest promise of success, based upon compatibility of team members. Teams needed to constitute a balance of personalities, teaching specializations, and personal life styles. Of greatest importance, however, was the essentiality of every teacher's willingness to work together, to commit to a common plan while respecting each other's differentness. Having reached that quality of mutual acceptance and understanding, most of the respondents indicated that designation of team leadership was the next most important decision.
Team Leadership Designation

Approximately eighty-five percent of the teams studied included an official team leader who has specific responsibilities for the team's operation. In two-thirds of those teams, the leader has been selected by the other members of the team. In some cases the leader is elected, but in general it appears that the leader is agreed upon following less formal methods of selection. The remaining teams rotate team leadership on a semester or yearly basis.

Responsibilities of team leaders are wide ranging, but there is a core of duties that seems to be common to the leader's role: coordinating team meetings; preparing the agenda and seeing that the meetings are documented via minutes; serving as the liaison between the team and the administration; scheduling and placement for students on the team; disseminating team information, especially to parents; preserving the team's philosophical and programmatic focus. In several cases the respondents added that team leaders were provided additional compensation or time to carry out these responsibilities.

In order for teams to have the best possible chance to function effectively, the decision about leadership is seen as extremely important. Many principals reported that the secret to the success of their very best team was the job being done by the team leader. They indicated that a team leader who was liked, respected, and trusted by teammates was essential. Since these teams enjoyed substantial autonomy and responsibility for their team program, it was vital that their leader embody qualities of maturity and conscientious professional behaviors, such as attention to detail, that justified the autonomy. In the case of these "very best teams," that investment
of authority was justified, as reported by the principals providing the data for this study.

How Are "Very Best Teams" Described?

Respondents were invited to identify and describe at least two significant accomplishments of the teams they designated as their very best. In only a handful of cases were respondents able to limit themselves to just two attributes. Instead, they wrote at length to describe what we will refer to here as a "team character." Principal descriptions are both comprehensive and parallel with regard to distinguishing features. They explained how expectations were established and articulated. Concrete examples including rich detail showed how goals were achieved. In contrast to the previously stated disclaimer regarding a recipe for team organization, recurring themes in the characterizations of "very best teams" may be considered much more prescriptively. The following descriptions constitute such major themes in the character and conduct of these teams.

Students' Academic Achievement

Dominant in reports of academic accomplishments were admiring and appreciative accounts of the extent to which teams had worked hard to formulate expectations that were reasonable for their students. These goals were followed by descriptions of arrangements that provided the support and recognition necessary for children to succeed. A good bit of effort went into making clear statements about expectations to students and to their parents. That clarification was then followed by whatever extra efforts were necessary to help kids as they needed help. Distinctive threads in the fabric of these data further indicated that these teachers recognized the importance and urgency of
helping every child succeed in specific ways, then publicly recognizing those achievements within the teams. Even relatively small achievements were seen as progress worthy of recognition and reward. This spirit of advocacy for students kept popping up throughout the data as we studied this thicker description of "very best teams." Numerous references were made to teachers going beyond the ordinary to help their students, such as teachers electing to stay after school to provide extra help.

Many teams were reported as having worked out their own systems of accountability, monitoring youngsters' performances and progress day to day or week to week. These systems enhanced the high levels of child-centered communication and strategy-agreement characteristic of exemplary teams. Conferences initiated by teachers who were advisors for individual students further clarified for youngsters their academic responsibilities and suggested remedies, while at the same time fostering a sense of from students' personal importance and worth. Not surprisingly, effective and efficient communication also existed between school teams and home. There were frequent references to team members initiating parent contacts when home involvement was needed to correct conditions that were interfering with a student's academic progress.

Additional techniques employed to enhance academic gains included use of cooperative learning groups, peer tutors and emphasizing time on task. Numerous respondents added that students on their "very best teams" also showed the greatest annual gains in grades and achievement, the best overall performances on standardized tests, and also appeared most often on honor roles.
Behavioral Climate

The distinctive academic climate created by these exceptional teams was paralleled by equally distinctive policies in regard to their authority for setting behavioral expectations and climate. Members worked out team policies and established systems of operation and accountability. A formalized plan that included some version of rules and a rule-making procedure were commonly cited, and the descriptor most frequently used to report these original teacher-made systems was "consistency." There were also numerous references to the effectiveness of communication among teachers and between students and teachers on these teams. In such situations, teachers were reported as "showing lots of support for each other as well as their students." References to "assertive, firm, loving, positive, and fair" were also common.

Reinforcement and emphasis upon good citizenship through recognition and awards characterized team climate as well as promoted academic achievement. Emphasis was placed upon creating a healthy family atmosphere in which youngsters were encouraged to develop feelings of belonging with other team members—adult and peer. Teachers showed respect and affection toward their students, and they revealed their understanding of early adolescent development by demonstrating patience and consistency. These behaviors were reciprocated, in turn, by the kids—building a team climate that rests on mutual caring, trust, and respect.

The respondents in this research were principals, and by far their most frequent personal references in regard to discipline explained that behavioral problems were handled within the team. The
resulting atmosphere was described as "comfortable, secure, self-sustaining." Principals reported that they saw few, if any, discipline problems from their best teams, because the systems the teachers created worked well. Certainly these breakthroughs in establishing and maintaining a positive interpersonal climate are worthy of emulation by all teams.

Team Identity

Nowhere in these data was there clearer evidence of teachers recognizing the significance of youngsters' need for belonging than in the extensive array of symbols and activities "very best teams" had created. Team names, logos, mascots, tee shirts, buttons, pins, colors—numerous references were cited to such "emblems that signify that I belong." Physical spaces—often in distinct wings of the school—were designated for individual teams, decorated by them in their colors and with their paraphernalia. Student work was prominently displayed, and student-decorated displays and bulletin boards were reported as further designations of ownership and belonging. Messages of family and belonging were conveyed over and over.

"Very best teams" were not satisfied with just these outward signs of identity, however. The listing of specialized activities is awesome: award and recognition ceremonies; team "town meeting" rituals; team newsletters; young writers groups; student-of-the-month designations; celebration days; field days; academic competitions; simulations; field trips; picnics; camping trips; special week-long themes and observances; contests; career days; clubs; fairs; plays and musicals; concerts; group sings; parties; special suppers;
intramurals. Youngsters participating in selected offerings from this array of possibilities easily become caught up in the family dimensions of the teams.

Respondents also reported a substantial incidence of interdisciplinary units offered by their exemplary teams. Special interest minicourses and monthly special interest studies on topics such as "drug abuse, handicapped awareness, minorities, etc." were also cited. Special attention was given to the academic enrichment that typically accompanies such efforts and sometimes necessitates additional helpers. Parent participation in a wide assortment of team activities were also reported. The healthy, enthusiastic team spirit reported in our data was accompanied by reports of increases in school attendance, improved academic performance, and a decline in behavioral problems.

Parent Relationships

Just as the exemplary teams created their own systems for promoting academics and an interpersonal climate, they also appeared to develop unique policies and procedures for communicating with parents. Again, the variety of ideas and strategies is impressive, but what is most striking to us is the evidence of initiative by team members to not only report children's progress but also to involve parents in the educational processes. Teachers on these exemplary teams demonstrated not just a willingness to work with parents but a strong desire to actively work to create more collaboration in addressing the needs of children about whose welfare they shared concern. Respondents indicated that in every case their "very best teams" enjoyed excellent working relationships with parents.
Several procedural arrangements were reported that are worth passing on here: team parent meetings at regular intervals; sending team newsletters to parents; letters; occasional as well as regularly-scheduled memos; progress reports at four-week intervals; weekly progress reports for youngsters having difficulty; team dinners and picnics. But what is more impressive is that teachers initiated contact with parents to demonstrate their readiness to be accountable. Telephone calls made by teachers about positive developments as well as problems were common. Several cases were reported of teacher visits to students' homes for conferences as well as the more familiar school conferences. Such conferences were planned to be direct, substantial, and responsive to the issues. Other accounts reported parents supporting team projects by serving as: mentors for students interested in particular topics; research team leaders; visitors and presenters at school; conducting new parent orientation sessions. In rare cases, having students and teachers together on the same team for up to three years enabled teachers not only to know students better but also to know their parents much better than when team membership changed annually. A by-product is that parents were likewise enabled to feel and be better acquainted with teachers on the same team. The dominant theme that characterizes parent perceptions of these "very best teams," however, is that parents trust and support teachers.

Additional Characteristics

The "very best team" members were also actively involved in working with colleagues in addition to their team, especially guidance personnel, but including administrators and other professionals. Teachers were exceptionally active in initiating contacts with
specially trained or qualified colleagues who might be helpful resources as teams tried to help particular students. Likewise, these exemplary teams showed interest and facility at working with mainstreamed students and others who had specific difficulties.

Principals' overall general enthusiasm for the teams they elected to describe was apparent throughout the data. A mixture of pride, admiration, and appreciation flowed throughout their commentary. The most consistent characterization of teachers on the exemplary teams referred to the respect, understanding, and commitment teachers manifest in their relationships with their students:

"They work at understanding their kids."

"They accept ALL kids, and they don't give up on them."

"They treat their kids like CUSTOMERS."

Closely akin to this admiration for a team's general commitment to students were numerous references to teachers' recognition of the importance of all kids tasting success. Several references were explicit about how team members encouraged individual timid students to enter into elective activities or competitions and then helping them find ways to succeed in that new venture:

"They know how to get kids into activities where they can succeed."

"They work at helping their kids solve their problems."

"They genuinely care for the kids, and the kids know it."

What Are the Characteristics of Teachers on "Very Best Teams"?

To be sure, the organizational patterns and procedures already described provide a necessary foundation for teams to develop and thrive. But, as every educator knows, plans and progress depend upon
the people implementing them for their success. Therefore, an important part of our inquiry solicited characterizations of individual teachers on their own as well as members of a "very best team." Once again, the data were remarkably uniform.

Personal Characteristics

It is abundantly clear that the teachers described in this research like both the work they have chosen and their roles as team members. They are described as optimistic about themselves, their teammates and team programs, and their students. To the principals providing us with descriptions, effective team teachers were seen as personally mature individuals, especially in terms of the patience and tolerance they demonstrated toward students and colleagues. They were also described as people whose "egos were under control, who understood and respected the complexity of their work, who weren't competing with their teammates and other colleagues." References to an impressive "work ethic" were frequent in descriptions of ways in which exemplary teachers were recognized within their teams and the school. A final note about additional personal characteristics is that they were also known to students and adults by their special interests or individual expertise.

Attitudes Toward Students

Over and over we saw reports of how much teachers on these teams care about children and are committed to their students' success. In fact, there were as many references to teachers' commitment to the success of each of their students as to any other dimension of their work. Many descriptions made references to accounting systems created to maintain records about how each of their students was progressing.
These teachers' interest in their students transcends that more customarily found—so much so that their relationships with students are compared to those more likely found among members of a strongly-knit family.

**Attitudes Toward Teammates**

A major theme of respondents' descriptions of their very best teams is captured in the expression, "diverse but united." These teachers embodied a variety of interests, values, and instructional styles that they recognize as potentially divisive. Rather than let natural differences separate them, however, they accept them and work deliberately at preserving their team. They are described as maintaining a "healthy give and take" and "accepting each other's shortcomings." They succeed in preserving an interpersonal climate that enables them to complement each other and work as a unit. The same attitudes evident in their responses to students characterize their relationships with each other: positive, patient, tolerant, and consistent.

Such a spirit of cooperation is built upon a readiness to listen respectfully to each other's point of view and a willingness to seek ways to compromise when differences produce conflict. Teachers on the most effective teams appreciate how essential good communication is to their success, and they give each other the time and attention necessary to maintain that flow. Several respondents mentioned that team members regularly meet informally, in addition to regular team planning times, and they also often talk with each other on the telephone when they are away from school. Regardless of how differently team members may feel, they work to save the team at all costs. One
principal described this quality as "close professional friends, but not necessarily close personal friends." Ultimately, their agreement about school and team philosophy and policies provides the foundation for resolving incidental disagreements.

There were also helpful descriptions of how meetings were conducted on these special teams. Approximately 15% of the teams were described as working well because of the leadership of the team leader. These leaders were most often described as "well-liked, trusted, efficient, task-centered." Several anecdotes indicated that team leaders had charismatic qualities with teammates and students that enabled them to be so successful. Interestingly, however, another 15% of the respondents reported that their very best teams had no leader, and shared leadership was a deliberate choice by team members. Teachers took turns being responsible for leading team meetings and heading team activities that required inordinate organization or attention. What was consistent in the data, regardless of whether teams had a single leader or shared leadership, were specific characteristics of the team meeting format. Meetings were described as having written agendas and minutes. Furthermore, these sessions were described as "task-centered, efficient, and productive."

**What Are Principals' "Secrets" for Maintaining "Very Best Teams?"**

Good administrators understand that, in order for a school organizational feature such as interdisciplinary teaming to function well, the teachers affected and involved must accept and commit themselves to the plan. Teachers must understand the principles upon
which the innovation is based, and they must have some control over their professional work. This research demonstrates beyond any question that where interdisciplinary teams thrive—administrators respect, support, and honor teachers. This essential attitude of teamwork and mutual support makes possible creation of a context within which teachers can grow and develop practices consistent with those identified as characteristic of "very best teams."

The responding principals identified a host of strategies for working with teachers to facilitate their becoming exemplary teams. Most common practices they described are included in this final section of the study.

**Team Autonomy**

Absolute autonomy for any group within a school organization is likely to breed distrust and division. However, relative autonomy was commonplace for these exemplary teams. Principals reported, again and again, that within the school's guiding philosophy there was ample room for teams to create their own policies, schedules, activities, and curricular plans. Systems for monitoring student behavior, academic performance, and parent contracts were created by teams along lines that were compatible with the whole school's systems. Many principals referred to the importance of teachers feeling ownership of their team and program; this autonomy enabled those feelings to occur. Additionally, principals explained that they tried to help their teams succeed by doing whatever they could to protect them from institutional obstacles—especially unnecessary paperwork. Many principals expressed this essential attitude through expressions such as, "stay out of their way," and "don't interfere," and "I try to
protect them from details--I do it myself if I possibly can." One report described the principal as "keeping a tight grip on loose reins."

**Communication**

While the brunt of day-to-day or week-to-week communication responsibilities about details generally falls upon team leaders, these principals work at staying in touch with all teachers. It is, after all, the principal's responsibility to see that everyone understands and is working toward achievement of the school's mission. They attend as many team meetings as possible, playing the role of observer and consultant--not as meeting chairperson. They also maintain high visibility and availability with teachers and students, moving through all parts of the school to praise, help and encourage. They communicate more formally through regular faculty meetings and correspondence. Of special significance is that they respond quickly to teacher-initiated communiques.

The quality of teacher–principal communication was also a frequent topic of reference in our data. Principals reported that they invested energy and time in listening to teachers' ideas and focusing upon their concerns as well as actively soliciting their opinions about issues affecting more than just their team—for example, how funds were or should be budgeted. Many respondents explained that teachers were asked to participate in interviewing candidates for faculty vacancies. Communications were described with such terms as "prompt, candid, open, fair, frank."

One additional dimension of administrator communication is the practice of "modeling" by which the principal emulates the qualities
expected in teachers' relationships with students; genuine caring and concern for the teacher; good sense of humor; optimism; praise and encouragement; patience; attention to the teacher's idea or concern. Such principals have a full understanding of the purpose and values that are intended to define the school's atmosphere as a happy, productive place for all people. They "do what they expect others to do." As one respondent noted, "what goes around comes around."

Innovation

Many principals reported that by encouraging and supporting teams to create innovative programs or practices, they enhanced team development. They recognized the importance of teachers expressing their creativity and imagination without putting themselves at undue risk. Encouragement to "do your own thing" was accompanied by the principal's commitment to personally support the innovation as well as to provide whatever resources could be made available. Several principals added that they initially encourage "small innovations that are most likely to work well; in order for teams to avoid catastrophe and gain firsthand experience with change.

Ongoing Professional Education

There were numerous references to the importance of supporting teachers and teams with inservice sessions aimed at their interests and concerns. Team leaders were particularly involved in conceptualizing such sessions, while arrangements were handled by the administrators. A variety of types of inservice were mentioned: whole school sessions; workshops; school visitations; conferences; courses. The central idea in the professional development process for "very best teams" was the involvement of team leaders in planning and
providing for needs and interests identified by teachers. This practice is in keeping with aforementioned policies of cultivating reasonable degrees of freedom in teacher autonomy.

**Conclusion**

Interdisciplinary teams are characteristic of the most effective middle schools in America. Virtually all of the schools in this study organize teachers to deliver instruction in this way. On the "very best" teams, there is a climate characteristic of what has been described as a more elementary school flavor, where teachers are fundamentally committed to the academic and personal success of their students and are willing to do whatever is required to secure that success. Teachers and students on such teams work hard to build a feeling of unity and belonging. Parents are involved in the life of the team. Administrators act vigorously to instigate and prolong the effectiveness of such teams. Team leaders are often central. On the most successful teams, teachers bring an attitude of "Yes," to their involvement together.

While working together effectively is certainly not easy, and teamwork has burdens of its own, a growing national consensus among middle level educators indicates that the interdisciplinary team is an essential element of effective middle level education. Insights into the very best teams show all of us how it ought to be done.