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ABSTRACT

This paper describes Hilltop Junior High School's initial experience with interdisciplinary teaming, an arrangement whereby teachers from different disciplines systematically plan curricular experiences for a common group of students. The innovation began with the appointment of a new principal who advocated teaming as the basic unit of middle school organization. Thus the site provided an opportunity to observe the processes and effects of organizational and curricular change as they occurred. In order to understand the emergent expectations, behaviors, interactions, and their meanings for participants as the innovation took shape, the researchers observed weekly planning meetings of the three teams, interviewed teachers and administrators, and reviewed relevant documents throughout one school year. Following an introduction and rationale for the study and a description of the research methods, the paper describes the development of teaming, the functioning of the three teams, and the foci of teachers' discussions during planning meetings. These events are then discussed with respect to the redistribution of authority, loose coupling, staff recruitment, rewards, structural lag, and work load. Several implications for curricular decision making and staff development are then explored. The paper concludes with five working hypotheses which provide direction for additional investigations. References are included. (Author/TE)

Interdisciplinary Teaming: Initiating Change in a Middle School

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Abstract

This paper describes a school's initial experience with interdisciplinary teaming, an arrangement whereby teachers from different disciplines systematically plan curricular experiences for a common group of students. The innovation began with the appointment of a new principal known to advocate teaming as the basic unit of middle school organization. Thus, the site provided an opportunity to observe the processes and effects of organizational and curricular change as they occurred.

In order to understand the emergent expectations,. behaviors, interactions, and their meanings for participants as the innovation took shape, we observed the weekly planning meetings of three teams, interviewed teachers and administrators, and reviewed relevant documents throughout one school year.

Following an introduction and rational for the study and a description of research methods, the paper describes the development of teaming, how three teams functioned, and the foci of teachers' discussions during planning meetings. These events are then discussed in terms of the redistribution of power and authority, loose coupling, staff recruitment, rewards, structural lag, and work load. Several implications for curricular decision-making and staff development are then explored. The paper concludes with five "working hypotheses" which provide direction for additional investigations.

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When you walk into the building, you know you are in a school. Wide halls, high ceilings and hardwood classroom floors cause many to remark with a somewhat nostalgic smile, "It looks just like a school; you know what I mean?" The sign outside still says Hilltop Junior High School, but inside things are changing. "You can sense a different atmosphere as soon as you walk in," remarked one parent with enthusiasm during an evening meeting at the school. And many teachers express a similar sentiment. For example, one teacher responding to inquiries about the changes indicated an upbeat, positive atmosphere by commenting, "It's thank you for this and thank you for that, sometimes even before we've done anything. And we're all smiling and thanking each other."

This school year marked the beginning of some significant changes at the school. For the first time, the school is operating with interdisciplinary teams. Each of the six teams, two at each of the grades 6, 7, and 8, includes a teacher of math, science, social studies, and language arts who work with the same group of approximately 150 students. According to most of our respondents, the school had operated as a junior high school for years. That is, the 35 or so teachers were departmentally organized and students, upon enrollment, received a schedule of six classes, in much the way traditional high schools operate.

In addition, the school has a new principal. Mr. Rivers came to Hilltop after eight years of leadership in an open-space middle school which has had a reputation for being on the cutting edge of innovative middle school practices (Lipsitz, 1984). In conversations and interviews, Mr. Rivers reflects an attitude, shared by many middle school advocates, that middle school students should not be viewed as passing through early teen years to more critical

developmental stages, but comprise an age group that should be recognized as a stage in its own right. These students, generally eleven to fourteen years old, are going through many complex intellectual, physical, emotional, and social changes. They are moving from dependence on adults toward independence and going through crises both large and small by adult standards. These may range from forgetting a locker combination or having to have the "right" kind of shoes to developing a sexual identity or coping with parents' divorce. Recognizing such characteristics of the age group, Mr. Rivers believes school should be a special place for these youngsters.

Reflecting on his move to Hilltop, Mr. Rivers bluntly stated, "I want everyone to know that the center of the universe has shifted, that this is a good school, and it's going to be even better, for students, for teachers, and for the community." The enthusiasm and energy the principal brings to his work is also indicated by the fact that when visitors arrive without an appointment, they are not likely to find him at his desk, but rather somewhere out in the building, talking with teachers or students, observing classrooms, or attending a committee meeting.

The school, with an enrollment of approximately 800, operates with an administrative staff composed of an assistant principal, a curriculum coordinator, and two counselors. In addition to a special education department, teachers of foreign language, art, music, physical education, home economics, and industrial arts form a loosely connected "related arts" team. Most teachers are experienced, and several have taught a wide variety of grade levels. Approximately 31% of the teachers hold elementary certificates, while 69% are certified in secondary education content areas. Many hold advanced degrees and certificates, including master's degrees and course work beyond

the 30 hours required on most master's programs.

Hilltop is part of a school district serving approximately 98,000 students which was created by the merger of the city and county systems in 1975. At that same time, the district underwent court-ordered desegregation through busing. In the years immediately following merger and busing, several schools were closed, some population shifted to the suburbs, both in and out of the county, and attendance zones were adjusted. The superintendent has recently proposed an alteration in the busing and attendance patterns, a plan which is controversial in the community. These changes, however, rarely surface in conversations and interviews with the staff of Hilltop. Other, more immediate, concerns are the focus of their comments.

This context provides an especially intriguing site for a long-term field study of a number of significant questions about curriculum change and the role of the principal in change. At the beginning of the study, we wondered:

1. What image does the principal hold of an effective middle school?
2. How does he attempt to implement that image? What changes does he view as necessary? What strategies are employed in attempting the changes? What barriers are encountered and how are they addressed?
3. What images do teachers and staff hold about how the school should function?
4. How does the organizational context affect the process of change?
5. What effects on the curriculum appear to occur as a result of attempting to implement programmatic and organizational changes?

Rationale for the Study

Organizational Context

Increasingly, researchers interested in change have focused on schools as complex social organizations, recognizing that change involves altering more than addressing attitudes or creating a willingness in individuals to engage

in new behaviors. Change also involves organizational structures and patterns of interaction among individuals (Sarason, 1971; Herriott & Gross, 1979; Schlechty, et al., 1981). In order to describe and explain the effects of context on change, many researchers have conducted case studies (Herriott & Gross, 1979; Whitford, 1981; Corbett, et al., 1982; Joslin, 1982).

Following this direction, we focused on a variety of organizational features of Hilltop. By selecting several constructs from organizational theory and developing illustrative research questions, we had an initial source of questions related to context to pose to the administrators and teachers. These constructs were chosen not only because other studies have indicated their importance to change efforts generally, but also because preliminary interviews with the principal and others at the school indicated they would likely be important in this particular school. For example, the principal reported that he is consciously trying to develop decision-making autonomy within the teacher teams, an example of the distribution of power and authority. Thus, at the beginning of the research, the following "sensitizing constructs" from a framework developed by Schlechty (1979) served to guide data collection and interpretation related to organizational context:

1. power and authority distribution; loose coupling

   How many levels of authority formally exist? How are power and authority distributed? To what extent do participants have the power to act without prior approval? To what extent is a subunit dependent on cooperation from others?

2. structural lag

   To what extent do organizational arrangements exist to support the changes? What resources are allocated to support changes? When and how are they distributed?

3. recruitment of staff

   To what extent are qualified staff available to support the changes? To what extent can staff be recruited?

4. reward structures

   What types of rewards are available to reinforce changes and how are they distributed? To what extent does participation in the changes enhance one's status in the school?

5. organizational context vis-a-vis curriculum

   To what extent is the organizational context compatible with the expectations for change? What curricular effects occur, and how are they related to other changes?

Middle School Literature

The middle school literature includes descriptions of the differences between junior high schools and middle schools (Johnson, 1962; Alexander, 1964; Van Til, 1970; Toepfer, 1976; George, 1977) and recommends goals and characteristics for middle school programs (Report of the NMSA Committee on Future Goals and Directions, 1977; Georgiady & Romano, 1973; Gatewood & Dilg, 1975; Alexander & George, 1981). These distinctions, goals, and characteristics can be summarized as: (a) a school philosophy, set of goals, and program based on a knowledge of the developmental characteristics and needs of early adolescents; (b) a curriculum plan that focuses on basic learning skills, personal and social development, academic areas, and continuous progress; (c) an interdisciplinary teacher organization which provides for team planning and interdisciplinary units; (d) flexible methods of student grouping. (e) an exploratory and enrichment program; (f) a teacher-based guidance program; and (g) flexibility of time and use of physical facilities.

Since the principal has been actively involved in the national as well as

local middle school movement, we wondered about his views on these recommendations and about how they have affected his image of what a middle school curriculum should be like. The topics listed above, then, provided a basis for developing related research and interview questions.

Research Design and Methods

The research at Hilltop is an on-going qualitative field study, the first year of which is reported here. The study developed from the above rationale and the following assumptions.

First, in order to fully appreciate curriculum changes and effects as they occur, one must understand the context within which learning opportunities exist. The understanding of context, in turn, requires a focus on processes--how people behave, how they interact, and what activities take place in the setting. The extensive observations and interviews associated with field research provide ways of describing and understanding these processes.

Second, long-term familiarity with the participants and the setting is required to understand events and the variety of meanings they hold for those involved in change. Since change is dynamic and often occurs in stages, discovering and understanding emergent meanings of new expectations and interactions must occur over time. In order to study curriculum change and effects in context and over time, we interviewed teachers and administrators, observed team meetings, and reviewed relevant documents throughout the school year.

More specifically, after initial meetings with the principal and other school officials to explain our research intentions, we held a series of individual sessions with the six team leaders, the department heads, the

counselors, assistant principal, curriculum coordinator, and librarian to explain the nature of our research and to request permission to interview them and observe their work. During the first few months of the study, we observed the weekly meetings of one sixth and one seventh grade team. These were selected because of the different grade levels and because one team has three sections of gifted and talented students, while the other has no Advance Program classes. Later in the research, we added a third team, another sixth grade team with two Advance Program classes.

We interviewed all of the teachers on these three teams, beginning with the team leaders. Formal interviews lasted an average of an hour and a half. We also conducted interviews with the counselors and assistant principal, each averaging approximately two hours. The curriculum coordinator and principal were each interviewed five times, with sessions averaging an hour and a half. Initial interviews with administrators and team leaders were conducted by both researchers. Interviews with the other team members were held by one researcher, though the questions followed an identical format. In addition to the formal interviews, we had numerous opportunities to talk informally with most of these individuals, as well as some staff not on the three teams under study. Some of these opportunities came during and after observations of faculty, department and parent meetings, and special events such as the science fair. In sum, we averaged spending one day a week at the school throughout the year.

Formal interviews were audio-taped, and detailed field notes were taken during all observations. We also reviewed documents from and about the school, including a regional accreditation report, student and teacher handbooks, and a variety of memoranda.

All data collected were later transcribed and initially filed by source or role, e.g., team meeting, principal, team leader. After several months of observations and interviews, we began looking for patterns and categories that could be used to organize the data and interpretations presented here. When the data collection began to reflect little or no new data, we prepared a draft report. This draft was reviewed by two teachers from each of the three teams, the curriculum coordinator and the principal. They were asked to review for accuracy of information and for logic of the interpretations. When disagreements occurred, they were treated as additional data and incorporated as alternative explanations.[1]

The next two sections of the paper describe and interpret the development of interdisciplinary teaming at Hilltop with examples drawn from observations and interviews. The paper concludes with a discussion of how context affects curriculum and how teaming operates as a staff development mechanism.

Teaming

One minute prior to the designated starting time for their team meeting, all but one of the team members arrive in the team leader's room and get settled, being sure to select one of the "big" student desks from the array of sizes available. After forming a somewhat lop-sided half-circle, the meeting begins on schedule.

> Sarah (team leader): We got something this morning that's not on our agenda. There's going to be a leadership seminar, and we're going to send 6th and 7th graders. We need to pick five names and two alternates. He [the principal] saw the activities and thought they looked good--it's for people to develop their leadership skills. I don't know, but I think we'd want Advance Program and non-Advance Program, and he wants a balance of race and sex.
>
> Connie: Stephanie Wells could run my homeroom.

Sarah: Kathy Spencer could run mine.

Paula: Couldn't she, though.

Connie: We need a boy.

Sarah: David would be good. Jeffrey would be good, but he's become kind of obnoxious. We've got a lot of good boys, but they don't step out and lead as much. Franklin Morrison is good.

Connie: Ohh.

Sarah: Okay, never mind.

Connie: What about Josh Ayres?

Sarah: Do other kids accept him as a leader? He's so quiet in my class.

Connie: Yes, I think so.

Sarah: Okay, let's put him down. What about David?

Paula: He's okay, but I think Jeffrey displays more leadership.

Connie: I kind of see Jeffrey more.

Sarah: Okay, let's put Jeffrey and put David as alternate.

The above excerpt provides a brief example of a team meeting in action and an initial view of how a team functions. Prior to discussing the various aspects of teaming as observed in this study, it is important to address such questions as why teams are recommended for middle schools and how teams at Hilltop have been developed.

Suggested Rationale for Teaming

According to Alexander and George (1981), "The interdisciplinary organization of teachers is both the most distinguishing feature of the middle school, and the keystone of its structure" (p. 113). Other authorities on middle school education (Robinson, 1975; Moeller & Valentine, 1981; Wiles & Bondi, 1981; Alexander, 1982; Lounsbury, 1982) reiterate the importance of a

team organization. Based on their identification and study of 75 exemplary middle schools, Alexander and George (1981) conclude that an interdisciplinary team of teachers affords the opportunity for improved instruction due to teachers' combined knowledge of student needs, increased integration of content areas, continued evaluation of the curriculum and of student progress, improved intellectual stimulation and professional development of teachers, enhanced communication between teachers and parents, and a personalized climate for learning. In the anticipation of such desired results, it's little wonder that a reorganization of teachers into interdisciplinary teams often accompanies the transition of a junior high to a middle school.

Organizing Teams at Hilltop[2]

Prior to merger in 1975, a few middle schools existed in both the city and county districts. However, in 1978, the school board adopted a resolution recommending a uniform K-12 grade structure which included the district-wide establishment of middle schools with grades 6-8. This resolution became policy by action of the school board on October 22, 1979, and by 1980, two-thirds of sixth, seventh, and eighth graders attended schools offering only those grades. The district's official plan also included interdisciplinary teaming as one of the organizational options for schools to use as a means of implementing the goals and objectives of the middle school program.

At Hilltop, the transition from a 7-9 to a 6-8 school, along with the change in name from junior high to middle school, took place in 1976-77. However, the change to a team organization followed more slowly. As one teacher noted, "I think we realized that we were one of the only schools left that didn't have it."

According to several of those interviewed, the transition to an interdisciplinary team organization can be attributed to the arrival of a new principal from a school widely known to have an established teaming process. Sentiments such as the following express the view of many: "We have a new principal, and we have teams." "Teaming moved in when Mr. Rivers did." "We didn't have much to say about it; that was Mr. Rivers' decision."

Although this seems to be the prevalent opinion, others recall discussions and plans about starting teams that took place prior to the appointment of the new principal. As they remember, the former administration considered establishing one team at each grade level and approached at least one person about being a team leader.

The establishment of teams, then, might have occurred this year at Hilltop without the arrival of a new principal, although it might have been implemented on a smaller scale. Those few recalling such a possibility might have been those most likely to have been affected by the change, or those habitually involved with the workings of the school and, so, more knowledgeable of plans in the making. Others, aware that the reorganization occurred at the same time the principal began his appointment, tend to assign the initial impetus for the change to him.

Notification of the pending organizational changes took place prior to the opening of school. Teachers report finding out in a letter received during the summer of 1983 about their team assignment, other team members, and the designated team leader. Several respondents cite August in-service days as the time teachers acquired most of their information about the changes, although one teacher shared the following view:

> "It's not that we left in June, and then we came back in September, and everything was all new and different. We had avenues and ways we could keep in touch with what was going on, but it was sort of up to you as to how in touch you wanted to be."

An August workshop, attended by team leaders and the administrative staff and conducted by the new principal, introduced the concept of teaming and oriented the participants to what teams do, how decisions are made, what role the team leader plays, and in general, how the teaming process would begin at Hilltop. Following these initial sessions, teams began to function, a process enacted in part through the events of team meetings.

Team Meetings

Organizational features. These features of team meetings include participants, frequency, length, and use of an agenda and provide a starting point for discussing how the teams function, and what effects seem to result.

Observations of the meetings of three teams at Hilltop indicate that team members are frequently joined by the curriculum coordinator, sometimes by the counselor assigned to the team, or occasionally by the principal. It appears as if most team members take attendance at these meetings seriously, since absences occur infrequently.

According to team leaders, the principal suggested during their August workshop that weekly meetings be held during the team members' common planning period. Each team observed has complied. At times, in fact, special events such as plans for Brotherhood/ Sisterhood Week or a field trip necessitate an additional meeting. During particularly busy times, though, such as prior to the distribution of report cards, a team might decide to cancel a meeting.

The three teams each schedule meetings during the last half of their planning periods, thus allowing the teachers individual planning time as

well. However, this 20 to 30 minute allotment of time sometimes prohibits completing the agenda before the bell rings and, so, on occasion results in another meeting during the week.

One of the team leaders circulates an agenda prior to the meetings to inform the others of planned topics for discussion. The teachers then have an opportunity to add to the list. In the other two situations, an agenda is sometimes distributed at the start of the meeting, or the team leader guides the discussion from notes. According to all team leaders, agenda items generally develop from discussions in team leader meetings, from memos sent from the administration, or from team concerns and activities. However, topics in addition to these evolve during team meeting discussions, often reflecting an immediate problem a teacher is experiencing. Examples of what the teachers discussed during observed team meetings are described in more detail in the following section.

Topics of discussion: Students.

> "You don't feel so isolated when you're having a problem with a child. Others are usually having the same problem, and you can work it out. . . . Now since we have the same planning period, we can sit down and discuss--that to me is the plus."

Most teachers interviewed share this sentiment expressed by one. A significant portion of team meeting time focuses on discussions about students, and their academic, behavioral, or personal problems. The following discussion, selected from several similar examples, illustrates how one team and a counselor share views about one student.

Eleanor: Sue and I want to talk about Charles Flynn.

Sue: He's a BD problem.

Fran: Yes, I don't know if he can stay much longer.

Eleanor: All he wants to do is draw. He works just enough to get by.

Tom (counselor): Have you tried detention?

Eleanor: I don't think he's been that bad.

Sue: I'm not as worried about his behavior as much as his lack of work.

Tom: I thought you said he was BD.

Sue: No, not really BD; I didn't mean that. It's not really that he's bad.

Fran: He just sits--he doesn't get in trouble 'cause he's right in front of me.

Tom: What about trying a daily sheet?

Sue: I don't know what else to do.

Fran: Would his parents care?

Eleanor and Sue: I think so. I think she might be behind us.

As a result of such discussions, teams often decide to request a parent conference or to find some other way of communicating with the home. Several of the teachers describe team conferences with parents as a positive aspect of the teaming process, and some team meeting time is spent deciding the logistics of these conferences--who needs to be contacted, how many meetings to plan each week, and whether to ask the counselor, assistant principal, or principal to attend.

Certainly, team meeting discussions about students focus on issues other than problems. For example, teams also talk about ways of rewarding students through such means as granting permission to attend Hilltop's basketball games held during school time, distributing certificates of merit for exemplary grades and conduct, and selecting outstanding students for school-wide recognition.

Topics of discussion: Administrative details. Although teams devote a considerable amount of time to discussing students, they also discuss such details as school-wide duties, procedures, and schedules. Examples of these topics are numerous. For instance, in discussing duties, they decide who will assume responsibility for detention, for taking students to the basketball game, or for monitoring lunchroom behavior.

Discussions of procedures include how to identify which students should receive a letter of concern about their progress, how to file parent volunteer and bus forms, how to dismiss students for special events, and how to register for in-service offerings. Topics related to scheduling include when to go to the library, when special films will be shown, whether to adjust team meeting time, when to distribute Christmas gifts, and when a candy sale might occur.

Topics of discussion: Academics and activities. In addition to topics about students and administrative details, observations of the team meetings indicate teachers use another portion of their time discussing issues related to subject matter and to a wide range of academic and other activities. In part, comments about subject matter focus on sharing information about teachers' own content areas. For example, one mentions students' participation through language arts class in the Young Authors' program, another describes students' Science Fair projects, and another talks about the next unit in social studies.

In some instances, though, discussions focus on aspects of subject matter shared among all team members. One team, for instance, has an enrichment period and, so, devotes time to deciding topics each person will teach. During the meeting of another team, discussion focuses on plans for a day-long activity to conclude a social studies unit on Southeast Asia in which the

entire team will participate. The discussion of this culminating activity prompts the science teacher to talk about plans for lessons on Southeast Asian plants and animals and the language arts teacher to describe plans for reading and writing haiku. Another example illustrating the integration of academic responsibilities includes reviewing students' test scores and deciding that reference skills should be taught in all classes. Thus, teams devote some time to discussing individual subject matter plans developed to complement a team-wide activity.

Discussion also occurs about other activities which are related more to goals such as students' social and physical development and enhancement of a sense of belonging at Hilltop or cohesion of the team. These include such activities as Brotherhood/Sisterhood Week events, guest speakers and performers, parties and field trips, contests and fund-raising, and team spirit and color days.

Processes of Team Meetings. The above illustrations of the organization of team meetings and the topics of discussion capture only part of what occurs during these sessions. For example, the range of items discussed suggests team members make a number of decisions about dealing with students' academic achievement and behavior, about planning within and across subject areas, and about participating in special activities. But, how do teams arrive at such decisions?

Teachers point out that they try to operate on a consensus basis and, so, attempt to reach agreement among all participants. For most decisions, agreement appears to be reached rather easily; however, in some cases, as the following example shows, reaching a decision requires convincing and compromising:

(The team is discussing the idea of using a "merit roll" for their students to supplement the school's honor roll. All but one strongly feel a C in classwork or conduct shouldn't eliminate a student from consideration. Eleanor emphatically disagrees.)

Eleanor: No C in conduct!

Mary Ellen: Oh, at least one C.

Fran: You don't understand hyperactive kids.

Eleanor: Any kid can behave. No C's.

Tom (counselor): Only eight people out of 137 have been recognized on this team. Eight. That really bothers me. There needs to be some way.

Judith: I think we need to recognize that C's mean different things to each of us. We have honor roll. We need something else to recognize kids. I have those Super Kid ribbons. Let's do them now.

(The teachers, except for Eleanor who remains silent here, decide to use the ribbons to recognize students on the team's "merit roll.")

Fran: Yes, we were going to wait until the end of the year, but let's do it now.

(The teachers move on to talking about distributing the Super Kid ribbons during second period the next Wednesday in the auditorium, and Eleanor concedes.)

Eleanor: What did you all decide?

Fran: Now, Eleanor, all A's, B's, and C's. Nothing less than a C.

Eleanor: Well, I suggest Wednesday be dress-up day. We ought to really dress up and make this special.

Thus, a decision is reached but not easily, and once Eleanor gave in, she contributed the idea of making the awarding of ribbons a special event.

On another team, a conflict occurs over the scheduling of a Christmas party for the students. One teacher objects, explaining her need for uninterrupted class time in order to finish the current work on the Science

fair. After much discussion about not wanting to be the only team in the school not having a party, they decide to plan one for sixth period on the last day before the holidays, a day which already includes a two-period, school-wide assembly.

> Jan (somewhat joking): Ok, people. I'm now teaching only two periods on Friday. I hope you're satisfied.
>
> Gwen: How about taking your two periods and using that time to get all the students through the Science Fair stuff? You could use my room, since it's large enough to hold three groups. In two periods, you'd be able to have all the kids, if the rest of us agree to give them up for a period.
>
> (Everyone agrees to rearrange the schedule and student groups. As a result, this team reaches agreement on having a party by accommodating the concern of one team member, who ends the discussion by suggesting):
>
> Jan: Let's have a disco party! I'll bring a light!

The above examples of the events and processes of team meetings raise the issue of how the organizational context of the school affects what transpires. This topic is explored in detail in the following section.

Organizational Context and the Process of Change

Several constructs from organizational theory and the literature on change are especially useful for explaining the dynamics of change at Hilltop. The constructs addressed in this section are: (a) distribution of power and authority, (b) loose coupling, (c) recruitment of staff, (d) reward structures, and (e) structural lag.

Power and Authority Distribution

The creation of teams and the team leader role has added a unit to the formal organization of the school and redistributed decision-making in a variety of areas. Teachers report that in previous years, decision-making was centralized and in the perception of one,

> 'Everything was disseminated and filtered down from the top. We're not used to making a lot of our own decisions. We were used to everything being cut and dried, very organized, and 'this is the way it's done' type thing. All of a sudden, we had to assume a lot of responsibilities. So that's taking a little getting used to."

Based on data collected, decision-making occurs at two levels--within a team and school-wide. Within teams, teachers decide such matters as placement of students, team-based discipline procedures, and use of team time, including whether or not their students will participate in school-wide activities and to what extent. At the school level, teachers have opportunities to participate in such decisions as budget priorities, assembly programs and other special events, and a district pilot of the use of computerized report cards.

The team organization is critical to some of these decisions. For example, many teachers report that they are very pleased about the ease with which they can reschedule students into different classes. "Last year, it was such a hassle," one recalled. "We had to go to the counselor and then redo the child's entire schedule. This year, we can just switch someone. It's up to us." School-wide decisions are often made by teacher committees on which each team is represented. These committees reflect the principal's desire to promote more teacher ownership of decisions affecting the school. For example, during one interview, Mr. Rivers remarked, "I want the budget process to be very open and to have team leaders and department heads help make those decisions." Part of the motivation seems to be to share decision-making as well as responsibility.

> "Next year when there isn't a [newly purchased] 16mm projector available at fourth period, I want them to know that part of the reason is that they decided that the home economics room would be converted into a science lab."

When asked about the increasing autonomy of the teams, Mr. Rivers responded,

> "I really like to think of the teams as six little schools. We're not there yet, but I hope we'll be closer to that next year. And that means I might have to play six different roles. Without that autonomy, a principal can be the same to everyone, whether it's boss, manager, good guy, bad guy or whatever. . . . It would be a lot easier to make all the decisions and say 'this is what we're going to do.' While decentralization of power doesn't guarantee quality, it will guarantee commitment. And over the long haul, commitment will bring about quality. I think you can impose quality only to a certain level, and it never gets beyond that."

While most react positively to the new responsibilities, a few teachers report that they have not been comfortable with the increase in decisions they now are asked to make. One teacher said,

> "For example, at the beginning of the year, they [the administration] asked how we wanted to distribute locks. I thought, well, don't you just put them in a bag, bring them up here, and give them out?"

And another teacher reported,

> "We have so many things to decide . . . students of the week, who will go to the basketball games, what activities we'll participate in. And we keep getting, 'What do y'all want to do about this?' I mean, who cares, just let us know. We need a procedure. Just give us a procedure and let us go."

Perceptions vary among respondents about the role of the team leader in the decision-making structure. While most decisions seem to be made through consensus, some report that team leaders, on occasion, make decisions for the team. Other reports indicate that some feel that the position of team leader puts more distance between the principal and the teachers. Two examples of the latter are,

> "I get the feeling that Mr. Rivers is going to let the team leaders handle the teams. You feel you should go through the team leader, and the team leader goes to him. If there was a need I felt, I wouldn't hesitate to talk with him, but you feel there is a gap. There's a gap between the administration and the teacher who's trying to handle things. You hate to go

through channels. You don't always know if a team leader is going to explain your point or concern the way you would. You can't delegate that."

"I used to look at the principal as the person who would solve a problem when you'd tried everything you knew to do, and things were just intolerable. I don't look at it that way anymore. That [new] feeling didn't start this year, but it's grown this year."

Reactions to this situation vary among team leaders. Some seem to react positively to their additional responsibilities, saying in effect that "it comes with the territory." Another reaction was,

"Well, people [students and teachers] come to me with things and feel like I'm supposed to be an authority on it, asking 'What should I do about it?' Sometimes I feel I'm supposed to come up with the solution, and then other times I don't feel that way. The kids ask, I think, because they think of me as the ultimate authority [on the team]. I really feel uneasy if I have to make a decision real quick that all of us will be responsible for doing; sometimes it comes down to that, and I don't like doing it."

When asked if teachers feel pressure to decide to do something the principal favors, most agreed with this teacher's response:

"I think we could say no and not feel any repercussions or anything. I don't have the feeling that we'd ever be pressured into doing something that we didn't feel comfortable doing. I like that idea. I like that feeling."

Another response indicates, however, that some teachers do feel pressure to comply with perceptions of the principal's wishes.

"I think Mr. Rivers has a clear idea of what he wants for the school and he's going to tell the team leaders, 'You tell your teachers we're going to do this in this way.' I don't think there's any doubt he runs the ship. Everyone's gotten that message. I know some were upset when they found out that he was coming. Some probably didn't come back because of that, but some felt, as I do, that he should be given an opportunity--at least give the program a chance. Sometimes you look forward to change and hope problems can be dealt with in a better way."

Loose Coupling

Closely associated with the patterns of power and authority is the concept of loose coupling. Typically, schools are characterized by a lot of autonomy of action at the classroom level, behind the closed classroom door. Such is undoubtedly still the case at Hilltop, but teaming has affected autonomy in the direction of more closely linking the teachers and classrooms within a team.

For example, team coordination is required for participation in special, school-wide activities such as off-campus basketball games, held during school hours, and the events during Brotherhood/ Sisterhood Week. Some respondents indicate that these activities are necessary and valuable for middle schoolers. They cite advantages such as exposing students to a variety of experiences, using participation as a reward to gain student compliance with any number of classroom obligations, and providing opportunities to heterogeneously group their otherwise ability-grouped students. The cooperation required for handling the logistics of attendance, for the team-based structuring of using participation as a reward, and participation itself all serve to enhance communication among both student and teacher members of a team.

On occasion, teachers exercise their autonomy and decide against participation in a special activity. In this case, the linking effects among students are lost, but the decision-making autonomy itself may serve to enhance linkages among the teachers on a team. Thus, both having to decide about participation and participation itself serve to reduce individual teacher isolation, to increase communication within the team, and thereby serve to diminish the effects of loose coupling to some degree.

As indicated previously, teaming reduces isolation of teachers through the sharing of information about students, team attendance at parent conferences, and discussions of how individual teachers handle particular teaching or classroom management strategies. One teacher captured the views of many respondents:

> "I really like the concept of teams because all are in this together. It's not like what's going on in another teacher's room has nothing to do with me. The more we work together, the more we have a real basis for friendship and some understanding among ourselves. So we can work together better, deal with situations better, and help children better."

Classroom location is another factor that affects interactions within teams. Prior to the beginning of school, at least 14 classrooms were moved so that team members would be located in close proximity. Many teachers report advantages in having their teammates nearby. However, because the science labs could not be moved without great expense, those teachers are all located near each other on the third floor rather than with their teams. Some of these teachers report that they "feel a little left out" and sometimes experience difficulty "getting the word" about team activities because of their location. Thus, a critical factor in reducing isolation at Hilltop seems to be not only the team organization but classroom location.

Several other effects are embedded in the move to an interdisciplinary team arrangement that indicate both stronger links within a team and weaker links in other areas. For example, one teacher recalled, "Our department met more last year." Others talked about fewer contacts with those not on the team, with comments such as "I have no idea what other teams are doing" and "Teaming gives us more control over the kids, but I don't feel I know some of the students not on our team. It's like another school within the same walls,

a totally different group."

Again, Mr. Rivers is aware of these effects and encourages school-wide links among faculty through monthly pot-luck lunches and after school sports. He rarely holds faculty meetings, but instead appoints committees, typically representative of teams. While some expressed a desire for holding occasional faculty meetings, "so we can all get the word at the same time," another felt that the committees allow for more faculty participation. "The way our administration works, instead of large faculty meetings where people are afraid to speak, we have small meetings where people have a chance to have input."

Thus, teaming, as it operates at Hilltop, seems to diminish intra-department links among teachers but creates a new organizational unit within which teachers feel less isolated and better able to address student needs. Potential for enhancing school-wide links is afforded through social events and committees.

Recruitment of Staff

In the course of the research at Hilltop, there have been few staff changes. However, several positions were available at the beginning of the year which Mr. Rivers had an opportunity to fill. At least three positions on teams are now occupied by teachers who have previously worked with Mr. Rivers. These teachers, experienced in teaming and knowledgeable about the principal, are a source of ideas and suggestions for the teams they are on. During team meetings, other teachers sometimes request their views on how to handle such matters as a scheduling problem or the development of a culminating activity. In addition, one respondent expressed the feeling that some teams might know better how to handle something because they have one of

those teachers working with them.

The principal, when asked about staff recruitment, indicated that he does not feel that there is one best way to teach.

> "At one time, I felt that probably next to cancer and communism, 55-minute periods were the greatest threats to Western Civilization. . . . I still don't like it that we seem to be psychologically locked into standard time blocks. For example, if I were teaching social studies, I'd simulate from finding the new world to an invasion of Canada or something, but I don't think kids would learn more because of that. I think it's because I as a teacher believe in it. Teachers have to believe that what they're doing is important. I'm thinking right now of three really good teachers all of whom really know their stuff. They are all really kid-oriented, but the way they approach things from [basics to creativity] is very different.

During discussions about the meaning of being "kid-oriented," he typically talks in terms of the contrasts between being "kid-oriented" and being "content-oriented," whether one "teaches kids, or Shakespeare," and whether it is more important to "cover the curriculum guide" or let students experience a wide variety of activities. One might assume, therefore, that in future recruitment of staff, he would look for evidence of this type of orientation.

Reward Structures

Perhaps one of the more pervasive elements of Mr. Rivers' change strategies concerns rewards. When asked about what rewards are available to principals to use with teachers, he responded, "Not many, so I think you have to create them, something as simple as a note in a teacher's box. When I taught no one noticed, or if they did, no one told me." His approach, therefore, includes writing a lot of notes to teachers, mostly expressing thanks and appreciation for a variety of behaviors. During interviews, several teachers talked about the notes they had received and were obviously pleased. One proudly shared them and commented,

> "When he observed my class, I thought 'I could do this better' or 'I wonder if I called on everybody?' And about an hour later, I get this note--immediate feedback--he models behavior so well--about how much he enjoyed the class and how nice it was to get away from the hassles and paper work and to get down to something real. That was a nice pat on the back and made me feel like go ahead with [the approach]."

Another teacher mentioned how much she appreciated receiving notes concerning materials for her classes or other opportunities she might take advantage of. In addition to notes, the principal sometimes provides treats of various sorts--ice cream, for example, with a sign saying "thanks for a job well done." Also, Mr. Rivers typically begins a meeting by praising the work of those in attendance.

The common feeling from the teachers interviewed is that they like and appreciate the personal tone and attention, and most of all, the positive reinforcement. "He always looks for the good things," said one teacher when asked about rewards from the principal. "He finds the strengths in people and rewards that."

Structural Lag

Typically, strategies used to introduce curricular change in schools include training teachers in new materials and teaching techniques. Often, however, the substitution of one technique for another or the addition of new materials is not accompanied by other changes in social or organizational structure. For example, teachers may learn how to use new techniques but continue to be evaluated by administrators not fully cognizant of the intentions of the innovations. Thus, an administrator who values orderly, quiet classrooms may not look favorably on the increased noise caused by group work. The result may be that teachers abandon an innovation which suggests a lot of work in small groups. This situation briefly describes an effect that

can be explained by structural lag. In the example, teachers attempt to use the new techniques, but the lack of alterations in the evaluation system sabotage the intended effects of the innovation.

Sarason (1971), Schlechty (1976) and others talk about the necessity of altering a variety of such structural arrangements in order to bring about changes more effectively. Others (e.g., Garrou, 1980; Joslin, 1982) point out that when structural changes are addressed, they often lag behind other approaches to introducing change which typically begin with teacher training. Whitford (1981) argues that one reason that structures which are incompatible with innovations are seldom addressed is that above the building level, school system officials with expert authority (e.g., knowledge of curriculum innovations) occupy roles that are distinct from those with legal authority (e.g., teacher evaluation). Because of such role separation, coordination is difficult to achieve. At the building level, however, the principal is in a position to coordinate both legal and expert authority. This fact is reflected in much research that indicates the key role of the principal in successful change.

At Hilltop, some structural changes came early. With the introduction of teaming and the relocation of many classrooms have come new patterns of interactions. Teachers talk more with each other; they have common concerns, centering on a common group of students; they hold parent conferences as a group, and plan team-based activities as a group. Observations also indicate many substantive discussions occurring among team members at times other than during formal team meetings. For example, we observed many occasions when team members sought advice from one another after school concerning grading techniques, student discipline and the like. These patterns seem to be

substantially different from those in the typical secondary school, where systematic cooperation among teachers largely depends on having a few students in common or teaching similar content areas.

While the evidence, on balance, clearly indicates teachers feel the advantages of teaming outweigh any disadvantages, some evidence indicates that structural lag is inevitably built in to the first year's experience with teaming.

> "The biggest problem is confusion. Like during one of the Brotherhood/Sisterhood activities, one class got to the auditorium on time, but the ones in there hadn't finished, so we [the teachers] looked at each other saying 'Did I do something wrong? Are you here early?' I mean, we're constantly looking at each other and saying 'Did we forget something? Why is this a mess?' But it will probably be better as we know better what our responsibilities are. Anytime you have a group come together to make decisions, you are going to have some confusion and disorganization. Still I think it's worth it. We'll be able to plan things that are best for our team and if others don't want to do it, that's fine. It's just been very, very confusing. We're used to order here. So you don't just say we're going to team and it happens. It doesn't. It takes a long period of time. It's not a simple process of just putting rooms close together and you're teaming. And, after all the confusion has dissipated and you see what the children have gotten out of it, then it kind of makes it all worthwhile. Sometimes it's hard to see the trees in the forest, but you have to sort of hang loose."

The principal, moreover, is very conscious of the importance of structure to change. "Structure must come first," he stated with confidence in an early interview. "The team organization is essential to everything else, so that change has to come first." Many times, the principal also indicated that the teams were "farther along than I thought they'd be" at various points. "Perhaps we'll be able to do some other things that I hadn't thought we'd get to this year," suggesting that structural lag has not been as critical a problem as he expected it to be.

Another change related to interaction patterns concerns the location of the guidance counselors' offices. Last year, those offices were located in the main office suite. During the summer, in addition to the relocation of many classrooms, the counselors were moved across the hall into a suite renamed the "Guidance Center." This physical separation of the counselors from the administrative offices is intended to encourage the view that counselors should interact with students on a different basis than the principal and assistant principal. Interviews with counselors reveal that the move and new role expectations have allowed them to "do more individual and group counseling" and less scheduling and grouping of students. Some teachers also report closer links with the counseling center this year, and the role of the counselors is clearer to them.

> "We have a lot more contact with the counselors this year than we did last year . . . and the kids feel more comfortable, too. When they have a problem, they ask to go to the counselor . . . and that is great, because they didn't use to, I don't think, last year, as much. The counseling services are just fantastic. Just a whole lot of input . . . a whole lot of help."

When asked about the nature of the help, the teacher responded,

> "Like ideas . . . [the counselor] sent us a workup on a child and gave us concrete suggestions of ways we could work with him. That's really nice . . . that someone would take that much time to type that up for you to work with this kid. It had the background of the incident and the parent discussion and the teacher [input]--it's all here. It gives you a lot of input on this boy."

Other teachers do not report such positive reactions, and in fact, indicate "there's too much paper shuffling" and "we need more help from the counselor. It all seems to fall back on us." Thus, while some evidence indicates closer linkages to teachers and students, other evidence does not. Perhaps part of the explanation here is lack of role clarity as well as

structural lag, since in previous years, some recall that the counselors were responsible for scheduling, grouping, and disciplining students. Whatever the case, the relocation and naming of the guidance center indicate a structure that holds potential for developing more substantive interactions with teachers and students. As one teacher put it, "Old habits are hard to break. I think a lot of us still think counselors should be disciplinarians when they are hired to give guidance and counseling."

Even given the principal's awareness of the importance of structural support, and his ability to coordinate expert and legal authority, at least two additional problems exist associated with structural change. One concerns the relationship of related arts teachers to the teams and the second, the role of other administrators in the changes.

Almost all respondents reported that "we've had problems with related arts." By that they mean the related arts teachers are not well integrated into the teaming structure. In large part, master scheduling arrangements account for these difficulties, and some indicate that next year's planning will be done with that problem in mind.

The other administrators--the curriculum coordinator, the counselors, and the assistant principal--all indicate enthusiasm about the teaming and see tremendous benefits for teachers and students. They cite advantages similar to those reported by teachers, relating to parent conferences, to teachers knowing each other and students better, and to identifying and addressing student needs more effectively. The one problem they see relates to communication. They report that they do not have regular administrative meetings with the principal and express a desire to be better informed about the variety of activities going on in the building. One said,

> "It would be nice to have some meetings for long range planning. Then we'd know about some things when we talk to parents. Mr. Rivers is so instruction-oriented, and I think a principal should be. It's just that at times he gets too spread out, trying to do so many things. He told us at the beginning of the year that we'd have to watch him on that."

Work Load

In addition to the effects revealed by using constructs from organizational theory, one additional effect, related to work load, emerged during the research that was not on the list of sensitizing constructs. While teaming at Hilltop seems to increase cohesion among teachers on the same team through sharing information, more focus on students, less isolation, more decision-making power, and psychic rewards from the principal, some teachers report that teaming is also more work. "A lot more," one teacher commented. Another teacher wondered about the effects at a broader level, related to the occupation of teaching and teacher evaluation.

> "I don't mean to be negative, but I'm concerned about my role and my image of what I thought was a good teacher and how I'm measuring up to that. I sometimes get the feeling that, with all the talk about career ladders, the best teachers are the ones who are totally committed, who are willing to work here in the building until 10:30 at night. And I look at what I do in the classroom, the way I was prepared to teach, and I've always been satisfied with it. I also have a life outside of school. I want time with my family, and I'm concerned [about the view] that if you aren't totally wrapped up in your job, you can't be a good teacher. I've always felt like I was a good teacher. Now I'm thinking maybe they won't think I am, because I don't do all those extra things. I don't want to see people not come into the profession because they don't want to come over to school every night or take their class on a camping trip over a weekend. You have to be able to draw the line somewhere. I've always been a hard worker and not afraid to work, but does it mean that you should be eliminated from your job because of that kind of commitment? That's what it seems to boil down to."

Other teachers report that teaming does not require more work, except on the part of team leaders.

> "I wouldn't want to be a team leader because they have so many responsibilities. There are a lot of things that are put on them at the last minute, and a team leader, after all, is a teacher, and they have to get the information out if and when it's possible for them to disseminate it. Teachers can't say, 'I'm going to take a break for a few minutes' or not answer the phone and get this form filled out. A lot of things look relatively simple in the office, but when you've got 30 kids that have questions and needs, you can't get to it, period. So I think there's a little oversight there. But I don't believe that's necessarily the fault of teaming. But it is something that has hit us the same time as teaming, so I have a tendency to put the two of them together. Communication is not as good as it should be."

At least one team leader reports that teaming does not mean a lot of extra time. "There are some things, but I get so much help from all of them [other team members] that I don't feel imposed upon in any way. I don't feel that any more of my time is taken up than anybody else's."

Thus, perceptions vary concerning work load. For some at least, the question raised substantial issues, especially in light of current discussions of master teachers and career ladders. For others, any negative effects of the work load seems to be outweighed by what they see as the many benefits of the arrangement. Significant in this regard is the fact that the district provides up to $700 compensation to department heads, while team leaders receive no extra pay, an arrangement that seems to be a carry over from the previous junior high school organization. Citing the additional responsibilities, many respondents indicate strong support for similar compensation of team leaders.

Effects on Curriculum Decisions and Staff Development

One of the broad research questions posed at the outset of this study concerned whether and in what ways teaming affects the curriculum. The study did not extend to classroom observations, so the discussion that follows

focuses on the teaming process as revealed primarily through observations of three teams' meetings and respondents' perceptions offered during interviews. Effects in two areas are addressed here. The first concerns how interdisciplinary teaming affects curriculum decisions. The second considers the effects of teaming as a staff development mechanism. Factors independent of teaming, of course, influence both curriculum decisions and staff development. Some of these are embedded in conditions flowing from textbook adoptions, enrollment declines, fiscal retrenchment, and accountability pressures. However, within that more global context, the effects of new patterns of interaction and decision-making brought about by the process of interdisciplinary teaming can also be considered.

Curriculum Decisions

Research on teachers' curriculum decision-making has typically focused on the types of decisions teachers make, the processes teachers engage in, and factors such as textbooks and administrative policies which affect those decisions (Taylor, 1970; Oberg, 1975; Zahorik, 1975; McCutcheon, 1980; Kyle, 1980). Less attention has been given to the influence of organizational structure, a factor important to consider since the ways schools are organized influence the parameters of curriculum decisions, both in terms of their limitations and possibilities.

For example, a departmental organization gives official status to content areas and enhances teachers' loyalty to content specializations. Teachers, when departmentally organized, share content in common and little else. They typically do not have common planning periods, rarely share the same students, and are linked to the administration through a department head who, by virtue of position, represents the interests and concerns of that department's

discipline. As a result, the curriculum is most often developed in terms of the separate content areas which comprise the school program. Teachers within departments may plan a curriculum for their discipline by selecting materials, deciding the sequence of topics, and suggesting instructional activities, but the range and types of decisions are limited by not having the same students. Further, the decisions of one department are made independently of and probably have little relationship to those made in another, since the organizational structure does not facilitate sharing across disciplines.

With interdisciplinary teaming, however, teachers cannot focus as easily on content, since they do not represent the same specialities. As a result, they focus on what they do have in common--students and each other. The shared planning period establishes a systematic and legitimate organizational arrangement which promotes discussion of these topics. At Hilltop, the evidence indicates more status is given to the teams and their decisions than to departments, since department meetings take place infrequently, and administrator-teacher communication occurs routinely through team leaders and only occasionally through department heads.

An interdisciplinary organization, therefore, provides a structure within which teachers are able to use their shared perceptions of student needs to make decisions about the learning opportunities the team ought to provide, an example of what the principal means by being "kid-oriented." Teachers continue to make decisions within their own classrooms about their own content areas, but the organization also makes it possible for a team to decide together on curriculum goals and activities they view as appropriate for and needed by the specific group of students they teach in common.

For example, the learning opportunities provided for students' academic

achievement might be expanded or otherwise adjusted. One team, for instance, decided to incorporate a new topic, test-taking strategies; in several instances, teachers decided to recommend students for special offerings such as the Advance Program or to alter students' schedules, allowing them to work with curriculum materials on a different level and to function in a more appropriate group. As one teacher noted, the information necessary for making such decisions is more readily available with teaming when, "You have all these people cluing in to problems a child has . . . to their strengths and weaknesses."

In making decisions about students, the teachers at times find it desirable to involve parents, and they report communication between school and home has increased this year as a a result of teaming. Often parents are invited to team meetings to share in the discussion of possible changes in a student's program.

In addition to deciding on academic goals for students, teachers within a team organization have the opportunity to share insights about students' personal needs. As a result, the team structure creates the potential for teachers to view activities which encourage students' interaction with peers as legitimate and valuable school experiences, and, so, to plan for their occurrence. For example, the observed teams organized team parties and field trips and decided to participate as a group in school-wide functions such as attending a musical performance or watching a movie.

One could argue that emphasizing team decisions such as these rather than departmental decisions implies less concern about strengthening the curriculum offered within disciplines. With team meetings almost replacing department meetings, teachers within the same content area have limited opportunities to

share ideas which might enhance instruction in their field. In such a situation over time, creativity and innovation within content areas could decrease. However, the sharing of experiences and ideas that occurs during team meetings can also serve to enhance the curriculum within those disciplines. For example, a social studies teacher and a language arts teacher could learn from each other about strategies each has found to be beneficial with the students they teach in common. As a result, while the curriculum content of their individual classrooms may not change, the approach to that content may be strengthened and related more appropriately to student needs. Thus, to the extent that teaching strategies are generic, teaming can enhance creativity and innovative practices.

The cooperative planning possible in a team organization also enhances the likelihood that decisions and strategies discussed by the group will be enacted in individual classrooms. Though we have no direct evidence of this occurring as a result of teaming, teachers report that cooperatively reached decisions have affected, in part, what they do in class. Previously cited examples include the lessons individual teachers on one team planned to complement the conclusion of a social studies unit on Southeast Asia. The cooperative planning, however, has resulted in only a few examples of the integration of content areas. One teacher offered the following possible explanation:

> "This first year of teaming for me has been focused on just how to go about it--the mechanics of it. I don't see how we can go into the second year of teaming without a lot more interdisciplinary interaction. One of the big problems that I think everyone recognizes is the strictures the related arts situation has placed on us. It has cut down on our flexibility. So I think in our planning for next year, the outstanding thing we'll want to work on is to cut us loose from that kind of stricture to help make more interdisciplinary

> interaction possible. We've felt blocked each time we've tried to do something like that because the related arts schedule was always in the way . . . . But with teaming, the possibility is opened up. I've seen things that have happened and thought, 'Gee, if we'd seen that ahead of time, we could have shifted things and how much better it could have been.'"

Thus, some feel that more flexibility in scheduling can enhance the possibility of interdisciplinary activities; and conversely, with scheduling constraints, imposed in this instance by how non-team based classes are arranged, interdisciplinary integration is much more difficult.

In addition to scheduling constraints, another explanation for the few examples may reside in teachers' limited familiarity with the concept of an interdisciplinary curriculum. What are the benefits? Why might this approach be appropriate at the middle school level? Also, teachers may be unfamiliar with planning skills associated with the development of interdisciplinary units, or they may be unaware of the scope and sequencing of team members' courses. Yet another factor may be the pressure teachers experience about students' performance on achievement tests. Since these tests tend to be subject-specific, teachers may be reluctant to take the risk of modifying the content of what they teach. Thus, even without scheduling constraints, the teaming structure may not necessarily lead to more integration of the middle school curriculum.

As the above examples of curriculum decisions suggest, teaming provides an organizational context which creates the potential for teachers to plan and implement a curriculum matched to the needs of a particular group of students in a particular setting. Teaming, thus, makes it more possible for teachers to translate system-wide curriculum goals into goals appropriate for specific students. System-wide curriculum decisions are typically intended to provide

uniformity in the curriculum and to serve as a basis for holding teachers accountable for what they teach and for what students do and do not learn. Such decisions do not take specific groups of students into account. As a result, it is common for teachers to report that curriculum guides and other curriculum documents developed externally to the school provide limited help in making curriculum decisions within their classrooms. However, the cooperative planning through teaming and the shared focus on student needs may make the translation more feasible.

Teaming as Staff Development

Often, the introduction of curricular and instructional innovations into schools is attempted through in-service workshops. At Hilltop, a limited amount of time was available for in-service in August. Because of contractual arrangements and other previous commitments, some of that time was necessarily devoted to issues other than teaming. Even if all of the time on those few days had been allocated to training teachers in teaming processes, probably only minimal awareness could have been achieved. Primarily, teachers and others at Hilltop are learning about teaming through direct experience with the innovation.

This lack of adequate preparation time probably accounts for much of the confusion and dislocation reported by respondents. At the same time, considerable evidence indicates the high value the principal places on staff development as a change strategy. For example, he spends a lot of time actively pursuing additional staff development resources, and preliminary planning is underway to provide additional training in a variety of aspects of teaming. Part of the value the principal places on staff development is related to his broad view of its functions, as reflected in this comment:

> "I think you have to decide goals and priorities [for the school], and then your staff development complements that. If one of the goals is to build a sense of togetherness, then to me, the monthly [pot-luck] lunches are staff development, even though they don't get in-service credit for it. Most people would say that's not staff development. I happen to think that it is. And while a lot of people discount committees, I think they serve the same end. They are important not only for the product they produce, as in the Brotherhood/Sisterhood Week, but also for the process. People hear ideas and think about doing things in a different way as a result of the experience."

Thus in addition to formal in-service, committee work and social occasions can serve the same goals as staff development.

Probably the most significant mechanism, however, is the team itself. A stable group of teachers, working with the same 150 students and meeting regularly during a common planning period, provides an especially appropriate forum for staff development. Several possibilities come to mind. First, team meetings serve as an effective way for those outside the team to participate in team-based decisions. For example, a counselor attends a team meeting to help develop strategies for handling a particular problem with a student; the curriculum coordinator meets with a team to discuss student test scores and direct attention to particular strengths and weaknesses; or, the principal attends to offer assistance in securing outside presenters for a culminating activity.

A second and more routine process within the teams is the sharing of information and insights among the teachers themselves. Thomas Toch (1984), in a recent article in Education Week, reported that many teachers say "the inability to share ideas and seek mutual solution to classroom problems is a major frustration in their work" (p. 15). Much of the evidence from observations and interviews at Hilltop indicates that teaming provides just such opportunities for increased communication about students and approaches

to teachers' work, resulting in reduced teacher isolation.

One way to view these effects of teaming is to borrow from the insights of C. Wright Mills (1959) when he talked of private troubles and public issues. In Mills' conception, private troubles are personal and idiosyncratic rather than social, and are related to biography rather than to history. Public issues, on the other hand, are based in interaction patterns that occur in complex social structures, such as a school. Mills used unemployment to illustrate the differences between private troubles and public issues. When one person is unemployed and others are not, we look to the motivations, abilities, and characteristics of that individual. When unemployment rates are high, on the other hand, we look to structural sources of explanation rather than to individual limitations.

In the course of team-based discussions of students and other matters, teachers sometimes reveal difficulties they experience as teachers, often discovering in the process that others have similar problems. But even in those instances when they do not share the problem, an opportunity is presented to seek assistance and mutual support for potential solutions. Further, because of the linking effects of teaming, the activities in one class have high potential for affecting another teacher's classroom. Therefore, classroom successes as well as problems can become the focus of attention for all teachers on a team by virtue of group membership. Without teaming, at least as it operates at Hilltop, the basis for links among teachers and classrooms is much less clear or perhaps nonexistent. As a result, teachers are relatively free to succeed or fail independently, autonomously, and perhaps anonymously. With teaming, however, previously independent and autonomous actions become part of a group structure and have

effects on the patterns of interaction that occur. In other words, through the structure and dynamics of teaming, private troubles are transformed into public issues. Because of the transformation of private troubles into public issues, teaming can also provide a substantive basis for staff development.

Summary

As indicated at the outset, this paper describes the first year of a long-term study of a school's initial experience with interdisciplinary teaming, an innovation begun with the appointment of a new principal known to advocate teaming as the basic unit of middle school organization. Descriptions and interpretations of both the teaming process and selected features of the organizational context suggest a number of generalizations. These are presented below as "working hypotheses" which will direct the continued investigation of curricular and staff development effects of the implementation of teaming.

1. Teaming is related to increased communication about students in at least three ways: among teachers on a team, between teachers and administrators, and with parents. Such communication also seems to enhance the likelihood that perceived student needs can be addressed more quickly.

2. Teaming is related to curriculum planning with evidence of some integration of the curriculum across disciplines and some lowered status to department-based decisions.

3. Teaming, as practiced in this school, also seems to be related to decision-making authority, particularly concerning student placement, team participation in special activities, and curriculum planning. Teaming in itself probably does not guarantee more teacher autonomy; however, when encouraged by the principal, the evidence indicates that teachers do begin to

make such decisions.

4. Teaming also seems to encourage more cohesiveness among teachers within a team, related in part to decreased isolation and the increased likelihood that the activities of one classroom can affect other classrooms within a team.

5. Because teaming has the structural characteristics of a group, it provides an especially appropriate unit for staff development. When training is directed toward a group of teachers working with the same students, and when that group has developed some decision-making autonomy, the likelihood of direct classroom effects is enhanced.

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