What Difference Does Teaming Make?

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ON TARGET TEAMING

Thomas 0. Erb & Chris Stevenson

When interdisciplinary team organization is highly implemented, is there a measurable effect on other school practices and climate that have a direct impact on student academic and affective outcomes? What elements of teaming practice make a difference? Does it make any difference if teams meet once a week for thirty minutes as opposed to daily for at least 45 minutes? Does size really make a difference? Is a two or three member team with 50 to 75 students any more or less effective than a six or seven person team with 150 to 175 students? Does continuity make a difference or is it better to regroup teams every year to make life interesting?

The Project on High Performance Learning Communities (HPLC), directed by Robert Felner of the University of Rhode Island, has identified several structural elements that have an impact on how teachers function and on how they regard the quality of their work lives. In revealing what has been leaned so far about the impact of teaming practices, we do not intend to offer prescriptive formulas that can be mechanistically implemented. The elements of teaming are interactive, not additive. The amount of teacher planning time that is necessary for successful teaming interacts with the absolute size of the team and the teacher/student ratios on the team. The length of time that a team has remained intact interacts with team size and amount of team planning time. So while we will share some guideline numbers to help readers examine their own practices, these cannot be reduced to a "checklist for excellence." Effective teaming depends on the interaction of several elements.

THE FREQUENCY AND LENGTH OF TEAM PLANNING TIME DOES MAKE A DIFFERENCE

What are those elements that have been shown to change school practices and, subsequently, student outcomes? The first is the frequency and length of common planning time. In addition to individual planning time, teams that meet four or five times per week for at least 45 minutes each time have a greater impact than do those that meet less often or for shorter periods of time. We now have empirical confirmation for what we have been saying for years. Teachers need regular team meeting time independent from their individual planning times.

And what difference does frequency of team meeting time make on teaching practice? There is a pattern of positive correlations between frequency of team meeting time and several teaching practices. For example, one sub-study found a very high correlation between frequency of team planning time and contact with other building resource staff (Figure 1). Teachers with more common planning time interacted with counselors, media specialists, resource teachers, nurses, social workers, and administrators more than did teachers with less time to plan together. Thus increased team planning time was found to increase the "response capacity" of the school. As teachers encountered instructional, management, or student behavior problems, they drew on a richer array Of resources than did teachers not so well blessed with planning time.

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And if there was any doubt that teaming affects instructional practices, the Project on High Performance Learning Communities is helping to put that doubt to rest. Another high correlation was found between frequency of common planning time and coordination of student assignments, assessments, and feedback. Teachers with more time to plan together coordinated the instructional program of their shared students more often and in more ways than did teachers with less team planning time.

Figure 1

Relationship of Frequency of Common Planning Time to Other Practices

Practice/Outcome	Correlation
Contact w/ Other Building Resource Staff	0.62
Coordination of Student Assignments, Assessments, & Feedback	0.54
Quality of Teaming	0.53
Parent Contact & Involvement	0.44
Curriculum Coordination Practices	0.37

Based on data from one HPLC sub-study.

In addition, frequency of common planning time made a difference for curriculum coordination. Without frequent common planning time, the hope for curriculum integration, or even for more interdisciplinary units, is a lost cause, Erb (1997) made the argument that the levels of interdisciplinary teaming practiced were associated with the implementation of integrated and interdisciplinary curriculum. The Project on High Performance Learning Communities has so far documented that the frequency of common planning time alone, without any other elements of teaming being considered, has a high positive correlation with the coordination of curriculum.

Frequency of common planning time was also associated with parental contact and involvement. This correlation helps to reveal how enacting one of the various *Turning Points* recommendations has an influence on the implementation of another recommendation. In this case "creating small communities for learning" through establishing interdisciplinary teams reinforces the implementation of the recommendation to "reengage families in the education of young adolescents." As Figure 1 illustrates, as the frequency of team planning time increases so do efforts to communicate with parents and involve them in the education of their children.

Not only did increasing the frequency of team planning time to daily periods of at least 45 minutes change the way teachers related to other professionals and to parents as well as change the ways they planned for instruction and implemented curriculum, but increased team meeting time increased teachers' perceptions of the quality of teaming itself. As teachers came to have a more positive attitude toward their work lives as teachers, other positive outcomes of their performance would be expected to follow.

In other words, providing regular team planning time leverages many other positive changes in the way schools do business. After examining the data on the amount of planning time that American school teachers are provided compared to teachers in 15 European countries, Erb and Dickinson(1997) concluded: "Doubling teacher planning time by adding team meeting time to individual planning time would go a long way toward addressing the problems of American middle schools" (p. 526). The empirical data from the Project on High Performance Learning Communities is demonstrating just how team meeting time influences other practices and climate factors that positively affect student performance.

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TEAM SIZE AND TEACHER/STUDENT RATIOS DO MAKE A DIFFERENCE

Stevenson (1996) has argued that "Partner Teams," teams made up of two or three teachers and less than 70 students, have advantages over the more conventional interdisciplinary teams of four to six teachers and over 100 students. This was based on his experience with a number of teams in Vermont. The Project on High Performance Learning Communities has empirically confirmed that size does make a difference. Not only did the absolute number of students assigned to a team made a difference, but the teacher/student ratio also made a difference. At the risk of being overly prescriptive, the Project on High Performance Learning Communities had identified 120 or fewer students as a guideline for maximum team size and a teacher/student ratio of 1:25 or less. Remember that team size interacts with common planning time and other elements of teaming. In addition, the effects of teacher/student ratio can be ameliorated by the number and quality of resource staff that are available to the team. Having resource teachers, such as gifted coordinators and counselors available, as well as having special educators, chapter teachers, or paraprofessionals assigned to teams can temper the impact of team size and teacher/student ratio.

Figure 2

Relationship of Team Size to Teacher Performance

Practice/Outcome	Correlation
Parent Contact & Involvement	-0.45
Contact w/ Other Building Resource Staff	-0.43
Coordination of Student Assignments, Assessments, & Feedback	-0.36
Curriculum Coordination Practices	-0.30
Quality of Teaming	-0.12

Based on data from one HPLC sub-study.

Whereas we saw in Figure 1 that frequency of team meeting time had a positive relation with five aspects of teacher practice and school climate, team size had a negative correlation with each of these same elements. In other words, as team size goes up all of the positive outcomes of increasing team meeting time are undermined. For example, note the high negative correlations between team size and teacher contacts with both parents and other resource staff in the building (Figure 2). Large team size had a negative impact on the response capacity of the team. This research finding makes sense in light of the rationale for implementing teams in large middle schools. Teams are supposed to break up large bureaucratic school organizations into smaller, more personable learning environments for young adolescents. What the Project on High Performance Learning Communities is finding out is that if the interdisciplinary teams are not themselves small enough, they do not achieve the goal for which they were created in the first place.

Team size also had a negative impact on both the coordination of instruction and the coordination of curriculum. The bigger the team the less likely it is that teachers would design coordinated assignments or even schedule homework to avoid conflicts among classes. As team size increased, the chances of finding teachers teaching interdisciplinary or integrated thematic units was diminished.

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The curriculum conversation currently going on among middle level educators has been enriched by these findings which are establishing that organizational factors made a difference on curriculum. For those familiar with the ideas of Schwab (1973), these findings should come as no surprise. Schwab argued that curriculum planning "must take account of four commonplaces of *equal* rank: the learner, the teacher, the milieu, and the subject matter" (emphasis in the original) (pp. 508-509). Certainly the way schools are organized for instruction are part of the milieu affecting the curriculum that students are exposed to. Focusing on the "needs of students" or the "subject matter" to be taught to the exclusion of considering the environment in which instruction takes place is fraught with peril. For the curricular reforms to occur in middle schools, attention must be paid to providing sufficient team planning time to teachers who have manageable numbers of students to teach.

Finally, team size had a negative impact on teachers' perceptions of the quality of teaming. Though this relationship was comparatively weak-not being nearly as strong as the positive relationship between frequency of team planning time and quality of teaming-it completes the pattern of negative relationships between team size and positive aspects of school reform.

THREE OTHER FEATURES OF TEAMING ARE RELATED TO POSITIVE STUDENT OUTCOMES

If someone thinks that the previous section suggests that two subject specialists teamed together with 50 students for a two-period time block would be preferable to a four-person team teaching in a four-period time block, this next finding should give pause. The Project on High Performance Learning Communities has found that students are more positively affected if they spend a majority of their school day on the team. A two-period time block has a less positive impact on students than does a four-period time block. These seemingly contradictory findings about team size and the amount of time students spend on a team have powerful implications for defining the roles of teachers. Modifying the secondary model by putting four subject specialists together on a team does not appear to be the most effective way to organize instruction for young adolescents. If students are to spend longer periods of time together with fewer numbers of teachers, then rigid subject specialist designations will have to be examined. We will return to this very important issue in a subsequent article. For now, be alerted to the fact that the interactive relationship between features of teaming do not easily reduce themselves to simple formulas for improving schools.

The Project on High Performance Learning Communities has also confirmed two other factors that have long been argued to make a positive difference on the impact of teaming. Having separate areas of the building set aside as team space has a positive impact on students. Moving teamed teachers so that their classrooms are in close proximity to each other in conventionally constructed "egg crate" schools or building new schools based on the "house concept" (see Sullivan, 1996) finds support in the current findings.

Secondly, keeping teams together for at least three years is associated with more positive outcomes. This is reassuring confirmation to those who have argued that teaming is a developmental process-that in fact teams take time to develop the skills, relationships, practices, and procedures that result in positive outcomes (see Erb, 1997; Erb & Doda, 1989; George, 1982, Larson & LaFasto, 1989; Plodzik & George, 1989; & Tuckman, 1965). The more complicated demands of teaming such as

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creating integrated curriculum are likely to emerge only after less complex operations are mastered. If teams do not stay together more than a year, they are not likely to develop to the point where the impact of their performance will result in positive student outcomes.

Though there are no sure formulas for success, we now have research-based principles to guide the improvement of middle school education: provide sufficient team planning time, keep teams small, keep students on teams for the majority of the school day, designate spaces in the building as team areas, and keep teams of teachers together for at least three years.

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Thomas O. Erb is a professor of teaching and leadership at the University of Kansas, Lawrence.
Chris Stevenson is a retired professor of education at the University of Vermont, Burlington.

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