

The Impact of Teaming: Five Research-Based Outcomes

Middle School Journal, Volume 31, Number 2, November 1999

Nancy Flowers, Steven B. Mertens, & Peter F. Mulhall



A great deal has been written over the past ten years about interdisciplinary teaming in the middle grades. Much of the information has been focused on creating small communities for learning within a school, how to implement teaming, how to organize team meetings, and how to allocate responsibility among members. Less has been reported regarding the effects of teaming on teacher and student outcomes. Many schools that have interdisciplinary teams are now being asked by parents, school boards, and district personnel if teaming is “working,” and whether it is worth additional costs. For many schools, the question of whether teaming is “working” becomes more serious if they are facing cutbacks in teaching staff or changes in the school schedule that might eliminate team planning time.

Many educators report anecdotal evidence of the benefits of teams. That is, it is easy to feel and observe the impact of teaming if you are in the school and experience the changes first-hand. It is also easy to explain the positive effects of teaming with statements like “teachers are much happier and not as overloaded,” or “we have been able to do several great integrated units this year that the kids have loved.” It is harder for people outside of the school to see the impact of teams without the direct experience, and they often want positive outcomes that can be measured.

Below are five research-based outcomes of interdisciplinary teaming. These outcomes are intended to illustrate the positive impact of teaming with data from schools of varying sizes, grade configurations, student populations, and geographic locations (i.e., urban, rural, and suburban) that have implemented teaming. The data were collected from a group of 155 middle schools in Michigan that are part of the Middle Start Initiative funded by the W.K. Kellogg Foundation. These schools participated in the School Improvement Self-Study, a set of surveys completed by staff, students and administrators, during 1994-95 and again in 1996-97 (Mertens, Flowers, and Mulhall, 1998).

The Self-Study, conducted by the Center for Prevention Research and Development at the University of Illinois, is a data collection system that is intended to be used by schools in conjunction with their existing school improvement plans. The Self-Study provides schools with quantitative data to document and track the changes in their schools. It also provides schools with a way to establish dialogue about school improvement, setting priorities, determining goals, and most importantly, assessing and measuring the outcomes of new programs and practices. The five empirically-based findings follow.



COMMON PLANNING TIME MAKES A BIG DIFFERENCE

Common planning time is a critical component of interdisciplinary teaming, which is defined as a group of teachers from different subject areas who plan and work together and who share the same students for a significant portion of the school day. Interdisciplinary teaming is intended to create a context that enables students and teachers to know one another better and allows teachers to better support and understand the educational needs of students. Teams generally focus on creating coordinated lesson plans, share and discuss student progress, problems and issues, and integrate subjects around a central theme or issue.

A critical finding of this research and the work of others in the field is that for interdisciplinary teams to be effective, they need regular time to plan and work together as a group (i.e., common planning time). Unlike individual planning time, common planning time enables teachers to meet together as a team to discuss team, student, and curricular issues. Prior research emphasizes the importance of both the availability and use of common planning time in successful interdisciplinary teaming (Erb and Doda, 1989; George and Alexander, 1993; Howe and Bell, 1998).

Schools Participating in the Michigan Middle Start Self-Study have been classified based on their level of interdisciplinary teaming and accompanying common planning time (CPT) into three categories that include schools that are (a) teaming with high levels of CPT (at least 4 meetings per week for a minimum of 30 minutes per meeting) (25 schools), (b) teaming with low levels of CPT (some CPT, but less than the highest level) or no CPT (76 schools), and (c) not teaming (34 schools). Twenty (20) schools were not classified because they were special education/alternative schools or only had pilot teams. This “level of teaming implementation” classification is based on an analysis of quantitative Self-Study survey data collected from staff and administrators and qualitative data gathered through telephone interviews. References to CPT are restricted to schools that have set aside separate and additional planning time for teachers working together as a team. *Schools that use their individual planning time to meet as a team are not considered to have CPT.*

The implementation of teaming in a school accomplishes many things: creating smaller learning communities, enabling teachers to better know students, and eliminating the anonymity at school. However, the Michigan Self-Study data clearly indicate that teaming combined with high levels of CPT is more effective in producing positive outcomes (see also Warren & Muth, 1995). In addition to the findings that follow, schools that are teaming with high levels of CPT also:

- have smaller teams of students
- are more likely to have a teacher-led advisory program
- have the largest gains in student achievement scores.



TEAMING IMPROVES WORK CLIMATE

Teaming schools have a more positive work climate. The general atmosphere of a school is a reflection of the policies, practices, and expectations that are in place. A school that puts a priority on fostering respectful relationships among students and teachers, as well as encouraging positive interactions between students, is one that will succeed in creating an environment that is supportive and engaging for student learning. If teachers are more satisfied with their work, they are more likely to reflect that attitude to others which creates a more positive work environment.

Teachers at schools that are teaming (101 schools) view their school as a more positive, rewarding, and satisfying place to work than teachers that are either not teaming (34 schools) or have implemented only pilot teams (15 schools). Teachers from teaming schools believe that they receive recognition for their accomplishments more often, believe that staff are more committed to their work, and have a more refined sense of what is expected of them in the school. On average, teachers from teaming schools indicate that the areas of work climate (i.e., staff recognition, staff commitment, and clarity of expectations) occur on average *most of the time* on a scale that includes *never*, *hardly ever*, *sometimes*, *most of the time*, and *always*. Teachers from schools that are not teaming or have pilot teams report that staff recognition, staff commitment, and clarity of expectations happen at least *sometimes*, but less than *most of the time*. Teachers in schools that are engaged in teaming feel a stronger affiliation and support network with their fellow team members and thus are more satisfied with their working climate.

TEAMING INCREASES PARENTAL CONTACT

Teaming schools have more frequent contact with parents. The involvement of parents in the school community is an important and often challenging aspect of a successful middle school. It is critical that schools not only educate parents about the changes in the school, but also involve parents more actively in their child's education and in the school as an important resource. Increasing parent involvement, however, is a very challenging as well as time-consuming goal. Many schools have been accustomed to communicating with parents almost exclusively related to problems or concerns surrounding the child. They may not, however, be as comfortable with contacting parents about classroom activities, encouraging parent-child learning, meeting individual student needs, and referrals to health or social services. Moreover, such communication with parents, particularly for teachers not on a team, takes a tremendous amount of time.

In our findings, teachers at schools that are teaming (101 schools) report more frequent contact with parents about not only student performance and problems (at least *quarterly*), but also about homework to do with students (between *quarterly* and *monthly*), information and activities to increase parent involvement (between *once a year* and *several times a year*), and information or referrals for health or social service needs (between *once a year* and *several times a year*) than teachers who are not teaming (34 schools). Although this level of parent contact among teaming schools may not be ideal yet, the pattern of more frequent contact than non-teaming schools is clear. It appears that schools that are teaming are able to capitalize on their coordinated team efforts by dividing up the contacts with parents among all



teacher members of the team. If a team is comprised of five teachers and 120 students, for example, each teacher may be assigned 24 students for parent contact purposes. In this way, the teacher would contact the parents of these students about not only their own reasons, but also the issues of the other four teachers on their team.

TEAMING INCREASES JOB SATISFACTION

Teaming schools have higher teacher job satisfaction. Teaming leads to new roles for teachers in governance, management, and the delivery of instruction. Although these new roles may be viewed as having an indirect effect on student learning, they are, nonetheless, imperative to setting contexts, promoting leadership, and establishing norms and skills for a high performing middle level school. Thus, positive changes in teacher job satisfaction can be considered an immediate outcome of teaming, an improvement in school functioning that occurs prior to, or in conjunction with, the long-term goal of affecting student achievement.

Not only do teachers at schools that are teaming, particularly those that meet at least four times per week for a minimum of 30 minutes each, indicate a higher level of job satisfaction than teachers at schools that are not teaming, they also show an improvement in their job satisfaction over time. These are two critical issues because with the implementation of teaming, a practice intended to influence student learning by creating smaller learning environments and connecting knowledge across subject areas, teachers tend to be more satisfied with their jobs overall (i.e., intrinsic rewards, colleagues, building administration, input into decision making, student behavior, parent involvement, and instructional resources). We also found that the longer schools had been teaming, the more teachers become satisfied with their jobs.

TEAMING IS ASSOCIATED WITH HIGHER STUDENT ACHIEVEMENT

Teaming schools have higher student achievement scores. The achievement data used for this analysis is the student MEAP (Michigan Educational Assessment Program) for reading and mathematics that is given every year to seventh grade students in the state of Michigan. The Michigan Department of Education defines three categories of performance on the MEAP: satisfactory, moderate, and low. A student must score 520 or above for mathematics and 300 or above for reading in order to pass the MEAPs at the satisfactory level (Michigan Department of Education, 1997). Therefore, a school with a score of 50 percent satisfactory for reading indicates that 50 percent of the MEAP participants scored at 300 or above.

Schools that are teaming have higher achievement scores than non-teaming schools. Further, schools that are teaming with high levels of CPT have the greatest two-year gains in achievement scores (see Figure 1). Taking this analysis one step further, schools that have been teaming for five or more years have the highest MEAP scores. Interestingly, however, schools that have been teaming for only one or two years show the most noticeable gains in achievement scores, suggesting that teaming, even in the first few years, has a significant impact on student achievement.



Figure 1

1994/95 and 1996/97 MEAP Achievement Scores (% satisfactory) by Level of Teaming Implementation and Years Teaming							
Levels of structural implementation		Average MEAP scores (% satisfactory) by year and percent change					
		7th grade reading			7th grade math		
		94/95	96/97	% change	94/95	96/97	% change
Teaming with high CPT ¹	(24 schools)	31	39	+8	42	48	+6
Teaming with low/no CPT	(75 schools)	35	38	+3	44	49	+5
Not teaming	(31 schools)	28	33	+5	40	44	+4
Average MEAP score	(130 schools ²)	32	37	+5	43	47	+4
Years teaming							
Not teaming	(31 schools)	28	33	+5	40	44	+4
1-2 years	(27 schools)	28	38	+10	37	46	+9
3-4 years	(45 schools)	35	37	+2	43	48	+5
5 or more years	(42 schools)	36	41	+5	49	50	+1
Average MEAP score	(145 schools ³)	32	38	+6	43	48	+5

¹ CPT= common planning time (in addition to individual planning time).

² The total number of schools analyzed is 130; excludes 20 schools classified as special education/alternative schools or schools with pilot teams and 5 schools whose MEAP data are not available.

³ The total number of schools analyzed is 145; excludes 8 schools whose MEAP data are not available and 2 schools where "years teaming" is not known.

SUMMARY

The data presented here clearly illustrates the significant impact of teaming on teacher and student outcomes in a large cohort of middle grades schools. Not only can schools answer the question of whether teaming is working with “we believe teaming has led to great improvements at our school,” but they can also point to data which demonstrates that teaming schools provide a more positive working climate for teachers, engage in more frequent contact with parents, report more positive teacher job satisfaction, and finally, exhibit higher student achievement scores. It is also evident, that the impact of teaming on a school’s outcomes is magnified when the school implements teaming with high levels of common planning time. The most salient evidence to support this is that schools with high levels of common planning time realized the most significant gains in student achievement scores. It should also be noted that what goes on during team time (team practices) is also likely to influence teacher and student outcomes. This will be the topic of a future column.

Finally, let us not forget comprehensive school reform is a complex process. Some schools may realize positive outcomes in the first few years, as shown here. Other schools implementing new programs may not see measurable improvements until later. Thus, change takes not only preparation, research, hard work, and perseverance, it also requires flexibility and patience.



REFERENCES

- Erb, T. O., & Doda, N. M. (1989). *Team Organization: Promise—Practices and Possibilities*. Washington, DC: National Education Association.
- George, P. S., & Alexander, W. M. (1993). *The Exemplary Middle School* (2nd ed.). Fort Worth: Harcourt Brace Jovanovich College Publishers.
- Howe, A. C., & Bell J. (1998). Factors associated with successful implementation of interdisciplinary curriculum units. *Research in Middle Level Education Quarterly*, 21(2), 39-52.
- Mertens, S. B., Flowers, N., & Mulhall, P. (1998). *The Middle Start Initiative, phase 1: A longitudinal analysis of Michigan middle-level schools*. (A report to the W. K. Kellogg Foundation). Urbana, IL: University of Illinois.
- Michigan Department of Education. (1997). *Michigan Education Assessment Program (MEAP) Handbook: 1996-1997 Results*. Lansing, MI: Author.
- Warren, L. L., & Muth, K. D. (1995). The impact of common planning time on middle grade students and teachers. *Research in Middle Level Education*, 18(3), 41-58.

Nancy Flowers is the coordinator of research programs, Steven B. Mertens is a senior research scientist, and Peter F. Mulhall is the director of the Center for Preservation Research and Development at the University of Illinois, Champaign.

Original publication information:

Flowers, N., Mertens, S. B., & Mulhall, P. F. (1999). The impact of teaming: Five research-based outcomes. *Middle School Journal*, 31(2), 57-60.