



Did You Know? Your School's PLCs Have a Major Impact

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Did you know?

Research indicates that a high level of teacher collaboration significantly improves student achievement.

Did you know?

PLCs that examine student work and analyze student data more frequently are likely to have higher levels of teacher morale.

Think about this for a moment: What effect do you think high-functioning Professional Learning Communities (PLCs) might have on your school's performance?

The researchers at the Applied Research Center wanted to take a closer look at the impact PLCs have on the schools we work with. We hoped to tease out answers to two related questions about PLCs. When PLCs are working at optimum levels, what is their relationship to student achievement? Secondly, do cohesive and focused high-functioning PLCs have any impact on teacher morale?

Do PLCs Impact Student Achievement?

Most schools have PLCs in place, at least in some form. In a recent study conducted by the Applied Research Center, **90% of the schools we surveyed reported that their PLCs meet regularly, on average once per week.**

But administrators and teachers are aware that almost no two PLCs are alike. In some schools, PLCs are highly organized and focused on planning instruction and professional development. In others, they're the place to hammer out building issues or organize grade-level events. Occasionally, PLCs can devolve into arenas for airing complaints and addressing problems with student behavior.

But high-functioning PLCs are laboratories for generating what social scientists call human capital and social capital. For teachers, human capital can be broadly understood as accumulated knowledge, experience, and effectiveness—what we might call wisdom. Social capital is based in interaction: It's the fluency with which teachers share and exchange their accumulated knowledge. Researcher Alan Daly at the University of San Diego and his

colleagues (2011) have described the outsized role that human and social capital can play in an educational setting:

Knowledgeable and experienced teachers (those with robust human capital), working in collaborative settings with ample exchange of information (social capital), create the potential of improved outcomes (Nahapiet & Ghoshal, 1998). For both human and social capital to be applied to instructional issues, organizational members must perceive that through sharing, exchanging, and collaborating in the generation of knowledge both the individual and collective will benefit (Nahapiet & Ghoshal, 1998) (p.11).

The Applied Research Center's data on PLCs is in line with previous research on the effect of collaborative communities in schools. A number of researchers have looked at the impact of social capital, or engaged networks, on teacher learning and student achievement (Daly et al, 2011; Penuel, Riel, Joshi, Pearlman, Kim, & Frank, 2010; Pil & Leana, 2009). In 2011, researcher Carrie R. Leana published her report on the University of Pittsburgh study that measured the effect of strong social capital, broadly defined as positive interactions between fellow teachers, on student achievement. Strong social capital is characterized by "high trust and frequent interaction" (p. 33). One standard deviation increase in a teacher's social capital leads to increases in student's math scores by 5.7 percent. Leana and her colleagues found a significant correlation between student learning growth and school environments where positive teacher collaborations flourished.

The results of our research challenge the prevailing centrality of the individual teacher and principal leadership models of effective public education. Instead, the results provide much support for the centrality of social capital—the relationships among teachers—for improving public schools (p. 32).

In response to the question, "Why are some teachers better than others?" Leana posits that a social capital perspective "would answer the same question by looking not just at what a teacher knows, *but also where she gets that knowledge.*" (our italics, p. 32). Leana and her colleagues conclude that a teacher rarely goes to an outside resource to enhance her knowledge of teaching and goes even less often to an administrator. A teacher is, in fact, most likely to gather her knowledge about teaching from fellow teachers.

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Looking at PLCs from this perspective, it seems clear that a high functioning PLC focused on the right work will act, in essence, as a kind of knowledge generation system for teachers, where the effect of professional development is accelerated and refined through collective focus on learning within the team. PLCs engaged in high-level learning, intensive collaboration, and exchange of knowledge are, in turn, highly likely to positively impact student achievement.



Do PLCs Boost Teacher Morale?

The Applied Research Center team wanted to find out if PLCs that focused on learning, rather than on administrative issues, behavioral problems, or complaints, had any significant impact on teacher morale.

In 2016, we surveyed 2,854 educators from 60 schools in six United States school districts. Educators surveyed came from schools in Kansas City, Kansas; Traverse Bay, Michigan; and several Florida districts (Pasco, Orange, Palm Beach, and Pinellas counties), with most respondents from schools in Orange County, Florida.

More than half of participants worked at high schools, and 78% were classroom teachers. The remainder consisted of non-classroom teachers, specialists, and administrators.

Survey participation was high, with a 72% average response rate, and about 92% of the participants said they attended PLC meetings. Their responses provide deep insight into how PLCs appear to influence teacher morale.

Respondents were asked two sets of questions. First, they were asked which PLC activities they do more often, using a scale of one to four with one being never and four being always. Table 1 below shows the most frequent and least frequent practices across schools. The survey included appropriate practices for PLCs (such as developing standards-based lessons) and inappropriate practices (such as addressing student behavior). Items that were inappropriate practices were reverse coded.

Table 1 shows that “Developing standards-based lessons” (average of 3.07) was the most frequent practice, while the least frequent practice was, “Discussing building issues” (average 2.44). It is important to note that even with the least frequent (and inappropriate) strategies, the percentage of teachers who said that they engaged in those activities “Always” or “Often” was quite high (48% for discussing building issues, 52% for addressing student behavior, and 58% for organizing events).

Table 1. PLC Common Practices Distribution

	Mean	N	Always	Often	Never	Rarely
Developing standards-based lessons	3.07	2,486	34%	49%	6%	14%
Developing common standards-based scales	3.05	2,484	31%	48%	6%	15%
Analyzing student achievement data	2.99	2,486	24%	55%	4%	17%
Creating common assessments	2.99	2,486	29%	49%	7%	16%
Examining student work	2.69	2,485	17%	46%	9%	28%
Discussing building issues	2.56	2,480	14%	34%	18%	33%
Addressing student behavior	2.44	2,487	17%	35%	12%	36%
Organizing grade-level or subject area events	2.37	2,480	19%	39%	15%	27%

Second, respondents were asked how strongly they agreed that participating in their PLC resulted in a high level of teacher morale, with a one being strongly disagree and four being strongly agree. Table 2 shows that the average

score for that item was moderate at 2.78. About 18% of the participants strongly agreed that participation in a PLC increased teacher morale while 50% agreed, 23% disagreed, and 8% strongly disagreed.

Table 2. PLC High Morale Frequency Distribution

	Mean	N	Strongly Agree	Agree	Disagree	Strongly Disagree
Participation in my PLC results in a high level of teacher morale.	2.78	2,482	18%	50%	23%	8%

Next, the two sets of items were correlated with each other to assess which common PLC practices were related to having a high level of teacher morale. Correlations are used to assess the magnitude and direction of the relationship between two variables. The correlation coefficients can fall between -1 and +1. A high, positive correlation coefficient indicates that the variables measure the same characteristic with 1 or -1 representing perfect correlation. If the items are not highly correlated, then the items may measure

different characteristics or may not be clearly defined. The findings were in line with other research outlined here: Higher levels of teacher morale significantly correlated with practices that drive student achievement. Table 3 shows the correlation coefficients for each activity*. Examining student work had the highest correlation with teacher morale (.428) followed by analyzing student achievement data (.417). The two lowest correlations were seen for addressing student behavior (-.333) and organizing grade-level events (-.386).

Table 3. Correlation Results of High Level of Teacher Morale and PLC Practices

	r	N
Examining student work	.428*	2,461
Analyzing student achievement data	.417*	2,459
Developing standards-based lessons	.393*	2,462
Developing common standards-based scales	.356*	2,455
Creating common assessments	.335*	2,459
Discussing building issues	-.324*	2,459
Addressing student behavior	-.333*	2,461
Organizing grade-level or subject area events	-.386*	2,455

* indicates a moderate and statistically significant result



In other words, teacher morale was more highly correlated with a focus on work to improve student learning, rather than with discussions of student behavior, building issues, or organizational activities.

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While these findings are correlation-level analysis, the data collected by the Applied Research Center indicate that when PLCs collaborate on student work and achievement data, teachers are more likely to be satisfied and therefore effective. Administrators will do well to give teachers the tools and support they need to ensure that they are focused on the right work: work that will both boost morale and create the highest levels of social and human capital in their school environments. If the extant research is any indication, effective collaborative communities focused on teaching and learning will yield high dividends in student achievement.

References

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