THE BIG MONEY QUESTION

ACTION RESEARCH PROJECTS GIVE DISTRICT A CLEAR PICTURE OF PROFESSIONAL LEARNING'S IMPACT

By Barbara Dill-Varga

How do you know if the resources you have allocated to support professional learning in your school district are actually improving the quality of teaching and impacting student performance? In an increasingly challenging financial environment, this is important to know.

Six years ago, I joined the district administrative team in Maine Township High School District 207, a district with three high schools in the suburbs of Chicago, Illinois. The district was facing a multimillion-dollar deficit, effectively eliminating professional development, which forced us to ask tough questions and reimagine how we might support teachers.

First to be evaluated was the district's longstanding commitment to training teachers in cooperative learning. Six years later, and at no small expense, 250 teachers had moved through at least the introductory workshop, but we really weren't sure just how many classrooms were truly cooperative environments, nor even if some of the teachers were using cooperative structures in their lesson designs. Had this investment paid off?

Given our finances, we faced difficult questions that can be asked of any professional development initiative:

1. Was nearly a decade of the professional development making a difference?
2. How many teachers were implementing cooperative learning in their classrooms with fidelity?
3. What was the evidence that cooperative learning had made a positive impact on student learning?
4. Given the district's reduced resources, how could we energize teachers to implement this practice — if we still believed it to be central to our core mission?

After meeting with the cooperative learning facilitators to address these questions, we developed the CLEAR (Cooperative Learning Education Action Research) Project. Teachers leading teachers has always been a core principle in District 207, so it made sense to explore teacher action research as a mechanism to find answers to our questions.

WHY TEACHER ACTION RESEARCH?

Since the project's inception, we have seen the power of asking teachers to lead their own improvement process. We provide Richard Sagor's *Collaborative Action Research for Professional Learning Communities* to help teachers develop what he calls five habits of inquiry for a continuous cycle that starts with clarifying a shared vision, designing an action plan, implementing it while collecting data, analyzing the data, and using that data to continue improving (Sagor, 2010). The heart of his action research project process asks teachers to focus on three important questions:

1. Action: What specifically did we do?
2. Change: How did our students improve?

HOW TEACHER ACTION RESEARCH PROJECTS ALIGN WITH LEARNING FORWARD'S STANDARDS FOR PROFESSIONAL LEARNING

Standard	How teacher action research projects align
Learning Communities	Teacher action research projects are teacher learning communities that meet frequently to find answers to common questions of importance about their instructional practices. They work together to understand the research about best practices, then design ways to apply and study those practices in their own classrooms. They share, discuss, and analyze classroom data to understand what is and isn't working. They make adjustments in what is a continuous cycle of collaborative learning.
Leadership	Action research teachers who later move into mentoring roles for novice action researchers form necessary webs of support to sustain the professional learning.
Resources	Teacher action research projects that focus on questions about district learning initiatives can provide direction on how best to allocate resources for professional learning that will make a difference in teacher quality and impact student achievement.
Data	Teacher action research projects make use of all types of data gathered through surveys, classroom observations, and student achievement measures. The analysis of this data drives future decisions about classroom instruction.
Learning Designs	Teacher action research projects model the core attributes of adult learning theory. Teacher experiences include a balance of research theory and practical application. They are given choice and autonomy and are supported to deepen and share their expertise to improve the larger group.
Implementation	Teachers find support by working together and with trained coaches or other experienced action research mentors who help them implement this reflective process.
Outcomes	Teacher action research projects build professional skills clearly defined in the Danielson Framework for Effective Teaching.

3. Relationship: What was the relationship between my actions and change in performance?

The answers to these questions, when looked at in aggregate, helped us answer our initial questions about resource allocation.

STANDARDS ALIGNMENT

Teacher action research projects with characteristics similar to the CLEAR Project directly align with Learning Forward's Standards for Professional Learning. (See chart above.)

These reflective practices are also deeply embedded in many of the component descriptions in Charlotte Danielson's *The Framework for Teaching Evaluation Instrument* (Danielson, 2013), the instrument we use for teacher evaluation. In particular, Domain 4 of the framework focuses on professional responsibilities, which speaks to how distinguished teachers reflect on their teaching and practice and seek out professional learning by participating in the professional community to enhance their knowledge and pedagogical skill. They actively receive and give feedback from and to colleagues and supervisors. They also make a point of contributing to the larger profession.

WHAT IS THE CLEAR PROJECT?

District 207's CLEAR Project is a group of 18 high school teachers who make an 18-month commitment to participate in an action research project studying the impact of cooperative learning on teaching and learning. Teachers accepted to the project spend the first year learning the principles of action research, take part in a whole-group pilot project, design and carry out a building-based group project, and present an analysis of their results to an audience of teachers and administrators. During the last six months, these teachers become mentors to the next group of CLEAR Project teachers.

HOW DO TEACHERS APPLY AND GET ACCEPTED? WHAT ARE THE INCENTIVES?

All teachers receive an email invitation to apply each winter. They are required to have taken at least an introductory level cooperative learning course before applying. Participants receive support, released time to meet as a district group, materials, and an iPad or digital device to aid collaboration and data collection. Teachers aren't paid for the hours of work the project necessitates. We partnered with a local university to provide up to six hours of course credit for the 18-month experience. We wrote the syllabi for three courses, ensured that project directors met university requirements, and negotiated a low-cost tuition rate.

WHAT HAPPENS DURING THE FIRST SUMMER OF CLEAR?

Each CLEAR Project has a mandatory, four-day summer launch week. Participants get a refresher course on the core principles of cooperative learning, an overview of peer-reviewed research in cooperative learning, and instruction on the basics of action research. They also hear presentations from previous CLEAR participants.

The project co-directors work with the new CLEAR group to help members build relationships necessary to sustain the project, crystallize a vision for their ideal cooperative classroom, anticipate obstacles and possible solutions for the work to come, and lay the foundation for a practice study that will involve the whole group beginning in September.

WHAT HAPPENS DURING EACH SEMESTER OF THE SCHOOL YEAR DURING CLEAR?

CLEAR meets for a full day once each semester, for a half-day once each semester, and then schedules building-based meetings as needed to support group projects. During the first semester, teachers administer a classroom survey tool that forms a baseline for many of the projects.

Next, the group engages in a small practice study, where we together decide on a research question, the independent and dependent variables, and the ways we will collect and analyze data in classrooms. This allows teachers to experience the action research process before their building-based projects begin. They learn from each other's mistakes, figure out how better to collect data while teaching, and feel a degree of success from completing a very doable mini-project.

In the second semester, they formalize their project design. Soon they are collecting data, reviewing it, analyzing it, and, by late spring, planning the presentation that will be given in August of the second summer. Their final task in August is to present the findings and be trained as mentors to assist the next CLEAR Project cohort during their final semester.

WHAT TYPES OF RESEARCH QUESTIONS DOES A CLEAR PROJECT ASK?

Research questions don't have to be original. They can replicate, refine, or extend questions other researchers have asked in past research studies. Typically, teachers ask questions about the impact of cooperative learning on the classroom environment and/or student performance. They have also examined choices they might make about construction of groups or implementation of certain core elements. (See list of sample research questions above.)

This year, CLEAR is expanding to allow questions on teaching and learning issues beyond cooperative learning. As a district, we have begun immersing ourselves in John Hattie's concept of visible learning, which calls for teachers to focus their energies on high-impact instructional strategies that thousands of meta-analyses verify actually make a difference for students.

SAMPLE CLEAR PROJECT ACTION RESEARCH QUESTIONS

Construction of groups and implementation of cooperative learning core elements:

- Does using homogeneous or heterogeneous gender grouping increase student participation and reduce teacher interventions?
- Do people learn better in two-person or three-person teams?
- How do different instructional methods of teaching social skills within base groups increase the frequency of that skill outside of base groups?

Student learning: Impact of cooperative learning on student performance:

- Do cooperative teams demonstrate a performance advantage?
- Will working with a partner on class activities increase the comprehension of an individual student's learning?

Classroom environment: Impact on student attitudes and interactions:

- How does group processing affect student attitudes in the classroom?
- Does teaching social skills in the classroom increase positive interactions among students and transfer outside of the classroom?
- How would use of cooperative learning reduce student isolation in the classroom?

While cooperative learning is one such strategy, there are other areas that interest teachers. The "C" in CLEAR now stands for collaborative learning because we still believe in the power of groups of teachers learning and leading together.

HOW DOES THE DISTRICT SUPPORT CLEAR?

The district uses local and grant funding to cover stipends for nonadministrative leadership, substitute teachers so teachers can meet during school time, digital devices, books and materials, and expenses to support consultants. More importantly, the district publicizes project activities to the school board and the community advisory committee and dedicates time at annual meetings to share project presentations with all faculty.

HOW DO INSTRUCTIONAL COACHES AND COACHING PLANS SUPPORT CLEAR?

Each high school has four instructional coaches. These are classroom teachers who teach half of the day and are released half of the day to work with teachers on coaching plans and other activities to improve their classroom practices. Many are facilitators or experts in the use of cooperative learning and work with CLEAR participants throughout the year.

They provide coaching on how to design and support cooperative classrooms. They conduct classroom observations upon request and assist with data collection using tools they have created or adapted. They help teachers reflect and refine practices based on data. In addition, 10 cooperative learning facilitators host workshops and serve as specialized coaches and mentors.

WHAT ARE REQUIRED COACHING PLANS?

A team of teachers and administrators designed four coaching plan choices: individual coaching plans, peer-to-peer coaching plans, learning walks, or CLEAR Project participation. Each requires teachers to connect with one of the building coaches to identify goals and activities to further one's growth as a teacher.

CLEAR Project participants seek activities involving cooperative learning facilitators or coaches to help them refine their understanding of core principles, gather classroom observation data, reflect and analyze the current status, and plan future actions. Teachers want assistance developing common formative assessments, questioning strategies, differentiated instruction, behavior strategies, and cooperative learning.

WHAT DATA WILL BE COLLECTED TO EVALUATE CLEAR'S IMPACT?

Here are the ways we gather data to evaluate the CLEAR Project's impact.

Participation: We track the number of teachers who enroll in workshops and who take advanced levels within a strand or initiative. We look at the correlation between frequent participants and teacher evaluation ratings. In general, the data suggest that frequent participants receive slightly higher evaluation ratings.

Tracking growth in Danielson components through evaluation process (Domain 4): If teachers are improving in practices that are aligned to Danielson, then we should see growth in the number of ratings that move from accomplished to distinguished in certain components. Similarly, we can disaggregate our teaching rating component data to see where a building or a department may have some deficits in performance.

A review of this data a couple of years ago led us to bring a focus to questioning strategies because, across the board, ratings were lower in the corresponding Danielson component. A similar process revealed the need to focus on assessment literacy. Recently, we reviewed component ratings for teachers who either had been CLEAR participants or were cooperative learning facilitators. In 20 of the 22 components in the Danielson framework, ratings for this subset of teachers were 5% to 7% higher than their teaching colleagues.

Coaching plan requests and identified goals: We can track the number of coaching plans focused on cooperative learning or specifically on activities related to the CLEAR Project. While we have a firewall between the coaching process and teacher evaluation, we hope to collect anonymous data next year that helps us know more clearly whether those teachers who are not in CLEAR are still choosing to focus on cooperative learning activities.

Teacher attitudes: Our survey data point to what teachers value and what they need, as well as how they value their coaches. This information is analyzed at the building level and used for coaches to identify a SMART goal for their work the next year. To gather data on our coaching plan program, we surveyed teachers about their experiences. In their responses, 69% of teachers strongly agreed or agreed that the coaching plan benefitted their students and improved their teaching. Moreover, 80% said the coaching plan was relevant, and 81% said the coaching plan was positive.

The coaches have set SMART goals for next year aimed at increasing these percentages. After reviewing the data and noting a correlation between levels of satisfaction and contact time with a coach, they are looking at ways to increase those points of contact for more teachers.

Student attitudes: A classroom life survey tool presents 91 statements that students rate on a five-point scale. Seventeen clusters of questions provide information on student attitudes about how they view support from teachers and peers, their preferences for how they best learn (individual versus group), and whether they see the value in working together toward a goal. The data show that students prefer to work together and find value in tasks that require this interdependence.

Career and college skills rubric data: In addition to the academic grade, all teachers rate their students each grading period in four categories: respect, collaboration, habits for success, and time management. This data is printed next to their grade on their report card, and, while not printed on the transcript, it is shared with parents each quarter. The use of this tool in classrooms fosters talk about the importance of cooperative work habits and executive functioning skills prevalent in successful students. (See chart on p. 17.)

Classroom observation data: To provide meaningful and specific feedback to teachers and for program evaluation, teacher leaders need an observation tool that is easy to use. Using iPads or Chromebooks, observing teacher leaders access a Google Form with an observation and reflection tool to collect data that helps us understand to what extent the professional learning has taken root and is blossoming in classrooms.

Sometimes students are involved in collecting and/or analyzing similar data by tracking students exhibiting "encouraging behaviors" or other social skills that a teacher might have previously documented with the class. Students chart this observational data to see class growth on this group goal.

Recent data show that group processing skills is an area that presents challenges. It is easy to run out of time in a class period and not focus on this final component so important in student learning. We will redouble our efforts to help CLEAR teachers make this commitment by more overtly modeling group process-

CAREER AND COLLEGE READINESS SKILLS

Category	#	Skill	S or U
Respect	1	Listening to input from others and accepting their opinions.	
	2	Interacting positively with adults and peers.	
	3	Demonstrating self-control.	
	4	Making ethical decisions.	
Collaboration	5	Participating (and leading when appropriate).	
	6	Providing thoughtful ideas and feedback.	
	7	Encouraging and valuing fellow group members.	
	8	Reflecting on group outcomes.	
Habits for success	9	Demonstrating curiosity by asking questions and engaging in learning activities.	
	10	Persevering in the learning process and seeking assistance as necessary.	
	11	Setting goals, tracking progress, and recognizing improvement.	
	12	Showing attention to detail and striving for accuracy.	
Time management	13	Completing assignments on time.	
	14	Organizing materials necessary for class.	
	15	Attending class regularly and on time.	
	16	Managing time in class.	

Unsatisfactory (U) Needs improvement in a majority of the behaviors.
Satisfactory (S) Meets expectations in a majority of the behaviors.

Source: Maine Township High School District 207.

ing protocols in our work together, collecting classroom observational data during the year for the purposes of study and analysis, and making it a focus of instructional rounds for select teachers.

EMPOWER TEACHERS TO SUSTAIN LEARNING

Six years ago, our team, driven by financial considerations, wanted to know whether cooperative learning should remain a priority initiative in the district. While we have found different ways to understand its positive impact on classroom environments, student achievement, and student attitudes about their learning experiences, the greater value has been in what we have learned about sustaining authentic professional learning by empowering teachers to investigate and evaluate their own instructional practices. The CLEAR Project's future expansion to embrace Hattie's research will involve teachers in making better research-based decisions about how best to help students reach their potential.

REFERENCES

Danielson, C. (2013). *The framework for teaching evaluation instrument.* Available at https://danielsongroup.org/framework.

Sagor, R. (2010). *Collaborative action research for professional learning communities.* Bloomington, IN: Solution Tree.

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