

**Promising Practices and Culture Shifts:
Professional Development in the Battle Creek Public Middle Schools**

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During the winter of 2007, GEAR UP Learning Centers offered a course for Battle Creek Public middle school teachers that combined strategies for data analysis, action research, and conversations on Marzano's teaching strategies. Approximately 40 teachers enrolled in and completed the course, among them two of the middle school principals and one assistant principal. By the end of the course in March, the teachers and the administrators believed in the power of action research to engage and empower teachers, staff and students. The idea of action research as an on-going building-level professional development program for the coming school year became more and more attractive, gathering support from leadership teams, teachers, and central administration officials.

By June, 2007, most of the logistics had been put into place for GEAR UP support of action research (AR) coaches and projects at all three middle schools. At the district level, the curriculum coordinators committed to the project in multiple ways: first, their presence in the buildings would help the evolution of their content teachers' projects by troubleshooting the delineation of variables, helping assess these variables, and provide on-going feedback on procedures. In addition, they also agreed to designate district meeting time for conversations among the teachers. At the building level, GEAR UP and the principals supported AR coaches through release time each day to meet with teachers and departments and further guide and troubleshoot projects.

The first step for all schools was the articulation of department-level goals. During the Spring and early Fall of 2007, GEAR UP personnel met with each departmental team at all three middle schools, supporting the teachers' analysis of both school and district-level data in their fields, merging the conclusions drawn from that data with recommendations by professional organizations, objectives outlined by the School Improvement Teams, and state and national goals. This analysis, then, led to clear student engagement and achievement goals for all departments.

How did we define Action Research?

One of the most powerful components of the action research professional development (ARPD) project was the evolution of the action research process itself. Literature defined action research as an umbrella term for any kind of plan, action, description, review cycle for inquiry into action in a field of practice (Tripp, 2003). The generality of this definition evolved into more specific questions during the 12 week winter course, and in August, GEAR UP personnel presented the basic components of the now specific AR process to all of the middle-level teachers during a 3 hour professional development session. What follows is a summary of each step in that process, along with the questions teachers used to help move their thoughts through the process.

Step 1: Clarifying Your Research Question

The teachers were first to ask themselves five specific questions ~ while keeping in mind their department goals ~ that helped them to focus their work: What exact change do I want to see? What specifically do I want to identify? What steps am I going to go through? How often will I repeat them in order to bring about this change or to identify this unknown? How will I determine whether or not this change has taken place?

Step 2: Identifying Set-up Tasks and Initial Timeline

Once these questions were answered, teachers asked themselves what they needed to do before they could begin the intervention procedure they had just designed. These questions included the following: Ask yourself, what do I need to do, find, or create so that I can begin my intervention or investigation? Ask yourself, by what date will I have each of the above tasks completed?

Step 3: Identifying Evaluation Procedures and Timeline

Teachers then needed to answer the following questions: What are the specific steps I plan to follow in order to make sure my intervention is used consistently? How am I planning to assess whether or not my intervention is working? (i.e., what tools will I use? Test scores? Survey data? Etc.) Do I need to conduct a pre-test before I start the intervention to see where the students begin? If so, what will I use for my pre-test? How frequently do I need/want to gather data in order to answer my research question? On what dates/days am I planning to gather this data?

Intermission

The next point in the process elicited some of the most interesting conversations over the weeks of project set-up. Teachers were asked to identify not only where their initial data came from (baseline data may have come from many places: electronic data storage sites, any information they or their colleagues have “informally” collected in the past, pre-tests given this year, or anecdotal/verbal information they’ve collected from their students), but also what assumptions they held about both that data and the students that provided that data. Questions that provoked the discussions included the following: Ask yourself, what data do I have or do I need that tells me where my students are today with respect to the skill or subject I’m targeting? What am I assuming about this project, my students, and/or myself as a teacher as I begin this project? Assumptions could range from conclusions they think they’ll receive to reasons why they think what’s happening is actually happening.

More than any other step in the set-up process, the idea of the teachers themselves questioning whether or not they really knew what they thought they did brought discussions to a halt initially ~ for many reasons, I think. Partly, they’d never questioned their own practice in just this way. Many others question their practice, and frequently these others gave them the ideas for change. But when given the freedom to change what they were *sure* was the problem, or to try what they were *sure* was a “better” way of teaching and then to justify why their way was, in fact, better, was new. Many times, after prompting them to explain their own assumptions about a research avenue, I’d initially receive a blank look and a return question along the lines of “what do you mean?” Fast-forwarding this a bit, and just for a moment, some of these same teachers were the ones who, at the end of the project, made statements like, “I didn’t see the change I thought I would,” or “this didn’t work out the way I had thought it was going to.”

Step 4: Identifying Research Sources and Reporting Timelines

All teachers were asked to gather external research sources relevant to their topic by their mid-year presentations, which occurred on February 14th, 2008. The number of sources ranged from 2 to 5, and unfortunately, the issue of “relevance” changed during the course of the year and became “supported.” Nonetheless, each teacher or teaching

team did identify other researchers from their field that had reported on some aspect of their project.

The reporting timeline was set by the building administrators in conjunction with the calendar dates for professional development that had been set at the beginning of the year. Teachers were required to turn in a formal research proposal on October 31st. They were to present mid-year reports on February 14th, and then final reports on June 11th. At both mid-year and final, the reports were to be in visual (usually power point) and written form.

One of the most significant problems occurred with this calendar structure. Along with the three days mentioned above, teachers had only one other “official” professional development time set aside ~ the afternoon of January 29th; however, in order to conduct almost all of the action research projects that the teachers themselves articulated, the work needed to be spread out, for maybe just an hour or two (or four) a week, over the entirety of the 2nd and 3rd quarter. An informal survey taken at the mid-year presentations showed that teachers would put in an average of 25 hours more professional development time during the academic year than the required (and calendar supported) 22.5 hours. This is an on-going issue for the district for the coming year.

Step 5: Data Collection

Because of the individuality of each action research project, the data collections occurred at various points throughout the 2nd and 3rd quarter. Some teachers, who were testing specific writing interventions that involved, for example, weekly or bi-weekly mini-lessons, collected data once a week; some teachers, who were testing literacy exposure strategies in mathematics, were collecting data during unit exams; and some teacher teams, who were working with cultural interventions, collected data only three or four times over the course of the 18 week period. The most significant part of this step involved supporting teacher efforts to collect data in a consistent way with a consistent population. For all, though, the data were reported using graphic explanations, and with a few exceptions, without specifically identifying students.

Second Intermission

Over the course of the entire year, a consistently re-occurring theme in conversations with the teachers and teacher teams was the necessary fluidity of action research. Despite an initial conversation on the difference between action research and pure scientific investigations, some teachers, particularly the science teachers, were extremely uncomfortable with the inability to isolate and test one particular variable. In fact, in an informal survey taken at the end of the year, one teacher even wrote, “I am not a researcher and do not prefer to do research. I will read research and apply what is helpful, but I am not paid to be a researcher and do not want to engage” in research. As the year progressed and schedules shifted, school was closed for weather, students and teachers were sick, action research time was needed for “other” content ~ many more teachers became uneasy with their lack of adherence to the specific plan they had outlined in their proposal.

The answer to their dilemma was always, when key components of the plan change, simply note the change next to the relevant component and move on. Then, at the end of the year, ask ~ and answer! ~ these questions: At the end of your project, you may wish you’d done something differently. What was it? After you examine your data, you may want to speak with your students. What do they have to say? As you think back on the year, you see more clearly issues that affected the process. What were they? What I discovered during these conversations was that diffusing the anxiety that came from the teachers themselves thinking they had to get the “right” answer, or they needed to “prove” their hypothesis went a long way toward motivating them not only to continue, but to be accountable to themselves for continuing.

What were some of the Action Research Projects?

Fifty-two teacher and/or teacher teams completed action research projects, and the topics were extremely diverse. Below is a sample of questions teachers developed.

- Will weekly Academic Conferencing during Advisory class concerning assignments and grades help improve proficient scores (A,B, and C grades) of students and decrease the number of D and E grades?
- Will the use of Gizmos increase the 7th grade special education students’ unit assessment scores by 10%?

- Will targeted, consistent use and development of writer's notebooks within the writing class lead to an increase in students' awareness of targeted audiences and reflective writing?

Additional questions focused on identifying the self who teaches, specific strategies to help students feel a greater affiliation with their school, the potential benefits of the continuation of teaching strategies students had used in the elementary school, as well as many more. What follows is a more detailed look at three projects, one from each of the middle schools.

Springfield Middle School

The district has had in place a pacing guide for the mathematics curriculum ~ and has also experienced very low student scores on unit exams. The sixth grade math team, working in conjunction with the district Math curriculum coordinator, decided to explore whether altering the pacing guide by adding six additional days for one of the units would increase students unit exam scores. Both teachers on the team, though, added two additional evaluation components: a pre-and post-test, and a student perception survey. The additional days that were added expanded time for the following activities: working through six specific problems that the students had struggled with in previous years; including an additional day for review prior to the unit test, which included a student self-reflection piece; and including an additional day for reflection/review at the end of two specific investigations. Prior to beginning the project, the teachers set out a calendar that outlined the progress of the unit to ensure that both teachers would stay on the same time table.

At the end of the project, student test scores had indeed increased. In fact, comparing the pre-and post-test data, while only 15 % of the students were proficient/advanced at the time of the pre-test, 45% of them were proficient/advanced at the post-test. The most unique data, though, came from the student perception surveys. The teachers devised a collection of Venn diagrams, one for each of the 5 investigations in the unit. Students were to place a star sticker in one of the three areas prior to taking the quiz for that investigation: on the left, students placed their star if they felt that "I got it!"; in the middle, students placed their star if they felt that they'd "Almost" got it; and on the right, students placed their star if they felt that they "Didn't get it yet!." In all cases, students went into the quizzes feeling that they either had got it or almost got it.

Very few ~ at the most 4 of approximately 30 students ~ approached a quiz not confident they understood the material. At the beginning of the unit, teachers were puzzled by the discrepancy between how students felt about their understanding and their actual performance on a quiz, but by the end of the unit, student perception and student performance came much closer together.

WK Kellogg Middle School

One of the significant challenges for the middle-level teachers in recent years has been understanding the relationship of homework completion rates to increases in test scores. Many times the assumption is yes, and because of this assumption, one WK Kellogg middle school special education teacher decided to investigate this for her special education students only. Her research revolved around determining whether a 90% homework return rate would increase special education students' content math scores.

Her intervention involved giving weekly progress reports to students and rewarding them for returning them signed by a parent/guardian. She also called parents bi-quarterly and provided them with feedback on missing homework. At the end of the research period, she was able to notice little difference in test scores between those special education students who turned in homework at a 90% rate from those who turned it in at a 50% return rate. This result sent her right to additional research, which not only supported her findings, but also explained them. Her recommendation is that the next step is for the school to develop a strong, school-wide homework policy for well planned homework assignments that include expectations, consequences (positive and negative), guidelines and helpful hints to help teachers and parents facilitate their students' self-study abilities.

Northwestern Middle School

The exploratory team at Northwestern investigated whether direct eye contact and a pleasant greeting from a teacher will enhance students' connection with school. Teachers were invited to participate in the survey process, and those who self-identified met with the team to discuss greeting expectations. Each participating teacher agreed to greet each student at the classroom door every day using the

student's name, saying something positive, and smiling at the students. The intervention was assessed with a student survey that asked the following questions:

- I feel like I belong to the Northwestern Family.
- I feel better when a teacher takes an interest in my success.
- I feel better knowing that someone at school cares about me.
- I enjoy having an adult greet me with I enter the classroom.
- I enjoy coming to school.

Students responded with one of these five: always, usually, sometimes, occasionally, never. A pre-survey was administered at the beginning of the 3rd quarter, with a post-survey at the end of the 3rd quarter; a pre-survey was again administered at the beginning of the 4th quarter, with a post-survey at the end of the 4th quarter.

Their data showed that students' responses were consistently more positive in the post-survey, but they also noted several points that may have skewed the data. First, no one was sure that the students' definition of "family" followed the traditional middle-class definition that the teachers had assumed at the beginning of the project. Second, the sample number changed from pre-survey to post survey. Third, they noted that they probably should have provided a written set of directions to all who administered the survey to ensure consistency of attitude toward participation in the survey.

What were our Professional Development Outcomes from the Year's Work?

Change happens. That's on a bumper-sticker somewhere, so it's no surprise. What we've discovered in the first year of action research as professional development, though, is that when the teachers are the change-agents ~ when they are empowered as the experts to question, test, and initiate change ~ levels of community slowly build in a way that includes and supports student, teacher, and administration growth and risk-taking. The levels of connectedness begin with the students, but gradually reach outside the classroom and expand until teachers are colleagues with those in other grade levels, other content areas, other schools. Imagine an ever-widening gyre. At the very narrowest bottom section are the teachers' individual AR projects. Rising from that is the teacher's

professional growth; from that, teacher connectedness across departments, but within the building; and rising from that, teacher connectedness across schools. Communication lines are fluid within the gyre, moving up and down, across and over as needs and ideas require. Powerful, fluid, empowering, and always developing and changing.

Student Engagement through the Action Research Projects

Most of the action research projects focused on increasing student engagement and/or academic achievement. Because of this focus, and I think to a large extent because the teachers were directed to target a specific class/hour if their projects allowed, relationships between the teachers and the students deepened in new ways. In an informal survey taken of the middle school teachers at the end of the project year, just over 60% of those responding indicated that the AR project has been somewhat or very beneficial to increasing student engagement/interest/enthusiasm. According to the teachers who responded to the survey, specific ways in which the project directly benefited students included an increase in self-monitoring learning, allowing students to become more confident as learners, and helping them to accept that they are stakeholders in their own future. As Stephanie Marszalak, the AR coach at WK Kellogg wrote, “Students understood our projects and were asked for a lot of feedback. This gave us a voice we don’t always hear. Students felt like they were working with us.”

The AR projects that focused on increasing academic test scores were also successful. In one project, for example, a math teacher worked with a Spanish teacher and determined that Spanish/English language students’ math quiz scores increased if the students were allowed to have a Spanish translation of the quiz to read along with the English version. In another project, a Social Studies teacher worked with a list of Economics’ vocabulary words and increased her students understanding of these concepts through the use of literature. There are other examples, but overall, by the end of the project year, 55% of the teachers indicated that the AR project was somewhat or very beneficial to increasing students’ success on academic assessments.

The Individual Teacher’s Professional Growth

Individual teacher growth and empowerment seems to have been the area of strongest growth this past year. Most of the teachers who worked on AR projects during the 2007-2008 school year had not taken the data driven decision making class the previous winter. In fact, 41% of the teachers were not at all familiar with action research, and only 22% were somewhat familiar with the process in October. However, by the end of the project year, 62% of the teachers indicated that the project had been somewhat or very beneficial to their instructional approach, and 59% indicated that the project had been somewhat or very beneficial to their personal development and/or processes. One teacher saw the greatest benefit come from watching his/her own growth in conjunction to student growth. Many teachers commented on the great benefits that came from the metacognitive process of examining their own teaching methods.

A new vision of instruction, however, was just one area of growth for the teachers. According to Luke Perry, the AR coach at Springfield Middle School, “This professional development forced us to become the owners of our data, which made us aware of trends within our own classrooms as well as across our grade levels. As a result of this new level of ownership, we have increased the level of our understanding of the trends within our own departments.” And with this increased level of understanding came the recognition that the teachers are, truly, the experts when it comes to their students. As Val Lauer, the AR coach at Northwestern, wrote, “I believe that we are our best experts. We know our students and staff better than anyone from the outside... Teachers truly deciding on what was best for their individual students based on the question asked... was an added benefit. It also allowed us to see that sometimes what we perceive to be fact may not necessarily be so.” And while that was not always a pleasant discovery, it was always personal growth.

Teacher Connectedness Within and Among the Buildings

One of the most marvelous outcomes of the project came in the tremendous increase of building-level communication. When asked in an informal survey “what areas of the AR project has been most beneficial to your school?”, teacher responses included the following: “improved climate,” “everyone talking the same language,” “our connections to and support of one another’s action research,” “participation/ownership of what is happening to the teachers,” and “working with others to achieve the same goals.”

The efforts to achieve this were strongly supported and directed by the building's administration through staff meeting time to give AR status reports, by the work of the AR coaches in sharing information and ideas among departments, and in two of the buildings creation of large progress charts that were in the teachers' lounge all year. As Stephanie Marszalak wrote,

The best thing about AR was the sharing that happened within our building. Not only did we brainstorm ideas within our groups, but we shared them with the whole staff. We actually knew what other teachers were working on and found ways to support each other. After teaming was eliminated this was one of the biggest frustrations in our school. We were isolated and disconnected. AR bridged our islands. We reached out to each other, seeking help, offering support.

The extension of this building-wide conversation involved all three middle schools. Initiatives such as the National Novel Writing Month project that grew out of the AR ELA projects being done at Springfield were supported by teachers from WK Kellogg and Northwestern, and the collaboration on lessons, projects, curriculum reform, and district goals worked across the schools as well. Luke Perry, in fact, even took his students into one of the district's elementary schools to share their writing and to seek constructive feedback from the elementary students. All benefited. His students gained "valuable insight into the strength of their writing skills," and he "was able to see the actual skills of the students that would eventually be coming to me."

For most of the teachers, the most significant benefit from this project was the fact that professional development was teacher directed. In fact, when asked what they perceived to be the benefits of the AR project to the district, responses included the following: "morale, energy, real professional development" and "better morale among teachers regarding professional development. We actually see it as useful." Other benefits included "everyone working toward common goals," "application and reflection on best practices never before used extensively within the district," and "empowerment of teacher as professionals/experts in their respective fields." That sense of empowerment, for one teacher at least, led to this thought: "Professional development is more meaningful and engaging. Individual teachers are stepping up their practice and becoming leaders in the district that may not have otherwise."

Where do we go from here?

At this point, all of the AR team members ~ GEAR UP Learning Centers, building principals, AR coaches, and the central administration team ~ have agreed to continue action research as building-level professional development into a second year. Many questions arose last year that need to be addressed, including what is the role of the district-level professional development time? what constitutes depth in an AR project? what *does* quality professional development look like? This latter question was being addressed at Springfield Middle School during the Spring of 2008. The AR team (Carol McNally, Tammy Schiller, Luke Perry, and Jane Berger) put together a 4 point rubric that helps teachers assess themselves, their own growth, and the growth of their colleagues. The team was to take this to all the teachers for further discussion, but this topic, like the others, needs conversations at all levels ~ teachers, building leadership teams, and central administration.

Another goal is to further develop the lateral capacity across buildings. As Stephanie said, “So many times we look at each other as competition rather than colleagues. Imagine the success we all could have if that changed.” The first element of that change is, of course, the desire to change it ~ and that, at the end of the school year, was clearly evident in all the buildings. For next year, the continued development of a district-wide website that showcases all the teachers’ action research projects will provide a source of information, ideas, and conversation places that will connect teachers, and the frequent meeting of the buildings’ AR coaches with GEAR UP personnel will help facilitate the building of lateral capacity as well ~ and there are probably many more directions for next year that have not surfaced yet. As one WK Kellogg science teacher put it so well, “this action research opened more questions than it answered.” I think that says it all.

Reference

Tripp, David. (2003). *Action Research E-Report*. Retrieved May, 2008
@<http://www2.fhs.usyd.edu.au/arow/arer/017.htm>.