Action Research:
Authentic Learning Transforms Student and Teacher Success

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An overview from a longitudinal ethnographic study illustrates the transformative nature that action research played in the lives of the teachers and the children they taught to read and write. Teacher vignettes from action research reports provide trend data that describe the transformative nature of action research as job-embedded professional development and the impact derived from this form of learning. The data document how teachers were empowered to produce unprecedented gains in student achievement, through the context of learning in their own classrooms, by greater depth of content knowledge, and by new insights into results-based instructional practices. Teacher engagement with action research resulted in authentic learning that transformed teaching and improved student achievement.

Keywords: Action research, teacher success, student achievement, professional development, institutional practices

Introduction

If there is any doubt that classroom teachers can make an impact on student learning by engaging in action research (Mills, 2003), then one only needs to look to the example of Holly Shoemake, a first grade teacher, and the action research endeavors of teachers who followed her example (Elliott & Langlois, 2002). Holly was interested in improving the literacy performance of her rural first graders who performed below grade level. Her success was an impressive record that showed an increase in the children's reading scores from below level to above level from August to May. With the support of visionary school-level and district leaders, teachers from her school and additional schools in her district also engaged in the transformative, authentic learning that action research projects offer as a form of job-embedded professional development. During a seven-year period, these teachers were among the 200 participants in the Early Literacy Initiative Project (Elliott, 2001), a university-based professional development opportunity framed within school improvement which is nationally recognized in *What Works in the Elementary School* (2002), an NSDC/NEA publication that provides examples of results-based staff development programs.

Within the new paradigm of job-embedded professional development (Sparks, 1994; Dufour, 2004), these teachers engaged in action research primarily to explore different methods of instruction that they had been introduced to during an early literacy project's summer institute, and to discover what works best with students in their schools with the bottom line to improve student learning (Senese, 2002; Wood & McQuarrie, 1999). It was within this context that school teams participated in the year-long professional development opportunity, and became involved and eventually empowered by their

own action research. Such an approach is also reflective of the effectiveness estimates as noted by Collins (1999) when viewed in terms of desired outcomes.

This article focuses on the transformative nature of action research as job-embedded professional development and the impact derived from this form of learning. The teachers' engagement with action research resulted in authentic learning that transformed their own teaching and improved student achievement.

Authentic Learning is Job-Embedded

The essential element of job-embedded professional development is that the learning takes place within the context of one's daily work environment (Elliott, 2001; Sparks, 1994). Addressing concerns, problems or questions through action research is highly relevant to teaching and student learning because the context of a teacher's work is primarily within the classroom.

Rule (2006) defined four components of authentic learning: real-world problems that engage learners in the work of professionals; inquiry activities that practice thinking skills and metacognition; discourse among a community of learners; and student empowerment through choice. The job-embedded nature of action research provides a real-world context and the "research" of collecting and analyzing data engages teachers in inquiry and reflection. Discussing ideas and action research results with fellow teachers and publishing findings involves teachers in discourse with a community of learners, while choosing a research problem that affects one's classroom practice certainly empowers a teacher to improve learning and teaching in the classroom. Thus, action research projects constitute authentic learning experiences.

Wood and McQuarrie (1999) identify action research as one of the most common ways to engage in this on-the-job-learning. When the focus is student achievement, action research is a learning tool that results in teachers addressing ways they can improve their practice. Action research was used as a professional development approach to explore different instructional practices and to discover what works best with students in their schools.

Action Research in the Early Literacy Initiative Project

The inclusion of action research as a requirement of the Early Literacy Initiative Project was guided by the revised National Staff Development Council Standards for Staff Development (NSDC, 2001). The standards are divided into three categories: *context* (the organizational environments in which the learning occurs and is implemented), *process* (the means by which it is learned), and *content* (what is learned). Action research is supported by these national standards for staff development, just as authentic learning is embraced through the context, process, and content standards.

Context. Teachers engaged in action research most often conduct the research within their own classrooms, across classrooms or within the school setting. They are not removed from the context of the authentic learning because their inquiry is directed within the context of their day-to-day professional lives.

Process. Action research is data-driven as evidenced by using student data to make teaching decisions and to monitor ongoing progress. Using multiple sources of information to guide continuous improvement in student learning supports the ultimate goal of impacting student success.

Content. Improving the learning of all students is an important aspect of equity as well as of understanding and appreciating the diversity of the learners, nurturing supportive learning environments and holding high expectations for student success. Quality teaching encompasses the deepening of one's content knowledge, research-based instructional practices, and appropriate assessment techniques which are supported through action research (NSDC, 2001).

An Ethnographic Perspective

Based on ethnographic inquiry (Bogan & Biklen, 2002; Kamil, Langer, & Shanahan, 1985; Maxwell, 2004) and my engagement in the Early Literacy Initiative Project as the project director and a participant observer, a longitudinal perspective of the transformative nature of action research is presented here. Over a period of seven years, vignettes from over 200 teachers were selected from seven, academic-year teacher cohorts. Approximately 25 teachers participated in a two-week summer institute, and the following academic year they implemented early literacy practices in their classrooms that were documented through their own action research questions. The teacher cohorts were supported by a site coordinator who served as a literacy coach with frequent visits to the teachers' classrooms and with six, university-based, follow-up meetings scheduled throughout the academic year. This professional development opportunity was a collaborative endeavor of a regional university and the surrounding school districts in the service region.

In this ethnographic study, the culture of the participants engaged in action research was explored and portraits were painted with words from their own vignettes. Teachers' stories of children's literacy learning and their own teaching were transformed by the authentic learning they encountered through action research. The project director's field notes, the individual interviews and follow-up meeting notes over seven academic years, and the various site documents including action research plans and action research reports from over 200 teachers yielded rich accounts of professional development through their initial action research experiences. The vignettes were collected through action research reports and through teacher discourse in the learning communities they frequented (e.g., grade level cohorts at follow-up university meetings). These vignettes consistently highlighted new insights about literacy learning and teaching resulting in greater literacy gains for the students with whom they worked. This longitudinal ethnographic study provides a rich description of the transformative nature that action research played in the lives of both the teachers and children.

The context of engaging in action research was structured within the professional development opportunity that began with a high-quality, intensive, two-week summer institute offering teachers new instructional perspectives. The professional development continued during the academic year with job-embedded practice and on-site school visits by a project coordinator to support the new knowledge, skills, and dispositions teachers had previously discussed. These two major delivery components, the intensive two-week summer institute and the academic-year follow-up and support, provided the professional development framework for a wide variety of contexts and processes, including action research that supported content acquisition and use. Joyce and Showers (1995) indicate that without follow-up, 90% of the initial investment in

staff development is lost. The focus of action research throughout the academic year and the ongoing support for conducting action research provided the kind of follow-up necessary to make an impact. Using the National Staff Development Council (NSDC, 2001) standards as a guide for using action research proved valuable as teachers experienced success in their own teaching and unprecedented gains in their students' literacy achievement. These professional development standards are illuminated through their action research reflections and offer strong support for using action research as a means to transforming teaching and learning.

Action Research Vignettes

Teachers' thoughts documenting their own transformations were reflected in the numerous comments they shared during the process of doing action research and reporting their findings. Their stories told of how they came to view their students' learning and how their practices changed to impact student learning. Vignettes from action research reports provide trend examples of the transformative nature resulting from the engagement of action research. For example, Rosa, a 26-year veteran first grade teacher engaging in action research for the first time, explained at the initial project follow-up meeting how she had been holding her first graders back. She continued that now her literacy teaching had shifted to observing reading behavior. She stated that before her participation in the summer institute, "no one had told me what to look for regarding reading behaviors." Rosa's engagement with action research illustrates the ability to become a more reflective practitioner. It also speaks to the disposition and willingness of veteran teachers to productively engage in the process of action research.

Sally, a former kindergarten teacher, was currently teaching children in second grade when she explored the impact that teaching strategies had on low-progress students. These comments revealed the transformation in her own teaching as she reflected on her teaching decisions and the knowledge she had acquired while conducting action research.

> I will be going back to kindergarten this fall, but my teaching has been changed forever. I know now that you learn to read and write by reading and writing. And that it does make a difference to the learner if one is taught in small groups or whole class. I feel that I really knew my students this year, so I will always make time in my classroom for small group instruction.

A first grade teacher beginning her teaching career selected writing as the area for her classroom inquiry. Ginger stated, "As a new teacher I was faced with many scary questions. However, in my quest to become a better teacher I focused on two of the millions of questions that I had about teaching and student learning. The first question was 'How do I teach first graders to write?' The second question I wanted to address was 'How do I move them toward independent writing?'" Following participation in a year-long, action research project, she wrote these insightful comments in her culminating report.

> In going through this project, I learned that students are individuals and progress at their own rates. They rely on drawing from their personal experiences. As evidenced, some students need more time. They don't need to be limited to a specific time frame.
>
> Now that I have experience writing with my students, I would go back

and pull small groups and focus on techniques I want them to learn. By addressing small groups sometimes instead of the class at large, it would be more beneficial.

This new teacher's comments highlighted classroom issues that many beginning teachers addressed as they took on the sole responsibility of instructional management. These reflections revealed her first-hand knowledge about how students will differ in their approaches to writing.

Through her involvement, the teacher developed a deeper understanding of the notion that students are individual learners, even as beginning writers, and will develop their own writing styles and ways to approach the writing process. Through the action research project, these teaching and learning experiences had enhanced her knowledge base. Decisions about how she would group students for writing addresses some of the questions that all teachers must formulate about grouping based on students' needs. Refinement of pedagogical content knowledge, such as in this example, is the essence of job-embedded professional development that teachers develop over time to enhance their teaching and student learning.

The teacher's comments indicated that she was moving toward becoming an accomplished teacher (NBPTS, 2002) as she analyzed her teaching practices and projects into the future *how* and *what* she would do differently during writing instruction with other students. She acknowledged the authentic experiences that she had with students when she stated, "Now, that I have experience writing with my students…." This reflection highlighted that the authentic learning experiences and job-embedded professional development were important in supporting this teacher's professional growth as she refined her knowledge and

skills toward becoming an accomplished teacher.

Not only teachers with a few years of experience but also those who had been teaching for some time had questions (Bissex, 1987) they wanted to pursue. Pat, a kindergarten teacher interested in more effective writing methods, began her action research by wondering about "… some way to bridge the gap between drawing pictures to express the children's ideas and actually using letters to form words and sentences." She wondered if some of the research-based teaching practices that she learned about through the Early Literacy Project would help her students to become writers of stories and of their experiences. The teacher's comments expressed her initial wonderings and inherent rationale for the action research project.

> For the past five years, I have used journal writing to afford my students an opportunity to express their ideas in written form. I have never been pleased with the results. No matter how well individuals or the class as a whole did in recognizing letters and sounds taught in isolation, I did not see a transfer of those skills into words and sentences. The children were very reluctant to use words and sentences unless they were sure they could spell everything correctly.

The teachers' authentic learning, generated and revealed during the engagement of action research, relates to the daily, on-going cycle of teaching and reflection that effective teachers experience as they monitor student learning. These comments highlight aspects of the learning Pat experienced with regard to pedagogy and content knowledge.

> I have been teaching kindergarten for 17 years. In all those years I have never sent a class to first grade reading and writing as well as this

year's class. I had been looking for that missing link to move the children from just using illustrations to express themselves to actually writing words and sentences. Actually what I have discovered is that there were several missing links.

One of the most important links to helping my students become more proficient writers was using interactive writing. It was the bridge between modeling and independent writing. It gave the necessary scaffolding the children needed until they could use writing skills on their own. It was an extremely effective way to teach letter and sound recognition.

The class that had been exposed to a more balanced approach to literacy had been able to use sound spellings in such a way as to make their ideas more understandable to the reader. I realize now that many of the children got lost from the very beginning because they did not understand how print worked and the gap in their understanding remained throughout the year.

As teachers conduct action research, meaningful professional development occurs because it is authentic. This authentic learning takes place within the walls of their classrooms where student learning improves and transformations occur in teachers' professional growth.

Impact on Teacher and Student Success

Benefits of action research conducted by participants in the Early Literacy Project can be viewed through the impact on teachers and students. Guskey (2000) identifies student learning outcomes

as the highest level of professional development evaluation. Teachers were empowered by engagement in action research through their documentation and results that evidenced student literacy achievement resulting from their own teacher decisions.

When teacher impact data were analyzed (Elliott & Langlois, 2002), categories that emerged were identified as content knowledge related to literacy, pedagogical content knowledge, and assessment as a means of informing instruction. A deeper understanding of content knowledge about literacy as well as pedagogical practices was acquired. Increased knowledge in these areas had a direct impact on student achievement (Elliott & Langlois, 2002). The ability to improve student learning and narrow achievement gaps among low-progress and high-progress learners was realized by teachers.

In January at a project follow-up meeting, Connie, a veteran kindergarten teacher, commented, "My students are reaching letter identification and sound symbol association mastery much earlier this school year than in the past. I believe that the interactive writing is responsible for the early improvement in my test scores. I am eager to find what the end of the school year results will show." Her reflection about the cause of such a new and dramatic change in student learning is a clear illustration of the idea that the most significant changes in teacher attitudes and beliefs come after teachers begin using a new practice successfully and see changes in student learning (Guskey, 2000). Teachers overwhelmingly acknowledged their newly acquired knowledge and skills and their impact on student achievement.

Each year 90% or more of the teachers participating in action research projects reported that they used more

effective teaching practices and documented greater student literacy gains than in previous years (Elliott & Langlois, 2002). Student achievement was documented by pre-post assessments on letter identification, word identification, concepts about print, dictation tasks, writing vocabulary tasks, text reading, and writing samples (Clay, 2002). Each academic-year, teacher cohorts collected pre-post literacy measures in August and May. Running records of oral text reading were used throughout the year and collected pre-post through the Developmental Reading Assessment (Beaver, 2003) or another district level assessment measure.

The majority (82%) of the students who were identified as children making the greatest literacy gains were identified as the low-progress students. Each year, the low-progress students, when compared with average-progress and high-progress students, consistently made the greatest gains in literacy achievement. Approximately 70% of all children made gains on two or more measures of literacy achievement and 100% made gains on at least one measure of literacy achievement. Achieving such instructional goals invoked teacher efficacy and empowerment.

Through action research, Holly Shoemake's impact on student success made a ripple not only in her school but also throughout the school district. One teacher's success empowered others to strive for similar successes. While Holly was representing her school on a three-member district team, she was also sharing her students' successes with other first grade teachers at her rural elementary school. Sharing new instructional practices at grade level meetings, collaborating across grade levels, and receiving on-site visits by an early literacy coach were opportunities for others to learn more about the PK-3 professional development opportunity.

However, it was the action research results that she shared about her students' increased reading achievement that sent a team of five from her school to participate the next year. The second year successes from the larger group stimulated additional interest from colleagues at a neighboring school in hopes that they would achieve the same results with their students.

The following year a team of three teachers participated from Valverda, another school in Holly's district. These teachers expressed that they wanted to have the same kind of success with their students. The Valverda teachers and their students have now experienced that success. As teachers share with each other in their school and across the district, the impact moves from affecting a few teachers in a school to making an impact on students and teachers in the district.

Wood and McQuarrie (1999) acknowledge that teachers, such as Holly Shoemake and her colleagues, who conduct action research, will be empowered to improve their professional practice. Teacher empowerment became a product of the transformations that were taking place related to teacher and student success. Through action research teachers noted the following about their impact on student literacy learning:

- Literacy achievement was evidenced through pre-post assessment and action research results.
- Low progress students identified as needing special services made gains during the year that prevented retention or the need for special education services.
- Kindergarten students' concepts about print developed.
- Students made greater progress than in previous years.

- Student growth was attributed to their improved literacy teaching, to challenging their assumptions about what children can do, and to their increased knowledge of early literacy content.

After the year-long action research project, teachers realized the importance of documenting student growth over time through pre-post measures. One teacher's comments about her action research spoke to this new understanding.

> The action research plan has brought lots of questions to my mind. I have found that doing this project has made me focus and look beyond the results of my assessment. I am actually adjusting my methodology to results of my assessment. I always knew that it was the best thing to do but I didn't have the time. I make time now to analyze the results because my instruction is driven by my assessment.

For the majority of teachers, it appeared that now they fully understood the concept of assessment informing instruction because they had seen the impact in their teaching through improved literacy achievement, even for the lowest-progress readers and writers.

The ultimate measure of the effectiveness for any professional development endeavor should be directly based on student learning outcomes which are considered the highest level of evaluation by Guskey (2000). The Early Literacy Initiative Project is considered to be an effective professional development endeavor, if and only if, there is documented evidence of student literacy achievement. For the seven years the project was implemented from 1997-2004, effectiveness was documented through multiple measures

of student data and teacher action research reports. Until student learning outcomes become the norm for evaluating all professional development, we will not be doing what is needed for improving student learning.

Conclusion

Action research involves educators in the process of identifying questions that they want to explore in their own classrooms to improve their practice and achieve student success. They become empowered through their newfound knowledge as they explore their own questions and begin to see the impact of their decisions on student learning. Valuable insights into one's own practice are realized and teaching is transformed resulting in teacher and student success.

Classrooms provide the context for engagement in the process of inquiry through action research. Job-embedded professional development such as action research supports authentic learning and offers educators valuable insights into their practice. Teachers self-report that they have learned more about effective instructional practices that directly impact student literacy performance through their inquiries. The success that these teachers experience is often shared throughout the school and district as powerful transformations in teaching and learning occur for students and their teachers.

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