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Supervisor Facilitation of Action Research: Fostering Teacher Inquiry

Rachel Solis
rachel.delane@gmail.com

Stephen P. Gordon
Texas State University, sg07@txstate.edu

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Supervisor Facilitation of Action Research: Fostering Teacher Inquiry

Abstract:

This study was conducted at a Central Texas private school that offers a full curriculum exclusively for students with dyslexia. A supervisor facilitated fifty members of the school's teaching faculty as they engaged in voluntary, long-term action research at the individual and team levels to address authentic problems of practice. The study examined the types of inquiry undertaken by the teachers as well as their perceptions of the supervisory support for, impact of, and ways to improve action research at their school. The authors conclude that the supervisor facilitating action research needs to provide ongoing support to teachers engaged in the research, while emphasizing the need for a systematic approach, data-based decision making, continuous cycles of reflection and action, and collegial dialogue among teachers.

Although the precise definition of teacher action research varies from author to author, there is general agreement that it involves teachers identifying an issue or question relevant to their practice, gathering and analyzing data on the issue or question, and changing their practice based on the results of their inquiry, with ongoing reflection throughout each phase of the process (Hines & Conner-Zachocki, 2015; Nolan & Hoover, 2011; Zepeda, 2012). Lewin (1948), acknowledged by many as the originator of action research, saw the action research process as a continuous cycle of planning, action, evaluation, revision, action, and so on. McBee (2004) summarizes a rationale for action research:

Action research is based on the notion that schools should function as centers of inquiry, and on the idea that increasing the openness, curiosity, and willingness to try new approaches on the part of teachers and schools will increase the quality of educational practices. (p. 53)

Levels of Action Research

In the most general sense, teacher action research can be classified as individual, collaborative, or schoolwide (Calhoun, 1993), but disagreements about how we define these categories as well as overlap among the categories tend to blur these distinctions. For example, the term "collaborative action research" has been defined in different ways, with some scholars defining it as a small group of teachers collaborating in action research with a university professor or staff developer (Calhoun, 1993), and others describing it simply as a group of teachers collaborating on the research (Tragoulia & Strogilos, 2013).

Additionally, there is considerable overlap across the three categories. Regarding individual and collaborative action research, for instance, Solis (2015) reported on a collaborative group of teachers who, as a group, assisted each other with and reflected upon members' individual classroom research. Gordon (2014) described a collaborative group of six teachers who worked together to choose a new approach to reading, with each teacher in the group conducting individual classroom action research on a different teaching strategy, and the group as a whole reflecting on and using the results of the individual projects to choose strategies to be tried out by the entire group in a second phase of the action research.

While Gordon, Stiegelbauer, and Diehl (2008) describe schoolwide action research as a single project with a schoolwide focus in which all of the school's teachers are invited to participate, other models of schoolwide action research blur the lines between small-group collaborative and schoolwide action research. For example, Harris and Drake's (1997) study of schoolwide action research consisted of 13 action research teams, each with a different focus area, with each teacher in the school on one of the 13 teams. Another approach to action research described by Jaipal and Figg (2011) involved a single interdisciplinary team of four to five teachers collaborating on action research on a *schoolwide* issue.

The action research examined in the present study included teachers in a single school choosing either to engage in individual action research or to join a small group carrying out collaborative action research. The action research was schoolwide in the sense that nearly all of the teachers in the school chose to participate in action research, and to the extent that professional development and reflection on the action research were regular parts of whole-school faculty meetings.

Benefits of Action Research

Benefits of action research often reported in the literature include more teacher reflection, an increase in teachers' sense of empowerment, enhanced teacher self-efficacy, and improved teaching practice (Adams & Townsend, 2014; McBee, 2004; Sullivan & Glanz, 2013). Ross and Bruce (2012) found that teacher participation in action research improved their attitudes about research. Teachers involved in action research examined by Vaughn, Parsons, Kologi, and Saul (2014) better recognized the value of viewing teaching through a research lens, developed an increased commitment to meet student needs, became more flexible and more open to new ideas, and became more systematic in their approach to problem solving. Sullivan and Glanz (2013) concluded that action research is a

potential vehicle for both professional development and school improvement. Teachers involved in action research described by Adams and Townsend (2014) gained confidence and enhanced their collaborative skills, with the action research leading to deprivatization of teaching and improved school culture. Finally, in a review of literature on action research, McBee (2004) posits that it can enable teachers to make better instructional decisions, increase teachers' professional status, enhance teacher creativity, and reduce teacher burnout.

Obstacles to Action Research

The benefits of action research described in the literature, of course, accrue only to reasonably successful action research conducted by teachers committed to that success. Obstacles to successful action research described by Gningue, Schroder, and Peach (2014) include teachers not understanding what action research is, believing they did not possess the agency to bring about change, and saying they do not have adequate time to carry out the research. Du (2009) suggests that teachers may consider action research to be an extra burden on top of their teaching responsibilities, and that the ambiguities associated with the research may lead to teacher fear of the process. Since action research is often concerned with improving classroom practice, McBee (2004) notes, teachers may be reluctant to engage in research they believe may reveal weak aspects of their teaching. McBee also sites teacher concerns about taking on the dual role of researcher and teacher, and teacher anxiety that doing action research in a politically-charged area might place them at risk.

Conditions for Success

One line of literature on teacher action research talks about the type of school environment needed to foster successful action research. Gordon et al. (2008) found that a school with democratic leadership and a collective school vision was conducive to successful action research. Teachers in schools that promoted professional learning in general tended to benefit more from action research, according to Ross and Bruce (2012). Other scholarship has focused on circumstances that motivate teachers to embrace action research. Teachers tend to commit to action research when participation is voluntary (vanOostveen, 2017), the process involves shared leadership (Peterson, et al., 2010), teachers are allowed to choose their own focus area (vanOostveen, 2017), and the research is relevant to their teaching needs and context (Adams & Townsend, 2014).

The literature also describes institutional support for teacher action research. Teachers need professional development that assists them to understand

the purpose of action research and phases of the action research cycle, as well as to develop data collection and analysis skills. It is important that a trained facilitator or critical friend be available to assist teachers throughout the action research cycle (Gordon et al., 2008; Peterson, et al., 2010; vanOostveen, 2017). Ross and Bruce (2012) emphasize the need to establish a rigorous process for action research and assure that teachers recognize the importance of data analysis and reflection within that process. The literature recognizes the need for providing teachers *time* to gather and analyze data, design and implement action plans, and engage in reflection and dialogue throughout each phase of the research (Gordon et al., 2008; Jaipal & Figg, 2011; vanOostveen, 2017). Successful action research is sustained over a period of time (Adams & Townsend, 2014; VanOostveen, 2017). And schools with successful action research programs provide opportunities for teachers to share their research with a larger educational community (Gordon et al., 2008).

Teachers assume the role of adult learners both while they are learning how to do action research and while they are engaged in action research, thus principles of adult learning should be followed throughout the process. Gravani (2012) describes principles of adult learning, including voluntary participation, self-direction, repeated cycles of reflection and action, a positive learning climate, and consideration of learning styles.

Purpose of the Study

The purpose of the study was to investigate the inquiry undertaken by teachers involved in action research facilitated by a school-level supervisor, including the teachers' perceptions of the support for, impact of, and ways to improve action research at their school. Specific research questions included the following:

1. What areas do teachers focus on when choosing their own action research topic?
2. What are teachers' perceptions of conditions that support action research?
3. What are teachers' perceptions of the impact of action research?
4. What are teachers' suggestions for improving the action research program that organized the teacher inquiry?

The Research Setting

This study was conducted at a central Texas private school that offers a full curriculum exclusively for students with dyslexia. There were approximately

190 students in attendance at the school and classes ranged in size from two to nine students per class. Participants in this study included the majority of the 53-person teaching staff, with thirty-four classroom teachers and sixteen academic language therapists participating in action research projects.

The Action Research Program

For this study, fifty members of the school's teaching faculty engaged in voluntary, long-term action research at the individual and team levels to address authentic problems of practice. Each teacher formulated an action research question relevant to his/her professional work, collected data to better understand the problem, implemented action plans based on that data, and evaluated results. Reflective dialogue was a staple throughout the process, and the teachers' methods and findings were presented schoolwide.

The action research program was launched with a presentation to the faculty by the supervisor who coordinated the project about the school's professional learning culture and the faculty's collective belief in the value of inquiry as a professional learning practice. At this initial meeting, the supervisor discussed principles of inquiry such as ongoing and intentional improvement, continuous cycles of reflection and action, data-based decision making, and collegial dialogue. The teachers were asked to think about areas of their teaching they would like to investigate to gain a deeper understanding of a self-defined "problem" and make improvements.

Teachers brought their learning goals and improvement ideas to the next monthly faculty meeting to share and discuss. The supervisor described action research as a process of teachers asking well-defined questions about their teaching practices, gathering and interpreting data in a systematic way to answer those research questions, and then using that data to improve their practice (Nolan & Hoover, 2011). With that information in mind, teachers reflected on their professional goals and individual teaching contexts to identify a focus area for their research, and the supervisor worked throughout the school year to support those learning efforts and continually enhance reflective inquiry. The supervisor also facilitated the development of inquiry partnerships, and many teachers chose to work together as action research teams when they discovered that another teacher or group of teachers had similar learning interests.

Between faculty meetings, the supervisor met with individual teachers and teams to address their specific needs as teacher researchers. The supervisor's role during these meetings, based on where each teacher was in the research process,

was to support teachers to clarify their research interests, formulate well-defined action research questions, determine what data to collect and how to organize the data, analyze results, and prepare formal research presentations. The supervisor provided this support through active listening and reflective questioning, and by clarifying teachers' ideas and offering suggestions as needed to facilitate progress with the teachers' action research. For the remaining faculty meetings, the supervisor presented information about the various phases of action research, and the topics for these faculty meetings were selected based on common learning needs that the supervisor recognized during individual and team meetings.

Collegial dialogue was fostered throughout the action research process in several ways in addition to the inquiry partnerships that were established. First, for each faculty meeting, the supervisor included partner and small-group discussions on the action research projects. Guiding questions were provided to focus these conversations, and then teachers voluntarily shared highlights of their action research with the larger group. Second, the supervisor incorporated teacher presentations into the faculty meetings. Based on the overarching topic for each meeting, the supervisor reached out to teachers who had relevant information to share about that area of the action research process, asked the teachers to prepare a brief presentation for the faculty, and worked with the presenters to ensure that the information was on topic and they were ready to present. Third, in the latter part of the spring semester, the supervisor organized an action research symposium, where each teacher presented a summary of his/her action research, and teachers selected the research presentations they wished to attend.

For the duration of the action research program, the supervisor adhered to principles of adult learning by providing job-embedded learning opportunities that were voluntary and self-directed by the teachers; authentic to the teachers' learning needs in terms of readiness, interest, and learning style; and infused with ongoing, individualized support (Zepeda, 2008). Teachers developed research questions and worked through the research process at their own pace. Some action research projects concluded with a teacher's formal presentation to the faculty, while other projects continued into the next school year. The supervisor consistently assisted teachers to understand the importance of this inquiry work being authentic to their daily work as educators, both as a research process and a teaching stance.

Research Methods

There were four types of data gathered: (a) field notes taken during individual and small-group meetings with the teachers participating in the action

research program, (b) a mid-year, open-ended teacher survey on the progress of individual and small-group action research projects, (c) teachers' written, open-ended reflections on the impact of the action research on the school, and (d) an end-of-year, open-ended survey on various aspects of the action research program and the teachers' own action research.

Questions and answers in each individual or group conference were guided by the particular research project and the specific concerns and needs of the teacher or group. The primary purpose of the conferences was to assist the teacher or group with their research, but the supervisor also took detailed notes related to all of the research questions. The mid-term survey asked teachers to discuss their action research question, their status within the research process, their next steps, and what questions or support needs they would like to discuss with the supervisor.

The reflective question on schoolwide effects of the action research was a broad one, with responses primarily focused on the teachers' perceptions of what they believed the schoolwide aims of the program were and the extent to which the action research was addressing those aims. The end-of-the-year survey asked the teachers questions on (a) the value of action research, (b) what the teacher had learned from engaging in action research and how that learning had affected the teacher's professional practice, (c) what the teacher had learned from *others'* action research and how *that* learning had affected the teacher's practice, (d) areas of practice the teacher was considering investigating the following year, and (e) changes the teacher would like to see in the school's action research program moving forward.

Data analysis began with multiple readings of the data to allow the researchers to become intimately familiar with teacher responses to each data collection instrument. Open coding was then carried out on the notes of supervisor meetings with individuals and groups, the open-ended responses to the mid- and end-of-year surveys, and open-ended responses to the question on schoolwide effects. Next, axial coding was conducted within each data set to identify categories related to relevant research questions. Finally, the results of the analysis of each type of data were triangulated to identify cross-cutting themes associated with pertinent research questions.

Results

The headings below correspond to the study's four research questions. We describe results regarding the areas teachers focused on for their action research,

the conditions that teachers perceived as supporting action research, the perceived impact of the action research on teachers and the school, and teacher suggestions for improving the action research program.

Areas Teachers Focused on for Their Action Research

When the teachers in this study were provided the opportunity to voluntarily participate in action research, they selected topics that were relevant to their current teaching situations and learning needs. A majority of participants focused on specific instructional strategies and the impact of those strategies on student learning. These teachers worked on topics such as the impact of reflective questioning on students' ability to problem solve on math assessments, how to utilize students' misconceptions to enhance science lessons, and the effect on student learning when Language Arts and History classes are integrated.

A number of other teachers decided to focus on finding ways to increase student responsibility for learning. Research topics in this area included how to assist students to develop automaticity with technology; the impact of cross-age tutoring on dyslexic students' self-esteem, confidence, and leadership in math; and how to use the Scientific Spelling notebook to facilitate students' independent application of spelling strategies.

Another area of study focused more directly on the teachers themselves as learners and indirectly on student outcomes. For example, one teacher studied the impact that collaborative observations of other teachers would have on his planning and teaching of STEM, and another worked on finding organizational strategies that would support her planning and teaching effective art lessons.

A few teachers studied ways to increase student engagement. Their research focused on topics such as how to get students involved in the final step of the writing process, and the impact of "chat sessions" on students' comfort level and engagement with Chinese conversation.

Finally, a handful of miscellaneous topics included a focus on strategies to encourage inclusiveness among fifth-grade students, the impact of a reward system on classroom dynamics, how dyslexic students demonstrate creative thinking in art class, and how learning centers affect assessment of student learning in music.

Conditions that Supported Teacher Action Research

Teachers reported on the conditions that assisted them to engage successfully in action research. The most important factor for teachers was collaborative leadership. Teachers valued having a designated person (the supervisor) who provided ongoing guidance and support to help them think through ideas, clarify learning interests, formulate research questions, determine necessary data to gather and how to do so, and prepare presentations of their action research work. A teacher described the value of having such collaborative input “consistently and readily available” to her: “It makes all the difference in the world to have [someone] available to sit down and meet any time throughout the process to make sure you are understanding it correctly and walk you through.” In addition to ongoing assistance, teachers expressed appreciation for the “space” that was created by the way the supervisor had organized the program. In the words of one teacher,

I like the encouragement and “permission” to take time to examine my process and find ways to improve it. I am always motivated to do this but don’t always feel like I have the time, but when it is organized and structured, it’s a license to be mindful!

The data also indicated that teachers valued the supervisor’s positive approach to professional development and her openness to everyone’s individual learning process. A teacher reflected on the impact of this leadership approach: “You are flexible with the direction our research takes us naturally, and your leadership has facilitated success for all.” Teachers reported that the supervisor was open to their action research going in new directions and allowed time for the process to happen organically. Another participant commented on the value of having positive support: “Change and growth can be scary, but you remain compassionate and positive as you guide us on our journeys, guiding through questions in a supportive and open manner, and providing support and encouragement for all of us throughout this process.”

The next factor that teachers reported as contributing to their success with action research was the program’s congruence with their individual learning styles and needs. One teacher stated, “I like how this doesn’t have to be another job, but a learning experience at my pace.” And another teacher added, “I also really appreciate the flexibility and moderation with which sign-up dates and completion of reports are treated. It could have been an overwhelming experience...instead we were all given lots of encouragement.” Participants felt that the action research process was orchestrated as a learning “journey” rather than being focused solely

on outcomes, and this added to the teachers' experiences of congruence. A teacher captured this sentiment: "It was important that the AR process was not encumbered with timelines and deadlines. This made it a more relaxed, fulfilling effort. It was OK that it was a 'work in progress' even when it came time to present." Additionally, teachers explained that the process was flexible in terms of the duration of each teacher's action research, and for that reason, teachers could "delve farther into a big subject" and "continue research from last year" if they so desired. One teacher described the impact this had on her teaching: "I was able to implement a strategy that I'd believed in for years but never had the opportunity or context to study on a long-term basis." The action research program was also congruent with teachers' individual learning needs because it helped them to address improvement areas of their own choosing in a systematic and intentional manner. For example, a participant explained,

It was valuable to determine areas in the classroom that could be even better by developing a game plan, using some trial and error processes, and exploring and applying good resources and ideas. I think it's great to identify a weak area each year and work on improving it.

Teachers related that this approach to action research made the work valuable and useful because it helped them to be better teachers. Lastly, participants reported that they valued the freedom to investigate something relevant and important to them. A teacher wrote, "This way we can make it be perfectly meaningful to each individual one of us." And a second teacher added that what she valued most was "getting to choose for myself. I have never had this opportunity to really research something in my own practice, and to be able to do so ensured that my interest was piqued and it wasn't simply obligatory."

Another condition that supported teacher action research was the opportunity to share ideas. Teachers expressed their enjoyment in sharing ideas they had discovered, and valued the discussions that happened during and after presenting their action research to the faculty. One teacher related that during her action research presentation she "learned there is an interest from other teachers in my topic, and this AR process has been the needed springboard to move forward!" Participants' responses indicated that they also valued hearing about other teachers' action research and found it to be a motivating and useful experience. A teacher stated that she gained "valuable and applicable knowledge" from the presentations, and another teacher shared her appreciation for "being able to hear how other teachers have experimented with different teaching strategies and resources to cause greater instructional effectiveness." Participants

stated that they benefitted from the research of others and often were able to apply aspects of those research processes and findings to their own teaching practices.

Teacher feedback also indicated that teachers who partnered with a colleague to work on action research valued that collaboration and felt that it supported them to engage more effectively in their action research work. Teachers reported that inquiry partners helped them to stay focused, provided insight and useful advice, and expanded their perspective. A participant wrote, “The direct feedback and idea sharing was very helpful, and brainstorming ideas to address our question was most helpful.” Teachers expressed feeling empowered as they worked together in these partnerships and gained ideas from each other. Additionally, teachers explained that the action research process called for them to collaborate with their coworkers “on a regular basis when we perhaps otherwise would not make the time to do so.”

According to teachers’ responses, an additional aspect of the program that supported teachers to engage effectively in action research was the intentional focus on one specific issue relevant to their current teaching and students. A teacher explained that having such a focus allowed her “to gather lots of reflective data about what was working and what needed more adjustments...so I was able to refine my strategies over and over again.” Another teacher added,

It is very valuable to have a specific thing to focus on. As a teacher, we are always trying to be better and improve. But there are so many things I feel like I could improve on, that it is hard to take specific steps to actually improve. But having one specific focus allows me to take steps to improve on that one thing.

Participants also felt that having a specific action research focus allowed them to explore that area of their teaching much more deeply than they would have without that impetus.

Finally, the last condition that teachers reported as providing support for their action research was the schoolwide focus on professional development. Teachers shared that this professional ethos called for ongoing reflection, a commitment to try new things and continually improve, and being open to collaborating with colleagues about teaching and learning. A teacher shared the impact this had on her: “I valued that the process held me accountable to continue improving my teaching skills, because I tend to forget my practice is constantly changing.” Participants reported that they valued reflecting on their teaching practices, trying something new, and making informed changes. In the words of

one teacher, this professional learning culture “causes us to keep growing as teachers and to be more engaged in the educational process.”

The Impact of Action Research on the Teachers

Teachers were asked to share something specific they had learned from their action research, and how that learning had impacted their professional practices. The impact most often reported was that action research assisted teachers to make changes to a current teaching approach and incorporate new strategies. Teachers shared that engagement in action research led them to focus on improvement, make discoveries about their practices, and modify planning and instruction as necessary. A teacher related, “It helped me become a better writing teacher by understanding the explicit details in writing and implementing them systematically.” Another teacher, who was studying how to make geometry more accessible to her students, stated that her students “retained and related to concepts so much more when we went outside and took time to measure things as opposed to doing the exact same type of problem from a diagram.”

Responses indicated that action research also facilitated changes in teachers’ beliefs and behaviors regarding professional learning and improvement. Teachers shared that they became more reflective and intentional about instruction as they gathered and used data to guide instructional decisions. A teacher explained, “I am better at using data to drive instruction and I am more organized now about how to keep track of that information and the ongoing remediation of student needs.” Teachers added that they also became more focused in their improvement efforts by asking well-defined questions about their practices and using a systematic approach to answer those questions. A teacher wrote, “I valued looking at an aspect of my teaching with a lot of focus and analysis, something I may not have done otherwise.” Another participant shared, “I am glad this is supported at our school because it forces me to be intentional and focused on a specific aspect of my practice during the year.” Several participants shared that a commitment to continuous improvement is crucial. One teacher, who had participated in action research the year prior but did not do so during the year of the study, highlighted the importance of making such a commitment: “Unfortunately, I did not continue my action research from the previous year, and I learned that I must make a commitment to this process in order to continue growing.”

Participants’ written reflections also suggested that action research assisted them to be more thoughtful about the connection between teaching and learning. In the words of one teacher,

Taking time to reflect on my instruction on a regular basis was valuable. When I reflected on my lessons, whether they were successful or not, or somewhere in between, I immediately thought about how to improve them for my next group of students. Change happened pretty quickly.

Teachers explained that they began relating to action research as an ongoing process of improvement, and they looked forward to deciding what they would explore next. They reported that action research helped them to “think about what to focus on,” be “intentional and analytical,” and “take a more critical look at what I can do better each year” to strengthen the connection between teaching and learning.

According to participants, another way that action research impacted them was that it enhanced their understanding of effective teaching strategies and instructional programs. Teachers indicated that they became more aware of how their students learn and which strategies would best address their students’ learning needs. A teacher reported, “The note-taking research raised my awareness about how students process the information that I give them and which information is more likely to be valuable.” Another teacher related that “while learning about different text-to-self reading programs, I learned what types of programs my students preferred.” Teachers’ responses suggested that through the action research process teachers learned what worked and what did not work for their students. One teacher reflected,

I learned that a separate devoted time to Social Emotional Learning (i.e., SEL class once a week) was not an effective way to really teach and implement these skills. I also learned that read-aloud picture books are very useful tools in teaching social skills.

Teachers explained that they gathered and analyzed data about teaching strategies and programs, and used that data to adjust their practices.

Participants’ responses revealed that the action research process also impacted them by broadening their perspectives about their teaching practices and possibilities for improvement. One of the teachers who worked in a small action research group shared that action research provided “the opportunity to look at the ‘problem’ from many different angles and perspectives, and it provided someone to bounce ideas off of and to process with regarding what worked and what didn’t when we tried various strategies.” Another teacher, who also worked in a collaborative group, commented on her experience: “It is always so empowering

to me to work with my colleagues and learn from them. Many new ideas were gained because of this aspect of action research.” Responses indicated that the action research process promoted collegial dialogue through which teachers examined their teaching, learned about best practices, made teaching and learning connections, and received insight and helpful advice from each other.

Lastly, teachers reported that action research impacted their professional identities. Teachers related experiencing enhanced confidence and feeling more professional and prepared. One teacher, who explained that learning more about explicit, systematic grammar instruction had helped her become a better writing teacher, stated that action research assisted her to “not feel overwhelmed and lost, because writing had always intimidated me.” Another teacher shared that engaging in individual action research as part of a schoolwide learning endeavor made him feel like “more of a professional as a teacher.”

The teachers also reported that *others’* action research had an impact on them. The impact most often reported was that teachers learned about and were intrigued by new ideas and strategies they found useful and relevant to their own teaching. Teachers shared that they learned from colleagues’ action research on topics like peer-tutoring, personalizing assistive technology, breaking down writing instruction, using a spelling helper and spelling games, collaborating with colleagues across disciplines, scaffolding questions for students, and designing discovery-based lessons. Participants added that they felt inspired as they learned about new teaching strategies. A teacher explained,

This was awesome, to learn from my colleagues here on our campus! I got great ideas and inspiration from other teachers. For example, one teacher’s ideas for explicit, hands-on writing instruction just for dyslexics was ground-breaking, and I felt so lucky to be given the time and opportunity to hear her ideas.

Another teacher shared,

The teacher’s presentation was very inspiring to see. I liked learning about current research on dyslexia and creativity in youth. At the end of her presentation, she showed a video of her students walking around her room, admiring the art of their peers and making notes of what they saw. The teacher had music playing quietly and the kids looked like professional art curators! What I took away from that is a need in my subject to let kids admire the “art” we are creating.

In some cases, teachers explained that they had already begun to incorporate and implement strategies learned from other teachers' action research into their own practice. One teacher related that his colleague's presentation about scaffolding questions helped him to scaffold questions for his own students. Another participant expressed, "The teachers' use of literature to teach social and emotional learning skills, and focusing on one skill at a time, helped me be more effective in reinforcing those ideas with my primary students." And a third teacher who had noticed that the new strategies she had learned and was implementing were positively impacting her students stated, "I have incorporated one teacher's spelling helper and another teacher's hand gestures into my lessons and have had positive responses from students."

In other cases, teachers reported that they were reflecting on and planning for how to incorporate new learning from other teachers' action research the following school year. A teacher explained, "The teachers' scaffolding process caused me to reflect on a way to plan my note-taking program." Another teacher related that a presentation about teaching vocabulary through drawing picture cards really resonated with her and "provided food for thought." This teacher added, "I wrote [this idea] into my start-of-the-year plans for August, and I hope to start a system with all of my classes for creating art vocabulary cards that becomes part of the students' daily routine in class." And in the words of another participant, "I was struck by the teacher's visual notecards for science classes. I haven't figured out how and when I want to use it, but I would like to have a fun visual representation for some math concepts."

Many teachers also related that other teachers' action research fostered a new way of thinking about some aspect of teaching. According to one participant, being exposed to her colleagues' action research "helped me to think outside of my box and be more open to ideas for my classroom." As an example of such expanded thinking, a teacher who had difficulty letting the students find their own way with a project shared, "Listening to the teacher's work in this area helped me see that it can be done." As another example, a teacher explained, "the personal editing worksheet and the individualized LA folders showed me how powerful tailored resources can be." And a teacher who learned from another's presentation that reward systems can be more work for the teacher than for the students began thinking that "perhaps they can be used at the beginning of the year to set expectations, and then be morphed into something less teacher-driven as the students show ownership of routines and procedures."

Lastly, several teachers reported that their new learning nurtured a desire to dialogue with the teacher researcher who had presented the information, an

effect that had implications at the individual, departmental, and school level. At the individual level, for example, a teacher who had learned about a specific way to utilize a language arts folder stated, “I hope to meet with the teacher before the start of next year to learn more about her individualized LA folders, how she chose what went in the folders, and to see how I could use one in my own classroom.” At the departmental level, chairs saw implications for their departments. The Language Arts chair, for instance, related, “I really liked the format and structure of their curriculum scope and sequence, and I am interested in trying to do something like that for the Language Arts department.” And the Math chair shared her interest in a presentation about creativity: “I was intrigued by the teacher’s work with creativity in dyslexic students. I want to dialogue more about how that might play out in a math classroom.” Finally, at the school level, a teacher who also served as a school administrator found value in an action research presentation that focused on addressing student misconceptions. He reported, “I think this teacher’s topic is so important for all of us. We should all be committed to dispelling the students’ misconceptions as quickly and efficiently as possible. I think the topic of student misconceptions bears further discussion and research within a wider group of us.”

The Impact of Action Research on the School

According to teachers’ written reflections, action research impacted the school in several significant ways. The impact most often reported was that action research improved the school’s professional learning culture. Teachers shared that, as the faculty’s understanding of the research process and their ability to engage in research was enhanced, teachers became more open to exploring learning interests and trying new teaching strategies, found great value in determining a research focus and following a systematic approach for improvement, and began taking informed actions based on research findings. A participant wrote that teachers throughout the school became “better teachers by asking a question, trying various ideas, reflecting on the results, and modifying as needed.” In other words, participants perceived that action research facilitated the development of a school environment of continuous, intentional learning. A teacher stated that the action research process “fostered life-long learning with a view to advancing the profession of education, made goal setting and inquiry a constant piece of our jobs as educators, and achieved the ideal intersection between actual practice and best practice.” Another participant related that a focus on teacher action research encouraged the staff to be more mindful of progressing in their teaching practices, as “there is always room for improvement and new ideas.” Responses indicated that campus-wide action research encouraged and empowered the teaching staff to be teacher researchers, and that the sharing of

research led to collaboration and the “general betterment of the teaching community” at the school.

Teacher responses indicated that action research also enhanced instruction on a schoolwide basis. A participant commented that the research process supported the faculty as a whole to “steadily and meaningfully grow, learn, and improve in an effort to become the most impactful educators we can be.” Other teachers reported that the collective focus on action research helped the teaching staff to intentionally “refine and enhance their craft,” “improve instruction,” and “better understand the needs and interests of our students.” Through action research, participants expressed feeling a schoolwide motivation to further develop professional practices, and to do so in ways that were relevant to their current teaching contexts.

Teachers’ responses suggested that another schoolwide impact of action research was that it improved teacher collaboration. Participants explained that the process encouraged teachers to form inquiry partnerships and share their research, and that through this process teachers realized an opportunity to learn from each other. A teacher explained, “I love the collaborative nature of action research. It has allowed me to learn and grow with my colleagues and think about things in a way I never would have on my own.” Participants reported that action research fostered dialogue among colleagues and a desire to collaborate and build learning partnerships, thereby creating a space where teachers could “work together and learn together.” According to teachers’ responses, the process provided teaching faculty with an avenue for sharing “what they learned and achieved” as well as “gaining knowledge and insight into professional practices of fellow teachers.”

Another theme in teacher responses was that action research improved teacher reflection across the campus. Teachers reported that the process fostered reflection on their practices in terms of “what works, what doesn’t, how we can improve, and how we can push ourselves for the betterment of our students.” Participants shared that the reflective nature of the work helped the teaching staff to clarify their purpose and learn more about themselves as educators. A teacher related that action research assisted teachers “to actively think about how to improve in their profession.” And another participant explained that action research assisted faculty “to deepen the practice of teaching in a mindful way, and get beyond the day-to-day routine,” equipping them to use reflection to make informed changes.

The last schoolwide impact of action research that participants related was that it fostered a collective focus on student learning. Teachers wanted to develop their teaching in meaningful and significant ways to impact student learning, and this result was evident throughout all the other areas in which action research impacted the school. In all of these areas—improved professional learning culture, improved instruction, improved teacher collaboration, and improved teacher reflection—participants reported that they used action research “to actively seek to understand” their own teaching in order “to implement best practices for their students.” In the words of one teacher, action research helped the faculty “to better understand the needs and interests of the students, and then meet those needs.”

Teacher Suggestions for Improving the Action Research Program

Teachers were asked to share any changes they would like to see in the action research program for the next school year. Most of the responses indicated that teachers were satisfied with the process and did not have any suggestions for change. A teacher commented, “Actually, I kind of hope the process is not changed. I enjoyed the actual work as the year progressed, and being able to listen to presentations from my colleagues at the end of the year was really neat.” Teachers shared that they appreciated the realistic and flexible timelines, as well as the freedom to make decisions for themselves about research topics and inquiry partnerships. According to participants’ responses, the process was a positive and enjoyable learning experience.

The desired change most often reported was that teachers preferred the full-day action research presentation format that had been organized the year prior, rather than the shorter presentation sessions that occurred during the final three faculty meetings of the school year during which the study took place. Teachers explained that this end-of-the-day format felt rushed, and it was harder for them to concentrate after a full day teaching. Some teachers also related that they would prefer more time for presentations and deeper discussions, and they would like to complete their reflections on the action research process earlier in the year because the end of the year feels too busy.

Another suggested change offered by some teachers concerned additional support they were interested in receiving. One suggestion was for the supervisor to facilitate small-group workshops on topics like brainstorming research ideas and developing a research question. A teacher recalled the impact that such a workshop had on her action research: “The Specials Department meeting where you came in and asked everyone to share their action research questions

significantly helped me with my question and thinking about the process.” Other suggestions for additional support in the program included assistance finding inquiry partners, follow-up discussions to support implementation of ideas learned during research presentations, and designated time to meet with action research partners.

The last few suggestions for changes were related to programmatic guidelines. Some of the teachers who had engaged in action research with a partner felt that this type of collaboration was essential for professional growth, and therefore they believed that collaboration should be a requirement for all teachers. One of those teachers shared, “I feel that this change would be important because I have seen the benefits of using a collaborative approach with the research in terms of applicability in the classroom and accountability for improvement.” A few other teachers added that it would be beneficial for collaboration across departments to be more explicitly encouraged. Finally, two teachers suggested that action research might not be appropriate for all beginning teachers. According to these novice teachers, though they valued the learning experience, they felt it was difficult to manage with their other work responsibilities.

Discussion

This study contributes to the research on action research in two significant ways. First, it provides us with an in-depth understanding of the conditions that promote widespread, successful action research in a school. Despite the popularity of action research in the literature, the vast majority of teachers do not engage in action research, and those of us who promote action research need to know more about how it is introduced to teachers in a way that they will embrace it. Even when schools do initiate action research, the process is not always successful. For example, Gordon et al. (2008) found that, even when supported by professional development, assistance from critical friends, and external funding, only half of the action research projects they examined were successful. Second, this research details the multiple positive effects of well-executed action research at the individual and school level. The action research projects examined in this study positively impacted the teachers who carried out the research, colleagues with whom the research was shared, and the school as a learning community.

Initial conditions are important to any improvement effort and the school in question already possessed a culture in which professional learning was valued by the leadership and faculty. Ross and Bruce (2012) found that teacher efficacy during collaborative action research was enhanced for teachers working in schools

with a collaborative culture that supported professional learning. Likewise in this study, prior to the initiation of the action research, most of the teachers in the school expressed commitment to reflection, collaboration, and innovation, making the school fertile ground for the introduction of action research. This culture also provided support for the teachers as they implemented their action research.

Another critical ingredient in this success story was the supervision provided to the teachers as they ventured into the world of action research. This agrees with vanOostveen's (2017) study, which found that a skilled and knowledgeable facilitator plays a significant role in a teacher's progress with action research. First, teachers were not only given the choice of whether or not to engage in action research, they were also allowed to choose the focus of their research. The latter meant that they were engaged in research that they considered relevant. Second, the supervisor established a collaborative relationship with the teachers, providing ongoing guidance and support while encouraging the teachers to make their own decisions at key points in their action research projects. The supervisor was able to strike a balance, providing a well-organized program of professional development on action research along with frequent individual and small-group support, while also allowing individuals and teams the space to carry out projects congruent with their learning styles, teaching contexts, and professional needs.

As teachers went through the phases of action research, they perceived themselves as improving their teaching, which increased their commitment to the process, and this commitment to improving their practices through action research was further advanced through opportunities for the teachers to share their research—and their progress—with each other. Collaboration was an essential part of the process in three distinct ways: (a) teachers conferred with the supervisor who helped them clarify their ideas and work through their action research, (b) teachers shared their work with each other which promoted collegial dialogue and provided teachers with new knowledge and motivation, and (c) teachers developed inquiry partnerships that supported ongoing inquiry, an enhanced focus on their action research, and an expanded perspective during each phase of the action research process. In accordance with Adam and Townsend's (2014) study, collaboration fostered an increase in teachers' confidence and collaborative skills, and enhanced their instructional practices. Presenting their research, listening to others present their research, and engaging in follow-up discussions also motivated teachers to continue their inquiry. The teachers who were involved in team action research with inquiry partners reported additional positive effects due to the more extensive collaboration and dialogue that they experienced as part of a group effort.

Three factors that seem to have combined to assist the action research projects were the single, specific focus area the teachers were encouraged to choose, allowance for flexibility in implementation of the action research, and the avoidance of strict timelines for completion of various phases of the action research. Having one focus area emboldened teachers to focus their energy and time on that one issue to make intentional and meaningful changes. Flexibility in implementation meant that teachers could journey through the process in their own individual ways with an understanding that the struggles they experience along the way are a natural and valuable part of the journey. The avoidance of strict timelines reassured teachers that the action research process is truly intended to be an organic learning experience rather than an assignment to complete. These three factors, taken together, enabled the teachers to conduct in-depth exploration of their focus area as well as modify their action plan based on their experiences during implementation. These factors thus allowed for the recurring cycle of planning, action, reflection, re-planning, and so forth called for by proponents of action research.

Traditionally, we have focused on the impact of individual teacher action research on the teacher and her or his students, and of small-team action research on the members of the team and their students. In this study we found that both individual and small-team action research affected not only those engaged in the action research but also other teachers, as well as the school as an organization. Similar to McBee's (2004) argument that teachers' knowledge and practice are enhanced when they are equipped to engage in their own research, teachers in this study reported that they had become more reflective, analytical, and creative as a result of carrying out action research, and these new capacities enabled them not only to consider new teaching strategies but also to study their students' learning styles and needs, to test out different strategies, and eventually to better match teaching strategies to students. Additionally, teachers developed more positive dispositions: they now saw new possibilities for improving teaching and learning, and were more committed to continuous improvement.

The teachers in the study did not just develop new dispositions and teaching strategies from their own action research. They also reported extensive professional learning from other teachers engaged in action research, especially from action research presentations made by others, and discussions held after those presentations. Earlier we discussed how the school's existing professional learning culture assisted with the initiation and implementation of the action research. The positive effects appear to have been reciprocal, with the action research enhancing the school's professional culture. The participants believed that the action research had fostered teacher reflection, facilitated collegiality and

collaboration, promoted teacher dialogue, and improved professional learning and performance throughout the school. Perhaps most importantly, the teachers believed that the action research had resulted in an increased focus on student learning.

The fact that the teachers' feedback had few suggestions for improving the action research program can be viewed as a positive response to the program. Also, the suggestions that teachers did make—more assistance with selecting focus areas and research questions, more time for research presentations, more follow-up discussions and time slots to meet with research partners—were about expanding participation in the program rather than reducing it, additional indicators of the program's success. Perhaps the most interesting teacher suggestions were for more team research and a move to cross-department research.

Recommendations

Recommendations for Practice

Our first recommendation for schools considering action research is to consider the school's professional culture. Although teacher action research can improve a school's culture, it seems that for action research to gain initial acceptance the faculty needs to possess threshold levels of collegiality, desire for professional growth, and willingness to innovate. If these threshold levels are not present, the supervisor may wish to spend time and attention on culture-building activities that will promote these qualities before introducing action research. As with other school initiatives, the assessment and development of readiness is a critical first step.

It is important that a supervisor with expertise in action research be assigned to facilitate the school's action research program. The supervisor also should possess strong collaborative, interpersonal, and group-process skills. The supervisor coordinating the program needs to provide ongoing support to teachers engaged in action research, while emphasizing the need for a systematic approach to the research, data-based decision making, continuous cycles of reflection and action, and collegial dialogue with other teachers.

Professional development for teachers engaged in action research is probably best provided using a "just-in-time" approach, with information on and discussion of different phases of the action research (selecting a focus area, identifying a research question, data collection and analysis, action planning, etc.)

immediately preceding the initiation of each particular phase. Professional development needs to be continuous and provided at the school (in the case of this study, at whole-school faculty meetings), small-group, and individual levels.

A critical aspect of successful action research is that of choice, both in terms of whether the teacher participates in the program and what the teacher chooses to investigate. This, of course, does not exclude teachers being encouraged to participate in action research or being provided guidance they request regarding choices to be made along their action research journey. It should not surprise the reader that, when given choice, most of the teachers in this study chose research that focused on their instructional practices. It is only natural that teachers would find research focused on their classroom practices to be the most relevant to them. One issue teacher choice brings to the forefront relates to the call of many members of the school reform movement to focus on schoolwide improvement goals. It is interesting that, even though all of the research carried out by teachers in this study was based on individual or small-group concerns, there were a variety of schoolwide benefits, including outcomes associated with school improvement in the literature. One way to balance the need for schoolwide goals with individual and team goals is to set broad school improvement goals, and allow teachers and teams to set their own action research goals provided they can articulate how those research goals will contribute to the meeting of school goals.

Another recommendation is to provide maximum flexibility to teachers conducting action research. Teachers seem to be more successful with action research if they are allowed to proceed through the phases of the research at their own pace, and if they are given the freedom to revise their action research as they proceed. Group support also seems to be important. In a team that is collaborating on the same action research, the team members provide mutual support. However, we recommend that even teachers carrying out individual action research be grouped with other teachers in collegial support groups to share their data, plans, and results, and to engage in reflective dialogue and collaborative problem solving.

It also seems that it is important for teachers to share their action research with a larger group of educators, perhaps in schoolwide meetings. Presenting one's action research requires a teacher or group to articulate what they have learned and how they have grown. Such presentations can also become the basis for dialogue among teachers concerning each other's research, and opportunities for small-group dialogue should be interwoven with large-group presentations. Such dialogue may well lead to continued dialogue and future collaboration

beyond the structured meetings. As was the case in this study, teacher presentations and professional dialogue on different action research projects may lead to teachers testing out new instructional strategies in their classrooms that were introduced to them through others' action research.

Our final recommendation for practice is that action research in schools should be viewed as an ongoing program rather than a short-term project. This will happen naturally when action research is successful. The types of action research conducted and the collaborations may change; for example, in this study some teachers were considering moving toward cross-department action research. The ultimate goal of action research, however, remains the same: to develop an inquiring, reflective culture focused on the continuous enhancement of teaching and learning.

Recommendations for Future Research

One topic largely absent from the extant research is readiness for action research. Studies are necessary on specific conditions present in schools ready to engage in action research, and how those conditions can be developed in schools lacking readiness. Other recommended research concerns the several different types of action research described in the literature. The pragmatic action research examined in this study seems to have been well matched to the teachers and the school culture, but are there other types of action research—lesson study, appreciative inquiry, equity research, and collaborative autobiography, to name a few (Gordon, 2016)—that might be better matches for other schools, groups, or individual teachers? The question of the best matches of different practitioners with particular types of action research could open up a whole new line of inquiry.

The changes in instructional practice described in this study were based on self-reports. Other studies could attempt to document such change through classroom observations or review of classroom video recordings. Likewise, teacher reports of improved professional culture can be verified in future research through observations of work groups, faculty meetings, and other teacher behaviors and interactions as well as pre- and post-measures using instruments developed specifically to measure the quality of the school culture.

The ultimate beneficiaries of action research should be students. Although difficult to do, indicators of increased student learning linked to action research could be identified and tracked. One caution here is that researchers should not rely exclusively on scores on high-stakes achievement tests to measure the effects

of action research on student learning. We agree with Gunzenhauser (2006) that a sole reliance on the high-stakes test can lead to teachers “compromising their educational visions” (p. 342), and with Wiggins (2011) that in assessing student growth, “We should look at whether the student can draw creatively and effectively on their repertoire when handling a novel challenge....” (p. 63). Thus, a variety of indicators, such as students’ behaviors, attitudes, relationships, daily work, projects and portfolios, as well as learning inventories, teacher-made tests, and teacher-assigned grades also could be used to measure both student performance and growth over time.

Closing Thoughts

At the core of this action research program and key to the success of the teachers’ action research was the application of principles of adult learning. Teachers thrived in an environment that recognized and supported them as learners, provided choice and flexibility to ensure that the work was meaningful and manageable for each teacher, encouraged teachers to talk with each other about teaching and learning, and allowed for teachers’ work to be shared with the larger school community. Furthermore, aside from the supervisor who coordinated the action research program, the school did not allocate any additional funds to this program. Action research was job-embedded, and all training and ongoing support was provided in-house. The crux of this program’s development was a focus on establishing a culture of reflective inquiry, and that was possible without exorbitant cost. With agreement that it matters greatly to continually enhance teaching and learning, how can we intentionally promote ongoing and systematic inquiry so that it becomes prevalent in our schools—not just as a practice, but as an educational value we stand by? Establishing a culture of reflective inquiry takes time, it requires that trust be established and maintained, and it necessitates a long-term commitment to the process. When such a culture is established, though, teachers feel inspired to improve, and students benefit from their enthusiasm and deep investigation into teaching and learning. That is a result well worth the time and commitment it takes to make it happen.

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