

Adding Fuel to the Fire: Life and Meaning of Data in a Principal's World

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In this paper a former middle school principal and his dissertation chair look back at the research process envisioned and carried out against the neo-positivist grain aggressively put forward by the government and espoused in school districts across the United States. We revisit the meaning of data and show how they emerged from the paradigmatic stance of action research and came to life via collaboration between teachers-research participants and a school principal-researcher. We provide examples of data that was simultaneously collected and interpreted and served as evidence that the process of action research resulted in meaningful learning, genuine change, and reflective instructional practices.

Dr. Principal Thought That He Was Done

Don: After many months of writing, revising, and revising again, I stood before my dissertation committee presenting my research, which I initially entitled *Action Research as Professional Learning*, ready to close that chapter in my life. It was then that one of my committee members suggested a sub-title: “adding fuel to the fire,” an expression that one of my research participants used to describe action research (AR), and one that aptly captured my dissertation research as well, she claimed. I agreed and complied on the spot, frankly without any deeper thought or consideration for why she made the suggestion. I believe that, at that point, my frame of mind worked on a single frequency: I wanted it over.

Maja: As Don was talking convincingly about his research and work as a teacher, school administrator, and doctoral student, moving effortlessly through the power point slides and video clips of teachers-research participants, I was all invisible smiles. As his dissertation chair, I was excited to see this person, who I worked with for the past two years, being transformed: no longer a student, but a researcher. No longer “just a school administrator,” where “just” implies neither creation nor ownership of the research, but a school principal undertaking research,

understanding it, owning it, giving it back to the community where it emerged. But has it sunk in, I wonder.

Don: Months later, I considered the subtle difference in the title as it relates to the purpose of the data contained within my research. I believed that the completion of the dissertation process was the end of a long and arduous journey, bringing closure to the process of research. I was wrong. The data collected and lessons learned during my dissertation writing process live on, as theoretical frameworks and as tangible differences in my practice as a middle school principal. The data collected was not static information, useful only as a reference to another futuristic doctoral student, but rather fuel. Fuel to add new energy to my ongoing quest to bring improvements to my school for the benefit of my students. Fuel to sustain the reflection and innovation of the teachers who participated in the study. Fuel to support the learning and growth of those who may read and discern the dissertation at some time in the future.

A year later ...

Don and Maja: Using our voices separately and together we – a former middle school principal and his dissertation chair - look back at the research process envisioned and carried out against the neo-positivist grain aggressively put forward by the government and espoused in school districts across the United States. In the current climate of narrowly defined scientifically based educational research that looks for “evidence” while “black-boxing the institutions of schooling, [and] promoting packaged pedagogies that integrate within the neo-liberal reconstitution of schools” (Weinstein, 2007, p. 55), we revisit the meaning of data and show how they emerged from the paradigmatic stance of AR and came to life via collaboration between teachers-research participants and a school principal-researcher. We provide examples of data that was simultaneously collected and interpreted and served as evidence that the process of AR resulted in meaningful learning, genuine change, and reflective instructional practices. We learn, first hand from the teachers – the sources and creators of data - the ways in which that data became fuel for a more engaged practice, the coinage of collaborative conversation, and a renewed sense of excitement around praxis.

Action Research as Framework for Professional Development

A challenge, common for school leaders, is determining how to provide meaningful professional development for faculty that is appropriately matched to current needs and implementing practices that will result in meaningful reflection, discussion, and action. “Professional development as a term and as a strategy has run its course,” exclaimed Fullan (2007, p. 35). “The notion that external ideas alone will result in changes in the classroom and school is deeply flawed as a theory of action” (p. 35). For teaching to take its place as a true profession, comprised of individuals dedicated to learning, teachers and administrators must view themselves as integral parts of the educational system, sharing in the responsibility to bring about improvements. They must feel capable and confident in effecting change within the classroom, as it directly relates to teaching and learning, and their system, as it impacts the network of support and delivery of services to students.

Professional development, however, has not gone away. It still is a part of school life and we argue that it needs to be a deeply valued, inherently expected, and regularly exercised aspect of our identity as educators. The best teachers are internally motivated to provide the best for their students. As Palmer (1998) so eloquently describes, “good teaching cannot be reduced to good technique; good teaching comes from the identity and integrity of the teacher” (p. 10).

What methods or approaches to professional development exist that can meet these expectations? The answer came to Don one evening during the class in which one of his professors shared an overview of AR and the guidelines for a project the class was to complete. As he spoke, Don began to make connections between the theories he had learned and the practical issues he was confronting on a daily basis as a middle school principal. Don had long engaged in reflective practice and become quite skilled at identifying many of the aspects of school life that he wished were different. The struggle was, however, how to identify solutions and long-term systematic challenges. Attempting to fill this void, Don had attended numerous workshops and attempted to implement new practices. Though many of these seemed promising, Don had not moved beyond the investigative stage. He was “tinkering” with changes within the building. As the instructional leader in the building, the fundamental question was how to provide a meaningful learning experience for faculty that would result in both more critically reflective perspectives and innovative yet effective classroom practices. The formal models of AR were new to Don, but he knew enough to investigate further.

With its foundation in solving problems that enable organizations to grow and adapt to change, it is not surprising that educational researchers and practitioners are keen to identify ways in which AR could be applied to schools. Through his seminal work, *Action Research to Improve School Practices*, Steven Corey (1955) is widely referenced as the author who first employed the theory of practitioner research within educational settings. Proposing that practitioners could improve their practices if they based decisions for change and solutions to problems in research they themselves conduct, he articulated the purposes of AR that are relevant today as they were almost six decades ago:

Teachers, supervisors, and administrators would make better decisions and engage in more effective practices if they, too, were able and willing to conduct research as a basis for these decisions and practices. The process by which practitioners attempt to study their problems scientifically in order to guide, correct, and evaluate their decisions and actions is what a number of people have called action research. (p.6)

Almost three decades ago, Kemmis and Carr (1986) envisioned using AR to not only improve the classroom practice of teachers, but to facilitate the critical reform of educational theory and the system of schooling. They felt that schools had become too prescriptive and limiting to teachers and that, as a social institution, the profession of education had become an isolated and self-preserving entity designed to perpetuate current conditions. They described AR as emancipatory in that participants would be freed from the constraints of the organization. In this view, AR is intended to bring about more than superficial changes in practices. Referring back to the 1986, now classical, *Becoming Critical*, Kemmis (2006) lamented the lost hope of AR that could “seize the possibilities for education in the communicative spaces that open each day in the interstices of schooling” (p. 669). Instead, AR has lost its critical edge and become work that teachers do in the privacy of their classrooms. Constrained by multiple federal mandates that downgrade their role to the “educational clerks” (Somekh & Zeichner, 2009, p. 15), being fearful that their job is at risk – and the threat is real - teachers may choose silence over voicing their opinions about the political and politicized nature of their work, accepting the appropriation of AR as a series of prescribed steps to implement government policies (Kinsler, 2010). Similarly, the daily work of principals is inundated with “numbers” – standardized test scores and

assessment measures – to such extents that principals’ views of research fall largely under the traditional category (Fichtman, Tricarico, & Quinn, 2009).

Notwithstanding these trends and concerns, we believe that teachers’ classroom practices could serve as a strong base for a systemic change, especially if this change is supported by the principal in small group collaboration. As Piggot-Irvine (2006) suggests, “adult learning is most effective when it is focused on practical and relevant issues for the participants, incorporates their prior experience, is active, links theory and practice, and is participant led” (p. 482). In such a process, individual participants are empowered to identify and implement changes necessary to improve current practice while enhancing a school’s ability to identify and solve systemic problems. By providing faculty the freedom to select the topic of their investigation, principals actually see increased implementation, long term buy in, and a shared ownership of the process.

But Will It Count? Is It Good Enough for a Dissertation?

Don: Perhaps these questions reflect too many years of principalship encapsulated and limited by the prescriptive interpretations and simplifications of empirical research, but as a doctoral candidate I needed reassurance that my dissertation could focus on AR and rely on data gathered through “collaboration that is contextually-situated, personally relevant, and informed by authentic issues and experiences of leadership practice” (Burke, Marx, & Lowenstein, 2012, p. 113). Like many educational leaders, I had used “data” in many reports written for to the Board of Education. I created tables, graphs, and charts that depicted student growth and achievement as a result of innovative practices and school improvement plans. But these kinds of empirical descriptions were never as powerful as the stories and examples shared from the practice and experiences of the educators. Different types of data existed in the daily realities and living, breathing students who greeted us each day. Can this kind of data be used in a dissertation? Does it count?

Maja: Of course it counts! But then... wait... I must step back. Who does the counting? Who defines “data” and for what purposes? Who will judge your dissertation? To whom are you going to present your findings? Are they going to believe you? (I’m sure the word “validity” will come up as well. Can you tell them why your research is worthy and trustworthy? Can you convince them that your work matters? Are they willing to listen?) Let’s interrogate this notion

that science – scientia or knowledge – is grounded in something that is posited (positivism, got it?). It won't accept speculation or abstract reasoning (forget about Freud then!), but it will insist that the scientists need to study the "given" (in Latin datum or data, in the plural). Michael Crotty (1998) says this. You should read him. And Kathy Charmaz (2008, p. 233) explains well (in an endnote - are you paying attention?) how and why she uses the word data: "It symbolizes (a) a fund of empirical materials that we systematically collect and assemble to acquire knowledge about a topic and (b) an acknowledgement that qualitative resources hold equal significance for studying empirical reality as quantitative measures, although they differ in kind." Does this make sense?

Don: It does, and my dissertation transformed from a research project that would merely sit on a shelf to a dynamic and responsive investigation that would change how I worked with teachers and make differences in the lives of students. I hoped that if I could implement the process of action research drawing on broad conceptualizations of reflective, qualitative data, both my teachers and I would learn and grow and, in turn, develop and engage in innovative and dynamic pedagogical practices.

The Proof is in the Pudding or Here is the Evidence

Don: Although I have never been exactly sure of the connection between proof and pudding, I understand this statement to mean that the power of the investigation lies in the examination of the end product. My school has elected to use the framework provided by the *Partnership for 21st Century Skills*, a national organization, of which my home state is a member. This framework was used to identify essential skill areas that we need to provide to our students and served as the basis for the overarching themes in the AR project. Participants identified an area of concern or need within their classroom as it related to one of the following 21st Century skills: Creativity and Innovation; Critical Thinking and Problem Solving; Communication and Collaboration; Information, Media and Technology Skills; Life and Career Skills; and Global Awareness. These skills and themes gave the participants the structure needed to frame their thinking and connect their individual work to each other and the district's strategic goals while also providing flexibility and room for choice and an ability to customize each project.

My dissertation research was an opportunity to bring the theory of AR into practice and utilize qualitative data to better understand school improvement efforts. My research could become a bridge between my own personal learning and the daily experiences of my faculty and students. I developed and coordinated an AR project with a small group of teachers selected from the school district in which I worked. As a participant in the process, I was able to describe the experience and detail the implications to current practice. The resulting research provided insight into the experiences of leading meaningful professional development through the use of AR projects.

To select participants, I made recruitment presentations at all of the schools in my district during a faculty meeting to describe the project and provide a brief overview of AR. Participants were solicited from active faculty within my school district, including my own building. All members of the project were full time teachers, and as I sought a wide variety of grade level and subject area representatives, no willing volunteers were turned away. Eleven teachers volunteered for participation in this project. Two pairs of faculty elected to work as a team, resulting in nine distinct projects, ranging from kindergarten to eighth grade, school-wide to individual classrooms, special and general education.

Our group met multiple times over the course of a full school year, each session focusing on a different phase of the AR process. By late fall, we were ready to begin implementation of teachers' AR projects, but we needed one more meeting to discuss the importance of data collection and to identify data sources. This step was one that the participants shared they dreaded because of the overwhelming and intimidating word: data. Their perceptions, as were once mine, were only of the formal and sterile variety of data and their associated statistical analysis. Fortunately, by then I was well equipped to share insights about the value of qualitative research and the possibilities it could open. The relational nature of data and the embedded nature of teacher as researcher led itself inherently toward a more qualitative approach. During this meeting, I shared some of the methods that I hoped would hold practical benefit with the members of the group and helped them formulate their plans for data collection. There were some that were naturally tied to quantitative measures such as pre-posttest assessments while others fit more naturally with qualitative methods such as student written reflections, interviews, and teachers' reflective journaling.

The methods employed for my dissertation research included participant observations and semi-structured interviews to gather data on the effects, reflections, and experiences of the participants, including my own throughout each phase of the project. I selected an interview process as my primary means of data gathering as it afforded me the most direct and genuine source of information from the participants. As Kvale and Brinkmann (2009) explain: “Qualitative research can give us compelling descriptions of the qualitative human world, and qualitative interviewing can provide us with well-founded knowledge about our conversational reality” (p. 47).

I was interested in the stories each participant shared about his or her experiences as part of an AR project. In my experience as a principal, I find that teachers have valuable experiences and perspectives on the teaching and learning process, yet few opportunities to hear their voice are afforded. Using a set of guiding questions, interviews were semi-structured, providing flexibility to empower the participants to add their own views. As a principal-researcher I was deeply embedded in the local context, which required me to question and refine my ethical stance and responsibility towards my teachers. It also gave me an opportunity to look at and understand the situations and teachers’ words from inside the school culture and to try to find the meaning in the complex and intertwined stories they told. I was guided by Kvale and Brinkmann (2009, pp. 214-215), who taught me that I could begin with “self-understanding” (what teachers themselves understand to be the meaning of their words), move to “critical common sense understanding” (widening the frame of understanding and focusing on the context), and arrive at “theoretical understanding” (looking for the connection with the literature that guided my research).

The following excerpts from my research reflect the teachers’ perspectives regarding the importance and use of the data they gathered throughout the process of AR. Drawn from the interview transcripts, the participants share the ways that their practice changed as a result of the data they had gathered. In the following passage Molly, a fourth grade teacher, describes the way critical reflection guided her instruction and response to student needs:

If you implement something that you believe in, and you watch how it changes the students you are with, how it changes your teaching, you take that information and tweak stuff, and throw it back in and watch how it changes your kids and changes your

teaching. Reflecting upon it, it's amazing to see how a little decision you make can change you and make you a better teacher.

In the next excerpt, Ann, a sixth grade math teacher, describes how the process of reflection can involve an introspective point of view, with focus on the teacher's behavior even more than the behavior of the students:

I think it is always helpful to reflect on what you're doing and see if you can improve on it in any way and that's kind of what action research is all about anyway. I think it's just about reflection. You're always thinking: Did that work? How can I make it better? And I think you do that anyways, but it's more of an in depth kind of a thing.

Zepeda (2008) suggests that, "As action researchers, teachers can study their practices with data guiding informed discussions as well as future decisions they make regarding their practices. Action research promotes dialogue, reflection and inquiry" (p. 263). Lynne and Jill, a co-teaching pair of eighth grade language arts teachers, seem to concur and explain their beliefs that their reflection as part of the AR process is at the heart of good teaching:

Lynne: From National Board Certification I realized that it is all about reflection. Whatever helps you to be self-directed, at least for me, is what makes me improve. Having something and trying to...not having someone foist something upon me, but to say, do something, stop and think if it worked, try it again, try to improve it, for me, that's what I think is most effective.

Jill: I like doing the action research for professional development because it's not that you go somewhere, hear someone speak for the whole day, then come back and try to figure out how it works in your classroom. Instead you're constantly working on it, throughout your planning and your day. It becomes a part of your planning process.

In these cases, the data "capture" reflection in action and make "visible" the inquiry processes and interpretations and analyses as they are lived. These narratives or data stories are the fuel for

improved practice informing change in the classroom. Another source of data stemming from the AR projects was the conversation and insight gained through our collaborative meetings. Throughout the year, I met with the project participants as a group to reflect on the process. Some shared how they felt the collaboration was helpful because it provided new insight and kept the project at the forefront of their minds:

Therese: I would say that the collaboration and these meetings really brought things up for me. I did start to look at things more carefully, read about it, when they were mentioned in the media.

Ann: I enjoyed collaborating with other people and having them give you suggestions about your idea and you can hear what they are doing.

Claire: It's just really interesting to hear about what's happening in all of the different buildings and seeing how it does all connect.

These conversations became the curriculum for our AR group. As Pinar (2004) argues, teaching is often misunderstood as behavioral skills; however, teachers should be participants “in a school curriculum as public conversation, as intellectually engaging the school community” (p. 230). Collaboration occurs around these conversations as they lead us to new information, new insights, or new actions. Caroline, another first grade teacher, summarizes the power of teachers collaborating and supporting each other. In her response, I can hear the isolation and difficulties that teachers often feel in their daily work:

Every time teachers get together, so many times throughout our day we don't have time to talk to each other, we're just on the run and the fly. Now any time you do get together with a group of teachers and start talking about what you're doing in your classroom, it's always exciting to hear what people have to say. You learn so much from their ideas or something you haven't tried before. It's just a wealth of information just being together.

This sentiment is too often seen as a secondary benefit from collaborative processes. As Clauzet et al. (2008) suggest, however, these collaborative conversations are at the heart of meaningful change and should be celebrated, facilitated, and even encouraged. Whether through an AR project or in any other professional development model, principals would be wise to heed this advice and provide ample opportunity for collaboration and conversation as it is fuel for deep learning.

While I was pleased that the teachers who participated in the AR project felt supported, motivated, and empowered to bring about changes in their classrooms, my true passion is in creating a dynamic learning environment for faculty. If AR leads only to an innovation or a new approach, there will be benefit for the short term and the students directly affected. But if we, as a learning organization, can create the culture in which teachers and administrators embark on meaningful research and reflective practices, then we will serve the needs of the present and future. We will develop a responsive and flexible system that can more readily adapt and change to the needs of our students and community. To that end, the participants shared their reflections about the AR project as a learning experience. Maria shares the benefits she sees in AR compared to traditional models of professional development:

I think that it's night and day, actually, because it's self-directed yet with the assistance of a lead person and peers. So you have a challenge, so it's definitely based on ... it's almost like the brain-based learning, where you're invested in something, you now have a procedure for going and doing the research. And what I really like about it is that there is no right or wrong answer, you can stop and veer left or veer right and it's OK. It's not prescribed, it's evolving, ever growing. It's still growing. You know, I've changed a lot of things, but I'm still looking. I think it's a good program, but I've adapted it for my own.

Jessica, a second grade teacher, builds upon the notion of prescribed learning experiences for teachers and shares her views about why most professional development activities fall short of fully engaging teachers:

I think because of the limited choices. We're doing technology today and some people are probably not that interested in technology or maybe haven't learned so much or done so

much with the students. So for them, it's great for them to learn technology. But I think some other people have already used all of the resources that were available and they've "been there, done that". So you just kind of sit there for the day and hope that you pick up something new because you can always learn something new. But you can learn a lot of new things or one or two new things in a whole day.

These conversations caused me to reflect upon the difference between idea generation and mindful learning. While there is benefit to hearing an expert provide new information or provide motivation for change, the examples shared here seem to imply that there is limited utility for long-term change or learning. Research suggests that professional development must include more than the presentation of theory or new ideas, but speak to embedded practice and developing a sense of community (Draper et al., 2011) and is focused on learning and teachers' decision-making rather than training (Cohran-Smith & Lytle, 2009). Lynne and Jill discuss the balance required between presentations or workshops with "experts" and deeper learning:

Lynne: I still like hearing the experts. I do like that. I kind of miss that sometimes. I don't think that it should all be every single minute driven by us, if we can find the right people who can guide us, lead us in the right direction. I think that should be a piece of it. But yes, there is a lot of that. And sometimes the person you have to sit and listen to is no good, or don't have anything to say that would benefit your classroom.

Researcher: So that does not necessarily result in professional growth or professional learning?

Lynne: It might be good, but it may not be relevant to what you do or you don't see the connection. I guess that may be the difference between the learning and the growth.

Jill: You may not be able to learn from everybody or grow from every presentation you see.

In their foundational work, *Meaning*, Polanyi and Prosch (1975) present a philosophical argument for balancing “objective knowledge” and “personal knowledge,” indicating that we all make meaning of our world based upon personal experiences. It is this foundation of personal knowledge that resonates so deeply with the participants in this study and stands in stark contrast to the experts sharing their “objective” knowledge. In this study, participants found that making sense of the dynamics and conditions of their own classroom had a significant impact upon their development of personal knowledge. Jessica explains the benefit of AR because of the personalized nature of the learning:

I think I got a lot more out of this because it is something that I’m interested in and something that I didn’t know starting out too much about. I didn’t know how to tackle it, kind of learned through watching the reaction of my students on how I started it at the beginning then kind of tweaking it. So I think I got more out of this than our scheduled workshops because sometimes the scheduled workshops are something you know almost everything about. Sometimes it’s things you’re not so interested in and there’s not a lot that you learn there and can bring back to the classroom to try. Where the way you came up with the questions and helping us define what we’re going to do...the way I started and the way I ended was absolutely not the same because looking at the students and how they react, it made me more aware that that is what we really need to do. It doesn’t really matter what we’re told to do, ultimately, it’s how the students react to how we’re teaching.

AR is an intentional model of learning and inquiring. It is cut from the same cloth as a constructivist model of education which engages students as active learners. Sparks and Hirsh (1997) draw a connection between models of staff development and classroom practice:

The implications of constructivism for staff development are thus quite profound and direct: constructivist classrooms cannot be created through transmittal forms of staff development. Staff development must model constructivist practices for teachers... Rather than receiving “knowledge” from “experts” in training sessions, teachers and

administrators will collaborate with peers, researchers, and their own students to make sense of the teaching/learning process in their own contexts. (p.11)

The participants' responses provide insight into the process of action research as critically reflective, empowering, supportive, motivating, and an effective learning process that results in meaningful change.

“So What? So Let’s Dance!” – Caddyshack (Where Do We Go From Here?)

Participating in an AR project enables the principal to remain grounded in the realities of practice. Rather than standing on high and only directing others, modeling and engaging in research demonstrated a shared commitment to continuous improvement and professional growth. There was room in this process to refine the experience for faculty and customize the process to the building. When enacted in our school, we found AR at once structured and flexible, prescriptive and fluid. The following model represents our view of the application of AR as a professional learning experience:

Figure 1: Application of action research as a professional learning experience



The collaborative process that shaped this research was an interplay of developing and sustaining a culture of professional reflection, providing administrator engagement and support that enabled teachers to have a sense of empowering choices, which in turn, build a fertile ground for a meaningful professional development. This model is suggested not as rigid steps to be replicated, but as a starting point that will be shaped and transformed by the immediate context and intricacies of a given life in schools.

Maja: And now onward and outside the walls of the institution that guided and protected you, where “peer reviewed research” was known mainly as an abstraction. By engaging in this research, I hope you became wise(r) but not hopeless in the face of educational reforms that you with your staff and teachers live every day and which Ayers (2012) calls the “rubble and ruin and wreckage.” These reforms are “turning over public assets and spaces to private management; dismantling and opposing any independent, collective voice of teachers; and reducing education to a single narrow metric that claims to recognize an educated person through a test score.” Will you have the energy and will to sustain the space created in your school?

Don’s Post-Scriptum

After taking a “post-dissertation” break from thinking about data and AR, I found myself sitting in my office planning and preparing for the professional development offerings for my faculty during the upcoming school year. And although I knew I was in for some good natured ribbing from my colleagues about using my research so that it “didn’t just sit on the shelf,” I was compelled to action by the encouraging results and data I gleaned from the dissertation writing process. I knew that implementing AR as a professional development process resulted in the kind of deep learning and reflective data that led to meaningful change. It was the kind of fuel that would feed the fire and drive of my faculty to improve instruction and the daily experience of our students. It was inevitable. I stood, therefore, before my faculty at our “Back-to-School” faculty meeting and began, “Some of you may recall that last year I completed my dissertation on the process of action research as professional development. Well, have I got a treat for you.”

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