

# LEARNING BY DOING: AN ACTION RESEARCH-BASED PEDAGOGY

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## Abstract

*This article examines how a group of seven post-graduate students, enrolled in an action research course, improved the structure and the content of the course by helping make it truly participatory and hands on. Participants expressed to the instructor their desire to learn action research by doing it. Action research became the pedagogy as the course itself evolved into an action research project.*

## Introduction

In summer 2008, the education leadership program in our college offered "Action research for school district leaders" for the first time. The course was designed for students who had already graduated from the School Building Leadership program and wanted to pursue a second certificate as School District Leader. Seven eligible students enrolled in the class.

The class included two African-American women, two Caucasian women, one Guyanese woman, one Caucasian male and a Philippino male. These students represented 40 years of combined experience in school administration and classroom teaching. They held the following positions: a high school physical education teacher, a high school math teacher, a senior class advisor, a youth development counselor, a literacy coach/staff developer, a speech-language pathologist, and a pre-school special education coordinator.

The students met in a small room with an oval table circled by comfortable cushioned chairs. The physical setting of the room enabled an easy flow of conversation as students faced one another. The instructor sat at the table with the students except when he needed to use the chalkboard. During these 'lecture and chalk' intervals the instructor began to question his role and that of his students: "How can we make this class more participatory and hands-on within this restricted amount of time?" he asked. He instructed the students to get into small groups and come up with suggestions. Students discussed the matter and proposed to the teacher that they learn action research by doing it. Action research became the pedagogy as the course evolved into an action research project.

## Literature Review

Action research is a process of systematically reflecting on individual/group teaching practices using research methodologies (Watts, 1985). Action research falls under the broad umbrella of professional development in that the activity allows teachers to choose from a variety of options and design a program best suited to their needs (Gooden, 2003). Through collaborative action research, educators "can renew their commitment to thoughtful teaching and also begin developing an active community of professionals" (Sagor, 1992).

The action research progression is interactive as teacher-researchers construct knowledge (Abdul-Haqq, 1995; Miller & Pine 1990; Williamson, 1992). The process encourages professional development and enhances student learning and achievement through reflective inquiry (Kirkey, 2005). Zeichner (1999) situates the teacher as a learner in his/her own classroom enabling the power of self-study to emerge.

Freire's (1992) pedagogy of hope presents dialogue in teaching as a "co-operative activity involving respect when people worked with each other." This value is grounded in the

philosophy of “emancipation through the empowerment of dialogue”. Students co-create knowledge within the classroom. Their voices challenge teachers to reconsider their knowledge and teaching methods. Cochran-Smith and Lytle (1999) describe how teachers can be proactive knowers, thinkers and co-constructors of knowledge rather than reactive consumers of others’ knowledge.

O’Connor, Greene and Anderson (2007) examined how graduate student-educators along with their instructors worked collaboratively to make instructional changes in their research classes. Daily reflection resulted in the revision, generation and expansion of new ideas in curriculum and instruction. The authors of the study concluded that the interaction benefitted students and instructors intellectually, socially and emotionally. In conclusion, O’Connor, Greene and Anderson contend that when teachers design a study and collect data, they become knowledge producers and decision makers rather than simple consumers of other people knowledge.

### **Method**

Mertler (2006) proposes a four-stage action research method: planning, acting, developing and reflecting. This cyclical process does not proceed linearly (Johnson, 2005). Action research participants often find themselves repeating some of the stages several times or perhaps doing them in a different order.

Before introducing the students to the process of data collection, the instructor briefed them on quantitative, qualitative and critical research methods in the social sciences and spoke at length about the four stages of action research. More important the instructor insisted on the collaborative nature of action research. Heron and Reason (2007) write: “since intersubjective dialogue is a key component in refining the forms of knowing, it is important that the inquiry group develops an authentic form of collaboration” (p. 150). The instructor discussed ownership of the inquiry method so that an egalitarian relationship could develop between the group members. No individual should dominate the group for the inquiry to be truly collaborative.

With this introduction, the instructor spoke about tools researchers use to collect data including observation, survey, interviews, documents, artifacts, video, etc. After this introduction, he assigned students to develop a short interview guide with five questions focusing on the theme of how to make the class more participatory and hands-on. Upon completion, the instructor directed students to interview one another and to record the answers. This trial run exercise took place during class.

On the following class session, the instructor shared the interview questions via a PowerPoint presentation. He answered questions and provided feedback on how to formulate questions, probe and record answers. Participants learned about open-ended, structured and semi-structured interviews.

After the interview guide trial-run participants developed a single interview guide to address the question under study. The instructor suggested that each participant contribute a single question to the interview guide. They then condensed all of these questions into one succinct interview guide. The final interview guide contained six open-ended questions and one structured question (see Appendix A). The participants interviewed each other during a class session using the newly developed interview guide.

### **Data Analysis**

“How can we make this course more participatory and hands-on?” The participants collectively examined the answers to each question, learning how to code field notes in the process. They also learned to categorize answers, discern themes and cluster them. They gathered similar answers and recurring themes. They examined other themes only if they pertained to the main question as supporting evidence. They analyzed question number three using a Likert scale, the tool referenced by the participants.

**Question #1: Would you like to know (via email) if you should begin to think of an action research topic to research so that you can have a topic in mind when class begins?**

Six of the seven students believed that it would be beneficial for future students to think about an action research theme in consultation with the instructor before enrolling in this class. Early notification would allow students to prepare for the experiential component of the class. Since action research requires ongoing reflection, any extra time allocated to a project can contribute enormously to its success.

The student who responded “no” to the question explained that early notification should be a **prerequisite** for summer session classes because of time restrictions, but **not** for action research courses offered in the fall or spring semester. However, the increased time in working on a project during longer semesters enable reflection on a topic students would like to research and build upon as the semester progresses.

**Question #2: How do you recommend making the class more participatory?**

Six of the seven students took classes with the instructor before taking the action research course. They knew the instructor to be engaging, challenging, and, at times, provocative. To their great surprise the first two action research sessions failed to reflect this teacher’s engaging pedagogy and instead amounted to lectures that the students passively received. The instructor noticed this earlier on and turned to his students for help. The course begged for a pedagogical change if the students were to learn action research.

Participants requested more class discussions, increased focus on individual projects, and help with the research process. Specifically, the participants made the following recommendations:

- Open-ended and thought provoking questions
- Discussions of people’s projects and feedback from peers
- Inviting guest speakers to share their action research or inquiry experiences
- Immersion in exemplar action research projects

**Question #3: How important is material review and how important is hands-on application?**

The participants stressed the importance of material review and hands-on work as two key components in making the class more participative and effective. They used a Likert scale (Table 1) to gauge the students’ opinions on these two issues. The scale was 1-5, with a 5 being the highest and a 1 being the lowest in terms of **material review** and **hands-on**. Four students rated material review a 4, one student rated it a 5, and one student rated it a 3. Reviewing material, allowing for collaboration and sharing, they concluded, made the class more participative. This finding reinforced the recommendations made by the participants regarding the importance of sharing and collaborating on materials.

Material Review: 4	Hands on: 3
4	5
4	4
3.5 or 4	Summer: 2    Fall: 5
5	5
3	3

Table 1

The hands-on or experiential portion of the interview yielded the following results. Two students rated it a 5, one student rated it a 4, two students rated it a 3, and one student split his answer depending upon the semester. He rated the summer session a 2 and the fall session a 5.

The scores indicate that the experiential or the hands-on portion of the course amounted to a critical component of the instruction. Unfortunately summer restricts the time allocated to the class sessions and hampers extensive research. This was one of the challenges that prompted the instructor to engage students in conversations on maximizing the learning experience within a limited amount of time.

**Question #4: What are some possible group work assignments that we can take part in that would be interesting?**

The students agreed that group work could be more interesting if they formed groups for their project assignments according to their interests and disciplines. Two students, however, questioned the *role of the professor* in this process. This raised the issue of student autonomy and teacher authority. If the course were to be authentically participative how does one reconcile students' autonomy and teacher authority?

One student believed that the professor should assign the groups and determine which students should work together. Another student felt that students should form their own groups because all topics can be "educationally linked." She mentioned a cooperative work assignment she participated in where students held divergent interests. Nevertheless she surprised herself by the amount of knowledge and learning she acquired from the group members.

**Question #5: How can we assist each other with our topics in class?**

Peer assistance proved to be beneficial in formulating a clearer understanding of action research. Students unanimously agreed that helping one another led to a more productive experience in this course. Learning partnerships allowed for immediate feedback and encouraged sharing between the students. The students also believed that instituting a three-point review system during the course of the semester would allow everyone to share their experiences, discuss their issues and problems, and would foster feedback between the students designing their action research project. The students suggested that there be an outline with a "beginning review" at the commencement of the semester during the first or second class. The second component would be a "midpoint review" at the halfway point of the semester, and finally an end review would take place the second to last class. These intermittent discussion classes would provide opportunities for feedback, learning and clarification.

**Question #6: How would you feel about sharing one of your experiences from the school year regarding a project that you worked on... and can you describe the process?**

This question was designed to address a much broader topic. Many schools in New York City work with inquiry teams. The role of these teams is to examine teaching and learning. They collect, analyze and interpret data and base their teaching and learning decisions on their findings. Some students who enroll in our program work with these teams. They bring to the classroom a great deal of experience.

This question invited anyone who had such an experience to share it with the rest of the class. The students wanted to know what it is like to do research in a school setting while teaching in the same environment. A peer presentation was likely to enliven the whole process of action research.

One student who held a literary coach and staff developer position in her school and worked on an inquiry team made a presentation. She talked about the tasks, processes and challenges faced by inquiry teams linking the notion of inquiry to action research. She talked about the collaborative process and its challenges, the politics within the groups and also the positive aspects of the inquiry process and outcomes on teaching and learning. Her presentation added a new dimension to the course as students heard from a colleague who had hands-on experience with action research.

**Question #7: How do you think your action research project would be beneficial to us as administrators?**

The participants felt that learning the intricacies and complexities of action research was helpful to the students who were becoming school administrators. The students agreed that the hands-on component of action research would serve them well as administrators. Most students who took this class had limited experience with research and felt that the project would enable authentic experience in this area. The students believed that participating in the project would empower them to elicit positive change in the future.

### Discussion

In the beginning of the course, participants wondered whether one *learns* action research or *does* action research. "One does action research in order to learn action research or vice versa" responded the instructor. At the instructor's request students discussed ways the instruction could be made more participatory and hands-on. The instructor readily implemented students' recommendations by providing action research articles, engaging students in discussions, and more importantly giving them time to work on their individual project while making himself available for guidance.

The students and the instructor's roles changed: the instructor became a facilitator and the participants became researchers. Instruction focused on analyzing the process of action research, specifically examining the various steps of action research by inquiring into action research studies, investigating literature review sections to understand the philosophical underpinning of action research, probing into data analysis to make sense of the interpretation and reporting findings. Although most participants encountered action research for the first time, they nevertheless provided excellent advice in making the course participatory and experiential. They become co-constructors of pedagogical knowledge. Their voices inspired the instructor to turn the class into a truly participatory community.

As the class proceeded, participants decided that they would work on a collective project, rather than working on individualized projects. The instructor suggested they write a publishable article to share their experiences of being introduced to action research. They gladly accepted this proposition.

Working on this article brought a new dimension to the class. Writing in committee amounted to a serious challenge. However, the learning partnership created by the students during the coursework endured and mitigated the challenges of the writing assignment. Each member of the class contributed sections to the article. The instructor read the draft and provided constructive feedback to the students.

In a most unusual show of integrity and gratitude, students acknowledged two classmates who went beyond the 'call of duty' while working on this project. This resulted from the learning partnerships created in class where students work together or in small groups. These partnerships added another stage to Mertler's four-stage action research method (2006). These two students behaved as leaders of the group and saw their role as facilitators of the project. This recognition surprised the two classmates and felt that it was extraordinary coming from colleagues. The ability to recognize colleagues and give them credit for a job 'well done' was quite remarkable. A basic trust and a bond developed between the members of this class.

Another benefit that students experienced was the example by the instructor on how to use authority in a positive manner. People in position of authority tend to abuse their power and wonder why people resist authority, discredit it or even outright mock it. Instead of clinging to his academic power, the instructor invited the students to take ownership of the class. The instructor contributed the content knowledge of action research and the students negotiated the pedagogy. The class went from a traditional lecture-based pedagogy to an action research-based-pedagogy class where participants immersed themselves into doing action research.

The instructor benefited greatly from the feedback received from the students. The action research class amounted to a self-study and professional development exercise for him. It

allowed him to identify issues and the change needed in his teaching practice. The process was ongoing, interactive and systemic. O'Connor et al., (2007) write "Action research is the impetus for teachers' change, including changes in their pedagogy, change in their thinking, and change in their confidence, which leads to professional growth and improvement." Action research allows teachers to learn about themselves as they seek ways to continually self-improve (Ferrance, 2000). Action research gives the teacher ownership of their professional development.

The instructor promised to implement the recommendations made by the students the following semester. Although contexts and students would be different, he nevertheless thought that the recommendations made were worth a trial:

- having students think about a project before the beginning of the course with the option of changing as the course proceeds
- sharing and discussing action research studies and learning basic concepts of action research from them
- immersing students in an action research project
- discussing individual or collective projects
- inviting guest speakers to share their action research or inquiry experiences
- instituting a three-point review system during the semester to monitor students progress

As the participants finished writing this article, they realized that doing and writing about their class project allowed them to better understand action research. This exercise engaged them in a process of rigorous self-reflection they never experienced before. They appreciated the knowledge content shared during the coursework, enjoyed the learning partnership, time management and coursework redesign. The students feel that they can now successfully conduct, write, and complete an action research project. This introduction prepared them to use the acquired skills from this class to elicit positive changes in the future as school district leaders.

### **Conclusion**

The instructor sought students' help to make the class more participatory and hands-on. The students discussed this concern in small groups and proposed a set of strategies for a truly participatory and hands-on course. They negotiated the instructional pedagogy, proposed classroom discussions, group work, and conversations about specific action research projects and the inclusion of guest speakers. These recommendations changed the pedagogy of the class from traditional lecture to an action-research based pedagogy where students learn action research by doing and writing about it. They also experienced how to use authority in a positive way.

Time amounted to the biggest challenge. However, within these four weeks, a basic foundation for an action research course was created.

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## Appendix A

### Action Research Survey

1. Would you like to know ahead of time (i.e., e-mail, meet with professor, etc.), if you should begin to think of an action research topic so that you have a topic in mind when class begins?

2. How do you recommend making this class more participatory?

3. Using the following scale, rate the following questions.  
(1 = not important at all, 5 = very important)

How important is material review?

1            2            3            4            5

How important is hands-on application?

1	2	3	4	5
4. What are some possible group assignments that you would find interesting?				
5. How can we assist one another with our topics in class?				
6. How do you feel about sharing one of your experiences from the school year regarding a project that you have worked on? Describe the process.				
7. How do you think your action research project will be beneficial to you as a school district administrator?				

**Biographical Note:**

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