PRESIDENT'S MESSAGE

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Action Research as Alternative Assessment

Over the last few months, an increasing number of initiatives within my own department have focused on action research. These include a tech-focused interdisciplinary studies Master's program, where technology will be featured in both course instruction and through action research projects implemented by inservice teachers who are graduate students in the program. Another evolving focus is on continuing education through professional learning communities in which participants complete several technology-oriented courses combined with an action research workshop. Finally, our department put forward the idea for a Center for Practitioner Research that was quickly adopted by the entire College. The Center's mission will be to "support, promote, nurture, and celebrate the use of practitioner research as a viable means for the enhancement of teaching and learning in schools and other educational organizations …and to encourage collaborative scholarship of practitioners within and across educational institutions" (National College of Education, 2007, p. 1). As I stepped back to consider this growing emphasis, I reflected on three major values of action research: (1) as a way to encourage teacher integration of technology, (2) as an example of data-driven decision making, and (3) in its recognition of the primary role and voice of the teacher as a participant-researcher.

Action Research to Encourage Teacher Integration of Technology. One way to encourage teachers to try out new technologies is to involve them in action research projects (Pan, 1999; Royer, 2002). In advocating for teacher participation in the action research process, Royer (2002) reminds us that "teachers are not yet convinced that computer technology can significantly enhance learning" (p. 1). However, involving teachers in action research projects encourages them to *explore* the use and outcomes of technology in the teaching-learning environment. Pan (1999) emphasizes teachers' active role in the research process, suggesting that we can expect teacher practice to be influenced more through participation in action research than by teachers reading about results from traditional research. Yorks (2005) suggests, "practitioners can contribute to a body of actionable knowledge while simultaneously building their own capacity for performance" (p. 2). Further, through critically reflective practice, teachers investigate not only the connection between student use of ICTs and learning, but more importantly what "constitutes quality teaching and learning" (Ham, Wenmoth, & Davey, in press).

Action Research as Alternative Assessment. Although standardized tests provide a snapshot of student performance at a particular point in time, teachers' daily interaction with students can provide valuable data on context, instructional methods, and performance outcomes. Nolen and Putten (2007) envision a "greater emphasis…on the role of research-and data-driven instructional decision making" through action research by school professionals (p. 405). Although Fullan, Hill, and Crévola (2006) don't use the term action research, their *Breakthrough* model for transforming the educational system relies heavily on the role of the teacher in the *daily* measuring and monitoring of student progress. An underlying premise of their model, however, involves:

> "assessment tools tied to the learning objectives of each lesson…. [and a] method to allow the formative assessment data to be captured in a way that is not time-consuming, to analyze the data automatically, to convert it into information that is powerful enough to drive instructional decisions…tomorrow." (p. 80)

Although teacher identification of individualized "Critical Instructional Learning Paths" confirms the essential role of the teacher in designing effective classroom instruction, Fullan, Hill, and Crévola's vision for daily data collection and analysis may seem unobtainable. However, programs such as *Smart Music* (http://www.smartmusic.com/) provide a glimpse of time-saving data handling that will be possible through the use of innovative computer programs.

Teacher action research also provides an opportunity for triangulation of data sources, enabling comparison with standardized data and a more in-depth examination of relationships between instructional methods and outcomes. In our own SIGTE initiative related to the development of tools to assess 21st century skills, we have pointed out that standardized tests are limited in what they can tell us about the development of knowledge, skills, and dispositions summarized in the NETS*S 2007, including creativity and innovation; communication and collaboration; critical thinking, problem-solving and decision making; and digital citizenship. For now, action research may be our best way to collect such data.

The Critical Role of Teachers as Participant-Researchers. School-based action research can establish a culture of inquiry, increase teacher professionalism, and enable teacher input to policy development. Practitioner research can also lead to teachers and other PK–12 educators assuming more of a leadership role (Pan, 1999) through an "authentic research voice for PK–12 educators [that] has been largely missing in both scholarly and policy circles" (Hilsabeck, in press).

Participation in the action research process enables teachers to become knowledge producers and enhances the opportunity for internal (vs. external) quality control (Pan, 1999). Yorks observes that

> "there is a political dimension to the principle of co-inquiry...that maintains that people have a right to participate and express their own values in the design of an inquiry into their experience. Only when this condition holds can it be ensured that inquiry empowers, rather than dis-empowers, participants." (2005, p. 2)

To increase the democratic nature of the research process even further, Nolen and Putten (2007) encourage that "participants become part of

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the decision-making process in all phases" (p. 405). This suggests that even K–12 students would be involved in commenting "on the findings and, together with the researcher, develop more effective models of schooling" (p. 405).

Getting Started With Action Research in Educational Technology. Nolen and Putten encourage preparing "school professionals to be researchers from the beginning of their coursework" (p. 405). I was able to identify several references that relate specifically to action research in educational technology, including Royer (2002) who provides an overview of the action research process. Schnorr and Painter (1999) describe a model for involving preservice teachers in collaborative action research projects during their field experiences, with an example focused on integration of technology in the curriculum. This model describes an active (vs. passive) role for preservice teachers in examining research-based practice, including assisting with data collection and summarizing the literature to inform and to reflect on the teaching-learning process. Pan (1999) describes one approach for working with inservice teachers in a "Technology-Based Action Research Model" implemented during two computer courses. Both Pan (1999) and Royer (2002) outline a variety of technology-related research questions that are still relevant for teachers today.

What is our role in the action research process? In their study of three iterations of teacher action research involving ICTs, Ham, Wenmoth, & Davey (in press) found that self-study and critical inquiry was challenging for all involved, especially in terms of practical manageability. We can assist by helping teachers identify good research questions and related tools for data collection; supporting them in their analysis of and reflection on data; and finally increasing the meaning of their work through encouraging them to publicly share the results of their research (Altrichter, Posch, & Somekh, 1993; Royer, 2002). Rather than focusing on transferring our knowledge of ICTs or the action research process, we need to assume the role of mentors, being sensitive and responsive to teachers' concerns and needs (Ham, Wenmoth, & Davey, in press). Action research holds promise as a form of alternative assessment, triangulating data sources and enhancing our understanding of the complexity of technology-rich teaching-learning environments. Through the action research process, teachers can increase the use of technology in the classroom and investigate the impact of technology on the teaching-learning process.

References

Altrichter, H., Posch, P., & Somekh, B. (1993). *Teachers investigate their work: An introduction to the methods of action research.* London: Routledge.

Fullan, M., Hill, P., Crévola, C. (2006). *Breakthrough*. Thousand Oaks, CA: Corwin.

Ham, V., Wenmoth, D., & Davey, R. (in press). Teachers doing IT for themselves: Action research as professional development. In A. Borthwick & M. Pierson (Eds.), *Learning, teaching and educational technologies: Models for successful professional development*. Eugene, OR: International Society for Technology in Education.

Hilsabeck, A. (in press). Dean's Message. *National College of Education Quarterly.* Skokie, IL: National-Louis University.

National College of Education. (2007). *Center for Practitioner Research (CFPR): Draft vision statement & plans for 2007–2008*. Unpublished manuscript.

Nolen, A. L., & Putten, J. (2007). Action research in education: Addressing gaps in ethical principles and practices. *Educational Researcher, 36,* 401–407.

Pan, A. C. (1999). Using technology to promote teacher action research. *Computers in the Schools, 15*(3–4), 81–99.

Royer, R. (2002). Supporting technology integration through action research. *Clearinghouse, 75,* 233–237. Retrieved, October 26, 2007, from Periodical Abstracts database.

Schnorr, D., & Painter, D. D. (1999, February). *Partnering the university field experience research model with action research.* Paper presented at the Annual Meeting of the American Association of Colleges for Teacher Education, Washington, DC. (Eric Document Reproduction Service No. ED428058)

Yorks, L. (2005). Adult learning and the generation of new knowledge and meaning: Creating liberating spaces for fostering adult learning through practitioner-based collaborative action research. *Teachers College Record, 107,* 1217–1244. Retrieved October 18, 2007, from http://www.tcrectord.org

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Taken together, all the articles in this issue demonstrate the movement of research in our field away from technocentric studies toward studies that emphasize the complex interactions of technology, pedagogy and content or, in our new language, emphasize the TPACK approach to working with teachers.