

EDITORIAL

Doing Action Research: Operating a Research Approach or Feeling Change in a Researcher's Way of Life?

Ingo Eilks 

University of Bremen, Germany

ingo.eilks@uni-bremen.de

This reflection traces the author's journey into action research, sparked by a seminar led by Hilbert Meyer in 1993. Drawing from personal experiences in teacher education and chemistry research, the author advocates for bridging the gap between educational research and teaching practice. Highlighting the influence of critical theory, the author emphasizes the transformative potential of action research in educational contexts. Action research, as perceived by the author, seeks to enhance teaching practice, foster continuous professional development, and engage learners as partners in educational reform. Through collaborative efforts with practitioners, the author demonstrates the practical implications and scholarly contributions of action research. The narrative underscores the significance of publishing action research findings and challenges prevailing paradigms in educational research. Ultimately, the author posits action research as a means to navigate the complexities of educational practices while advocating for critical reflection and paradigmatic shifts in educational research.

Keywords: Action research, science education, personal involvement

♦ Received 28 September 2022 ♦ Accepted 2 October 2022

I first came into contact with action research in 1993 when Hilbert Meyer, my professor in general education, offered a seminar at the University of Oldenburg, Germany. The standard guide for this seminar was the book by Herbert Altrichter and Peter Posch (1990): "Lehrer erforschen ihren Unterricht" (Teachers investigate their teaching). At the time, I had no idea how much this seminar would have an impact on me.

After my university teacher education program, I first did a doctorate in chemistry education and completed my teacher education within a compulsory two-year trainee program in school. The time in school convinced me that we need new approaches in educational research in order to bridge the problem of two-communities between academic educational research and teaching practice, as discussed, e.g., by Huberman (1993).

Having studied philosophy as an elective subject in my teacher education program has helped me in the later years. Empirical educational research is still often following positivist or post-positivist

paradigms in quantitative designs, and a constructivist paradigm in qualitative research. Curriculum design and lesson plan development often tend to follow pragmatism. But, where is the perspective of critical theory? Inspired by Hilbert Meyer and Herbert Altrichter, I first saw this in the approaches of action research. This was not very clear to me at the time, although this was described in the literature for a long time (e.g., Moser, 1975), and Bodner MacIsaac and Whyte (1999) had already discussed this perspective with a perspective on chemistry education research.

So what does action research want? - Action research wants to generate research results of general interest, but even more to improve concrete teaching practice and want to contribute to continuous professional development of persons acting in a social field. Action Research sees teachers as driving forces in the process of educational research and reform, and learners as partners in the improvement of the practice. In this way - as I learned from Hilbert Meyer - action research becomes more than a research approach, but rather a manifestation of critical theory in educational action, both in research and practice. Accepting action research means a shift in the look on life for someone seeing teachers and learners in a partnership process for the improvement of a certain social field they live in.

For more than 20 years I have been working with teachers in the sense of action research on the concrete change of chemistry and science lessons (Eilks, 2018). Many of "my" teachers - and I'm sure I can call them that - have meanwhile become teacher trainers or textbook authors. But, others are just happy to be a part of change and a community of research and practice. As an academic researcher, I am still learning from the practitioners every time I visit one of my action research networks. After many evaluation studies, I am sure that the reverse is also the case (e.g., Mamluk-Naaman & Eilks, 2012). For the many student teachers who were and are involved in action research projects as it can be seen in their reflections in bachelor's and master's theses.

Action research is research. That is sometimes put into question. Unfortunately, much of what teachers find out by action research goes unpublished. In our approach of participatory action research (Eilks, 2014), we publish our findings together - from textbooks to articles in international research journals that are listed in the Web of Knowledge or Scopus. That makes not only me, but also "my" teachers proud. Basic theories from this work are now regularly received in German-speaking countries and internationally.

Personally, the contention with the question of the value of educational work and research - between Humboldt's ideal of free research and the question of the value of educational research in the sense of critical theory - has changed me deeply. I am convinced that educational research should question more and more offensively its purpose and the corresponding paradigms behind research and action. This goes far beyond discussions about the value and evaluation of educational publications, between school textbooks and teacher magazines on the one hand, and international book and research journal publications on the other. Action research is perhaps a way to be successful in both arenas and to act in the interests developing educational practices.

References

- Altrichter, H., & Posch, P. (1990). *Lehrer erforschen ihren Unterricht* [Teachers investigate their teaching]. Bad Heilbrunn: Klinkhardt (in German). Latest updated version in English: A. Feldman, H. Altrichter, P. Posch & B. Somekh (2018). *Teachers investigate their work - An introduction to action research across the professions*. London: Routledge.
- Bodner, G., MacIsaac, D., & Whyte, S. (1999). Action research: Overcoming the sports mentality approach to assessment/evaluation. *University Chemistry Education*, 3, 31-36. <https://rsc.li/30zaHTTr>
- Eilks, I. (2014). Action Research in science education: From a general justification to a specific model in practice. In T. Stern, A. Townsend, F. Rauch, & A. Schuster (Eds.), *Action research, innovation and change: International and Interdisciplinary Perspectives* (pp. 156-176). London: Routledge.
- Eilks, I. (2018). Action Research in Science Education: A twenty-year personal perspective. *Action Research and Innovation in Science Education*, 1(1), 3–14. <https://doi.org/10.51724/arise.5>
- Huberman, M. (1993). Linking the practitioner and researcher communities for school improvement. *School Effectiveness and School Improvements*, 4, 1-16. <https://doi.org/10.1080/0924345930040101>
- Mamluk-Naaman, R., Eilks, I. (2012). Different types of action research to promote chemistry teachers' professional development—a joined theoretical reflection on two cases from Israel and Germany. *Int J of Sci and Math Educ* 10(3), 581–610. <https://doi.org/10.1007/s10763-011-9306-z>
- Moser, H. (1975). *Aktionsforschung als kritische Theorie der Sozialwissenschaften* [Action research as critical theory of social sciences]. München: Kösel-Verlag. (in German).

