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02 SES 08 B, Boundary Practices In Interactive Research

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Chair:Aimée Hoeve

Contribution

Boundary Practices In Interactive Research

At the 2008 ECER conference Ellström introduced the concept of ?interactive research?. Interactive research often takes place in the context of innovation processes. In this proposal we chose to focus on the context of educational innovation. In contemporary Dutch education, particularly in vocational education, many innovation projects take place in which research is incorporated. As there are no clear-cut answers on how to organise the interaction between such innovation and research, we studied three projects in Dutch vocational education from the learning perspective one can take on the interplay between knowledge creation and innovation (Ellström, 2010).

The concept of interactive research constitutes two basic ideas: (1) the idea of the threefold task and (2) the idea of knowledge creation through collaboration between researchers and practitioners.

The first basic idea of the threefold task refers to the idea that interactive research aims to contribute to the two tasks of addressing practical concerns and the creation of scientifically valid knowledge, such as new concepts, theories and models. Additionally, a third task needs to be included, namely the educative task of developing and enriching the knowledge and competencies of the participants involved through individual and collective learning. Ellström (2008) argues that this third task is conditional to accomplishing the other two tasks. Therefore interactive research is essentially about the joint learning process of practitioners and

researchers.

This brings us to the second basic idea underlying interactive research, i.e. its emphasis on knowledge creation through an egalitarian co-development between researchers and practitioners with a focus on a shared problem or research object. Interactive research consists of two interacting systems, namely, the research system and the practice system. Processes in both systems are viewed as cyclical in character and driven by problems/issues originating in research or practice. Ideally, these two activity systems may be seen as interlocked, collective learning cycles that produce successive versions of shared conceptualizations of the research object. Researchers and practitioners are assumed to co-produce shared knowledge and understanding of the research object through joint exploration and analysis of data. However, mutual conceptual development does not take place automatically (Akkerman, Bronkhorst & Zitter, 2013). The sociocultural differences between the research and practice systems may give rise to discontinuities in interaction and action, in which case participants are faced with boundaries. Though facing boundaries can prove challenging, boundaries also have learning potential such as: (a) coming to know what the diverse practices are about in relation to one another; (b) creating cooperative and routinized exchanges between practices; (c) expanding one?s perspectives on the practices; (d) collaboration and co-development of (new) practices (Akkerman & Bakker, 2011).

The above notions are studied in the context of three educational innovation projects in which research is incorporated. The following questions are central:

 (1) How can we characterize the organisation of the practice and the research systems respectively?

(2) How can we characterize the boundary practices between the practice and research systems involved?

(3) Which lessons can be learned for future interactive research projects?

Method

The following three projects in which researchers and practitioners co-developed through interactive research were studied. (1) Hybrid learning environments This project deals with concept of the ?hybrid learning environment? that shows how school-based learning and workplace experiences can be closely connected to deal with problematic transitions between education and the workplace. The national Centre for Expertise in Vocational Education and Training is responsible for the research aligned with this project (Zitter & Hoeve, 2012). (2) Triple T (Training Tomorrow's Technicians) This project aims to stimulate the innovative capacity of students and teachers of different technical studies in a school for vocational education in the Netherlands. Saxion University of Applied Sciences is responsible for the research aligned with this project (Mittendorff & Gellevij, 2012). (3) EXMO (Experimenting with ICT) This project aims to enhance the use of ICT in education, by conducting local small-scale, quasi-experiments by researchers and educational professionals (teachers, project leaders, managers). Research institute IVA is responsible for the research aligned with this project (Nieuwenhuis, Van der Neut, De Ries & Teurlings, 2012).

Expected Outcomes

Comparison of the projects shows similarities and differences between the organisation of the (combined) practice and research systems. In each of the three projects boundaries were encountered. Also, we were able to establish the learning potential of these boundaries. We did find that the boundary practice of collaborating and co-developing of new practices proved to be most challenging and was organized differently in each of the three projects. In an interactive, ?open space-style? session we will share the results of the cross-case analysis along the following main themes: - The organisation of the practice system - The organisation of the research system - The boundary practices between the practice and research system. We will start the session with introductions of each of the educational innovation projects. Each projects will briefly introduce the practice system, the research system and the boundary practices involved. The participants of the session are consequently invited to move to one of the three project-corners for more in-depth poster presentations and discussions with the researchers and each other. To conclude the session, the session-leaders will present the conclusions of the in-depth discussions and invite the participants to share their insights and reflections.

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