

THE FORMATION OF COLLABORATIVE PRAXIS-BASED RESEARCH — BETWEEN SPACES OF EXPERIENCE AND HORIZONS OF EXPECTATION¹

LA FORMACIÓN DE INVESTIGACIÓN COLABORATIVA BASADA EN LA PRAXIS — ENTRE LOS ESPACIOS DE EXPERIENCIA Y LOS HORIZONTES DE EXPECTATIVA

EVA FORSBERG²

Abstract

At the beginning of the 21st century different forms of collaborative practice-based research were promoted by the Swedish Research Council. Even though the amount of money spent was minor, networks, developments project and research project were financially supported. The aim of this article is to discuss possible contributions of collaborative practice-based research strategies in the creation of both scientific knowledge and teachers' professional knowledge. I focus on praxis-based research strategies and discuss them in relation to different spaces of experience and horizons of expectation for educational science/research.

Keywords: Praxis-based research, research strategies, teacher's knowledge, space of experiences, horizons of expectation.

Resumen

A principios del siglo XXI fueron promovidas diferentes formas de investigación colaborativa basada en la praxis por el Consejo Sueco de Investigación. A pesar de que la cantidad de dinero gastado fue menor las dos redes, las de proyectos de desarrollo y los proyectos de investigación, recibieron apoyo financiero. El obje-

¹This is a revised version of a paper presented at a curriculum conference in Tampere, Finland.

²Docente e investigadora de la Universidad de Uppsala, Suecia (Institutionen för pedagogik, didaktik och utbildningsstudier). E-mail: eva.forsberg@edu.uu.se

tivo de este artículo es discutir la posible contribución de las estrategias de investigación colaborativa basada en la praxis en la creación de tanto conocimiento científico como los conocimientos profesionales de los profesores. Me concentro en las estrategias de investigación situadas en la praxis y las discuto en relación a los diferentes espacios de las experiencias y de los horizontes de expectativa de la ciencia/investigación educativa.

Palabras clave: Investigación basada en la praxis, estrategias de investigación, conocimiento de los profesores, espacios de experiencia, horizontes de expectativas.

Introduction

IN THIS ARTICLE COLLABORATIVE praxis-based research is looked upon as something shaped by actors' spaces of experiences and horizons of expectations in relation to educational research and school practices. Educational research is strongly connected to a large social sector (education and upbringing) and broadly defined social questions (democracy, equity, cultural diversity, the knowledge society, segregation, etc.) as well as political decision-making. Following this line of reasoning we can identify some prominent actors in the production of different kinds of educational knowledge, such as educational research, school bureaucracy, educational politics and school practices. All of them have contributed to the formation of educational knowledge and each of them influences the development of educational knowledge within the domain of the others. The development and the establishment of education as a science during the 20th century can be considered as an expression of an increased differentiation of educational knowing (cf. Wittrock, Heilbron & Magnusson, 1996). In other words modernization has contributed to an increased specialization and diversification between different kinds of educational knowing. Consider for example the notion of theoretical and practical knowledge. But there are also processes of integration and the discussion of a new social contract for science can be seen as an example. Within processes of differentiation and integration the relation between educational research and school practice is decided upon and limits are drawn with reference to the answers of questions like who

is to produce what educational knowledge, where and when, in what way and for what purposes.

Numerous researchers and teachers have raised the problem of the theory-practice gap in education (Zeichner & Noffke, 2001). The purpose of collaborative praxis-based research is on the one hand to develop knowledge of schooling, teaching and learning and on the other hand to contribute to school development. This ambition can be considered as a way to renegotiate the contract between educational research and practice. In renegotiations questions of different kinds are actualized and in the following I will first discuss the conditions for developing new research strategies in both a more general sense and more specifically in relation to educational research. I then move on to describe central characteristics of collaborative and praxis-based research and criticism and obstacles are highlighted. The article ends with a discussion on whether these are to be seen as problems possible to handle or genuine dilemmas. Finally the question of the object of collaborative praxis-based research is focussed and the creation of the knowledge object as a boundary object is recommended.

Are we facing a new contract between educational research and the school?

Today, the establishment of a new social contract between academic research and society is on the agenda (Nowotny, Scott & Gibbons, 2001). Broader societal changes as technicization and scientization of society as well as socialization of science have created new conditions for knowledge production. These changes are based in and contribute to a variety of dedifferentiation processes especially within social sciences and human sciences, i.e. processes breaking up earlier more strict borders. Two forms of knowledge production have been discussed. Mode 1 is representing traditional academic research within disciplines. Mode 2 is put forward as an alternative to the traditional discipline-based form of knowledge production and can be seen as an example of the dissolution of traditional borders (Gibbons *et al.*,

1994). Mode 2-knowledge is problem-centred; it takes its point of departure in practical problems. It is produced in the context of application and the quality and relevance is evaluated in relation to both academic criteria and sector interests. Research and development (R&D) work from a Mode 2-perspective challenges not only the traditional boarder between basic and applied research but also the idea of a linear R&D model. Within Mode 2 the context of discovery, justification and application are understood as phenomena within the frame of one and the same practice.

There is today a growing chorus of voices demanding that science, like other publicly financed enterprises, should be more accountable and responsive to societal needs and demonstrate how it is relevant in solving public concerns (Demeritt, 2000). The academic ethos is shifting from a culture of autonomy of science to a culture of responsibility regarding society. Novotny and colleagues (2001) use the concept of contextualization — **weak, middle range and strong** — **to identify different kinds of academic processes of knowledge**. Contextualization designates a process and implies the question of the place of people in knowledge production.

Mode 2 paves the way for more socially robust knowledge. The notion is not relativistic, rather relational, since social robustness can be assessed only with regard to some particular context. Knowledge is socially robust when it is empirically grounded and verified. Knowledge objects gain social robustness and stability after enduring processes and frequent tests and improvements. Social robustness is not about abounding academic autonomy or scientific objectivity, but they are placed in a context where they have to fight for their existence in the encounter with knowledge objects and actors in complex and local contexts (cf. Nowotny, 1999). Contexts in which the objects can resist and fight back, i.e. 'object' (Latour, 1999). According to the German praxis researcher Heinz Moser (2004) a new research paradigm is approaching that give priority to thick descriptions and Pierces abductive logic that is focussed on generating rather than verifying knowledge (cf. Forsberg, 2000). Together with the postmodern critique of scientific claims for truth and objectivity these changes can be seen as implications for a renegotiation of the contract between research and society.

Since the 1950s there has been a tradition of closeness between educational researcher and practitioners in Sweden. Primarily this relation has been between research and school bureaucracy/educational politics and questions regarding educational planning and implementation of school reforms (cf. Gustafsson red., 1996; Härnqvist, 1997). The content and methods of teaching were focus for some studies during the 1910s and -20s, but this tradition was almost forgotten in the 1930s (Dahllöf, 1992). However, during this period, teachers in the western parts of Sweden got to know Elsa Köhlers' activity pedagogy and the teachers investigated their own teaching practices (Hermansson, 1979). Also this movement declined. In the 1960s teaching research was renewed through empirically grounded classroom research (Dahllöf, 1992). Disciplinary based studies in natural setting, i.e. a form of praxis-based research with the purpose to develop theories on education and to explain different kinds of results. From the 1970s to the shutting-down of the research program of the central agency for education at the millennium shift the sector research was rather large. In a study of the quality of the sector research Ingrid Marklund (1992) concluded that in certain aspects the demands on this kind of research was higher and regardless of who funded the research, academic standards were used. Sector research has however not only the scientific community, but also the school practices as addressees of research.

Sector research and development work initiated by central agencies have often been praxis-based. Especially during the 1990s the central agency had an ambition to establish a dialogue between researcher and teachers (Aasen & Proitz, 2004). At the same time we can notice that teachers more or less have been removed from the production of knowledge regarding their own practices. Even though school development models have shifted from the 1950s and onward teachers have foremost been seen as receivers of knowledge developed by researcher and as representatives for school improvement (Carl-gren & Hörnqvist, 1999). Kjell Härnqvist (2000) raised the question of whether Mode 2 is something for educational research. He thinks the model is better suited for the hard sciences and instead he recommends so called 'learning communities', representing a more modest

form of cooperation. A form of partnership between researcher, practitioner and educational politicians in which each of them is involved in a disciplined problem solving inquiry and everyone contributes to the learning processes of the other.

New conditions for teaching and learning have also changed the terms for production of educational knowledge. In the last two decades the Swedish government decided upon and implemented a number of changes that restructured the school system and the governing of the system (cf. Klette *et al.*, 2000; Lindblad & Popkewitz, 1999; Forsberg & Lundgren, 2004). Emphasis on reactive governing instruments — as for example inspections, quality reports, national and international assessments and tests — has radically changed the conditions for teaching and teachers and their pupils (cf. Forsberg & Wallin, 2005). Together with a new kind of national curriculum and syllabi focussing on what subject specific competencies pupils are to develop teachers are in a new and unfamiliar situation. Against this background teacher unions and representatives for school subjects have put forward the need for teacher research. In other words, teachers are expected to contribute to the development of a professional knowledge base and through this create the necessary requirements for a research based development of the school practices.

During the last 25 years a research movement 'teacher knowledge research' has tried to bridge the gap between educational theory and practice by seriously consider the intellectual dimension of teaching (Rosiek & Atkinson, 2005). In this perspective teachers are foremost regarded as

(p)rofessionals who must be prepared to be reflective practitioners, who engage in inquiry that informs their teaching practice, and who occasionally publish original research on their teaching that can inform other teachers' practice. (p. 421)

In order to facilitate constructive dialogue among differing conceptions of educational knowledge Rosiek and Atkinson developed a communication model with Charles Sanders Pierces pragmatic semiotics as a point of departure (Pierce, 1990/1987). One purpose of

their approach is to bring legitimacy to experience and to emphasize the importance of practical knowledge.

Demands on both collaborative and praxis-based research approaches are grounded in criticism of the usefulness of research for school practice. "Is the gap between scientific and practical work the result of a production deficit in research, a reception deficit in the practitioners, or deficits in translating theoretical knowledge into practical suggestions?" (Weinert & De Corte, 2002). Two different proposals for solving the research-practice problem have been put forward. The first is that theory should take precedence; the second is that empirical work should take precedence. The authors emphasize the importance of developing a partnership between researcher and teachers as knowledge producers in order to exceed these two solutions. The involvement of teachers in research and in particular research by teachers has however been criticized during the 2000 century. The critics have pointed to:

- Teachers lack of formal education and competence for conducting research.
- The problem of funding teacher research.
- The lack of standard and rigour within teacher research.
- The problem of small samples/cases in relation to generalization.
- Teachers working conditions and lack of time as obstacles for conducting research.
- The withdrawn of teachers from students and teaching.
- The possibility of using research as a way to confirm rather than critic teaching (Zeichner & Noffke, 2001).

Despite this criticism many have pointed to the necessity of complementing academic research with praxis-based research, not least considering its knowledge generating potential. Collaborative research has been recommended as a solution to some of the problems highlighted above. According to Zeichner and Noffke (2001), collaborative and praxis-based research approaches can contribute to a professionalization of teacher knowledge and teaching and bring research closer to practice relevant problems as well as give voice to both

teachers and pupils. In other words there is both a professional and a political dimension in a renegotiation of the borders between educational research and practice. In sum we can conclude that broadly defined societal changes as well as changes with references to education points to a renegotiation of the contract between educational research and practice.

Collaborative research

Collaborative research is a multifaceted term. It may refer to cooperation between researchers from different disciplines, i.e. an interdisciplinary or multidisciplinary approach. It may also refer primarily to a partnership between researchers (representing one or several disciplines) and practitioners (teachers/principals/politicians/etc.). There is not one but a great number of research models of the latter kind and the differences between them are foremost about the involvement of the practitioner in the research process, especially data collection and analyses. Less common is the participation of practitioner in: choice and formulation of the research problem, establishing the research approach, the report and dissemination of results as well as implementation of results. Six characteristics of collaborative research can be identified:

- Practitioner should be involved when the outcomes of the research are intended to inform their practices.
- Problems to be studied must focus on concerns of the practitioner.
- Decision-making should be collaborative during each step of the inquiry.
- The recognition of professional growth for all participants – researcher as well as practitioner – is emphasized.
- Concurrent attention should be paid both to research and to potential application of findings
- The complexities of the classroom must be recognized (Tikunuff & Ward, 1983; cf. Aasen & Proitz, 2004).

In the literature on different forms of participating, action ori-

ented or intervention research approaches both questions in need of considerations and obstacles are discussed. Institutional support and the possibility for funding teachers that participates in research have been emphasized. Among obstacles mentioned are the time organization, teachers' isolation from each other, ideas about the competent teacher as someone managing herself and the fact that teachers not necessarily see themselves as knowledge producer. Other obstacles mentioned are differences between researchers and teachers regarding communication pattern, status and power resources (cf. Cochran-Smith & Lytle, 1992; Weinert & De Corte, 2002; Zeichner och Noffke, 2001).

Praxis-based research

When conducting praxis-based research we make concrete studies of concrete phenomena in a natural setting. The research can take as its point of departure theoretical as well as practical knowledge formulated with references to practitioners' experiences of what they consider relevant to study. Törnebom (1986) highlight clinical research within medicine as an example of a praxis-oriented field in which the practical activities are closely related to the clinical research. The connection between them is distinguished by border crossing in a double sense. They can cross the border between different research fields and the border between research and clinical praxis. This is because both researchers and doctors have double paradigms, a research- and a doctoral paradigm. Clinical research is highly praxis-oriented, which is not the case for the medical basic research. But basic research is praxis relevant in its supporting clinical researcher with discipline produced knowledge and methods. According to Törnebom praxis-oriented research fields are requested when a professional cadre is in some form of crises that prevent earlier profession specific paradigm from functioning in an appropriate way. The new terms for teaching and teachers have, in my opinion, put teachers in such a position. In Törnebom's example there is on the one hand a relation between basic research and the clinical praxis oriented research and on the other hand they

are separated since one is conducted in direct connection with practice while the other is a disciplinary activity.

A similar difference between basic research and praxis-based research can be found within educational sciences (cf. Abrahamsson, 1974). Donald Broady (1986) focus on the difference between education as a practical theory — answering how-questions and guided by for example teachers actions — and the social sciences striving to answer why-questions. According to Broady both of these approaches are necessary complements to each other. The question is however whether they can exist in cooperation within one and the same study. Carlgren (2005) puts forward the possibility of combining a technical/pragmatic interest with a critical interest. When researchers turn from how-questions to what- and why-questions the social and critical interest come to the fore. We can also recall that Kurt Lewin and J.L. Moreno, fathers of action-oriented research, had ambitions to both intervene in social practices and through studies of this intervention explain and discern underlying pattern (Dash, 1999).

A relatively recent version of a collaborative praxis-based research approach is design-based research (DBR). It entered the research field of education in the early 1990ies as a methodology with ambition to bridge the chasm between research and practice. It is an interventionist model that is iterative and process-oriented with focus on both utility for users in real contexts and theory development (Kelly *et al.*, 2008). Design-based educational research focuses on the design and testing of a significant intervention (e.g., instructional methods or materials) and it involves collaborative partnership between researchers and practitioners. Its purpose is to advance a theoretical agenda as well as having an impact on practice. DBR is being used increasingly in educational contexts and a review of research articles show there is evidence for “cautious optimism” while still “much more effort /.../ is needed” (Anderson & Shattuck, 2012, p. 25). It is however unclear if achieved results are widespread and adopted.

Problems or dilemmas?

In my view we have to confront two main questions. One concerns the

conditions for collaborative praxis-based research approaches within education and the other is about whether the obstacles mentioned above are possible to overcome or not. Put in a different way the latter is a question of whether the obstacles are problems we can handle or genuine dilemmas containing elements which in fact may contradict each other. The former question has partly been illuminated in the discussion on a new social contract for research and with reference to how the relation between Swedish educational science and school has been constituted and also considering new terms for teaching and learning. In my view there are factors — both internal to science and practice-based — **promoting a renegotiation between educational science and practice**. In the end the establishment of necessary institutional conditions for a research policy is a question of priorities and distribution of resources.

The second question contains a number of potential conflicts between research and practice, and in this concluding discussion I will focus on what I consider to be at the centre of the collaborative or interactive research model. Of vital importance for establishing cooperation is of course the purpose of cooperation and this is in turn connected to the content of the collaboration. At the centre of the collaborative research approaches is the knowledge object. As noted above teachers – even within collaborative approaches — are often shut out from the process of identifying, choosing and developing research questions. If research and the school differ in that research is directed towards theoretical knowledge and school towards action and development it becomes central to find something that can bring together what appear to be opposing interests. For research to be relevant for teachers they have to have real doubts about some phenomena (cf. Carlgren, 2005; Forsberg, 2000; Pierce, 1990/1877). Secondly the phenomena ought to have the possibility to improve their teaching. Development of knowledge and practice ought to be connected to each other in one and the same process. We need an object that can develop teachers' action oriented professional knowledge base. For the researcher the situation is different. At the fore is rather a disciplinary chosen problem and an ambition to contribute to the common theoretical knowledge production within the discipline.

When we as researcher enter a school we bring the research practice into the school. These practices differ from each other since they are directed towards different objects (cf. Enerstvedt, 1982; Leontjev, 1986/1977). The teaching practice is above all directly motivated by the objective to organize the learning practice. This in turn has to be done with regards to both pedagogical issues and the trust of the pupils and their parents. To be legitimate the research has to respond to a wide range of stakeholders, including the school community and the wider society as well as the scientific community. One way to enhance the prerequisites for this is to construct the object of the research as a boundary object.

Boundary objects are those objects that both inhabit several communities of practice and satisfy the informational requirements of each of them. Boundary objects are thus plastic enough to adapt to local needs and constraints of the several parties employing them, yet robust enough to maintain a common identity across sites. They are weakly structured in common use and become strongly structured in individual-site use. These objects may be abstract or concrete. (Bowker & Star, 1999, p. 297).

This way to look at the school and research activities simplifies a very complex matter. Within each practice different actors have a range of diverse goals for their action, but the perspective stresses the fact that actors within the different practices direct their interests in an object from different points of view and with diverse purposes. Often research is related to some form of change. For sure we can expect actors from the different practices to have diverse motives for promoting or opposing the change. In order to bring the different practices (research and teaching) together we have pay attention to some key-factors: the development of a boundary object, the active involvement of teachers and above all the recognition of the practices different motives as well as the actors' different interests.

The research object has to be plastic enough to promote communication within and between the practices and actors involved. It is

not the goal of a boundary object to establish consensus rather to make communication and agency possible. To obtain these goals we have to create fora and develop forms that simultaneously can serve as a source for the construction of the research object, data collection and data confirmation and as a platform for communication and (re) action within the research practice. These fora and forms need to have a certain extension in time and they need to be established as early as possible in the research process. This is essential since boundary object cannot be enforced. They can only develop in the course of events, in the interaction between the actors and as a result of a shared working process. It is however not a dismissal of differences. Rather it is about creating an elaborated understanding of the object of knowledge. This is a process of enlargement as opposed to a process of reduction. To create knowledge on different views on both the research process and the object of study as well as the motives and interests behind them is essential for the process of enlargement. The purpose of constructing a boundary object is to enhance the possibility for actors to detect, develop and create new questions and interests. To formulate a problem and to develop knowledge of an object is no small thing and I find it relevant to remind ourselves of one of the most decisive factor for success with collaborative research approaches, i.e. actors' earlier experiences of the approach. In other words practice makes perfect.

In order to understand, analyse and develop educational practices we need to produce different kinds of knowledge. This means there is and should be room for a variety of research approaches, among them collaborative and praxis-based methods. As pointed out above these methods require an enlarged knowledge base for teachers, comprising knowledge on both educational research and educational practices. In addition teachers need to have experiences of how to do research and how to act in educational practices. Teacher education and the school are both corner stones in student teachers development of abilities necessary for teachers to take part in collaborative praxis-based research. Together they can create conditions for scientifically based professional development.

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