# SUSTAINABLE WORKING LIFE DEVELOPMENT THROUGH INTERACTIVE RESEARCH

MATTIAS ELG, MARTINA BERGLUND, PER-ERIK ELLSTRÖM, HENRIK KOCK, MALIN TILLMAR, ANDREAS WALLO ...

HELIX COMPETENCE CENTRE, LINKÖPING UNIVERSITY, SWEDEN

#### ABSTRACT

Interactive research has emerged as a new approach to collaborative research in working life research, and it is characterized by a continuous joint learning process between the researchers and the practitioners. In this paper we argue that interactive research is a way to advance scientific knowledge about the development of new types of work arrangements and development of sustainable working life. We present the basic ideas and benefits of the interactive research approach, illustrated through a practical case, the HELIX Competence Centre and discuss potential limitation and challenges associated with this form of collaborative research.

#### INTRODUCTION

Working life of today is affected by changes such as increased globalization, digitalization and changing demographics (The Swedish Government, 2016). Globalization implies potential new markets, but also increased competition; digitalization creates opportunities for development, while at the same time making demands on changes for organizations and individual employees; and changing demographics in terms of an increasingly older population along with decreasing resources in the public sector requires new ways of organizing welfare. There is, thus, a strong demand to increase innovativeness and productivity in several domains. Other emergent issues include increasing fragile employment relations and the need to find means to achieve diversity in the working population. However, many organizations find it challenging to create sustainable systems and processes that meet the described changes and at the same time ensure employee health, support diversity, and facilitate learning (Elg et al., 2015). Furthermore, studies indicate that there is a gap between research-based knowledge of working life issues and the practices in organizations (Short, 2006; Wang, 2017). One possible way to meet the challenges caused by the above-mentioned changes in working life and to find ways to bridge the gap between research and practice is through increased collaboration between different stakeholders (Etzkowitz & Leyesdorff, 2000). In this paper, a way to address the problems of linking researchers with practitioners for current working life challenges, here denoted interactive research, is highlighted. More specifically, the purpose of the paper is to present interactive research as a way to advance scientific knowledge about the development of new types of work arrangements and development of sustainable working life. We propose that interactive research has a "built-in" focus on the dual task of contributing both to long-term theory development and to innovation processes in working life. A central element in interactive research is also the strong emphasis on collaboration between researchers and practitioners.

The rest of the paper is structured as follows. In the following section, we describe the concept of interactive research and present a conceptual framework for joint knowledge creation between researchers and practitioners. Next, we present a description of a research centre, HELIX Competence Centre, to exemplify the application of the interactive research approach in practice. Finally, we propose ways in which interactive research may support sustainable working life development and discuss the potential limitation and challenges associated with this form of collaborative research.

## KNOWLEDGE CREATION THROUGH INTERACTIVE RESEARCH

The interactive research approach has its roots in a long tradition of criticism of traditional research models, and a corresponding interest in different models of practice oriented and collaborative research, including different versions of action research and participatory research (Ellström, 2008). The more specific origin of the notion of interactive research can be traced back to a research conference on interactive social science in 1999, and a series of papers from this conference published in a special issue of *Science and Public Policy* by Caswill & Shove (2000). Other research approaches which are in many respects related to interactive research include the idea of Mode 2 research (Gibbons et al, 1994) and the notion of engaged scholarship as argued by Van de Ven & Johnson (2006).

Although the interactive research approach has common roots with action research, it differs from the latter in at least two important respects (Ellström, 2008; Sandberg & Wallo, 2013; Svensson, Ellström & Brulin, 2007). First, interactive research refrains from attempting to solve practical problems in organizations, and instead focuses on creating opportunities for researchers and practitioners to engage in joint learning and knowledge creation through interaction between research-based and practice-based ('ordinary') knowledge. Second, interactive research emphasizes the importance of a clear division of labour between researchers and practitioners based on their different interests, responsibilities, and competencies. This division of labour is important in order to avoid the classical pitfall of action research to 'drown in action'. As noted decades ago by Seashore (1976), action research often risks becoming a justification for practical development work masqueraded as research, and, conversely, for research being reduced to a consultancy role (e.g. some kind of action learning or change management effort). In contrast to this, interactive research consciously focuses on the double task to contribute *both* to practical concerns, for example, how to handle practical issues in relation to organizational or technological change, and to the creation of scientifically valid knowledge, for example, new concepts, theories, and models.

The overall model for interactive research that has been used in our research (see Figure 1) has been developed on the basis of many years of experience based on different forms of collaborative research (Aagaard & Svensson, 2006; Ellström, et al., 1999; Svensson, Ellström & Brulin, 2007; Svensson et al., 2015).

The model includes two interacting activity systems, called the research system and the practice system, respectively. These two activity systems refer to ideal typical representations of the research process and the activities in a practical process of problem solving. In this model, both activity systems are depicted as cyclical in character and driven by problems/issues originating in research or practice. The basic activities in both systems, that is, research activities and different kinds of organizational action, are assumed to be informed by explicit or implicit theories based on previous research and/or practical experience. Furthermore, a basic point in this model, as indicated by the shaded circle in the intersection between the two systems, is that the process of interactive research is assumed to produce common conceptualizations and interpretations of the research object that are fed back as "cognitive input" into the next cycle of problemsolving activities, but also into the next cycle of the research process. Considering this cyclical process of knowledge creation and use, these two activity systems may be seen as two interlocked, collective learning cycles that produce successive versions of common conceptualizations of the ongoing change process. Thus, the model is interactive in the sense of attempting to build a two-way flow of problems and knowledge between research and practice.



Figure 1: Interactive Research as a Two-Way Flow of Problems and Knowledge (ref)

Interactive research above should hence be understood as an approach towards the whole research process rather than as a set of techniques. However, the approach affects research design and the whole relationship between researchers and the practice studied and the practitioners involved in the collaborative learning process. Problem formulation takes place, early in dialogues with partners, often through problem inventing dialogue seminars. As the research is carried out, the degree of interactivity can vary between projects and over the course of time.

Towards the conclusion of an interactive research project, there is often feed-back seminars where practitioners from the partner organizations and the researchers meet to conclude the mutual learning process. From a research perspective, this gives the opportunity to complement as well as validate findings. From a practitioner perspective, these seminars provide important prerequisites for reflection, learning and development

Thus, interactive researchshould not be interpreted as a belief in the existence of one research strategy that represents in some sense the single best approach for all types of research problems. On the contrary, we argue for the need to work with a mix of studies ranging from descriptive-analytical studies (e.g. surveys or qualitative case studies) to different types of evaluation or followup studies, and to studies based on different forms of interventions (cf. Van de Ven & Johnson, 2006). Thus, a wide range of methods are employed, including interviews, focus groups, questionnaires, surveys, and register databases. Independent of the type of study, a strong focus on reflective, theoretical work is intended to be a common core in research projects.

#### ORGANIZING INTERACTIVE RESEARCH – THE CASE OF HELIX COMPETENCE CENTRE

The utilization of the interactive research approach has been one of the central cornerstones in HELIX Competence Centre, which is an established centre within working life research, focusing specifically on sustainable development in organizations (www.liu.se/helix). This entails research and innovation activities that promote good working conditions, learning, health and gender equality in combination with an effective and innovative production system. Theoretical development of the balance between social and economic sustainability is thus emphasised.

Research in HELIX Competence Centre is based on an interactive approach between more than 30 researchers from different disciplines and partner organizations. The disciplines represented are behavioural sciences, management, business and public administration, entrepreneurship and innovation, as well as health and work sciences. The researchers belong to three nodes: Linköping University, KTH Royal Institute of Technology, and Swerea IVF. The partner organizations include private industrial organizations, public organizations, labour market organizations, and civil society organizations. The problems and issues defined in dialogue between partner organizations and researchers drive the research activities. The focus is on knowledge production for integration and utilization across four multidisciplinary research themes: 1) Sustainable development processes in industrial production systems; 2) Growth and development in small enterprises; 3) Sustainable, innovative, and coordinated health and welfare processes; and 4) Inclusive workplaces. The research at HELIX comprises advanced scientific knowledge about development of new types of work arrangements and development of

sustainable working life in Sweden. The Centre has also strengthened the potential for Swedish organizations to be more sustainable in the long term and to stimulate endeavours between public and private organisations. As expressed by the partner organizations, they have joined HELIX to get support in developing their organizations towards better economic and social sustainability. The overarching goal has been to contribute to scientific knowledge and, at the same time, have valuable impact on practice.

Practical impact of working-life studies is long-term and not easily measured. These benefits may concern a direct, instrumental impact (e.g. changes in organizational policies and/or routines), but also an indirect impact (e.g. access to new knowledge and ideas or know-how), or impact in a broader sense (e.g. interactions with other participating companies, crossfertilization of ideas). In the case of HELIX, most partners report clear benefits from the research collaboration. For many partners, participation in the centre also means increased interaction with the university, and, thereby, a significantly increased access to research-based knowledge. In a survey, more than half of the partners reported direct, instrumental benefits, and almost three quarters of the partners reported different forms of indirect impact (See Elg et al. 2016, Impact Evaluation Report - HELIX VINN Excellence Centre Year 2006-2015). For a list of examples we refer to appendix 1.

#### DISCUSSION

Interactive research can be described as taking on the dual task of contributing both to excellent research, but also to develop knowledge to address organizational and societal challenges. Or put in another way - results from interactive research should not only be considered as valid in a more traditional meaning, but also valid in relation to organizational and societal needs. In what way the latter meaning of validity can be accomplished is an important challenge. Taking on this challenge is not a matter of the methods used, since interactive researchers observe, ask questions and read texts in a similar way to other social researchers. However, the results from using different data collection methods do not get into the 'othering-business' (Eikeland, 2006), where results leave the field and 'the others' are left behind. From our viewpoint, the validity of interactive research in relation to organizational and societal needs is rather based on the ability to stay connected to the field and use this presence for evaluation and discussions about results. Rather than departing from Lewin's statement "nothing is as practical as a good theory", we can turn it into "nothing is theoretically more interesting than a well-functioning practice" (Eskola, 1997). Valid theory is from this perspective not 'added' from researchers but ideally created in a process of mutual knowledge construction.

An important challenge to consider is the consequence of the interactive research approach for the role of the researcher. How and to what extent should interactive researchers engage in organizational action and processes of change (Sandberg & Wallo, 2013)? In many ways, interactive research is more complex in comparison to traditional approaches since the interactive researcher must partake in a development process without becoming captive to it (Svensson et al., 2007). On this subject, due to the proximity of the two activity systems (Figure 1), Svensson et al. (2007) argue that the potential influence of the research process must be thoroughly problematized. Is it possible to establish a mutually trusting relationship with practitioners without the risk of 'going native'? Are ethical considerations in the field underestimated at the expense of research and development interests? Questions such as these must naturally be discussed within an interactive research project, but for the researcher, it is also crucial to allow for continuous collegiate scrutiny in the academic community. The multi-disciplinary and interactive research approach at HELIX has made it possible to reach a high degree of relevance in research questions and projects. These research activities are more time consuming than 'traditional' research. At times, research efficiency (publications per year) may need to be weighed against effectiveness (that the research done is relevant for society). We argue that the latter is of higher importance, and ensured by the ongoing validation attained through partnership interaction. Perhaps interactive research is not the best option for researchers with other values in this respect. Another balancing act concerns the requirements on the partner organizations. As discussed above, interactive research is not consultancy. It requires active partner organizations willing and able to be challenged by researchers, to openly share and discuss problems in their organizations, and to see these problems from new perspectives. The case of HELIX has taught us that building up a partnership with the relations of required, mutual trust is a long-term process. At times, partner organizations prefer delivery of solutions. Again, interactive research projects may not be for everyone researchers and partner organizations alike. However, on an overall level we have learnt that when the partner organizations have had a high degree of joint ownership of the projects this process is facilitated. The joint learning process is also facilitated when there is one or more enthusiasts or 'idea champions' within the organization who can promote a project or a new idea.

Our conclusion is that interactive research approach is a fruitful way for collaboration between different stakeholders. This type of research makes it possible to interact at various levels of research; from program level, to research and development projects, and down to an individual level. The HELIX Competence Centre is a case that shows the possibilities for this.

#### REFERENCES

Caswill, C. & Shove, E. (2000). Introducing interactive social science. *Science and Public Policy*, 27(3), 154–57

Eikeland, O. (2006). The Validity of Action Research -Validity in Action Research. In: K. Aagaard, & L. Svensson (Eds.), Action and Interactive Research. Beyond practice and theory. Maastricht: Shaker Publishing

Elg, M., Ellström, P-E., Klofsten, M. & Tillmar, M. (2015). Sustainable development in organizations. I: M. Elg, P-E Ellström, M. Klofsten & M. Tillmar (ed.), *Sustainable Development in Organizations: Studies on Innovative Practices*. Cheltenham, UK and Northampton MA, USA: Edward Elgar Publishing.

Ellström, P.-E. (2008). *Knowledge Creation Through Interactive Research: A Learning Approach*. Paper presented at the ECER Conference, Gothenburg, September 10–12, 2008.

Ellström, P-E., Eklund, J., Kock, H., Lindström, L. & Melin, U. (1999). *Knowledge Creation Through Collaborative Research: An Emerging Model*. Linköping: CMTO.

Eskola, A. (1997). Jäähyväisluentoja. Helsinki: Tammi.

Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: from National Systems and "Mode 2" to a Triple Helix of university–industry–government relations. *Research policy*, *29*(2), 109-123.

Gibbons, M. et.al. (1994). *The New Production of Knowledge*. London: Sage.

Sandberg, F., & Wallo, A. (2013). The interactive researcher as a virtual participant: A Habermasian interpretation. *Action research*, *11*(2), 194-212.

Seashore, S. E. (1976). The Design of Action Research. In: A. W. Clark (Ed.) *Experimenting with Organizational Life: The Action Research Approach.* New York: Plenum Publ. Co.

Short, D. C. (2006). Closing the gap between research and practice in HRD. *Human Resource Development Quarterly*, *17*(3), 343-350.

Svensson, L., Brulin, G., & Ellström, P.-E., (2015). Interactive research and ongoing evaluation as joint learning processes. I: M. Elg, P.-E. Ellström, M. Klofsten, & M. Tillmar (ed.) (2015). Sustainable development in organizations: studies on innovative practices. Cheltenham: Elgar.

Svensson, L., Ellström, P.-E., & Brulin, G. (2007). Introduction – on interactive research. *International Journal of Action Research*, *3*(3), 233–249.

The Swedish Government. (2016). *Smart Industry – a strategy for new industralisation for Sweden*. Stockholm: Elanders.

Van de Ven, A., & Johnson, P., E. (2006). Knowledge for Theory and Practice. *Academy of Management Review*, *31*(4), 802-821. Wang, (2017). Integrating research and practice: looking back. *Advances in Developing Human Resources*, *19*(3), 219-231.

#### APPENDIX 1 – EXAMPLES OF IMPACT:

IMPROVEMENTS AND DEVELOPMENT OF NEW MODELS, PROCESSES AND INNOVATIONS IN PUBLIC ORGANIZATIONS

• Integration of processes for innovation support as part of the regular operations in several municipalities, for example, as part of the existing management system.

• New approaches and models for co-creation and learning with patients in healthcare service development that has been utilized in various healthcare environments.

• New strategies in order to improve work ability among long-term sick listed and young people on disability benefits in collaboration projects between the Social Insurance Agency, health care organizations, the Public Employment Service, and municipalities.

• Development of a new R&D Centre in the field of human resource development and management (HRD/HRM) at Region Östergötland.

• Improvements of 'Customer-choice model' for public procurement within elderly care.

DEVELOPMENT OF WORK ORGANIZATION AND PRODUCTION PROCESSES IN INDUSTRY COMPANIES

• Several of our partners in the industry are working with continuous improvement, employee involvement and production development and we have actively contributed to this work.

• Research findings guided one of the industry partners when it was reorganized in response to the economic crisis during 2008-2009.

• Development and implementation of new HR strategies, and ongoing efforts to integrate the HR strategies with the overall business strategy of the company.

•Stimulation of innovation and entrepreneurship within the life science industry, for example, development of a new coaching module and improved guidelines for different project activities.

DEVELOPMENT OF LEADERSHIP AND LEAN PRODUCTION ACROSS PRIVATE AND PUBLIC ORGANIZATIONS

• Contributing to the development of a Swedish model for Lean Production, both in industry and in the public sector.

• Collaboration in a management development programme for managers within elderly care in private and public organizations.

• Principles for leadership and managerial work have been included in job descriptions for managers at various levels of our partnership organizations, both in industry and in the public sector.

### INTERMEDIARIES' AND UNIONS' UTILIZATION AND DISSEMINATION OF RESEARCH

• Input to policy actions as well as changes in existing practices within the EU Structural Funds, for example, concerning the formulation of programme criteria, project calls, and recommendations to include learning evaluations in all larger projects that are funded.

• The union IF Metall has, both at a regional and a national level, systematically used our research to advance their knowledge in relation to employers and other actors (e.g. funders).