

# Can Action Research be Successfully Used in Information Systems Doctoral Research? a Panel Discussion

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## Abstract

This panel discusses the use of action-research in doctoral programs. Three researchers, from three different continents, speaking three different languages, and representing three different cultures, provide their view, based on the actual work they carried out, using this approach, to obtain their PhDs. The fourth member of the panel – a senior IS researcher – will provide the advisor's perspective, drawing from his experience on advising candidates using various approaches, including action-research. The audience is encouraged to pose questions during and between presentations. A slot for widespread discussion is reserved at the end.

**Keywords:** Research Approaches, Action-Research, Doctoral Research, Doctoral Advising, Information Systems

## Action Research and Information Systems

A key characteristic of action research (AR) sets it apart from other research approaches. In AR, investigators try to fulfill the needs of their study subjects and, at the same time, generate new knowledge. As such, information systems (IS) action researchers have to serve two masters: their immediate research clients, who directly benefit from the research while it is being conducted, and the IS academic community in general. The goal of this panel is to discuss the pros and cons of AR in the context of doctoral IS studies.

AR has been considered a distinctive form of research since the early 1940s. Kurt Lewin is generally regarded as one of its pioneers and the first person to use the term "action research" to refer to a specific research approach in which the researcher generates new knowledge about a social system while at the same time attempting to change it. A distinctive thrust of AR has also developed, after World War II, at the Tavistock Institute of Human Relations in London as a method to deal with social and psychological disorders arising from prison camps and battlefields. In the field of IS, AR has been noticeably used only since the 1980s, and the number of published examples of IS AR in academic IS journals is still very small.

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## Can Action Research be Successfully Used

One of the reasons for the emergence of AR and its subsequent use in the IS field is the recognition, largely motivated by the early work of ethnographers, that a research environment can be more deeply understood if the researcher becomes part of that environment. This can be achieved through the researcher becoming an agent of change in the environment, as usually is the case in AR in general. The involvement of the researcher with the environment under study is also believed to foster cooperation and candid information exchange between the researcher and those who are being studied well beyond what can be expected in traditional research approaches, such as experimental, survey and even case research. This, in turn, can increase the validity of research findings. Finally, in some situations – such as the study, from a socio organizational viewpoint, of new or changed information systems development methodologies – there is no alternative to trying out the theories in real situations.

## Goal of the Panel

The main goal of this panel is to answer the following question and, in the process of doing so, help doctoral students, their advisors, and other researchers employing IS AR, to increase their chances of success:

*Can Action Research be Successfully Used in Information Systems Doctoral Research?*

The above question will be answered affirmatively based on the discussion of the experience of three researchers, Ned Kock, Robert Davison and Paulo Rupino da Cunha, who “successfully” used AR as a doctoral research approach in IS. The indication of “success” used here is the successful completion of their doctoral research and the formal award of the doctoral degree. The discussion will likely be enriched by the international composition of the panel, which brings together IS researchers from three different continents, where different languages are spoken, and which present different cultures. Complementing those discussions, a senior IS researcher with broad international experience, Antonio Figueiredo, will discuss pros and cons of conducting doctoral IS AR from an advisor’s perspective, based on his experience advising Paulo Rupino da Cunha and other IS doctoral students.

## Panel Discussion

The panel will have two main segments, “*Introduction and definition of information systems action research*” and “*Presentations and debate*”, both described below.

### ***Introduction and definition of information systems action research***

This segment will start with Ned Kock providing a brief introduction of the panelists and a description of the goal and format of the panel. He will then provide a definition of IS AR and contrast it with other research approaches. The “*Presentations and debate*” segment of the panel will begin immediately after this.

### ***Presentations and debate***

In this segment, three panelists will discuss issues related to the conduct of doctoral IS AR in ten-minute presentation modules, illustrating their discussion with examples based on their own experience as IS AR practitioners. At the end of each speaker presentation, Ned Kock will play the “devil's advocate” role, emphasizing difficulties in conducting doctoral IS AR and inviting the speaker and the audience to provide their opinions regarding the difficulties raised. The speakers and doctoral IS AR topics discussed are as follows:

- Ned Kock, Robert Davison and Paulo Rupino da Cunha will discuss their experience conducting successful doctoral IS AR studies.

- Antonio Figueiredo will discuss his experience advising doctoral IS AR students.

The audience will be given the opportunity to ask questions or make comments at any time during or between individual presentations. In the remainder of the allotted time for this panel the panelists will answer questions from the audience.

## Biographies

**Ned Kock** is Director of the E-Collaboration Research Center and CIGNA Research Fellow in the Fox School of Business and Management, Temple University. He holds a PhD in information systems from the University of Waikato, New Zealand. He is the author of four books, including *Redesigning Acquisition Processes: A New Methodology Based on the Flow of Knowledge and Information* (Defense Acquisition University Press) and *Process Improvement and Organizational Learning: The Role of Collaboration Technologies* (Idea Group Publishing), as well as several articles in journals such as *Communications of the ACM*, *IEEE Transactions on Professional Communication*, *IEEE Transactions on Education*, *Information & Management*, *Information Systems Journal*, *Information Technology & People*, and *Journal of Organizational Computing and Electronic Commerce*. Ned is co-editor of the *ISWorld Professional Ethics Section*, associate editor of the *Journal of Systems and Information Technology*, and member of the editorial board of the *Journal of Information Technology Cases and Applications*. He recently co-edited, with Francis Lau, a special issue of the journal *Information Technology & People* on Action Research in Information Systems.

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**Robert Davison** is an Assistant Professor in the Dept of Information Systems at the City University of Hong Kong. He is editor-in-chief of the *Electronic Journal of Information Systems in Developing Countries* and an associate editor of the *Information Systems Journal*. He runs several Web pages for IS-WORLD, including: Virtual Teams, Professional Ethics, Global IT Management and IT in Developing Countries. His recent work has been published in *Communications of the ACM*, *Information Systems Journal*, *Information & Management* and *Information Technology & People*. He has recently completed editing a special section of the *Communications of the ACM* on Global Applications of Collaborative Technology, and is currently editing a special issue of the *IEEE Transactions on Engineering Management* on Cultural Issues and IT Management. His current work involves an exploration of virtual teams in educational contexts, as well as an ongoing interest in applying Action Research in organizational problem solving.

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**Antonio Dias de Figueiredo** is Professor of Information Systems at the University of Coimbra, Portugal, since 1984. He holds a PhD in Computer Science from the University of Manchester, England. His current research interests center on *Business Information Systems* and *ICT in Learning and Education*. He has been Vice-President for Western Europe of the Intergovernmental Informatics Program of UNESCO and the Chairman of the European initiative PROMETEUS. He has participated in various European projects and acted on various occasions as a consultant to the European Commission. He was awarded an *Honoris Causa* by the Portuguese Open University and the *Sigillum Magnum* of the University of Bologna, Italy. He is the author of over one hundred papers published both nationally and internationally. He is a member of the editorial board of *Information & Management* and of the *Portuguese Management Journal*.

Can Action Research be Successfully Used

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**Paulo Rupino da Cunha** is an Assistant Professor of Informatics Engineering at the University of Coimbra, Portugal. He graduated in Electrical Engineering (field of Informatics), from the University of Coimbra, Portugal. He obtained his M.Sc. and Ph.D. in Informatics Engineering from the University of Coimbra, Portugal. His current research interests are *information systems development* and *research methods*. He has been, until recently, the Deputy Director of an innovation and technology transfer laboratory (IP-Nlis), where he continues to consult. He is also the elected Coordinator of the Informatics Engineering Chapter, for the center region of Portugal, of the Portuguese Engineering Association.

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