

1998

Rigour in Action Research: Some Observations and a Plea

David Avison

University of Southampton, DavidAvison@emailaddressnotknown

Follow this and additional works at: <http://aisel.aisnet.org/sjis>

Recommended Citation

Avison, David (1998) "Rigour in Action Research: Some Observations and a Plea," *Scandinavian Journal of Information Systems*: Vol. 10 : Iss. 1 , Article 1.

Available at: <http://aisel.aisnet.org/sjis/vol10/iss1/1>

This material is brought to you by the Journals at AIS Electronic Library (AISeL). It has been accepted for inclusion in Scandinavian Journal of Information Systems by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Rigour in Action Research: Some Observations and a Plea

David Avison

*School of Management, University of Southampton, SO17 1BJ, UK and
Department of Information Systems and Decision (SID), ESSEC, Cergy-Pontoise,
France*



It was a great honour as well as a pleasure for me to act as external for Lars Matthiassen's advanced doctorate. I do not think that I will be giving any secrets away when I report that there was never any doubt about his ultimate success in this project. The two volumes of published papers, along with the paper presented in this issue of the Scandinavian Journal of Information Systems (which brings the work together) represents a major contribution to the IS community from Lars and his colleagues. I also enjoyed the festivities in the evening, which made the happenings in the Danish film *Festen* (Thomas Winterberg) more like a children's party. By the way, this film is highly recommended, along with its sister film *Idioterne* (Lars von

Trier). Now, having given academic references, I will continue my 'viewpoint'.

The body of work that Lars and his colleagues provides inspired me in many directions. In this short piece I return to the question of research approaches and in doing so I wish to enlist your help (see later). For some colleagues, research methods is a dull, dry subject. For others, it is a subject which has been discussed so much that everything that could be said, has been said. For me, neither is true. The subject is exciting and important, especially in a multi-disciplinary subject like IS, where many research approaches can be appropriate and choosing an appropriate research approach for a particular project is difficult.

It appals me that many PhD theses do not contain sections justifying the research approach for the project and reflecting on its appropriateness following

the project. If a PhD is a training for research and a training for potential research supervisors, then the researcher needs to know about alternative research approaches and their appropriateness in different situations.

Perhaps this marks one borderline between computer science and IS. In computer science, the task of choosing an appropriate research method seems to be obvious and non-controversial. The researcher gets on with the job to be done. With IS being relevant to computer science, management and many of the social sciences (and other disciplines as well), choosing the appropriate research method is much more complex and there is a general sympathy with methodological pluralism. This is, perhaps, best exemplified in the IFIP8.2 community (see Mumford *et al.* 1985, Nissen *et al.* 1991, and Lee *et al.* 1997). However, there is much written on choosing appropriate research approaches in IS so I will not dwell on this subject here (see, for example, Hamilton & Ives 1982, Galliers & Land 1987, Galliers 1991) and many more on individual research approaches.

The main research approach used by Lars Matthiassen in his work is action research. Its roots and some issues can be gleaned from Lewin (1948), Susman & Evered (1978), Elden & Chisholm (1993) and Levin (1994). Michael Myers' web site on qualitative research methods (www.auckland.ac.nz/msis/isworld/index.html) provides us with an excellent overview of the action research literature. There is surprisingly little published material on action research in information systems. Papers specifically addressing action research in IS include Antill (1985), Wood-Harper (1985), Avison & Wood-Harper (1991), Checkland

(1991), Jonsson (1991), Baskerville & Wood-Harper (1996), Avison (1997), Stowell *et al.* (1997) and Avison *et al.* (1999) along with the work of Lars Matthiassen. Emphasising this dearth of material, Lau (1997) could find only 30 IS action research studies reported in 24 leading journals in IS, business, health, education and social science in the period 1971-1995. Although I think this an underestimate—perhaps even a gross underestimate (Lau relied on action research, action enquiry, action science or competitive inquiry being one of the keywords listed for the paper in largely US-based journals), Allan Lee is surely correct when he argues that: 'Action research ... is a form of research that deserves more attention than it has received' (Lee 1999).

I will refrain from providing a definition of action research here (for reasons, see later) though most definitions emphasise the researcher intervening in real-world situations. One essential advantage of the action research approach is its relevance to practice, indeed it is sometimes confused with consultancy. Much of the literature in action research is perhaps stronger on the action than on the research. So much importance is placed on the relevance of an action research project, that it is sometimes argued that rigour is much less important.

Of course, action research is relevant and this is important, and action research has led to improvements in practice as well as improvements in teaching (as it reflects the learning from 'real life' experiences). The body of work that Lars Matthiassen presents is sufficient evidence of this. Lars suggests that: '... especially in Scandinavia, we have research traditions that are strongly biased

towards relevance without being concerned about rigour'. He later argues that: 'the issue is certainly not relevance or rigour, but rather, how to balance the two' (Matthiassen 1991). This seems to imply that there is a trade-off between relevance and rigour.

However, I believe rigour is equally important and action research should be highly rigorous as well as highly relevant. Again, many argue that this is a spurious debate of no consequence, but I believe that information systems research must be rigorous and be seen to be rigorous. Unless information systems research in general is rigorous, then we cannot be taken seriously as an academic discipline. It will be seen to be of poor quality, opinionated, not serious, its results flawed and untrustworthy, and all its research suspect. This will mean that we will lose out in academic status (and the ability to grow and influence) and state research funding, and eventually in industrial funding as IS loses its reputation for 'good' research. Further, I suggest that it is a major reason for the dearth of papers on action research published in the leading IS journals. Editors are reluctant to publish material that is open to doubt or is risky in some way (a practice to which I do not necessarily condone).

However, it is not clear to me what constitutes rigour in action research. There is confusion in the literature. We must therefore establish the foundations to action research in information systems. What are its basic tenets? The action research literature in IS and other disciplines reveals conflicting views on many issues and suggests a number of types of action research as well as different views on its essential characteristics.

Not least, it lacks some sort of agreed definition for action research. In brief, we have a muddle.

In my view, our response should not be to look at other research methods, most obviously quantitative methods, and ask what constitutes rigour in these more accepted approaches (at least in some countries) and make comparisons with action research. This will make us apologists for action research. Further, the tenets of these research methods are not necessarily relevant to action research. It will reveal what it is not, rather than what it contributes as an alternative or additional research approach. Neither should we abandon action research because it is 'not respectable'. This would deny information systems a research approach that has many contributions to make to research and practice. Nor should we argue that there must be a one way to perform action research. There may be more than one way to conduct action research rigorously. But we surely need some form of common understanding.

Our approach should be more to look at published work of action research and, more importantly, establish a debate with action researchers in information systems. Through a mixture of Delphi approach and questionnaires, it should be possible to achieve a position statement about the essential characteristics of valid action research in information systems.

If you use AR, I ask you to suggest in an IS context:

- Your definition (or point to one with which you empathise)
- Types of AR that you think are valid

- The constituent elements of all (or each) approach
- Domains where AR is relevant
- Bases for the practitioner/researcher relationships in AR
- Methods and skills that are required
- Forms of record-keeping and reporting of AR projects
- Expected outcomes for AR projects
- Ways of validating AR
- Other IS researchers who are researching in AR that should be contacted
- Other aspects of the debate that you think are important.

Responses will first be used to construct a questionnaire to send to IS researchers using AR, and then develop the results through a Delphi process, and finally to form one of the bases of a paper written with Richard Baskerville and Michael Myers. Contributions will, of course, be acknowledged in that paper. If you use action research please do respond to this call.

Acknowledgements

I am grateful to Richard and Michael, along with many other friends and colleagues, in particular Peter Checkland, Francis Lau, Enid Mumford, Peter Axel Nielsen, David Silverman and Trevor Wood-Harper, who have all helped form my own views on action research. These are not revealed here to avoid prejudicing the process. Most importantly, on this occasion, I am grateful to Lars Mathiassen for inspiring me to set about this project and, more generally, for his out-

standing contributions to information systems. Many congratulations Lars!

References

- Antill, L., (1985). Selection of Research Method, In: Mumford *et al.* (1985).
- Avison, D.E., (1997). Action Research in Information Systems, In: Understanding Social Research: Perspectives on Methodology and Practice, McKenzie, G, Powell, J & Usher, R, Falmer.
- Avison, D.E, Lau, F, Myers, M and Nielsen, P. A., (1999). Action Research: Making Academic Research Relevant, *Communications of the ACM*, 42, 1.
- Avison, D.E. and Wood-Harper, A.T., (1991). Information Systems Development Research: A Pragmatic View. *Computer Journal*, 34(2):98-112.
- Baskerville, R. & Wood-Harper, A.T., (1996). A Critical Perspective on Action Research as a Method for Information Systems Research, *Journal of Information Technology*, 11.
- Checkland, P., (1991). From Framework through Experience to Learning: The Essential Nature of Action Research, In Nissen *et al.* (1991).
- Elden, M & Chisholm, R.F., (1993). Emerging Varieties of Action Research: Introduction to the Special Issue (see all this issue), *Human Relations*, 46, 2.
- Galliers, R.D. & Land, F., (1987). Choosing Appropriate Information Systems Research Methodologies, *Communications of the ACM*, 30(11), 900-902.
- Galliers, R.D., (1991). Choosing Appropriate Information Systems Research Approaches: A Revised Taxonomy, In: Nissen *et al.* (1991).
- Hamilton, S & Ives, B (1982) MIS Research Strategies, *Information & Management*, 5, 339-347.
- Jonsson, S., (1991). Action Research, In: Nissen *et al.* (1991).

- Lee, A. S., (1999). Researching MIS, In: Currie, W.L. & Galliers, R. G., (eds). *Rethinking Management Information Systems* (1999), OUP.
- Lee, A.S., Liebenau, J. & DeGross, J.I., (eds) (1997). *Information Systems and Qualitative Research*, Chapman & Hall.
- Lewin, K., (1948). Action Research and Minority Problems, In: Lewin, G.W (ed.) *Resolving Social Conflicts*, Harper.
- Matthiassen, L., (Member of Panel), (1991). Turner, J.A., Bikson, T.K, Lyytinen, K, Matthiassen, L. & Orlikowski, W., (1991). Relevance Versus Rigour in Information Systems Research: An Issue of Quality, In: Nissen *et al.* (1991).
- Mumford, E, Hirschheim, R, Fitzgerald, G & Wood-Harper, A.T., editors, (1985). *Research Methods in Information Systems*, Proceedings of the IFIP8.2 Colloquium, Manchester Business School.
- Nissen, H-E, Klein, H.K & Hirschheim, R., editors, (1991). *Information Systems Research Contemporary Approaches & Emergent Traditions*, Elsevier.
- Stowell, F, West, D & Stansfield, M (1997) Action Research as a Framework for IS Research, In: Mingers, J & Stowell, F., editors. *Information Systems: An Emerging Discipline*, McGraw-Hill.
- Susman , G.I & Evered, R.D., (1978). An Assessment of the Scientific Merits of Action Research, *Administrative Science Quarterly*, 23, 4.
- Wood-Harper, A.T., (1985). Research Methods in Information Systems: Using Action Research, In: Mumford *et al.* (1995).