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Knowledge production and generating value

Taking the dual hurdle of rigor and relevance in an entrepreneurial way

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ABSTRACT

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The problem addressed in this paper is the alleged gap between theory and practice that cause universities to be detached from the real world and organisation to be detached from formal theory, thereby lacking relevant theory development in the broader fields of business and management studies (Pfeffer & Fong, 2002; Gosling & Mintzberg, 2003; Bennis & O'Toole, 2005). The aim of the research is to define design principles for knowledge production as a process of collaborative learning and value creation between scholars and practitioners and present empirical evidence. The resulting full set of transferable design principles for Learning-by-Sharing for knowledge production is presented as well as recommendations for further research. The implications for universities and organisations are discussed and the roles of scholars and practitioners are re-evaluated. Scholars, students and practitioners can benefit from the Learning-by-Sharing approach for knowledge co-production addressing real world complex issues.

Key words: knowledge production, human action, learning-by-sharing, design principles, value creation

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Introduction

The problem addressed in this paper is the alleged gap between theory and practice that cause universities to be detached from the real world and organisation to be detached from formal theory, thereby lacking relevant theory development in the broader fields of business and management studies (Pfeffer & Fong, 2002; Gosling & Mintzberg, 2003; Bennis & O'Toole, 2005).

Practitioners often do not benefit from formal academic theories. Scholars often do not benefit from practice. The gap between theory and practice can be framed in three ways (Mahoney & Sanchez, 2004; Van de Ven & Johnson, 2006; Maes, 2003; Thijssen, Maes & Vernooij, 2002; Thijssen, 2007). The gap can be framed: (1) as a knowledge transfer problem where academic knowledge is translated into practical knowledge for practical use (2) as two distinct types of knowledge where the unique character of theory and practice is explicated and (3) as a knowledge production problem where scholars and practitioners co-produce knowledge. In this paper we choose for the latter interpretation of knowledge production to generate solutions for complex problems.

To date this approach lacks empirical evidence. The aim of the research is to define design principles for knowledge production as a process of collaborative learning between scholars and practitioners and present empirical evidence. At the University of Amsterdam over the past 20 years, we have experimented with learning projects in the setting of professional education and research in the field of Information Management and developed a Learning-by-Sharing approach through interpretative concept development by studying literature in the fields of entrepreneurship, innovation, knowledge, learning and action research theory and a number of case studies in education and research in Information Management and related fields.

The hybrid research approach included 8 case studies (Yin, 1994; Yin, 2003) of learning projects at the University of Amsterdam and a cross-case analysis. Documents are coded for hints and cues from narratives to unfold patterns that present design principles in each phase of learning. After an initial set of design principles emerged from these narratives we developed an extended set of Learning-by-Sharing design principles as a proposed set of transferable design principles for knowledge production to generate value and bridge the gap between theory and practice. Through longitudinal action research (Checkland, 1981; 1985; 1991; Clark, 1972; Coghlan & Brannink, 2001; Baskerville & Wood-Harper, 1996; Susman,) in the social services sector in the Netherlands from 2001 to 2008 these extended design principles were applied and tested addressing the complex issue of poverty and social exclusion. Principles were either confirmed or disconfirmed and omissions were identified. The resulting full set of transferable design principles for Learning-by-Sharing for knowledge production is presented as well as recommendations for further research. The design categories include context, complexity, timing, purpose, people, process, performance and evaluation. The implications for universities and organisations are discussed and the roles of scholars and practitioners are re-evaluated. Scholars, students and practitioners can benefit from the Learning-by-Sharing approach for knowledge co-production addressing real world complex issues.

In section 2.1 we report on theory on learning and knowledge and current territorial debates. The gap between theory and knowledge is framed as a knowledge production problem in section 2.2. In section 3 we introduce the Learning-by-Sharing model and in section 3.1 the findings from our longitudinal action research in the form of transferable Learning-by-Sharing Design Principles for value creation. Finally in section 4 we present implications for educational innovation.

Knowledge production and design principles of Learning-by-Sharing to generate value

In this section we focus on theory on learning and knowledge and territorial debates and framing the gap between theory and practice and engaged scholarship (Van de Ven & Johnson, 2006) and introduce the Learning-by-Sharing design principles for value creation from our longitudinal study (Thijssen, 2007) derived from empirical evidence in the Netherlands in the period from 2001–2007. The framing of the gap between theory and practice as a knowledge production problem coincides with our position on generating value through Learning-by-Sharing.

Theory on learning and knowledge and territorial debates

When considering organisational learning Easterby-Smith, Crossan and Nicolini (2000; pp. 784–796) note that the debate of the *units or levels of analysis* was important as it allowed researchers of different disciplines to connect their research to the field. This debate was around whether organisational learning was simply the sum of what individuals learn within organisations, or whether there was something more to it. While the debate between individual and organisation levels of learning have subsided, the role of the group level has taken a more prominent role. In addition, the levels of analysis have been extended to examine learning *between* organisations and communities. Theorists are also using the levels of analysis to examine organisational learning in a more dynamic way (Crossan et al., 1999). In the opinion of the above authors this debate has been valuable since it has sharpened arguments and developed language, such as ‘memory systems’ and ‘dialogue’ that enable the connections to new area’s of research.

Today there appears to be a broad acceptance of various levels of analysis. The emergence of new approaches yielded a different perspective on the levels debate. The social constructivist perspective starts from the assumption that learning occurs, and knowledge is created, mainly through conversations and interactions *between* people. This is what Bruner and Haste more than a decade ago called the ‘quiet revolution’ in the study of learning and the mind. This ‘revolution’ overturned the previous dominant model which implicitly conceptualized learners as individual actors processing information or modifying their understanding, and substituted it with an image of learners as social beings who construct their understanding and learn from social interaction within specific socio-cultural and material settings (Bruner and Haste, 1987; Edmondson, 1999).

This produced a shift from an ‘*epistemology of possession*’ to one of ‘*practice*’ with respect to the themes of knowledge and knowing (Cook and Brown, 1999) and introduced a

stronger emphasis on socially oriented approaches to the understanding of learning and knowing. One of the notable consequences is the emergence of new units of analysis such as 'communities of practice' (Lave and Wenger, 1991), 'activity systems' (Engestrom and Middleton, 1996) and 'ecologies of knowledge' (Star, 1995). These units of analysis, which figure ever more in papers and studies, open unexplored ways to understand the process through which identities, artefacts, ideologies, rules, language, morality and interests are woven together and affect each other in the process of collective learning. But there are still several issues, which are not entirely resolved, which is why according to Easterby-Smith et al. (2000) it is the '*current*' debate. These include the extent to which organisational learning might be conceived as a combination of cognitive and social processes; the ways in which formal organisational structures may influence the location of learning; and the interaction of power and politics with organisational learning processes.

On the nature and the location of organisational learning Easterby-Smith et al. (2000) note that the issue of 'meaning and measurement' presents a key dilemma between the relative value of macro/positivist methods versus micro/interpretative methods. The interpretative methods are related to a growing interest in narrative and story telling which are used to make sense of organisational events and phenomena (Boje et al., 2000; Lieblich et al., 1998).

Territorial debates

Territorial debates tend to be more vigorous than those around the methodological issues, since they involve contestation of both academic and commercial turf. An interesting example that has emerged in the last few years is the tension between the ideas of *organisational learning* and *knowledge management*. Nonaka was one of the key people to popularize the idea of knowledge management, through his book on knowledge-creating companies (Nonaka and Takeuchi, 1995). In this book the authors are quite dismissive of organisational learning on the grounds that it is too reliant on stimulus-response theory, it unwittingly extends models of individual behaviour to make sense of organisational-level phenomena, and it has little of use to say about knowledge-creation. They are also critical of Argyris's (single/double loop distinction because of the paradox that double-loop learning requires outside intervention to make it work, and yet judgements about the need for double-loop learning can only be formed from inside the organisation, which is by definition, locked into a process of single-loop learning. Easterby-Smith et al. (2000) agree with the latter point but state that Nonaka and Takeuchi by emphasizing knowledge over action, they might perpetuate the Cartesian split between mind and body. If indeed, they wish to achieve a synthesis they will need to elevate the role of action, and of being and doing, within the knowledge creation process. I find these debates most interesting and I follow Easterby-Smith et al. on the issue for a need to achieve synthesis between mind and body, and of being and doing in the knowledge creation process.

The debate about the relative value of concepts of learning and knowledge has been sharpened by the popular idea of 'knowledge management' as a key to competitive advantage. Consultancy companies have managed to establish knowledge management as a major product, which employs information technology (IT) to leverage knowledge as a resource within companies. In this case the IT perspective is very dominant, and approximately 70 per cent of publications on knowledge management so far have been written by information technology specialists who focus

on the technical aspects, such as database design and knowledge warehousing. But the debate may be changing again. Evaluations (Davenport et al., 1998) of knowledge management have shown that a lack of attention to *social* factors may be impairing the effectiveness of implementations. In the academic community there are signs of convergence between knowledge management and organisational learning.

Easterby-Smith et al. look ahead to emergent issues and promising ideas, such as the *practice* and *activity* as new units of analysis. This is reinforced by the establishment of the ideas, that knowledge is always enacted and situated, and that learning at work should always be conceived as learning-in-working (Brown and Duguid, 1991; Law, 1994; Suchman, 1987; Weick, 1995).

Intersection of practices and networks of interest

Another new challenge Easterby-Smith et al. indicate is the issue of reconciling learning with diversity involving redefining the organisation. In a time of fast-growing digital interconnections and globalized, decentred corporations, it is becoming ever more difficult to think of 'organisations' as stable entities with defined boundaries. We can appreciate them more as the enduring and yet contingent outcome of collective efforts: that is, as the result of an intensive activity of assemblage, boundary-making and identity preserving, which takes place at the intersection of practices and networks of interest.

The networks of LbS communities at Via Nova Foundation and the University of Amsterdam (Maes, 2003; Huizing, 2005; Huizing, Maes & Thijssen, 2007; Thijssen, 2007) mirror that image, where a common frame of reference on a certain domain of knowledge (i.e. human centred design, information management, education and learning or experience economy) each form their own networks of academics and practitioners to advance the topic at hand. Cross-country knowledge production and sharing is proposed to accelerate learning between practitioners and scholars.

Easterby-Smith et al. note that, once we abandon or reject the assumption that organisations are homogeneous and functional units, we are left with the exciting and challenging task of making sense of, and describing, the work necessary for *sustaining the process of collaboration*.

The University System

The university as an institution is at a decisive moment in its history. It is confronted with numerous outside challenges: the demand as well as the supply of education is globalizing, the coming generation of students differs significantly from preceding ones, the need for life-long education is replacing the classical learning period between ages 18 and 23, and new technologies call for new learning models. If concepts like "learning organisation" and "learning society" are valid, then the university should be a pioneer in this field.

However, despite the changes of the past 30 years, the (European) university system has not been altered fundamentally. Learning still precedes working. Professors teach students the outcomes of their research, or they teach what they have read before. Students attend lectures, read books and articles, and take exams. Most of the time, learning processes at the university still take place in the splendid isolation of the ivory tower and is seen from the perspective of knowledge transfer from university, to student, to a practitioner.

One of the most disturbing aspects of universities is that learning continues to be viewed as *a passive process*. The teacher is perceived as the unquestioned dispenser of objective knowledge, and students as the uncritical receivers. Students can complete their study by sheer absorption and accumulation of knowledge. The actual learning process follows a predetermined route, that is, a fixed curriculum, even though universities tend to emphasize self-guidance on the part of students in carrying out learning tasks. The teacher's role is restricted to designing the curriculum, prescribing the learning path to be followed, and giving students feedback on the extent to which they have acquired the learning content. Moreover, most students work their way toward graduation in solitude.

In the past 20 years the Department of Information Management of the University of Amsterdam has experimented with alternative learning models, most of them incorporated in a successful postgraduate course in Information Management. The lessons learned from this ongoing experience have been fully adopted by the section Information Management at the University of Amsterdam. Via Nova Foundation applies the knowledge and experience in collaborative innovation projects in practice.

Framing the gap between theory and practice

Van de Ven & Johnson (2006) examine three ways in which the gap between theory and practice has been framed and argue for *engaged scholarship*. They define engaged scholarship as a collaboration between researchers and practitioners co-producing knowledge that can advance theory and practice in a given domain. The gap between theory and practice is typically framed as either (1) a knowledge transfer problem, (2) theory and practice as distinct forms of knowledge and (3) as a knowledge production problem.

Viewing it as a knowledge transfer problem

This approach is based on the assumption that practical knowledge (knowledge of how to do things) in a professional domain derives at least in part from research knowledge (knowledge from science in particular and scholarship more broadly). Practitioners fail to adopt the findings of research in various fields because the knowledge that is produced is not in a form that can be readily applied in contexts of practice. Argyris and Schön (1993; 1996) argue that scientific knowledge will be implemented only if researchers, consultants, and practitioners jointly engage in interpreting and implementing study findings. Empirically we know very little about what makes research use happen or not happen (Van de Ven & Johnson, 2006).

Viewing knowledge of theory and practice as distinct kinds of knowledge

Users of both scientific and practical knowledge demand that it meet the dual hurdles of being relevant and rigorous in serving their particular domains and interests (Pettigrew, 2001). However different criteria of relevance and rigor apply to scientific knowledge and practical knowledge because their purposes, processes, and contexts are different. The relevance of each form of knowledge should be judged in terms of how well it addresses the problematic situation or issue for which it was intended (Dewey, 1896, 1899, 1927, 1951). Van de Ven & Johnson (2006) state that we may have misunderstood the relationship between practical and scholarly knowledge, and this has contributed to our limited success in bridging these two forms of knowledge in arenas of *human activity*. Exhortations for academics to put their theories into practice and for managers to put their practices into theory may be misdirected because they assume that the relationship between knowledge of theory and knowledge of practice entails a literal transfer or translation of one into the other. Instead Van de Ven & Johnson take a *pluralistic view of science* and practice as representing distinct kinds of knowledge that provide complementary insight for understanding reality. Each kind of knowledge is developed and sustained by its own professional community, which consists of people who share a common body of specialized knowledge or expertise. Each form of knowledge is partial – a way of seeing is a way of not seeing. Strengths of one form of knowledge tend to be the weaknesses of another. Once *different perspectives* and kinds of knowledge are recognized as partial, incomplete, and involving inherent bias with respect to any complex problem, then it is easy to see *the need for a pluralistic approach to knowledge co-production among scholars and practitioners*.

Viewing it as a knowledge production problem

Van de Ven & Johnson (2006) propose that there is a growing recognition that the gap between theory and practice may be a knowledge production problem. Common to the assessments of the status and relevance of practice-oriented social science is the view that a key defining characteristic of *management research* is its applied nature. A variety of suggestions have been made for producing practice-based knowledge. Many have been institutional in nature. Structural reforms are important, but analysis of structural reforms, tend to overlook the activities of individual researchers. Pettigrew (2001) states that a deeper form of research that *engages both academics and practitioners is needed to produce knowledge that meets the dual hurdle of relevance and rigor for theory as well as practice in a given domain*.

Van de Ven & Johnson (2006) propose engaged scholarship to be extended with the strategy of intellectual arbitrage– to exploit the differing perspectives that scholars from different disciplines and practitioners with different functional experiences bring forth to address complex problems or questions. Arbitrage represents a dialectical method of inquiry where understanding and synthesis of a common problem evolve from the confrontation of divergent thesis and antitheses. It is a strategy for triangulating on problems by involving individuals whose perspectives are different.

The above discussions about framing the problem of the gap between theory and practice provide the academic context for the study, where the issue of the dual hurdle of rigor and relevance is seen as the central problem for advancing knowledge about theory and practice.

We also view the gap between knowledge and practice as a *knowledge production problem*, following Van de Ven & Johnson (2006), hence the need for a new collaborative learning model to combine rigor and relevance and in particular for empirical evidence to show that the new model generates value.

The concept of Learning-by-Sharing

The dawn of the knowledge society has created a need for a successful combination of *life-long learning, entrepreneurial behaviour and self-development*. Organizations and networks will have to be redefined as generic learning environments for individuals to generate value. This emerging perspective calls for new learning models and new learning infrastructures, examples of which are being developed at the University of Amsterdam.

The model described below involves three types of participants in the learning process and three methods of learning. The integrating concept is called *Learning-by-Sharing*. It is an eclectic learning approach and builds on existing learning approaches such as: the collaborative approach, the constructivist approach and the cognitive approach (Thijssen, Maes and Vernooij, 2002). The Learning-by-Sharing model incorporates the collaboration of three parties in real-life learning: the outside world as represented by *practitioners from business, NGO and government*, universities as represented by *teachers/researchers*, and the young generation as represented by *students*. These three parties interact in various ways, as shown in Figure 1. Their interactions are shown along the three sides of the learning triangle: learning by experimenting, learning by investigating and learning through practice.

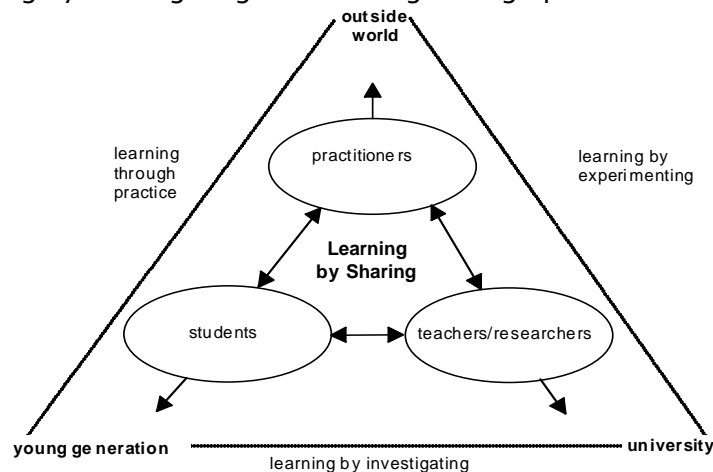


Figure 1: Learning-by-Sharing

Learning-by-Sharing design principles to generate value

The Learning-by-Sharing model as described above can be seen as a 'photograph', a two dimensional image of how theory and practice *can* collaborate to close the gap. Our research unveiled the 'movie' or Learning-by-Sharing approach in time, providing transferable design principles for generating value in time and space through Learning-by-Sharing and explains *how* engaged scholarship can take place. The evidence is based on a cross-case analysis of cases in education and research at the University of Amsterdam and longitudinal action research in the

field of combating poverty and social exclusion in the Netherlands (Thijssen, 2007). Below in figure 2 we present the findings as an overview of the Learning-by-Sharing approach as a methodology for co-producing knowledge in learning communities to generate value.

Action Research Steps	Diagnosing	Diagnosing	Diagnosing	Action Planning	Action Taking	Action Taking	Evaluating	Explicating Learning
LbS Design Category	Context	Complexity	Timing	Purpose	People	Process	Performance	Evaluation
LbS Design Principles	1.Problem definition 2.Client infrastructure 3.Levels of analysis 4.Regulatory issues 5. Social issues 6.Technology issues	1.Dynamic complexity 2.Behavioural complexity	1.Sense of urgency	1.Common purpose 2. Common language 3.Learning as a social process 4.Transformation from undesired state to a desired state 5.Real world issue	1.Inclusiveness practitioners and scholars 2.Connectedness 3.Quality relationships (trust, enabling) 4.Culture and power balance 5 Knowledge and skills	1.Action learning and knowledge co-production 2. Common frame of reference from theory 3. Mental models desired state 4.University and practice 5. Fundamental theories applied to practice 6. Engage in a dialogue, learn, innovate, account for value created 7.Quality relationships (trust, enable, enact)	1.Norms and values 2. Problem solution 3. (Social) return on investment in terms of growth, employment and competitiveness 4. Value for constituents served 5. Value for initiator, stakeholder and participants 6. Learning to learn capabilities 7.Power equality 8.Accountability	1. Gap between desired and undesired situation 2.Contribution to growth employment and competitiveness 3. Explicating lessons learned on various kinds of knowledge and the relevance to knowledge production 4. The value of internationalisation and networking 5. Validation of the Learning-by-Sharing approach 6-Conclusions, implications and recommendations for research and policy development
Roles LbS Learning Community	Initiator Stakeholders Constituents served	Initiator Stakeholders Constituents served	Initiator Stakeholders Constituents served	Initiator Moderator Stakeholders Participants: practitioners and scholars Constituents served	Initiator Moderator Stakeholders Participants: practitioners and scholars Constituents served	Initiator Moderator Stakeholders Participants: practitioners and scholars Constituents served	Initiator Moderator Stakeholders Participants: practitioners and scholars Constituents served	Initiator Moderator Stakeholders Participants: practitioners and scholars Constituents served

Figure 2: Learning-by-Sharing Approach and Design Categories (Thijssen, 2007)

Learning-by-Sharing is grounded in action research theory (Susman, 1978; Susman, 1983; Baskerville et al, 1996) and is enriched through our longitudinal research in the Netherlands (Thijssen, 2007). In figure 2 we identify the steps in action research methodology from theory of diagnosing, action planning, action taking, evaluating and explicating learning. Immediately below we present the Learning-by-Sharing design categories from our research and the subsequent Learning-by-Sharing design principles. Finally we identified the main actors in the Learning Community such as the initiator of the project, the stakeholders, the moderator, the participants

as practitioners and scholars and the *constituents served*. In all phases of the Learning-by-Sharing approach the focus is on assisting the constituents served in improving the quality of life in terms of socio-economic security, social inclusion, social cohesion and empowerment for and in socio-economic participation (Walker & Van der Maesen, 2004) as prerequisites for growth, employment and competitiveness in society.

Implications for educational innovation

When we observe the Learning-by-Sharing design categories, the Learning-by-Sharing design principles and reflect on the empirical evidence we can state the following:

- 1) A synthesis is reached between a rational and theoretical process orientation (main focus on *rigor*) and the human action orientation to transform from the 'undesired state' to the 'desired state' (main focus on *relevance*).
- 2) Human action as building *trust, enabling and enacting* come together with the use of a common purpose, a common frame of reference, and a social entrepreneurial process of engaging, learning-by sharing, innovating, and performing. Performing is defined as accounting for social value creation to the stakeholders.
- 3) This confirms Mahoney and Sanchez (2004) who proposed to *integrate processes and products of thought*, to build better business logic and *in the process* simultaneously develop new management theory.
- 4) Bringing together business and university for the purpose of studying real-world fundamental issues requires action learning or *action research in a more entrepreneurial way to combine rigor and relevance*. The roles of *initiator and moderator* are included to bring about the project and to facilitate collaborative effort, to bridge the gap between theory and practice and address the cultural difference and the language problems.
- 5) A new mindset is needed both in business and business education changing the view from knowledge transfer to knowledge production in learning communities to generate value.
- 6) The Learning-by-Sharing approach will need to be applied and tested addressing a range of complex real world issues in more contexts with different aims for value creation and with other people in different cultures. As from 2008 the approach will be applied and tested in several European countries aiming to advance the new approach further to benefit from combining rigor and relevance.

References

- Ashby, W.R. (1964). *An introduction to Cybernetics*, London: Methuen.
- Argyris, C., & Schon, D.A. (1978). *Organizational learning: A theory of action perspective*, Reading, MA: Addison-Wesley.
- Argyris, C., & D. A. Schön, (1996), *Organisational Learning II: Theory, Method, and Practice*, Addison-Wesley, Reading, MA.

- Baskerville, R. and Wood-Harper, A.T. (1996). A critical perspective on action research as a method for information systems research, *Journal of Information Technology*, Vol. 11: 235–246.
- Bennis, W.G., & O'Toole, J. (2005). *How Business Schools Lost Their Way*. Boston: Harvard Business Review, Harvard Business School Publishing Corporation
- Boje, D., Luhman, J.T. and Baack, D.E. 2000, Hegemonic stories and encounters between storytelling organisations. *Journal of Management Inquiry*, 8,4: 340–360.
- Boonstra, J. (Ed.) (2004). *Dynamics of Organizational Change and Learning*. Wiley handbooks in the psychology of management in organizations. Sussex: John Wiley.
- Brown, J.S. and Duguid, P. 1991, Organisational learning communities of practice: toward a unified view of working, learning and innovation. *Organisation Science*, 2: 40–57.
- Bruner, J.S. and Haste, H. 1987. *Making Sense*. London: Methuen.
- Checkland, P., (1981). *Systems Thinking, Systems Practice*, J. Wiley, Chichester.
- Checkland, P., (1985). From optimizing to learning: a development of system thinking for the 1990's, *Journal of the Operational Research Society*, 36 (9): 757–767.
- Checkland, P., (1991). From framework through experience to learning: the essential nature of action research, in *Information Systems Research: Contemporary Approaches and Emergent Traditions* (Nissen, H.E., Klein, H.K., and Hirschheim, R. (eds.) North-Holland, Amsterdam: pp. 397–403.
- Clark, A., (1972). *Action Research and Organizational Change*, Harper and Row, London.
- Coghlan, D. and Branninck, T., (2001). *Doing Action Research in Your Own Organization*, Sage, London.
- Cook, S.D. and Brown, J.S., 1999, Bridging epistemologies: the generative dance between organisational knowledge and knowing. *Organisation Science*, 10,4:381–400.
- Crossan, M., Lane, H., White, 1999, An organisational learning framework: from intuition to institution. *Academy of Management Review*, 24, 3: 522–537.
- Davenport, T.H., De Long, D.W. and Beers, M.C. 1998, Successful knowledge management projects. *Sloan Management Review*, Winter: 43–57.
- Davis, S. & Meyer, C. (1998). *Blur: the speed of change in the connected economy*, Perseus Books, Reading, MA.

Dees, J.G. (2001). The Meaning of "Social Entrepreneurship". *Chapter supported by The Kauffman Centre for Entrepreneurial Leadership.*

Dewey, J., 1896, The reflex arc concept in psychology. *Psychological Review*, Vol. 3 pp. 357–370. Reprinted in

Dewey, J., 1899, *The School and Society*, Chicago: University of Chicago Press, pp 39–40.

Dewey, J., 1927, *The Public and Its Problems*, Swallow Press, Athens, Ohio.

Dewey, J., 1951, *Experience and Education*, 13th edn, New York: The MacMillan Company.

Easterby-Smith, M., Crossan, M., and Nicolini, D. 2000, Organisational Learning: Debates past, present and future, *Journal of Management Studies* 37:6: 783–796.

Edmondson, A., 1999, The view through a different lense: investigating organisational learning at the group level of analysis. *In Proceedings of the 3rd International Conference on Organisational Learning*. Lancaster: 299–323.

Engestrom, Y. and Middleton, D. 1996, *Cognition and Communication at Work*. Cambridge: Cambridge University Press.

Goshal. S. & Bartlett, C. (2000). Rebuilding Behavioral Context: A blueprint for Corporate renewal. In Beer, M. & Nohria. N. Eds. (2000). *Breaking the code of Change* (pp. 195–222). Harvard Business School Press, Boston, MA.

Gosling, J. & Mintzberg, H. (2003). *The five minds of a manager*. Harvard Business Review, Harvard Business School Publishing Corporation.

Huff, A.S. (2000). Changes in organizational knowledge production. *Academy of Management Review*, 25(2), 288–293


Huizing, A. (2002). On organization: Looking back on reengineering and Ahead to Learning. Dissertation, University of Amsterdam, Universal Press, Veenendaal.

Lave, J. and Wenger, E. 1991, *Situated Learning: Legitimate Peripheral Participation*. Cambridge, MA: Harvard University Press.

Law, J. 1994, *Organizing Modernity*. Oxford: Blackwell.

Lieblich, A., Tuvi-Mashiach, R and Zilber, T. 1998, *Narrative Research: Reading, Analysis and Interpretation*. London: Sage.

- Maes, R. (2003). On the Alliance of Executive Education and Research in Information Management at the University of Amsterdam, *International Journal of Information Management*, 23 (3): 249–257.
- Mahoney J.T. & Sanchez, R. (2004). Building New Management Theory by Integrating Processes and Products of Thought, *Journal of Management Inquiry*, Vol. 13 No. 1, March 2004 34–47.
- Nadler, D., Shaw, R. & Walton, A.E. (1995). *Discontinuous change: leading organizational transformation*. Jossey-Bass Inc. Publishers, San Francisco, California.
- Nonaka, I. and Takeuchi, H. 1995, *The Knowledge Creating Company: How Japanese Companies Create the Dynamics of Innovation*. London: Oxford University Press.
- Pettigrew, A.M. (2001). Management Research after Modernism. *British Journal of Management*. Special Issue: S 61– S70.
- Pfeffer, J. & Fong, C. (2002). The end of business schools? Less success than meets the eye. *Academy of Management Learning and Education*, 1(1), 78–95.
- Sanchez, R. (1996). Strategic product creation: Managing new interactions of technology markets, and organizations. *European Management Journal*, 14(2), 121–138.
- Shane, S. (2003). *A general theory of entrepreneurship: the individual–opportunity nexus*. Edward Elgar Publishing Limited, Cheltenham.
- Star, S.L. (1995), *Ecologies of Knowledge*. Albany, NY: State University of New York Press.
- Suchman, L. (1987). *Plans and Situated Action*. Cambridge: Cambridge University Press.
- Susman, G., (1983) Action research: a sociotechnical systems perspective, in *Beyond Method: Strategies for Social Research*, Morgan, G. (ed), Sage, Newbury Park: pp.95–113.
- Susman, G. and Evered, R., (1978). An assessment of the scientific merits of action research, *Administrative Science Quarterly*, 23: 582–603.
- Thijssen, J.P.T., Maes, R. & Vernooy, A.T.J. (2002). Learning by Sharing: a Model for Life-long Learning. In T.A. Johannessen, Pedersen, A., & Petersen, K. (Eds.), *Educational Innovation in Economics and Business VI*. Dordrecht / Boston / London: Kluwer Academic Publishers.
- Thijssen, J.P.T. (2007). *Developing A Learning-by-Sharing Approach*. Via Nova Foundation: Dissertation forthcoming at the University of Amsterdam.
- Van de Ven, A. H. & Johnson, P.E. (2006). Knowledge for Theory and Practice, *Academy of Management Review*, 31. No. 4, pp. 802–821.



Volberda, H. (2004). *De flexibele onderneming: strategieën voor succesvol concurreren*, Kluwer, Deventer.

Walker, A. & Van der Maessen, L.J.G. (2004). Social Quality and Quality of Life. Draft Paper for ISQoLS Conference. Frankfurt, July 2003.

Weick, K. (1995), *Sensemaking in Organisations*. Beverley Hills, CA: Sage.

Yin, R.K. (1994). *Case Study Research, Design and Methods*, Thousand Oaks: Sage Publications.

Yin, R.K. (2003) *Case Study Research, Design and Methods*, Thousand Oaks: Sage Publications.