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PRACTICAL INQUIRY AS ACTION RESEARCH AND BEYOND

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Abstract

Action research is now a well established research approach within information systems. Action research is defined as having dual purposes; contributing to changes in a local practice and to the scientific body of knowledge. It is often seen as way to ensure practical relevance in the research. However, in the definitions of action research nothing is explicitly said about the need to develop general knowledge of practical relevance and usefulness. As an alternative and a complement to action research, another research approach is elaborated: practical inquiry. This approach relies on pragmatic philosophy. Practical inquiry shares many similarities with action research, but there are some important differences. The purpose of a practical inquiry is, through empirical study on practical matters in local practices, to contribute to general practical knowledge. This practical knowledge will be part of the scientific body of knowledge and it aims to be useful for practical affairs. In many situations, practical inquiry will also include intervention, of varying degrees, into the studied local practices. The general practical knowledge is often formulated as practical theories. Purposes and constituents of practical theories are described. An illustration of a combined practical inquiry and action research study is described in the paper.

Keywords: Research methodology, action research, practical inquiry, information system, practical theory, design theory.

1 INTRODUCTION

Action research (AR) has received much interest during several years within the information systems (IS) research community (e.g. Lau, 1997; Baskerville, 1999; Kock, 2006). It seems to be especially appropriate in the IS area since we are so concerned with issues of organisational, informational and technical change. Action research has been seen an important research strategy to address issues of great practical significance. Its scientific legitimacy has however been widely debated during the years. It has been questioned if AR is a proper research approach leading to scientific knowledge of high credibility? Its prestige has however continually been raised. Some signs of this raise of prestige are the special issues in journals like *Information Technology & People* (Kock & Lau, 2001) and *MIS Quarterly* (Baskerville & Myers, 2004). Through such endeavours its general acceptance as a research approach is increasing.

The issue of research relevance (and its relation to rigor) has been debated in the IS research community (e.g. Keen, 1991; Kock et al, 2002; Desouza et al, 2006). Baskerville & Myers (2004) claim that action research is one significant way to address the issue of improving IS research relevance. In AR, researchers and practitioners are addressing real-life practical problems. These problems are relevant, at least to the practitioners involved. Does this local relevance of problems also imply a general relevance? Are the proposed and utilised solutions relevant outside the local practice? Although Baskerville & Myers (2004) place AR within pragmatist philosophy, I do not see that they have considered the full consequences of this foundation.

The dealing with practical problems, as conducted in AR, is one way to ensure some degree of practical relevance. It can however be questioned if this is “the ultimate solution” to the problems and demands for practical relevance in IS research. The steps to merge action research and design science

(e.g. Lindgren et al, 2004) can be seen to be one step towards such a solution. The formulation of knowledge in design science approaches is attempted to be done in ways that is practically useful and relevant (e.g. Walls et al, 1992; Hevner et al, 2004). Although, this combined approach seems to be very promising, it may still be seen as too restrictive. A design science perspective may exclude other types of research that is hard to frame in such a perspective. Are there other ways to ensure practical relevance in IS research?

This paper takes action research and the demands for practical relevance as its starting point. AR may contribute to practical relevance as mentioned above, but as also identified above, it may not be a way to ensure general relevance beyond local practice. As a partial alternative to action research, another research strategy has been formulated: *practical inquiry*. This approach, rooted in pragmatist philosophy, aims at knowledge for local as well as general practice. The purpose of this paper is to elaborate the research approach of practical inquiry (PI) and as such a continuation of contributions (Goldkuhl, 2007; 2008). Practical inquiry will be compared to action research and resemblances and differences will be identified. One main result from PI may be practical theory. The roles of practical theories in practical inquiries will be investigated. One example of a practical inquiry (which is also an action research study) will be described in order to illustrate the approach (ibid).

The author has a long experience from action research (Cronholm & Goldkuhl, 2004). The experiences comprise also other qualitative studies of IS issues, which have not been explicitly AR based. The concept of practical inquiry has emerged through experiences from and reflections on such conducted studies. The formulation of the PI concept has to large degree been inspired by readings of pragmatist literature (Goldkuhl, 2004).

2 PRACTICAL INQUIRY VS. ACTION RESEARCH

2.1 Elements of action research

A definition of action research, often referred to, is the one made by Rapoport (1970): “Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework”. This definition includes the conjoint goals of action research; that of practical problem solving and contribution to scientific knowledge. It is notable that Rapoport talks about “an *immediate* problematic situation”, which means that general practical relevance is not explicitly considered.

There exist many other definitions, for example a more elaborated one, but still in the same spirit, is formulated by Hult & Lennung (1980). They have reviewed much literature in AR and refined the definition from Rapoport. In their definition, the practical goals and procedures in action research are elaborated, but not the ones concerning scientific knowledge. Hult & Lennung emphasise collaboration, mutual learning and local understanding, which are goals often referred to in AR. The goals of scientific results, i.e. the contribution to the scientific body of knowledge are not problematized. The character of the scientific contribution is simply taken for granted.

There are many models describing action research. Often the collaborative nature is emphasised. McKay & Marshall (2001) describe AR as two parallel cycles; one problem solving cycle and one research interest driven cycle. Cronholm & Goldkuhl (2004) describe AR as collaboration between two practices; one business practice and one research practice. Such models are important to clarify the nature of action research. Below I have modelled AR in a slightly different fashion (figure 1). My interest is the contribution from researchers to practice. As said in the definitions mentioned above, the researchers aim at a contribution to local practice and its change and improvement. So, one result from the researchers is the *local practice contribution*. The researchers obtain empirical data from the local practice, both concerning 1) characteristics of the operations and structure of the studied organisation and 2) the change, intervention and observed effects. In figure 1, the other result from AR is depicted

as well; the contribution to the scientific body of knowledge (SBK). The main target of this scientific result is considered to be the research community to which the researchers belong.

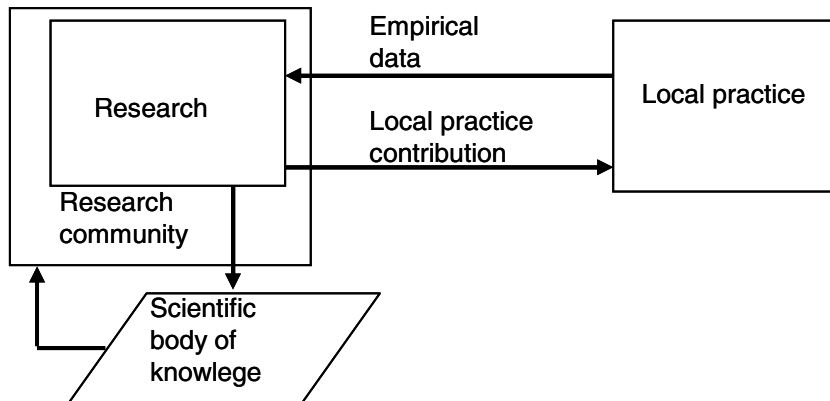


Figure 1. Action research and its dual purposes: Local practice contribution and additions to the scientific body of knowledge.

Action research is sometimes defined as consisting of several phases. Susman & Evered (1978) have specified the following phases: diagnosis, action planning, action taking, evaluation and specifying learning. These phases are described as a cycle, which means that there is clear iterative character of AR studies. Susman & Evered claim that all these phases should be conducted if one should call it a proper action research. However, they also acknowledge, with reference to Chein et al (1948), that only some phases may be performed and the inquiry may still be seen as action research. Chein et al (1948) describe four types of action research, which consist of different degrees of intervention and collaboration. One of these types of action research is diagnostic action research, where no specific actions are taken within the research process. Actually, one can differentiate between types of action research (intervention research) following some of the phases given by Susman & Evered (1978):

- Diagnosis intervention (diagnosis)
- Design intervention (diagnosis + action planning)
- Implementation intervention (diagnosis + action planning + action taking)

In this division into AR levels, I have omitted two phases; evaluation and specifying learning. These are of course important activities within AR, but I find some conceptual problems in the model of Susman & Evered (1978). Evaluation means evaluation after action taking. The initial evaluation of current situation before any action planning is called ‘diagnosis’ in their model. Is there no evaluation of the planned actions before actions are taken? Most AR studies are reflective in their nature which means a deliberation on different potential change measures. Evaluation is one inherent part in action planning. Evaluation is thus also seen as an integrated part of the action taking. Implementation comprises evaluation of consequences. Specifying learning can concern the three phases of diagnosis, design and implementation. Therefore, this phase is not mentioned as a separate phase in my enumeration above. This division into three phases will be used below when comparing action research and practical inquiry.

2.2 Practical inquiry

The concept of practical inquiry (PI) gets its main inspiration from John Dewey’s (1938) elaboration of the pattern of inquiry. It is characterized “as a natural part of life aimed at improving our condition by adaptation accommodations in the world” (Cronen, 2001, p 20). This means that an inquiry is an investigation into some part of reality with the purpose of creating knowledge for a controlled change of this part of the reality. PI follows also the ideas of action science as formulated by Argyris et al

(1985) with their emphasis on usable knowledge or “knowledge in the service of action” (ibid p 78). PI resembles also the “collaborative practice research” approach of Mathiassen (2002).

As mentioned above, practical inquiry and action research resemble to a large degree. When describing the essential characteristics of PI, I will compare with action research so differences and resemblances stand clear.

Practical inquiry acknowledges the interest into concrete practical matters and the interest to contribute to scientific knowledge. However, a slight modification of the respective goals is made in comparison to AR. PI is based on a pragmatic paradigm that sees commonsense as well as scientific knowledge as means to improve human practices (Dewey, 1938). PI emphasises that the scientific goal is to create *knowledge of the practical that is practical to the practical*. Another way to state this is to say that scientific knowledge about human practices needs to be useful for management and improvement of such practices. In the definitions of action research (mentioned above), the practical goal is differentiated from the scientific goals. The goals of science are not formulated as a matter of practical concern. This is however the case in practical inquiry. The main goal is to create *scientific knowledge of practical value*. The way to pursue this is often through interventionist procedures as in action research. But PI does not need be performed through action research.

To clarify the differences, it is necessary to introduce the concept of general practice besides local practice; cf e.g. Schatzki (2001) and Goldkuhl & Röstlinger (2006) concerning the notion of practice. A local practice is here defined as a practice studied in a research inquiry. In action research it is compulsory to contribute to the local practice studied (figure 1). Otherwise it would not be action research. In practical inquiry it is compulsory to contribute to general practice, because within this pragmatic paradigm, it is compulsory to formulate knowledge aimed for practical use. Figure 2 describes practical inquiry. When comparing with action research (in figure 1) the main difference comes clear. The main difference is that the contribution to the scientific body of knowledge is not only a matter restricted to the research community. SBK (as results of PI) should imply a general practice contribution.

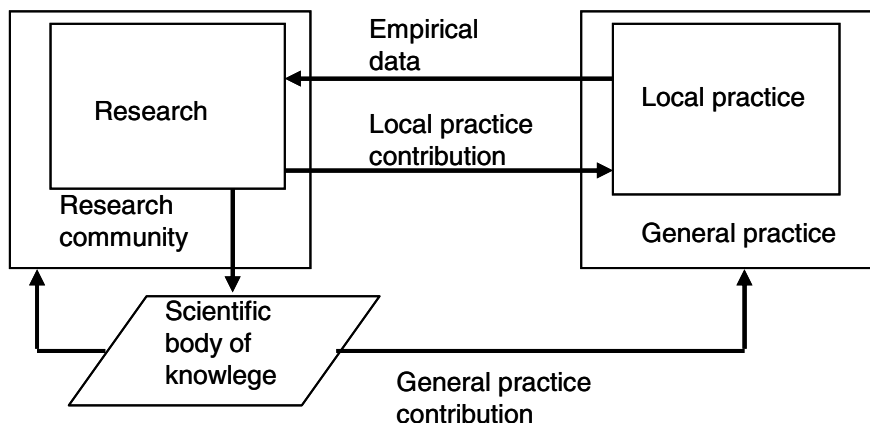


Figure 2. Practical inquiry: A research approach aiming at knowledge as a general practice contribution.

A local practice is a case of a general practice; i.e. one example of a general practice. When we talk about general practice we mean practices that share many common features. However there will of course be many differences as well due to contingent properties. How far we generalize and abstract is a question (for both researchers and practitioners) of how extendable this knowledge is in its application.

Both practical inquiry and action research contribute to the scientific body of knowledge. The differences between PI and AR lie in their relations to local and general practice. To be a practical inquiry its aim must be to contribute to general practice. Practical inquiry *may* contribute to local

practice but *must* contribute to general practice. To be action research, it *must* contribute to a local practice. AR *may* contribute to general practice through their SBK contribution, but in AR this is not compulsory. The differences between AR and PI lie in the small words of ‘may’ and ‘must’ (table 1).

	Local practice contribution	General practice contribution
Action research	Must	May
Practical inquiry	May	Must

Table 1. Differences between action research and practical inquiry with respect to practice contributions

AR and PI coincide when they contribute to both local and general practice. In such cases, an action research study is a practical inquiry and vice versa. In figure 3 the overlap between AR and PI is depicted for clarification. Someone may perhaps argue that my characterization of action research is not fair. Many AR studies will contribute with practical SBK knowledge to practices besides the studied local practice, i.e. to general practice. Yes, it is easy to agree to this – and this can be seen from table 1 and figure 3. My point here is that this is contingent, since it is not stated as compulsory in the definitions of action research. In order to make SBK contribution there is a necessity to abstract knowledge as a result of an AR process. It is however not compulsory to give this SBK contribution practically oriented formulations. Some AR researchers might do this, but AR strategies do not demand this.

One important feature of practical inquiry is that it may be, but not need to a local practice contribution. This will be further elaborated. A practical inquiry is an investigation into one or more local practices. In order to develop practical knowledge it is necessary to get close to local practices. Many times, a practical inquiry is best performed as intervention, where the practicality of knowledge is tried out in actions. There are good reasons for a practical inquiry to be interventionist (and thus be action research). Trying out knowledge (that is intended for practical use) is a good way to ensure that this knowledge really is practical (Argyris et al, 1985). Local practice contribution is also a way for researchers to behave in a socially responsive fashion. If you, as a researcher, get the opportunity and benefit to study a local practice, then it is socially appropriate to give something in return to the local practice. Even if it is just a diagnostic study that is conducted, there might be of value to the local practice to get the researcher’s evaluation.

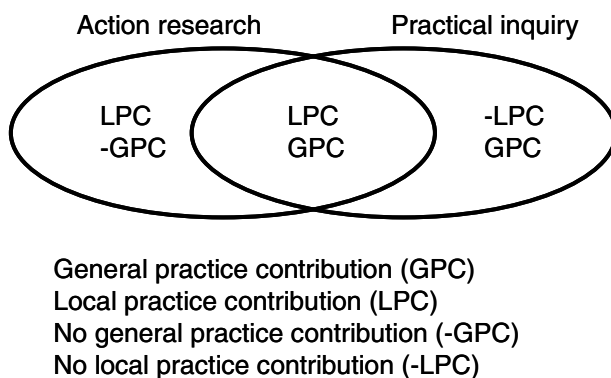


Figure 3. Differences between action research and practical inquiry in relation to local and general practice contribution

However, intervention is not a necessary condition for all practical inquiries. Sometimes a close investigation and diagnosis of local practices will give sufficient data for formulation of practical SBK. If the researchers do not feedback any result from such a diagnosis to the local practice, no

intervention will probably occur. This means that ‘local practice contribution’ in figure 2 is not necessary, although it might often occur in PI. It has been important to include such non-AR research in the definition of practical inquiry. I would not rule out non-interventionist research from the notion of PI, since such interpretive and diagnostic research can give good contributions to general practical knowledge.

Practical inquiry can thus be interventionist in character, but must not be. PI can be performed as partial action research (diagnosis intervention or design intervention) or full action research (implementation intervention). PI can however also be performed as a diagnosis without intervention, i.e. no contribution to the studied local practices.

I state the following purpose of practical inquiries: *The purpose of a practical inquiry is, through empirical study on practical matters in local practices, to contribute to general practical knowledge. This practical knowledge will be part of the scientific body of knowledge and it aims to be useful for practical affairs. In many situations, practical inquiry will also include intervention, of varying degrees, into the studied local practices in order to contribute to these practices.*

Practical inquiry is an inquiry into the practical, i.e. how things work, what works and what does not work. It is also concerned with the prospective of practices; how might things work and how things might be even better. PI follows the ideals of searching for prospective knowledge as formulated in pragmatist philosophy: “An empiricism which is content with repeating facts already past has no place for possibility and liberty” (Dewey, 1931). Practical inquiry is pursued with an interest of change and improvement. How can things be bettered? How can the practice function better? How come that the practice does not reach its potentialities? How can new more ambitious objectives be stated and how can they be reached? It is an interest for the improvement of the practice. This knowledge interest includes naturally an interest towards the problematic – why do not things work well enough? This critical knowledge of the problematic is necessary in order to move towards something better. To formulate problems is half way to solutions as Dewey (1938) has stated. It is necessary to have a good understanding of the problematic in practices in order to formulate adequate change measures. This knowledge interest for improvement of practices does however also include knowledge about the existing good. How come that a practice reach its objectives? Why is a practice working well in certain respects? Such knowledge is necessary in order to retain good practices and not to destruct the good in practices when changing them.

Why should we call it practical inquiry? Is it not a scientific endeavour? It is a scientific activity, but with practical intent. It is an investigation into practices for practices. Practical inquiry is research *about* the practical and *in favour* of the practical.

A key feature of practical inquiries is the kind of knowledge that can contribute to general practice. What is the character of SBK that makes it a general practice contribution? There may different kinds of knowledge that can be of practical value, e.g. models, methods and design principles. I will in the next section dig into the concept of *practical theory* as a key type of knowledge for practical inquiries.

3 PRACTICAL THEORIES IN PRACTICAL INQUIRIES

The concept of practical theory (PT) has been elaborated by e.g. Cronen (1995; 2001), Craig & Tracy (1995) and Barge (2004). Cronen (1995 p 231) describes practical theories in the following way: “They are developed in order to make human life better. They provide ways of joining in social action so as to promote (a) socially useful description, explanation, critique, and change in situated human action; and (b) emergence of new abilities for all parties involved.” Practical theories should help us to see things, aspects, properties and relations which otherwise would be missed (Cronen, 2001). “Its use should, to offer a few examples, make one a more sensitive observer of details of action, better at asking useful questions, more capable of seeing the ways actions are patterned, and more adept at forming systemic hypotheses and entertaining alternatives” (ibid, p 30). The concept of *practical theory* emphasises the usefulness of such theories. Theories are seen as *instruments* to manage the

world as has been pointed out in pragmatist philosophy (Dewey, 1931). A practical theory is a kind of instrument for practitioners struggling to manage and improve their practices. A practical theory may also be an appropriate instrument for conducting practical inquiries, thus informing researchers as well as practitioners.

Practical theories may play several important roles in practical inquiries. Practical theories can be used as bases to inform the process of a practical inquiry. It can also be one important result of practical inquiries. Different uses of theories in case study research are identified (Eisenhardt, 1989; Walsham, 1995): as an initial guide to design and data collection; as part of an iterative process of data collection and analysis; as a final product of research. This corresponds well to the roles of practical theories in practical inquiries. Practical theories can both be used as guides to inform data collection and data analysis, and be one end result from the inquiry evolving through the process of it (figure 4). Barge (2004 p 188) writes: “Practical theory evolves through its reflexive relationship with practice meaning that theory should inform our practice and the consequences of our practice should yield new insights for revising our theories”.

Sometimes it can be the same theory that acts as input and as output in a practical inquiry; the latter as an unchanged version (given more confirmation) or a modified version based on new insights. However, there may be other practical theories that are used as bases than is the end result. A new practical theory can evolve through the practical inquiry, although linked and related to ones used as theoretical instruments in the inquiry. A practical theory can evolve in the course of the practical inquiry, continually informing data collection, intervention/experimentation and data analysis. This corresponds to the concepts of evolving theory and theoretical sampling in Grounded Theory (Strauss & Corbin, 1998). As an end result, a practical theory is both a contribution to the scientific body of knowledge and to general practice (as transferable and useful knowledge), as described as the goals of practical inquiry above (section 2.2). This duality is important to emphasize: A practical theory is at the same time 1) scientific knowledge comprising claims of validity and rigor and 2) practical knowledge aiming at useful guidance for practitioners struggling in their practices (Goldkuhl, 2008).

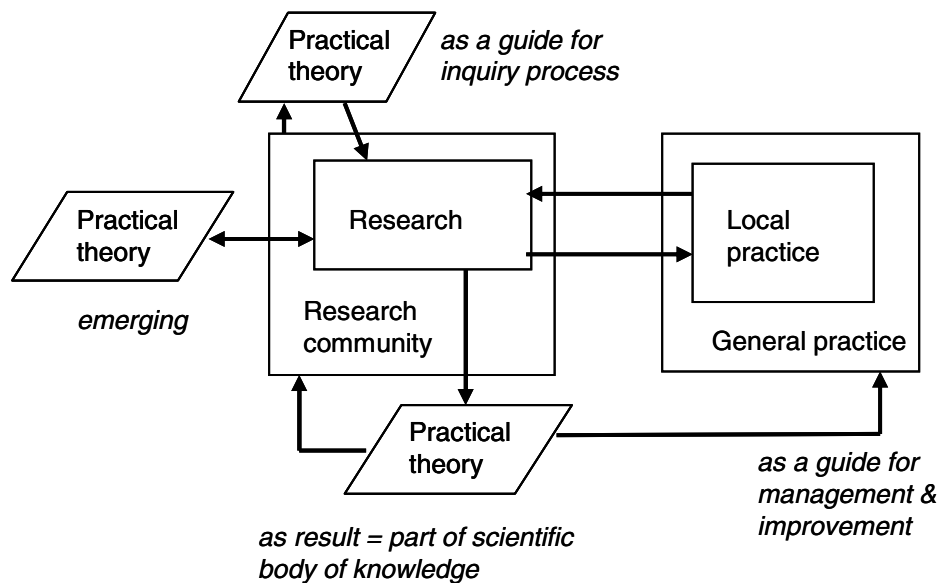


Figure 4. Different roles of practical theories

Cronen (1995; 2001) has grounded the idea of a practical theory in pragmatic philosophy and the concept of inquiry according to Dewey (1938). The constituents of a PT are not distinctly elaborated. “Definitions, descriptions, models and case examples all contribute to guiding its use” (Cronen, 2001 p 30). In a pragmatic spirit Cronen’s emphasis is on its use. However there is also a need to specify its possible constituents in order to help people to develop and evaluate practical theories. I have been

working with different kinds of practical theories for several years; e.g. Workpractice theory (Goldkuhl & Röstlinger, 2006), Business Action Theory (Goldkuhl & Lind, 2004) and Information Systems Actability Theory (Sjöström & Goldkuhl, 2004). Based on my experiences from working with these practical theories I want to contribute with the following specification of possible (partially overlapping) constituents of a practical theory:

- Conceptualisations
- Patterns
- Normative criteria
- Design principles
- Models

A practical theory is more or less general. During its emergence and application in a particular practical inquiry it might be well appropriated to the studied local practices; as a “local theory” (Gummesson, 1991). After the empirical parts of a PI, a process of abstraction should follow. Formulations should be altered in order to obtain more generalized concepts which transcend the contingencies of the local practice. A practical theory is a way to transfer practical knowledge from one local practice context to other practices. In order to make the practical knowledge transferable and useful it is necessary to conduct such analytical abstractions (ibid). A practical theory should be abstracted to cover different kinds of phenomena in some delineated practice scope. Such a practice scope of a PT should concern a “general practice”. This means something more general than a particular local practice, but not totally universal.

By *conceptualisations* in a practical theory, I mean *what things, properties and relations* that exist in practices. The word ‘thing’ is used in a very broad sense here. Not only as a static external object. It can denote all possible phenomena (actions, processes, actors, thoughts, artefacts, texts, norms etc) in practices. By conceptualisations we describe the ontological essentials within in the practice scope. One can talk about practice relevant conceptualisations. Conceptualisations, as a basic constituent of a practical theory, include concepts (categories as abstracted phenomena) and relations between the concepts. Conceptualisations, as consisting of definitions of core categories, will have a central place in a practical theory. Sometimes a practical theory may consist of nothing more than this part (conceptualisations). This follows the idea that theory is not restricted to explanation and prediction (Schatzki, 2001). A theory can be “systems of generalizations”, “typologies of social phenomena”, “models of social affairs”, “accounts of what social things are”, “conceptual frameworks” and “descriptions of social life couched in general, abstract terms” (ibid, p 4). Conceptualisations can of course be described textually but also graphically as a kind of conceptual modelling.

By *patterns* I mean *how things (may) work*. This implies abstractions of socio-pragmatic processes in practices. Actions play a central role in pattern descriptions (Blumer, 1969; Strauss, 1993). Actually, pattern descriptions are mainly organized around actions as the central theme. This follows also the main structuring principle of theorizing according to the Grounded Theory approach (Strauss & Corbin, 1998). An action paradigm is used for axial coding in Grounded Theory. I would like to call this part of theorizing (in a PT) as pattern coding. In pattern descriptions we include preconditions, enablers, affordances, obstacles, strategies, tactics, actions, states, transitions, consequences and similar meta-categories. It is important to state that pattern descriptions unfold socio-pragmatic possibilities rather than any strict causality. Most social practice patterns are not deterministic; instead they are based on voluntariness, customs and habits. Besides textual descriptions, one can use graphical models to depict action patterns, as e.g. theory diagrams according to Axelsson & Goldkuhl (2004).

By *normative criteria* I mean *the goodness of things*. Practices are social phenomena arranged intentionally and as such they inherently include values (Argyris et al, 1985; Schatzki, 2001). Normative criteria state explicitly different values associated with practices and actions and artefacts that are comprised within them. There may be many different values associated with practices and usually some are conflicting. There will thus possibly be several normative criteria in a practical

theory and some may be conflicting. Normative criteria can be used for both evaluation (diagnosis) and design of practices.

By *design principles* I mean *ways how to create good things*. This means that design principles can be used for development of practices. Design principles should not be equated with methods which I consider to be concrete procedures and instruments for development. Design principles are formulated on a more general, abstracted and principal level than a method. Of course methods build on and instantiate good design principles. Design principles are clearly related to normative criteria. Design principles describe ways to create certain goals of practices (i.e. normative criteria). This means that design principles are instrumental in relation to normative criteria.

Design processes may be guided by design theories (Walls et al, 1992). A design theory can be seen as a special case of a practical theory; a design focused practical theory. In such a theory, normative criteria and design principles play central roles. Comparing with the definition of a design theory in Walls et al (1992), normative criteria correspond to meta-requirements and design principles correspond to the method component. It is beyond purpose and scope of this paper to make any in-depth comparison between the notions of practical theory and design theory.

By *models* I mean *illustrative crystallizations* of a practical theory aimed as analytic instruments when applying the theory. A model is a graphical or a tabular description of some important aspects of the practical theory. Such a model may guide researchers or practitioners to observe, understand, analyze, evaluate and redesign phenomena within practices.

4 AN ILLUSTRATION

As said in the introduction, the author has many years of experiences from conducting action research. The research strategy, coined here as practical inquiry, has emerged through such research experiences together with readings of pragmatist literature. In order to give some more flesh to the notion of practical inquiry, I will briefly illustrate it by describing a recent research study (Goldkuhl, 2007).

This research study is part of a larger research endeavour, where the author collaborates with several local governments concerning public e-services. Within this larger R & D project, a need for a smaller specific study was identified. A requirements specification of a planned e-service for child care had been developed through a conjoint process with participants from several local governments. No researcher had participated in this requirements analysis process. The practitioners expressed a desire for a researcher review of this requirements spec before procurement was initiated. I got an assignment to perform a quality assurance of the requirements spec.

The requirements spec was rather detailed. It consisted of detailed descriptions of functional requirements for six main e-services. It was also supplemented by other descriptions (process models, data models, message transfer descriptions, project plans). The spec was evaluated by me and a review report was produced. I found several serious deficiencies in the spec. The evaluation consisted of criticisms and proposals for improvement. The result of the evaluation was also presented orally and discussed at three seminars with the practitioners. The review led to a reformulation of the requirements spec before procurement was initiated. I participated together with the requirements analysis group in the reformulation of the spec.

What kind of research was performed in this study? It was not governed by any ex ante hypotheses or specific research questions. It was governed by a general research interest concerning public e-services. Specific research questions emerged through the review process. I utilized, in an opportunistic fashion, the discovered deficiencies and other characteristics in order to develop valuable knowledge. The knowledge developed was 1) a local practice contribution consisting of criticisms and proposals. Based on this local practice contribution and other empirical data, 2) parts of a provisional practical theory have emerged. This theory contribution has been described in Goldkuhl (2007).

From this follows that the research performed has been pursued as a practical inquiry. It has had clear local practical purposes. It has contributed with criticisms and proposals to the local practice (in this case the e-service development process). This can be considered as a design intervention practical inquiry. It consisted of diagnosis of the requirements spec and proposals for change (i.e. action planning) of the spec which also were at least partially accepted by project group. This means that it was a partial action research (without action taking/implementation as part of the research process). Confer the discussion above different types of action research (section 2.1-2).

In the conducted PI different types of data were used. The main data source was the requirements specification in its original form and also the revised version. I participated in four project seminars/meetings around the requirements spec and field notes were taken during these meetings which also have been used as empirical data. A review report was produced as an evaluation result. The review report is also an important data source for the development of the practical theory.

In the review process, different existing practical theories were used to inform the evaluation. I used social action oriented theories and models on 1) government – citizen interaction (Goldkuhl & Lind, 2004) and 2) user interfaces (Sjöström & Goldkuhl, 2004). These theories/models were used as lenses when inquiring the planned e-service application. They helped me to understand the e-service application and to raise critical questions. These lenses were not put on from the start of the inquiry. They were instead brought forth, from a “tool-set” of possible lenses (theories/models), when demanded from the doubtfulness of the situation. If the situations had been doubtful in other ways, other more appropriate theories/models had been used as lenses.

My work did not only result in criticisms of the requirements specification. The study of the empirical material (mainly the spec), made in the light of used practical theories, led to an improved understanding of the e-service notion. This improved understanding can be said to be part of an evolving *practical theory* of public e-services. The *practical inquiry*, performed by me, has thus led to concrete knowledge as well as a developed practical theory. The espoused criticisms and proposals are thus grounded in used and developed practical theories.

The practical inquiry has thus resulted in an emergent practical theory. This theory consists of 1) *patterns* of e-service actions which are abstracted from the case. It consists also of 2) a provisional *conceptualisation* of public e-services based on the performed case study. This conceptualisation consists of a typology and a preliminary definition of public e-services. The practical inquiry has been guided by a clear goal (normative criterion): to improve the service to citizens through public e-services. This means that 3) the *normative criterion* of served citizen is also one main component of the evolving practical theory. The emergent practical theory on public e-services has been described in Goldkuhl (2007). The practical theory is intended for general practice contribution in the practice area of public e-services. The constructs in the evolving practical theory are intended to be used to inform practical design and evaluation of public e-services. It is also intended to be used in future practical inquiries and thereby be further developed. The pragmatic view on theories is that they will never be finalized (Dewey, 1938; Gummesson, 1991; Cronen, 2001). They are in a continual state of evolution.

5 CONCLUSIONS

Kock & Lau (2001) state that action research is serving two demanding masters. It means serving 1) the demands of the research client (local practice) and the demands of the research community. Practical inquiry goes one step further. PI means often serving three masters; the two ones mentioned above and 3) the demands of general practice. The abstracted results shall not only serve the research community. They should also serve the demands of general practice. This is a way to address the key issue of relevance. The formulation of scientific knowledge as a result of practical inquiries should be done in ways that this knowledge is relevant and useful for practices also outside the studied local practice. This means probably not relevant for all possible practices but for those practices which are fairly alike the one studied.

One claim in this paper is that action research per se may not meet the demands of practically relevant contributions to the scientific body of knowledge. Successful action research implies a contribution to the change of a local practice. If the extraction of knowledge from this researcher supported local change is not made in a way that will suit the practical audience outside the studied local practice, then the demands of practical relevance and usefulness are not met. Practical inquiry makes general practice contribution as a prime concern and objective. As an objective, it will not always be reached. However, the spirit of practical inquiry is that the goal of general practice contribution should govern our creation and formulation of the scientific body of knowledge.

The title of this paper is “Practical inquiry as action research and beyond”. What does ‘beyond’ mean? It can be interpreted in two senses. 1) Practical inquiry strives for practical relevance *beyond local practice*; as a general practice contribution. There are many reasons for a practical inquiry to be performed as action research. 2) However, this is not necessary condition. There may be other kinds of studies, *beyond intervention*, which may give empirical data for generating knowledge for general practice. Practical inquiry intends to make a difference to the world, generally and often locally!

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