

THEORIZING AND SITUATIONAL INQUIRY IN PRACTICE RESEARCH

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Abstract

An approach to practice research is presented. The main purpose of the paper is to describe the research practice of practice research. The main ideas of practice research is 1) to consider the empirical field in terms of practices, 2) to develop knowledge through situational inquiries into local operational practices and 3) to contribute with abstract useful knowledge to general practice and research community. This means that practice research is research about practices, research for practices, research with practices and usually research in practices. Practice research is divided into two closely related sub-practices: situational inquiry and theorizing. Practice research is also related to three target practices/communities: local operational practice, general practice and research community. The paper also contains ontological assumptions (from practice theories) and epistemological assumptions (from pragmatist epistemology). Three examples of practice research are briefly described as illustrations.

Keywords: Practice research, research vs. practice, inquiry, theory, pragmatism.

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1 Introduction

1.1 Background

Social research faces many challenges. There are on-going debates on how to conduct research, what kinds of results aimed for and for whom these results are produced. There are many scholars who claim the inadequacy of a traditional intra-disciplinary research which tends to be self-contained. More practical relevance is demanded both in input (problems addressed and generation of data) and output (usefulness of produced knowledge). In this spirit Gibbons et al (1994) describe a “new” mode of knowledge production that is done “in the context of application”. This entails a closer interaction and collaboration between researchers and practitioners related to the production of knowledge (ibid; Lindblom, 1990; Nowotny et al, 2001; Van de Ven, 2007). There is an urge to address real problems in real social settings and to develop adequate and useful knowledge to deal with such problems. When we talk about real problems, this means that we do not limit ourselves to problems as intellectual challenges. As Lindblom (1990 p 4) states: “A social problem arises only when people look at a state of affairs in a particular way: specifically, with a desire for its improvement”. I would hasten to add that real problems often imply great intellectual challenges since they may be very complex and difficult to handle.

There exist many practice-oriented approaches. Mathiassen (1998; 2002) presents an approach (with the label “collaborative practice research”) which combines in-depth studies of workpractices, collaboration between researchers and practitioners and an aim to produce useful knowledge. Mathiassen proposes a combination of different research orientations within this practice research approach: collaborative and planned intervention; controlled experimentation and design; and practice observations aimed for understanding. The collaborative and planned intervention can be seen as typically action research (AR), but as understood, Mathiassen argues that this is not sufficient. Other complementary orientations are needed.

In a similar spirit, Goldkuhl (2008) has presented an approach labelled “practical inquiry”. A practical inquiry may comprise action research, but this is not necessary. There may be other local practice contributions than implementation of changes. The most important in practical inquiry is to produce useful knowledge for “general practice”, that is practice communities not limited to the local practice studied. The study of a local practice should be conducted as an *inquiry* (Dewey, 1938; Cronen, 2001) with a knowledge interest of what can be improved in the practice.

These two approaches are examples of research that may comprise action research but also goes beyond it. There are of course many other approaches that emphasise research which is driven by problems in local practices and a knowledge interest of improvement; e.g. action science of Argyris et al (1985), co-operative inquiry of Heron & Reason (2001), collaborative management research of Pasmore et al (2008), clinical inquiry/research of Schein (2001) and development action inquiry of Torbert (1999).

There is also a growing interest in combining AR with explicitly design oriented research. Based on the view on social and technical settings as artificially shaped (Simon, 1969) a design research (DR) orientation has grown (e.g. Hevner et al, 2004; Walls et al, 1992; Gregor & Jones, 2007). There are resemblances but also differences between AR and DR which has been discussed by several scholars (e.g. Cole et al, 2005; Järvinen, 2007; Iivari & Venable, 2009; Sein et al, 2011). There are obviously several ways (using many different labels) to conduct problem and practice oriented research.

An interest in studying social settings as practices has been emphasised by several scholars. Schatzki et al (2001) has described this as a *practice turn* in science. Other scholars who share this practice orientation are Gherardi (2000; 2009), Scollon (2001), Goldkuhl & Röstlinger (2002; 2006), Reckwitz (2002), Whittington (2006), Miettinen et al (2009), Bjørkeng et al (2009) and Simpson (2009).

1.2 Purpose and procedure

There is a need to further clarify approaches for researching practices. The purpose of this paper is to further develop an approach for practice research (PR). This approach is based on earlier contributions (those mentioned above as well as others). The main idea is to consider *practice research as a practice* in itself. The paper tries to contribute with a conceptualisation of practice research as a research practice. This means a clarification of purposes, results, conditions, activities, actors, target groups and other relevant matters.

The author has for several years been engaged in many research endeavours of practice research character: IT development in eldercare (Cronholm & Goldkuhl, 2002), e-services for child care (Goldkuhl, 2007), joined-up e-government in local governments (Persson & Goldkuhl, 2009), collective competence development among IT consultants (Cronholm & Goldkuhl, 2010) inter-organisational IT development within personal assistance for disabled persons (Sjöström & Goldkuhl, 2009) and evaluation of a taxation e-service (Goldkuhl, 2009).

Based on these cases and a continual development of concepts and strategies it is now time to present an elaborated approach for practice research. Literature (mentioned above and below) on ontological, epistemological and methodological practice issues has been a great source of inspiration. This means that the development of this PR approach has been theory-informed, idea-based and empirical in character.

The paper is structured in the following way: I will first present some ontological and epistemological foundations for practice research. Then I will go into more details concerning the research practice of practice research. The two sub-practices of practice research – theorizing and situational inquiry – will be presented. Three brief empirical examples of practice research are given in order to illustrate different principles. Conclusions will end the paper.

2 Foundations of practice research

2.1 Key principles

As research, PR produces knowledge. It produces *knowledge about practices*. This means that the *empirical field* is conceived as *a set of practices*. This is an ontological stance that will be further developed below. In PR, this means also that the practice comprehension is kept during knowledge development. When studying and analysing different empirical elements, their contextual practice background is retained during conceptualisation in order to avoid fragmentation.

Real practices as the empirical input part of PR, as described above, is one aspect of ‘practice’ in practice research. ‘Practice’ has also meanings concerning output. Practice research produces *knowledge for practices*. There are several practices (and their inhabiting actors) that are *target groups* for PR knowledge. The main target group is seen as *general practice* (i.e. practice communities). The creation of *abstract and useful knowledge* for general practice is seen as the main purpose of PR (Goldkuhl, 2008). This knowledge contribution is called *general practice contribution* (GPC). This is founded on a basic attitude from pragmatism to *improve existence through knowledge* (Dewey, 1938). Research communities are of course important target groups of PR. Fellow researchers are recipients but they are also key providers of extant theories and key interactors through dialogue and review.

The study objects of PR are local practices. Inquiries into situations in local practices create knowledge *about such practices* which may be furnished back to these practices as *local practice contributions* (LPC). In PR, research about local practices will also often mean *research in such practices*. What is going on in practices is seldom easily available from distant viewing. There is often necessary for practice researchers to get *close* to the studied practice and arrange for *access* to what is

not only immediately visible or reportable (Gummesson, 1991). This entails also that the inquiry is performed through collaboration between researchers and practitioners. PR is research *with practice*.

A terminological note should be made on the use of 'practice'. The practice perspective entails that all social activities are seen as practices. This means that we call both parts of the traditional dichotomy *research* and *practice* as 'practices'. Sometimes this makes the use of 'practice' as a bit problematic, since it can mean both the generic concept of practice and sometimes a practice as opposite to research. The meaning of the word 'practice', in the following will be clear by the context or by some suffix notion like 'local', 'operational' etc.

2.2 Ontological assumptions

The ontological stance to study social settings as practices needs to be further elaborated. A practice is seen as a *meaningful unit of work*. It is a meaningful *assemblage* of human actors (including their intra-subjective and inter-subjective inner worlds), actions, linguistic objects (as utterances and documents) and material objects. It is considered a meaningful unit, since the different parts of the practice function together in meaningful ways and what is done *make sense* to those involved. Actions in practices are always interrelated in different ways. Actions can be seen through different lenses; as performed 1) by individual actors, 2) collectively by several actors, 3) by humans and artefacts together or 4) by artefacts in pre-arranged ways. A practice is usually not self-contained. What is done in a practice is often done *in favour of some people* outside this practice, i.e. the clients of the practice.

The holistic notion of a practice means that there is *coherence* and *congruence* between different practice elements. The elements of a practice are determined by their functions in relation to the whole of the practice and the other elements of the practice. Practices are at the same time stable (in following institutions and routines) and changing. Practices are *dynamical* and *continually evolving*, which means that besides coherence there might exist tensions and contradictions. The internal logic of a practice is related to and framed by external practices and stakeholders. There are *external expectations* and other circumstances that govern the evolution and operation of a practice. Different practices are related to each other in complicated ways. There may be relations of contribution, governance, cooperation, competition and disfavouring. There might be overlaps between different practices and one practice can be a subset of another practice.

A practice is shaped by humans as an organised, artificial and continually evolving arrangement, *enabled* and *restricted* by human knowledge and financial, semiotic and material conditions. This ontological stance has epistemological implications. Without seeing the practices, the social world becomes fragmented. Studying social objects without considering their practice habitat is very risky and may imply confusion and misunderstanding.

Practices are thus not happenings without order. Practices are enacted according to ways of conduct. There are ways how to do things and how to conceive things. There exist a type level of practice actions (a manner) and there are instances (enactments) of such types. The way to perform actions can be more or less established and there might also be strong contingent influences which lead to improvisation and individualisation of actions that differ from the "manner of practice". What is called practice manner is known under different labels such as collective habits (Dewey, 1922), custom (Weber, 1978), institution (Berger & Luckmann, 1966; Scott, 1995), rules (Searle, 1969; Engeström, 1984), methods (Garfinkel, 1969; Sacks, 1992), routine (Cyert & March, 1963; Strauss, 1993), structure (Giddens, 1984), social pattern (Zerubavel, 2007), social grammar (Malone, 2004), culture (Duranti, 1997) and shared practical understanding (Schatzki, 2001). I do not claim that all these concepts are synonyms in total, but they all refer to what I have called the practice manner, i.e. the typical ways actions are performed within a practice. A practice manner comprises different inter-related and over-lapping aspects as behavioural ("how to do things"), cognitive-interpretive ("how to conceive things"), normative ("which values to be pursued"), regulative ("which rules to follow") and linguistic ("how to talk about things").

2.3 Epistemological assumptions

An epistemology of practice is founded on the practice ontology described above. It is also based on the aim of contributing to practices. This means a quest for *functional knowledge*, which means useful knowledge aiming for development and improvement of practices. Functional knowledge may imply knowledge that is explicitly *prescriptive*, but it also comprises *useful conceptualisations* with a function of directing actors' *attention* towards certain types of phenomena (Cronen, 2001).

This functional knowledge view should be based on a *normative* orientation towards what is conceived as valuable and promising in practices. From a normative interest follows naturally a *diagnostic* orientation towards evaluations of practices. This might comprise a *critical* orientation in order to reveal deficiencies in practices. It may also entail a *prospective* and design orientation for the new and innovative in practices. An interest for the improvement of practices entails that we move beyond only as-is studies of practices. In practice research there will be an interest for new possible ways to arrange practices. Dewey (1931) expresses this in the following way: "An empiricism which is content with repeating facts already past has no place for possibility and liberty."

The pragmatic view on knowledge entails a close link between knowledge and action. Knowledge is generated through different kinds of action. Close observation of what is done in practices is pivotal, but an epistemology of practice may also comprise *learning* through *experimentation* and *exploration* of news ways to act.

The view of practices as dynamically evolving entails a view on knowledge as *provisional* and continually evolving. Knowledge is *co-created* through *dialogues* between different stakeholders, both researchers and practitioners. A substantial part of knowledge development is conceptual enhancement and language renewal.

3 The anatomy of practice research

3.1 From two to three practices

The distinction into general and local practice contribution was introduced by Goldkuhl (2008) as results from a practical inquiry. This notion of practical inquiry can be said to be equivalent to practice research as it is described in this paper. Goldkuhl (2008) described practical inquiry (PR) in relation to general and local practice and to a broader research community (figure 1). I build on this conceptualisation here. However, it is necessary to unfold (practice) research. What different activities are there in practice research? One of the main purposes of this paper is to clarify different activities of practice research.

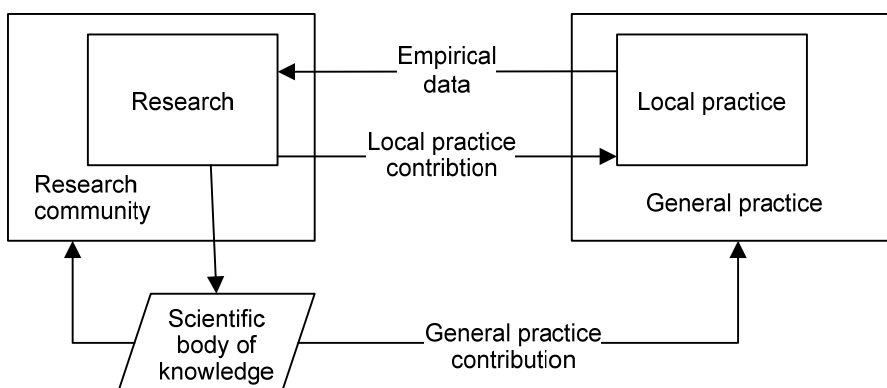
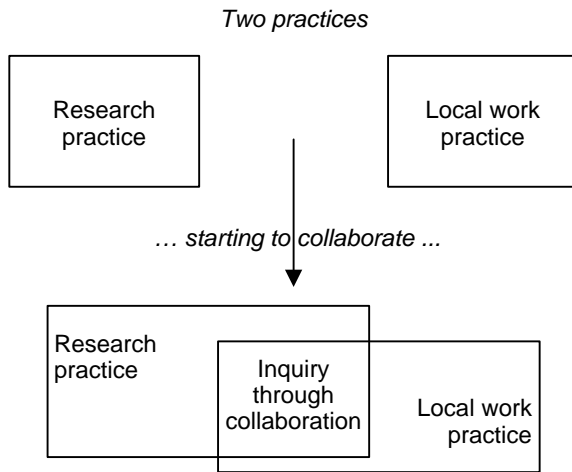


Figure 1. Practical inquiry/practice research according to Goldkuhl (2008)

The way to make this unfolding is through clarifying the relations between research and local practice. A practice research endeavour is usually a kind of collaboration between researchers and practitioners from some local practice. This can be described as two different practices starting to collaborate, which implies the emergence of a third intersecting practice (figure 2).



... and a third intersecting and interactive practice emerges

Figure 2. Practice research as collaboration between practices (with inspiration from Cronholm & Goldkuhl, 2004)

In figure 2 this new emerged practice is called “inquiry through collaboration”. As an intersecting practice this will be a subpart of two different practices. What is done in this new practice is thus multifunctional. The inquiry will serve certain purposes from the researchers’ perspective and it will serve certain purposes from the perspective of the local practice. From the research perspective this will be empirical work and from the local practice perspective this can be said to be a kind of change work or at least a reflection arena studying the local operational practice (figure 3).

The research practice (of PR) will consist of this empirical inquiry sub-practice and a non-empirical part. This non-empirical part will be called theorizing (figure 3). The local practice can be sub-divided in a similar way into a local operational practice (LOP) and an inquiry and change practice. The intersecting practice will be called “situational inquiry” in the following and will be thoroughly described below (section 4).

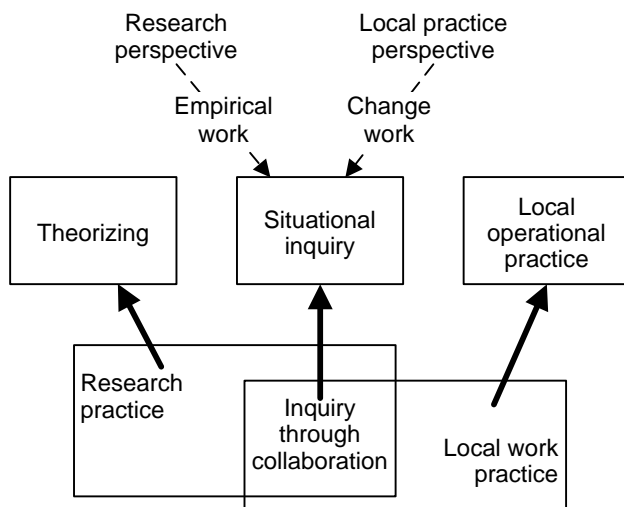


Figure 3. Three interrelated practices

3.2 The anatomy of practice research: Two sub-practices and three target practices

The research practice of practice research has thus been unfolded into two related sub-practices: theorizing and situational inquiry. I use this division and relate it to local operational practice, general practice and research community and thereby constructing what I call the “anatomy” of practice research (figure 4). Different actors have been placed in the anatomy model. The following abbreviations have been used: R = researchers (active in the research process); P = practitioners (belonging to the local practice); OR = other researchers (not participating in the focused research; belonging to research communities with relevance for the focused research); OP = other practitioners (in practices outside the studied local practice; i.e. belonging to “general practice”). Researchers are producers of practice research; they are active in theoretical and empirical work. A situational inquiry is often pursued in collaboration between researchers and (local) practitioners. There are many possible cooperation forms and role divisions between these different actors. Sometimes, researchers may have a driving role. In other cases, local practitioners may drive a change process and researchers participate mainly as inquiry servants. Avison et al (2001) and Coghlan & Shani (2005) have described different kinds of roles of and relations between researchers and practitioners in action research.

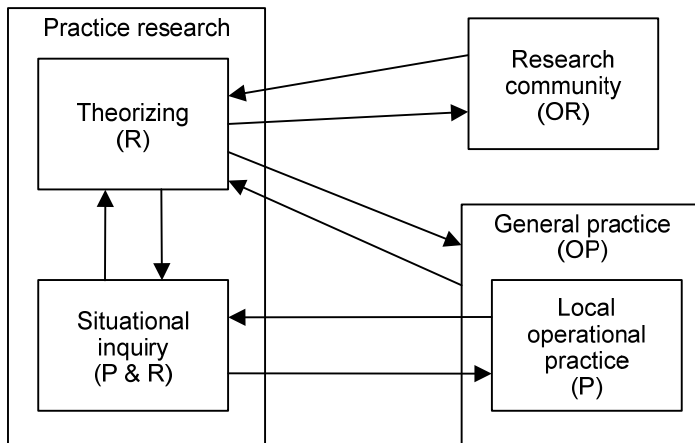


Figure 4. The anatomy of practice research

A radical view on collaborative research is that practitioners should participate in all kinds of research issues, both planning, selecting of methods and theorizing. This view has been expressed by Heron & Reason (2001). This is, however, not seen as a demand in practice research. Those who are responsible for the production of new scientific knowledge (e.g. theories) are labelled “researchers”. Practitioners may participate, in their roles of being representatives of a local work practice, in inquiry and change of the local practice. This means that they participate in the empirical part of the research, but not as performers of empirical research but instead as generators of empirical input. If practitioners participate in a theorizing activity, aiming to produce general scientific knowledge, they are participating in such an activity as a “practitioner-as-researcher”. Therefore there is “P & R” in situational inquiry and only “R” in theorizing in figure 4.

Practice research has been divided into these two distinct sub-practices (situational inquiry and theorizing). There are both similarities and differences to a traditional research view. The division of research work into theoretical and empirical work is fundamental in science. In a traditional research approach there is a typical and simple sequencing of these activities: First theorizing (formulate hypotheses), then empirics (collect data) and then back to theorizing (analyse data and formulate corroborated theory). In practice research, the interplay between theorizing and empirics/inquiry is much more intense. There is definitely not just one cycle as in traditional research. There is a continual

back and forth movement between situational inquiry and theorizing. The cycles can be very fast and the different activities may be so closely related that the differences between them tend to be blurred. For example a researcher can, in an inquiry meeting (empirical part), take field notes which may, besides documented observations, comprise theoretical reflections, which could be seen as part of the theorizing activity. A researcher can thus in a quasi-simultaneously manner perform empirical and theoretical work within a PR approach. Anyhow, it is for reasons of conceptual clarification important to describe situational inquiry and theorizing as distinct activities in practice research. These two sub-practices will be further described below (sections 4 and 5).

I am talking about *a* local practice, when describing practice research. A PR endeavour is always investigation into some concrete existing local practice. There can be a single case study investigating only one local practice, but there might also a multi-case study of several practices. The notion of situational inquiry (described below) is always an investigation into one local practice, but there might be several situational inquiries (studying several practices) going in parallel or sequence with the purpose of generating abstract knowledge based on these different inquiries. When performing parallel, and sometimes integrated, situational inquiries into several local operational practices, there will probably be accompanying purposes of mutual knowledge transfer and comparison in order to enhance collective knowledge development and trans-practice learning.

4 Situational inquiry

4.1 The inquiry notion

Situational inquiry (SI) is inspired by the deweyan notion of inquiry (Dewey, 1938). Inquiry is seen as “a natural part of life aimed at improving our condition by adaptation and accomodation in the world” (Cronen, 2001 p 20). An inquiry starts with the experience of an indeterminate and problematic situation and it ends with a transformed situation into a determinate one.

Situational inquiry means an inquiry into a situation of a local operational practice. Readers of Dewey (1938) might object that an inquiry should always be done in relation to a situation. It is contained in the definition of an inquiry, that the inquiry is the transformation of an indeterminate situation to a determinate one (ibid p 108). However, “situational” is in “situational inquiry” used as opposed to abstract. Situational inquiry is an empirical study and transformation of a concrete practical situation in a local practice. The use of “situational” is to emphasise the interest in concrete matters of a local operational practice. The situational inquiry is supported by abstract reasoning in theorizing which is connected to, but separated from SI.

There are important elements of the deweyan notion of inquiry that has been included in the notion of situational inquiry. Most important, the inquiry should be driven by doubt and confusion and a need to resolve this puzzlement (ibid; Cronen, 2001; Garrison, 1999; Metcalfe, 2008; Schön, 1992). Dewey (1938 p 492) states that “the connection of social inquiry ... with practice is intrinsic, not external. Any problem of scientific inquiry that does not grow out of actual (or “practical”) social conditions is factitious; it arbitrarily set by the inquirer instead of being objectively produced and controlled”. An inquiry comprises investigations and experiments into a practical situation in order to create meaning and suggest solutions to identified problem. It also comprises practical reasoning to clarify means to consequences and desirable ends-in-views that should govern the transformation of the situation. This means that an inquiry involves many epistemic kinds. It will be *interpretive* (in clarifying problem-situations); *explanatory* (when determining means-to-consequence patterns as a kind of practical causality); *normative* (in articulating values); *diagnostic* and *evaluative* (when judging practical arrangements) and thus being both *appreciative* (finding positive resources) and *critical* (disclosing obstacles); and *prospective* (when generating ideas and suggestions for improvements). These are different epistemic kinds, and the idea of situational inquiry is to keep these as distinct but connected knowledge items in an epistemic whole. They give meaning to each other. It is adequate to clarify and

describe means-to-consequences (as socio-pragmatic causal patterns), but it is only meaningful to do this in relation to specified problems, evaluative judgements and pronounced values.

4.2 Input and output

A situational inquiry is a multi-functional activity. It can be seen as a subset of both a local practice and a practice research endeavour (figure 3). As such it serves both the local operational practice (with contribution to its improvements) and the theorizing part of research (with empirical data). SI functions in responses to demands and needs of the local operational practice (needs for clarification and improvement) and theorizing (desires to study certain aspects and to test and enact certain ideas).

A core idea of SI is the engagement into a local practice in order to deal with its problematic situation. This engagement is driven by an interest to improve the practice. This means that a SI should produce results that are valuable for the improvement of the practice: local practice contributions. It is important to state that such LPC does not need to be implementations of full-blown changes. In action research (AR) there seems to be imperative to contribute to direct changes in a practice setting (Susman & Evered, 1978; Hult & Lennung, 1980; Davison et al, 2004). AR is conceived to be one type of PR, but there are other types as well. Susman & Evered (1978) have divided AR into several stages. Three of these stages are diagnosis, action planning and action taking. The last one corresponds to the implementation of changes; the other two as preparatory stages to implementation. The first one contributes with diagnostic knowledge. The second one contributes with suggested changes (design proposals). These three stages can be considered as three types of interventions with increasing levels of ambition (Goldkuhl, 2008): diagnosis intervention, design intervention and implementation intervention. In practice research these are seen as three types of local practice contributions.

Must it be a local practice contribution in order to make it a situational inquiry? Goldkuhl (2008) has stated that that a practical inquiry must produce general practice contributions, but it is not obligatory to produce local practice contributions. First, it is important to state that just a description of a LOP with no diagnostic interest does not make an empirical study into a situational inquiry. A situational inquiry should comprise at least a diagnosis of the LOP. However, if this diagnosis is conducted by a researcher and not presented to the local operational practice, then there will be no local practice contribution. Should it not be mandatory to present a diagnosis to the local practice? I think that are several good reasons to present a diagnosis to the local practice. If you, as a researcher, have had the opportunity and benefit to study a local practice, it is socially appropriate to give something in return to the local practice, i.e. the “pay back” argument. In order to produce a valid diagnosis, different interpretations and conclusions should be checked by people from the local practice. When doing this, parts of the diagnosis will automatically be presented to the local practitioners; i.e. the validation argument. The production and validation of a diagnosis can be improved if the role of the practitioners is extended beyond mere validation to an active involvement into the diagnostic work; i.e. the collaboration argument. As we can see, there are several good arguments for making a diagnosis a local practice contribution. I would say that a diagnostic SI without LPC is an exceptional case. There might be special reasons for such an exceptional behaviour. The general rule for a situational inquiry should be: Produce some kind of local practice contribution. This is a natural result when studying a local practice with the view of how it might be improved.

A situational inquiry produces inquiry results divided into diagnosis results, design results and implementation results following the division described above. These types of results will consist of some documentation and other possible artefacts. These different results are multi-functional. They are not only local practice contributions. They are also *empirical data* in the service of theorizing (Goldkuhl & Lind, 2010). During the different activities of SI (diagnosis, design and implementation) there will be gathering of data from the local operational practice. This data collection, which will be done in the service of conducting a proper SI, will also contribute with valuable data for the theorizing sub-practice. However, all empirical needs, from the perspective of theorizing, may not be fulfilled through these data collections which probably are driven by needs directly related to LOP

transformation. There might be other needs related to special research interests of the researchers which go beyond the local practice inquiry needs. The researchers might for example be interested to test a specific change approach (a developmental method) and they need empirical data for this researcher induced purpose, which are not automatically generated through the inquiry. This type of activity can be called theory-required data collection.

This implies also the existence of a special researcher driven sub-activity within SI. This is empirical research but outside local practice interests. In a similar way there might be practitioners' work with changing their operational practice, which is outside the practitioner – researcher collaboration. Not all empirical work is local practice oriented inquiry. Not all local practice change includes active researcher participation. Situational inquiry was described as an intersecting sub-practice of research and local practice; see section 3.1 and figures 2-3. SI can however not be characterised as a full intersection. As said above there can be empirical activities (theory-required data collection) that is not part of core SI and also change activities concerning the local practice that is not part of the core SI. This has been described in figure 5 which can be seen as a refinement of figures 3-4 above.

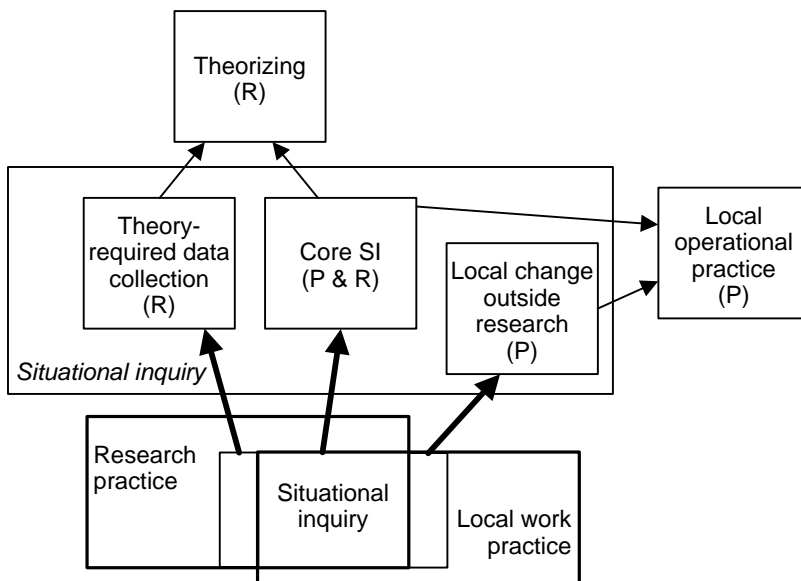


Figure 5. Three sub-practices of situational inquiry serving different target practices

In order to generate outputs of SI, there is a need for inputs. There are inputs from LOP and from theorizing which direct and govern the situational inquiry. There are problems and needs of the LOP that directs the SI activities. Problems, needs and all other kinds of LOP conditions are substance subject-matter which are, through SI, transformed into local practice contributions (of diverse kinds). There are several kinds of input from theorizing to SI. The inquiry process is not only governed by local practice needs. There will be different research interests that will govern the researchers' work in SI. These interests can be refined into questions and hypotheses that will be used in the inquiry process. A situational inquiry will thus be driven by both practical problem solving interests and research interest and it is a challenge to balance these interests in a constructive way (Rapoport, 1970; McKay & Marshall, 2001; Chiasson et al, 2009).

Situational inquiry, being part of practice research, will many times be a theory-informed process. Different kinds of research-based abstract knowledge may be used in SI, e.g. constructs, classifications, theories, frameworks, models and methods. In a pragmatic vein (e.g. Dewey, 1938) these will be used as cognitive instruments in SI helping the inquirers to direct their attention to different phenomena (Cronen, 2001). This furnishing of abstract knowledge will be further described in section 5 below. Input to and output from situational inquiry is summarized in table 1.

<i>From/to</i>	Input to SI	Output from SI
Local operational practice	Problems & needs Circumstances of LOP	Demands for knowledge Local practice contributions (diagnosis, designs, implementations)
Theorizing	Research interests Ideas, questions, hypotheses for usage & testing Abstract knowledge for usage (concepts, theories, models, methods)	Empirical data Demands for knowledge and knowledge development

Table 1. *Input to and output from situational inquiry*

4.3 Inquiry into institution and instances

In section 2.1 above, a practice was conceptualised as consisting of two levels; an institutional level and an instance level of factual actions. A SI can be directed towards these two levels; 1) investigating how things “should” be done in the eyes of LOP actors and in descriptions and other artefacts and 2) investigating different instances of practice operations that reveal important problems and other aspects of the local operational practice. This orientation towards instances can be governed by a focus on “critical incidents” (Flanagan, 1954) and “communication breakdowns” (Winograd & Flores, 1986) that have occurred. The inquirers search for information rich stories through a narrative approach (Connelly & Clandinin, 1990). A generative inquiry will probably alternate between focus on institutions and focus on interesting instances (stories). This means that inquiry results will contain empirical data on these two practice levels. The reconstruction of a practice institution (from such alternating studies) can render a conceptualised description of the practice. This description will be abstracted in relation to specific instances and such a conceptualisation can be seen as a so called “local theory” (Elden, 1983). This is a first step of abstraction, but still focused on the actual practice. A local theory describing a practice institution is still situational knowledge. A second step of abstraction will be made in theorizing; see below in next section.

5 Theorizing

Theorizing is seen as a practice (Zundel & Kokkalis, 2010) in a similar way as the other types of practices (situational inquiry, local operational practice) discussed in this paper. There is a dialectical relation between theorizing and situational inquiry. Theorizing is serving SI with abstract knowledge and SI is serving theorizing with situational/empirical data. Without its “companion” theorizing, situational inquiry would not be part of research. It would just be a consultative participation in local practice changes. SI is a consultative participation in local practice improvements as described above, but it also part of research activities.

Theorizing comprises the important activities of developing the research interest for the research study. There might be several inputs for this research interest development. There might be knowledge about typical and severe problems in (general) practice that triggers the research. This might be combined with identified knowledge gaps in the scientific body of knowledge. We might thus lack knowledge how to handle pivotal practical problems. Knowledge from the studied local practice might both initially and continually influence the formulation of research interests. In PR, research interest should not be seen as something established at an early stage and then kept static during the research process. The closeness to local operational practices through SI will generate knowledge about practical needs that might be addressed through research. The research interests might evolve continually during the research process. In theorizing, the research interests can be operationalised into questions and hypotheses that will be used in SI.

For the service of furnishing abstract knowledge to SI, theorizing may use extant theories and other knowledge from research communities (i.e. parts of the scientific body of knowledge). Researchers (in theorizing) select theories that might be valuable in the SI. These theories (as conceptual instruments) might be valuable and generative for the inquiry process; cf. e.g. Cronen, (2001) and Goldkuhl (2008) on practical theories. A theory can also be selected in the theorizing activity in order to test its validity through the SI. Abstract knowledge should be chosen in relation to the demands to conduct a situational inquiry that is valuable to the problem solving of the local practice.

Theorizing and situational inquiry should be conducted in close alternation. New abstract knowledge may be developed based on insights, needs and data from SI and then furnished back (as emergent theories and methods) to the inquiry process. Theorizing produces end results from PR aimed for general practice and research community: abstract knowledge which might be theories, models and methods. The theorizing sub-practice transforms situational knowledge (empirical data) to abstract knowledge. Extant abstract knowledge is used in these knowledge transformation processes. Produced abstract knowledge should be formulated as constructive and useful for general practice. The abstract knowledge is of course also aimed for research community as possible additions to the scientific body of knowledge. The role of the research community is to contribute with quality assurance through review, dialogue and critique. The research community has a responsibility for accumulation and dissemination of knowledge. The different input to and output from theorizing is summarized in table 2.

<i>From/to</i>	Input to theorizing	Output from theorizing
General practice	General problems & needs	General practice contributions (useful abstract knowledge)
Research community	Scientific body of knowledge Knowledge gaps Review of knowledge	Abstract knowledge as suggested contributions to scientific body of knowledge
Situational inquiry	Empirical data Demands for knowledge and knowledge development	Research interests Ideas, questions, hypotheses for usage & testing Abstract knowledge for usage (concepts, theories, models, methods)

Table 2. *Input to and output from theorizing*

6 Empirical examples

The practice research approach, presented in this paper, has evolved through a series of empirical projects. I will give a brief overview of three of these cases and comment on them in relation to PR.

6.1 Development of IT and workpractices in eldercare

In one action research project, we were several researchers, working together, for several years, with a nursing staff in developing an IT system and new work process in eldercare (e.g. Cronholm & Goldkuhl, 2002; 2006). This was a participatory design project including a detailed account of the eldercare work. It produced several local practice contributions: a new IT system as a support for eldercare (i.e. informational and technological changes) and changes in work processes and knowledge sharing. In the project we tested and refined user interface design principles. Experiences from this test and use of design principles were analysed and further theorized which led to refined design principles and an improved conceptualisation of user IT interaction which were published (Cronholm & Goldkuhl, 2002) as contributions to both research community and general practice.

There were several other issues that emerged during and partially after the empirical change work was concluded and these new issues led to new theorizing. This means that the rich empirical material from this case triggered and was used for theorizing of other research interests that emerged during and after the development and change work was finished. The systems development project had been fairly successful and we could identify some applied principles that had contributed to this success. We had during the developmental project a focus on communication through workpractice documents, both paper-based and IT-mediated. This led to theorizing on the generative role of workpractice documents during ISD (Cronholm & Goldkuhl, 2006). There were other emergent issues that were theorized based on empirics from the eldercare study; knowledge sharing issues (Goldkuhl & Braf, 2001; Goldkuhl & Röstlinger, 2002) and values governing IT in eldercare (Hedström, 2007).

This is a PR project that combined an action research and a design research approach. We developed an IT system based on certain emergent design principles which made it to a typical DR endeavour. The project lasted for several years and generated a lot of empirical data which was used not only for original research interests. Several other research interests emerged during the study. Several abstract knowledge contributions (as conceptualisations, theories and design principles) were produced.

6.2 Competence development among IT consultants

I will present glimpses from two other PR studies that do not contain any development of IT. In one project we worked with competence development among IT consultants. The main idea was to develop a workshop-based method for knowledge sharing and collective competence development among IT consultants. Through this research we developed such a method and this was an end result both to local practice (the consultancy organisation) and to general practice and academia (Cronholm & Goldkuhl, 2010). There were other important local practice contributions. Every workshop was centred on some important theme for the consultants. Every such theme was thoroughly discussed during the workshop and was then after the workshop further analysed and documented by the researchers. This analysis was then feed-backed to the consultants at the next workshop (as a LPC). One important strategy in the workshops (and thus in the evolving method) was storytelling. Consultants contributed to the workshops by describing challenging consultancy situations. These became stories that were used as bases for collective reflection, comparison and abstraction. The workshops shifted between these concrete stories and abstractions to general level which consisted of conceptualisations of successful and failed tactics.

This PR was action research oriented in the sense that it produced new ways for the consultancy organisation to work with competence development. It produced a method (as a knowledge artefact) for this, and in that sense it was a DR endeavour, but not producing any IT artefact or other hard artefact. This new method can be seen to be both LPC and GPC. This practice research study contributed also to the clarification of working in situational inquiries on both an instance level and an institutional level (see section 4.3 above).

6.3 Evaluation of a taxation e-service

The author conducted, on demand from the Swedish Taxation Agency, an evaluation of a taxation e-service, which was not considered to be a success due to low usage (Goldkuhl, 2009). This inquiry was not change oriented. It produced a diagnosis that clarified reasons for a low usage of the e-service. The inquiry contained a comparative study of the e-service and the use of a paper form that existed in parallel with the new e-service. A socio-pragmatic perspective was applied in this inquiry clarifying affordances in the services and service pre-conditions 1) of both positive and negative kinds and 2) of both socio-communicative and techno-instrumental character. This analysis revealed not yet known problems with the different service alternatives (ibid).

Besides the diagnosis, as a local practice contribution, this research study also produced several abstract knowledge contributions. The evaluation of the e-service had one function of a test-bench of

methods for modelling e-services in context. After the evaluation, experiences from the e-service modelling have been reported as GPC to research community and to general practice (Goldkuhl & Röstlinger, 2010). The evaluation was also generative concerning the application of the socio-instrumental perspective. Theoretical contributions were formulated concerning 1) e-services as co-services and 2) socio-instrumental pre-conditions for e-service use (Goldkuhl, 2009).

This case is an example of an evaluation oriented PR study. It has contributed with a diagnosis to a local operational practice, leaving to the practitioners to decide on measures. A theoretical perspective (socio-instrumentalism) and service modelling methods were furnished to the situational inquiry and continually refined during the study. The study has produced further developed and new abstract knowledge contributions aimed for general practice and research community.

7 Conclusions

The practice research approach presented in this paper rests on several pillars:

- Consider the empirical field in terms of practices
- Conduct a situational inquiry based on problems and needs in a local operational practice and based on initial and emergent research interests
- Conduct theorizing based on empirical data from situational inquiry and extant abstract knowledge
- Continual interaction between situational inquiry and theorizing
 - Theorizing serving situational inquiry with research interests and useful abstract knowledge
 - Situational inquiry serving theorizing with empirical data
- Produce abstract and useful knowledge aimed as general practice contributions (to general practice and to research community)
- Produce local practice contributions of appropriate kinds (can be diagnosis, design proposals or implementation of changes/new artefacts)

When describing theorizing from a practice-theoretic perspective, Zundel & Kokkalis (2010 p 1216) state that “academic practices do not exist in isolation, but are intrinsically interlaced with other social practices”. I agree that different practices coincide and overlap to a certain degree and that boundaries therefore may be blurred between them. However, in order to develop a language to use as a cognitive instrument for practice improvement, conceptual distinctions are valuable to express. This paper has contributed with a division of practice research into two related sub-practices and clarifying how these practices are related to each other and to other target practices. One important aspect of clarifying PR is to consider it as an encompassing approach embracing different research approaches in a similar way as “engaged scholarship” of Van den Ven (2007). Practice research can take different forms, as for example, evaluation research, action research and design research. Further research on PR may for example contribute with comparisons between such different approaches, with further clarification of the interaction between the two sub-practices and between PR and LOP, and the relations between different knowledge instruments/products.

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