

KNOWING HOW TO KNOW: AN INQUIRY INTO METHODS OF STUDYING KNOWLEDGE AND LEARNING

Karen Handley^a
Andrew Sturdy^b
Robin Fincham^c
Timothy Clark^d

^{a,b}Tanaka Business School,
Imperial College London, UK
^a karen.handley@imperial.ac.uk
^b a.sturdy@imperial.ac.uk

^cDepartment of Management and Organisation,
University of Stirling, UK
robin.fincham@stir.ac.uk

^dDurham Business School,
University of Durham, UK
timothy.clark@durham.ac.uk

Session B-1

Abstract

Language and metaphors evoke multiple and sometimes conflicting associations. The processual language around 'knowledge' and 'learning', for example, may evoke associations which are positive and progressive, or cautionary and critical. This tension in the language of knowledge and learning is reflected in ongoing and vibrant debates in the learning literatures about the nature of knowledge. However, surprisingly little attention has been directed towards methodological questions. This paper contributes to these debates by exploring three relevant questions: (1) what is knowledge? (2) what constitutes evidence that learning has occurred? and (3) how can the process of learning be studied?

The questions are explored by reviewing relevant literature as well as by presenting reflections from an ongoing research project which is investigating how knowledge and learning are mediated in relationships between management consultants and their clients. In addition, conceptual frameworks are presented which are used in the current research to guide and inform empirical inquiries.

Keywords: Knowledge, learning, methodology, consultancy.

Knowing how to know: An inquiry into methods of studying knowledge and learning

Karen Handley^a
Andrew Sturdy^a
Robin Fincham^b
Timothy Clark^c

^aTanaka Business School
Imperial College London, UK
karen.handley@imperial.ac.uk; a.sturdy@imperial.ac.uk

^bDepartment of Management and Organisation
University of Stirling, UK
robin.fincham@stir.ac.uk

^cDurham Business School
University of Durham
timothy.clark@durham.ac.uk

Abstract

Language and metaphors evoke multiple and sometimes conflicting associations. The processual language around 'knowledge' and 'learning', for example, may evoke associations which are positive and progressive, or cautionary and critical. This tension in the language of knowledge and learning is reflected in ongoing and vibrant debates in the learning literatures about the nature of knowledge. However, surprisingly little attention has been directed towards methodological questions. This paper contributes to these debates by exploring three relevant questions: (1) what is knowledge? (2) what constitutes evidence that learning has occurred? and (3) how can the process of learning be studied?

The questions are explored by reviewing relevant literature as well as by presenting reflections from an ongoing research project which is investigating how knowledge and learning are mediated in relationships between management consultants and their clients. In addition, conceptual frameworks are presented which are used in the current research to guide and inform empirical inquiries.

Keywords: Knowledge; learning; methodology; consultancy.

Suggested track: B - Epistemology of knowledge

OKLC 2004

1 Introduction

Language and metaphors evoke multiple and sometimes conflicting associations. The processual language around 'knowledge', for example, may evoke associations which are positive and progressive, or cautionary and critical, depending on one's experience and theoretical perspective. The imagery implicit in phrases such as 'knowledge evolution' may for some people suggest scientific progress and technological innovation: an unfolding journey towards 'universal truth' and 'best practice'. By contrast, the same phrase might also connect with assumptions about 'survival of the fittest' and a contingent view of knowledge. Other discourses evoke different connotations. For example, phrases such as 'knowledge negotiation' and 'knowledge re-construction' suggest a more provisional and contested conceptualisation of knowledge.

This tension in the language of knowledge and learning is reflected in ongoing and vibrant epistemological debates in the learning literatures (e.g. education and management learning literatures) about the nature of knowledge, and indeed about the 'reality' which knowledge may or may not reflect. However, surprisingly little attention has been directed towards the methodological questions concerning *how* to research knowledge and 'knowing-in-action' and, in particular, how to study the processes by which we learn¹.

This paper contributes to these debates by exploring three relevant questions: (1) what is knowledge? (2) what constitutes evidence that learning has occurred? and (3) how can the process of learning be studied?

These are complex epistemological and methodological questions which can be answered from multiple perspectives and at multiple levels (Easterby-Smith et al., 2000). In this paper, emphasis is given to two aspects of knowledge: firstly, *management* knowledge as opposed to a broader notions of everyday knowledge; and secondly, to the knowledge of the *individual/group* as opposed to knowledge embedded in the systems and routines of the organisation. The three questions are explored by reviewing relevant literature as well as by presenting reflections from an ongoing research project which seeks to investigate how knowledge and learning are mediated in relationships between management consultants and their clients.

An inquiry into knowledge and learning implies at least a tentative understanding or set of presuppositions about what knowledge *is*. This is because our understanding of the conceptual nature of knowledge and of the competing theoretical explanations for its development will naturally inform choices about the design and conduct of empirical research. However, although a logical start point for this paper might be a review of typologies of management knowledge (e.g. Polanyi, 1962; Blacker, 1995; Snowden 2002; Nonaka, 1994; Alvarez, 1998), these typologies have not usually addressed methodological questions to a significant degree. Instead, there has been a tendency in the management literature - at least until recently - to focus on reconciling tacit and explicit forms of knowledge by prescribing ways to make explicit what individuals know but cannot tell (Patriotta, 2003: 6). The approach in this paper is therefore to begin not with typologies, but with theories of learning which seek to explain the processes by which knowledge develops.

Some selectivity is necessary because several disciplines offer theoretical perspectives on knowledge, albeit at different levels of analysis. The disciplines of economics and strategy, for example, focus on the *organisation*, and provide explanations at a structural level for phenomena such as new product development, changes in competitive capabilities and the commodification of knowledge. These disciplines emphasise a managerialist and largely functionalist approach to knowledge and its management and commodification (Patriotta, 2003). The sociology literature also focuses on the organisational level, although debates on the relative influence of agency and structure (e.g. in Actor Network Theory) have contributed to our understanding of processes of *individual* as well as organisational learning.

The perspectives which offer the most promise for the study of management knowledge at the individual/group level are those from educational and social psychology. Nevertheless, these perspectives differ in the degree to which they account for the *social* nature of learning. Therefore, when reviewing their relative contribution, this paper will distinguish between learning theories which focus on the individual in isolation (which we call 'psychological'), and those which emphasise the relational and social processes of individual development (which we call 'social').

This paper is organised in two sections, bringing theoretical and empirical perspectives to the methodological questions raised earlier. In the first section, each of the main

¹ In this paper we define learning as the process that results in knowledge, recognising that knowledge is provisional and transformed in action, and that learning is a continuous process whereby each event or interaction is assimilated and reinterpreted in terms of what has gone before.

theoretical perspectives on knowledge and learning is considered in relation to their insights on the definition and 'measurement' of knowledge, and on how the development of knowledge can be studied. The implications for research are also discussed. The second section describes an ongoing research project which is investigating the development of business knowledge in client-consultant projects.

2 Knowledge and learning: insights from psychological and social theories of learning

Comprehensive reviews of learning theories have been conducted elsewhere (e.g. Greeno et al., 1996), typically using a categorisation of behaviourist, cognitivist, constructivist and social theories of learning. However, these reviews have rarely addressed the methodological implications of the different theoretical perspectives. Therefore in the following section we briefly introduce the key principals of each perspective before focusing on their contribution to the epistemological and methodological questions raised earlier.

2.1 Behaviourist perspective on learning

In the behaviourist view, *knowledge* is an organised accumulation of associations and skills components, and *learning* is the process by which associations and skills are acquired, for example by a tutor's use of appropriate schedules of positive reinforcement to strengthen an individual's response to a given stimuli (Skinner, 1958, 1968). In this perspective, *evidence* of learning can be derived from tests of behavioural skills in discrete tasks, and the *process* of learning can be identified by monitoring changes in an individual's behaviour following regular task practice and reinforcement.

The influence of behaviourism remains in some corporate training practices as well as in neo-behaviourist theories such as Bandura's (1986) social learning theory. However, in general the 'behaviourist' label has acquired a pejorative tone, largely because of its neglect of the role of cognition and agency, and because it tends to be associated with an objectivist view of knowledge as a mirror to reality. Few researchers (including ourselves) explicitly subscribe to a behaviourist approach, and for this reason the previous paragraph gives only a brief review of its methodological implications.

2.2 Cognitivist perspective on learning

The cognitivist perspective is perhaps more aptly labelled the 'cognitivist-rationalist' perspective because it reflects a rationalist ontology (Gardner, 1985), and carries assumptions about the computational nature of the mind (Searle, 1997, cited in Blackmore, 2003). Cognitive-rationalism emphasises conceptual coherence and a formal criterion of truth, where tutors seek to transmit an understanding of conceptual categories as well as to correct misconceptions (i.e. 'errors' which are contrary to 'truth').

According to this perspective, *knowledge* is a fixed and objective body of knowledge which reflects 'the way things really are' in the world (Woolfolk, 1998). *Learning* is the process by which individuals passively acquire knowledge by being taught by others who already 'have' that knowledge.

Rationalist assumptions mean that *evidence* of learning is potentially simple to gather, for example using cognitive mapping tools to measure an individual's understanding of concepts against a standard of 'valid' understanding. However, the search for evidence of the *process* of learning is problematic because learning is presumed to occur 'in the learner's head' through passive processes of absorption and rote memorisation. Therefore, apart from different teaching and communication strategies, it is hidden from observers.

Few researchers subscribe to a cognitivist-rationalist perspective because of its rationalist assumptions. In fact some authors have questioned whether this perspective is anything more than a caricature (Vellino, 1987), depicted as a rhetorical device to allow the alternative, constructivist perspectives to appear more positive by comparison. Whether or not this is the case, the cognitivist-rationalist perspective does not reflect the theoretical orientations of our research, nor of other known researchers in this area, and so the methodological implications are not discussed further.

2.3 Constructivist perspective on learning

In this perspective, *learning* is presumed to be an active and continuous process of knowledge construction and reconstruction, influenced by prior knowledge and experience. *Knowledge* is represented by individually-shaped constructions which bear no necessary relation to 'reality' or to the constructions of others.

The dilemma for researchers is how to generate evidence of changes in those constructions. To some extent, tools such as concept-mapping software and expert-

systems elicitation techniques may be useful. However, a more promising vehicle for research may be to rely on learners' processes of experiential reflection which are presumed to play an important part in their construction of knowledge (Fenwick, 2000; Chia, 2003). Specifically, learners can be prompted, during interviews for example, to reflect on, and give an account of their prior and current knowledge, and also the way their conceptual understandings and ways-of-thinking are evolving. On the other hand, reliance on cognitive reflection has been criticised as simplistic and reductionist and of presuming a rational control and mastery of one's learning process which "sidesteps ... the ambivalences and internal vicissitudes bubbling in the unconscious" (Britzman, 1998 and Sawada, 1991, cited in Fenwick, 2000)

Constructivism presumes that the individual is primarily acting as a 'little scientist' independently of their social world (Woolfolk, 1998), and that learning occurs in the head. This presumption is problematic for researchers because ostensibly there is nothing to 'see'. As observers, although we may see apparent evidence of an individual's dis-equilibrium - a trigger for conceptual reconstruction - there are no adequate research methods to follow the process of *inner* reflection. As proxies, researchers may have to rely on post-hoc reflection and commentary from individuals, for example using verbal protocol analysis of the type pioneered by Ericsson and Simon (1984).

2.4 Social theories of learning

The turn to social and relational aspects of knowledge and learning in the late 1980s represented an important reorientation in our understanding of knowledge and learning. Nevertheless, the importance of the relational context is often marginalised and occasionally misunderstood. For example, Clancey (1995), among others, sought to clarify the social perspective by arguing that it does not mean that learning must necessarily take place in a *social* group, but that all learning - whether reflecting on one's individual experience or engaging in shared social practices - is ultimately framed by one's relations with the world. In fact, social theories of learning do not necessarily deny a role for cognition, reflection or reinforcement in the process of learning, but instead reconfigure their potential importance in comparison to the individual's relation to broader, historic and socio-cultural contexts.

Social theories of learning encompass several perspectives, each of which may potentially contribute methodological insights of the type reviewed in this paper. Therefore this section continues by unpacking some of the differences between three

important strands: socio-constructivist (following Vygotsky, 1978); participative (following Lave & Wenger, 1991); and activity-based (following Engestrom e.g. 1987; 2001).

2.4.1 Socio-constructivism

In the Vygotskian 'socio-constructivist' perspective, *knowledge* is seen as socially (as opposed to individually) constructed. *Learning* involves socialisation and the internalisation of social concepts and values, mediated by 'significant others' and by cultural tools. As with individual constructivism (but unlike cognitivist-rationalism), *evidence* of learning cannot be measured against a universal standard; but unlike constructivism, social constructions and knowledge discourses are presumed to resemble those of one's socio-cultural groups. This means that to some extent, learning can be measured by comparing the similarity of an individual's articulated constructions with those articulated in their social groups and communities. The *process* of learning can potentially be studied using, for example, ethnomethodological methods such as conversational analysis and observation which focus on the interactions between 'learners' and 'significant others' such as mentors who are guiding learners' socialisation.

2.4.2 Participative perspective

A different emphasis is introduced by Lave and Wenger's (1991) core construct of 'legitimate peripheral participation', and their conceptualisation of *learning* as 'an integral and inseparable aspect of social practice' (Ibid: 31). *Knowledge* is seen as socially-constructed but is usually described more generally as an *ability to participate*.

Hypothetically, learning is *evidenced* by changes in an individual's level of *participation* in their community(ies) of practice² (varying from peripheral to full) and by changes in their identity in those communities as they become sensitised to the communities' discourses and practices and thereby learn *how* to participate. However, the literature is not clear from an operational perspective about what constitutes evidence of changes in participation and identity. There are several potential options, but each raises its own questions. For example, accounts could be obtained from the individuals

² Lave and Wenger (1991: 98) define a community of practice as "a set of relations among persons, activity, and world, over time and in relation with other tangential and overlapping communities of practice. ...It is possible to delineate the community that is the site of a learning process by analyzing the reproduction cycles of the communities that seem to be involved and their relations."

themselves or from others in the community who are more or less peripheral; but who's perspective has more value? Another option would be to use non-participant observational methods to identify apparent changes in an individual's level of participation; but how does the non-participant distinguish between, for example, core and peripheral practices? The latter option is particularly difficult given the metaphorical nature of the periphery-core dichotomy, and because the practices and shared meanings of the periphery and core will change as the community itself evolves. This problematic is not yet adequately addressed in the literature.

As regards the processes of learning, the literature acknowledges that these processes are heterogeneous and vary with the contextual setting. In previous studies (e.g. see Chaiklen & Lave, 1996), ethnographic methods have been employed to provide descriptive accounts and narratives of learning.

2.4.3 Activity-based perspectives

A third perspective on social learning comes from activity theory, developed in recent decades by Engeström (e.g. 1987; 2001)³. In activity theory, emphasis is placed on object-oriented activity and practice, as opposed to idealist concepts such as consciousness. The difficulty faced by researchers is that the literature is generalised and sometimes ambiguous about the meaning of knowledge and learning. For example, *learning* is defined rather broadly as a change in the activity system as a whole, and the driver for change is seen as a continual striving towards the resolution of inherent contradictions in the activity system. The processes by which this might happen are taken to be heterogeneous and therefore impossible to define a priori.

Furthermore, the literature is not always clear on what constitutes evidence of learning, how to study learning processes, on how to operationalise the triangular schema which is often presented in empirical papers to represent activity systems.⁴ Indeed there has been some debate around the theoretical status of activity theory which has raised questions about how to apply its insights in an empirical setting. Bakhurst (2003) for example, has pointed to the continuing and intense debate by Russian psychologists about the nature of 'activity', and argues that the concept is more philosophical than

³ Historically, 'activity theory' relates to the work of Leont'ev, Illenkov and others who developed Vygotsky's ideas towards a materialist, activity-based orientation and away from Vygotsky's emphasis on consciousness (Bakhurst, 2003; Zinchenko, 1995).

⁴ The triangular schema represents the key constructs of subject, object, tools, rules, communities, and division of labour.

theoretical. He also argues that the triangular schema representing activity systems is more a useful heuristic than a crystallisation of theory. Perhaps, as with actor network theory (ANT), the word 'theory' is getting in the way of understanding the contribution of activity theory to learning research (Latour, 1999: 15). Like ANT, which has been described as 'primarily empirical in its focus' and 'a method and not a theory' (Patriotta, 2003: 45-46), the methodological contribution of activity theory maybe in framing the empirical context and in providing heuristic guidelines, rather than in defining research techniques and procedures informed by explicit theoretical prescription.

2.4.4 Differences in the conceptualisation of 'context'

The social perspectives reviewed above each stress the importance of researching the individual-in-context, but vary in the extent to which they offer guidance for empirical research. Furthermore, the conceptualisation of 'context' is slightly different in each perspectives, which influences the selection of appropriate research approaches and methods.

Lave (1996) identifies two broad viewpoints which for simplicity we label macro and micro. The macro viewpoint argues for the historical-cultural study of relations 'between persons engaged in socioculturally constructed activity and the world with which they are engaged' (Ibid: 17). Activity theory is an example of this view. The micro viewpoint implies that 'activity is its own context', and focuses on the 'intersubjective relations among co-participants in social interaction' (Ibid: 17). The latter viewpoint is derived from phenomenological social theory, and is represented in perspectives such as symbolic interactionism (Lave, 1996: 17-22), and the early research of the socio-constructivists.

These two perspectives draw on different methodological traditions: the latter (micro) drawing on resources such as conversation analysis and dramaturgical methods; the former (macro) drawing on a broad range of ethnographic methods. Other related research traditions - such as those influenced by Foucauldian genealogy or the historical analysis of actor network theory - may rely to a greater extent on documentation and archival analysis (Fox, 1994).

3 Implications from the review of psychological and social theories of learning

We have now explored the three epistemological/methodological questions identified earlier in relation to behaviourist, cognitivist-rationalist, constructivist and social theories of learning. Each theoretical perspective brings a different emphasis to a researcher's understanding of knowledge and learning, and, potentially, a different set of research tools. It is important to emphasise that each theoretical tradition is not necessarily a rejection of the others. Nevertheless, from the perspective of the authors of this paper, the behaviourist and cognitivist-rationalist traditions are problematic for the reasons discussed earlier, and the constructivist tradition is problematic unless re-framed to include *social* and not purely *individual* processes of knowledge construction. For this reason, our empirical research is primarily informed by social theories of learning, and our emphasis is on the participative perspective which elucidates the provisional, mediated and constructed nature of knowledge and learning. This is in contrast to the early socio-constructivist perspective which stressed processes of socialisation and internalisation giving no role for individual agency, and to the activity-based approach which is philosophically interesting but which lacks sufficient operational content for the purpose of our research.

Concerns remain, nevertheless, about how to translate the participative perspective into a practical research design. Three concerns are of particular note.

1. In the management learning literature, there are relatively few exemplars of empirical research on learning and knowing from participative perspectives. In part, this may reflect trends in the literature to publish papers on technology-inspired ambitions of knowledge management and, more recently, on managerialist efforts towards the creation and quasi-control of communities of practice to fulfil corporate objectives (cf. Contu & Willmott, 2003).
2. The social theories of learning, perhaps by definition given their emphasis on the constructed and relational nature of knowledge, describe learning in hypothetical terms which cannot be clearly operationalised.
3. Notwithstanding that empirical research has been conducted, using well-established methods such as observation and conversation analysis, there is no consensus on which methods and research designs are most appropriate in which circumstances.

As we move on to discuss our ongoing research project and in particular the frameworks and methods employed, it is important to note that because of the uncertainties discussed above, our initial research design (introduced next) is provisional, and is evolving as we reflect on our experiences in the field. In the second section of this paper, we discuss what influenced our initial research design, and in particular why and how we developed a provisional conceptual framework to guide our empirical enquiries. Finally, we briefly discuss our experiences with data collection methods, and reflections on this early phase of our research.

4 Empirical research

4.1 Research aims and objectives

The current project is part of a wider programme of research investigating the 'evolution of business knowledge'. The assumption is that management consultants - and the client-consultant projects which provide a focus for their client engagement - are important mediators in the development and transformation of management knowledge and its 'transfer' to *and from* clients and their organisations. In particular, the nature of multiple client-consultant relationships and interactions are seen as important in this process.

Over a three-year period beginning 2003, the project will investigate different types of consultancy projects such as advisory or service-provision, internal or external, public sector or private sector. The objectives of the research are to contribute to the empirical and theoretical literature on social, political and relational aspects of knowledge evolution processes. In doing so, the research team anticipates providing a counterbalance to the managerialist discourses of technology-driven knowledge management and commodification which are prevalent in some of the management literature.

4.2 Theoretical position

In the literature review, we argued that a major deficiency of the behaviourist, cognitivist-rationalist and individual-constructivist perspectives was their neglect of the social and relational aspects of learning. We also questioned the behaviourist and cognitivist-rationalist perspectives for their implicit assumption that knowledge is an objective commodity that can be 'acquired' by learners in settings typified by the classroom before being mechanically applied in the real-world.

For our research, we take a relational and constructivist view of knowledge and learning, informed by the socio-constructivist and participative perspectives discussed in the previous section. This blended perspective enables us to focus our research on three aspects of knowledge - ideas (which are socially/individually constructed), self-identity, and practices - and on how learning is mediated by the client-consultant relationship and by their experience of the project which provides a mutual focus. These three aspects of knowledge are defined next.

- **Ideas:** Ideas - or what Sackmann (1992) calls 'cognitive structuring devices' - are constructed through socialisation and participation but may also reflect individual agency. They do not *prescribe* action, as do the procedural rules implicit in the cognitive-rationalist perspective, but instead inform and guide our interpretations of situations as well as our actions and responses to feedback. An individual's ideas influence and are influenced by (among other things) changes in their *self-identity*, and by their experiences of *practice*.
- **Self-identity:** We define individuals' self-identity as their perception of self, informed by, among other things, their assumptions about how others perceive them. For example, by gaining access⁵ to new levels of community participation, newcomers gain experiences which potentially inform how they reconstruct what constitutes their role and identity, and their conceptual ideas and practices.
- **Practices:** We define practices as individuals' behavioural repertoires. Our research interest in knowledge *as practices* is informed by participative perspectives on learning which reveal the 'contradictory nature of collective social practices' (Lave & Wenger, 1991: 58). In other words, whilst newcomers participating in a community 'gradually assemble a general idea of what constitutes the practice of the community', (Ibid: p95), they do not necessarily imitate those practices but may adapt them based on influences from other communities and social relations. Thus we are interested in the specific practices of individuals, and how they develop through the media of the client-consultant relationship and project.

⁵ Or by being *allowed* (Contu & Willmott, 2003)

4.3 Crafting our initial research design

Our initial research design accounted for several contextual constraints. These included constraints inherent in the *material* context (e.g. the difficulty of obtaining observational access given the commercial sensitivity of many potential case studies), *social* context (e.g. the research traditions and identities brought by ourselves as members of the research team), and *cognitive* context (e.g. our research techniques, concepts and interests). In addition, our design was influenced by literatures other than those directed at theories of learning. Of particular interest was the literature on innovations research, given its strong emphasis on studying change, such as Van de Ven and Poole (1990; 1995). Van de Ven and Poole advocate a form of process research which combines a narrative of the general sequence of events and drivers for change, and analysis of the influence of process variables over the duration of the process under study.

Based on their research on innovations, Van de Ven and Poole (Ibid.) suggest that in most cases a narrative cannot be predicted in advance of an empirical and exploratory study, but can only be reconstructed post-hoc. However, following Eisenhardt (1989), we felt that exploratory research such as ours would benefit from fine-tuning of the scope to reduce the risk of data overload and complexity. We therefore felt it would be beneficial to build provisional conceptual frameworks which would be open to debate and change, but which could nevertheless guide our empirical research.

4.4 Provisional conceptual frameworks

Our provisional frameworks represent narratives of the processes involved when individuals develop ideas, self-identities and practices. We acknowledge that these are very complex processes. However, for simplicity of representation, our frameworks depict the narratives of only the key processual elements and their relationships, allowing us to elaborate on them in descriptive accounts as we conduct our research. The frameworks have been developed following initial analysis of early case studies and by drawing additionally on relevant literatures. Influencing variables which are identified inductively from our research will be specified later on the basis of empirical findings.

At a broader level (in figure 1), the development of ideas, self-identities and practices are shown against two important mediating influences: the contextual setting of the client-consultant relationship; and the dynamics of the project. The relationship and

project provide a focus for interactions through which individuals may learn and develop, but they are also a vehicle for the pursuit of other objectives and agendas, which may or may not be explicitly set out in the project's Terms of Reference. The project itself entails a process and a set of formal outputs such as decisions, solutions or new IT systems. However these outputs do not *in themselves* necessarily constitute 'knowledge' in the sense defined in this paper; instead, our interest is in the residual and enduring knowledge which develops *through* the dynamics of the project and client-consultant relationship, which may be drawn on in future activities of a similar relational nature.

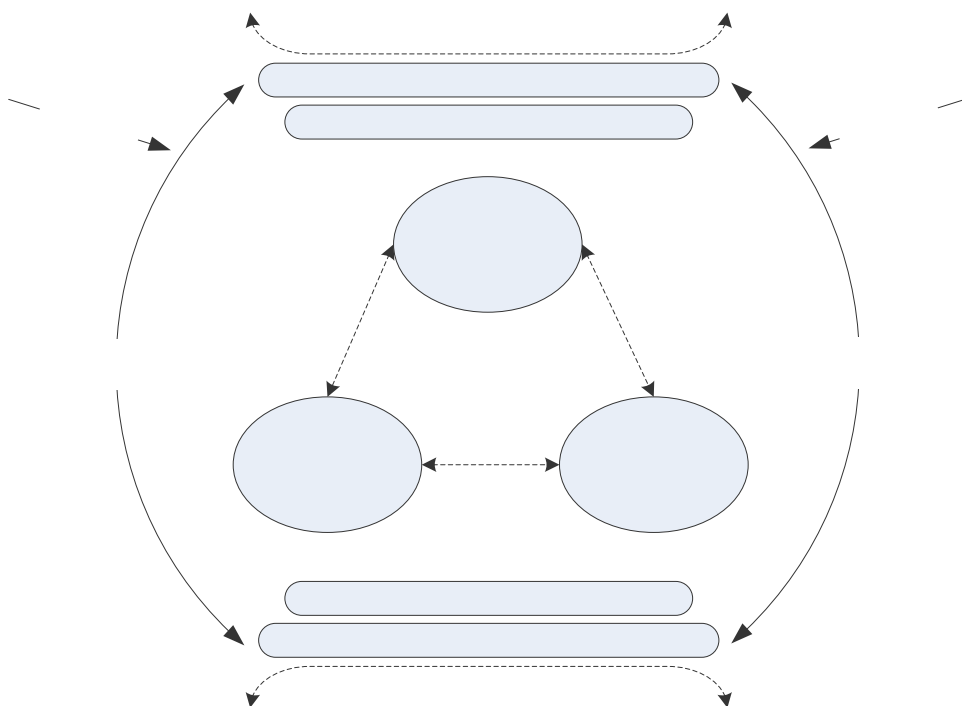


Fig. 1: Development of constructions, self-identities and practices mediated by the client-consultant relationship and project

At a more granular level, figures 2, 3 and 4 expand the processes involved in the development of ideas, self-identities and practices. As before, these are provisional frameworks which are guiding our research inquiry, and are being adapted in the light of findings.

In figure 2, the processual elements were identified from literatures on the role of representations (e.g. Clancey, 1997), on constructionist accounts of the travels and translations of ideas (e.g. Czarniawska & Sevon, 1996), and on legitimisation and the contested and provisional nature of knowledge evolution (Sturdy, 2004). The explicit representation and articulation of ideas in a client-consultant relationship often follows a perceived need to address a problem or decision pertaining to the project. As shown below by the dotted lines, representation of an idea, for example in a project meeting, may or may not lead to its transformation. Similarly, and for a variety of reasons, an idea may or may not manifest as an object (such as prototype), action or practices.

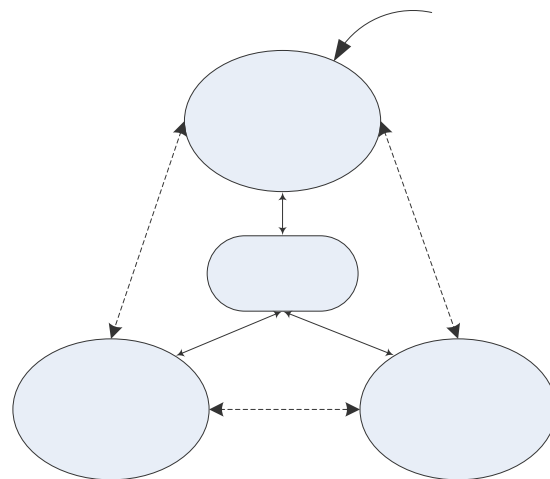


Fig. 2: Development of ideas

Figure 3 conceptualises the development of individual self-identity and adapts the work of Alvesson and Willmott (2002) in order to explicitly represent the influence of changing forms of participation.

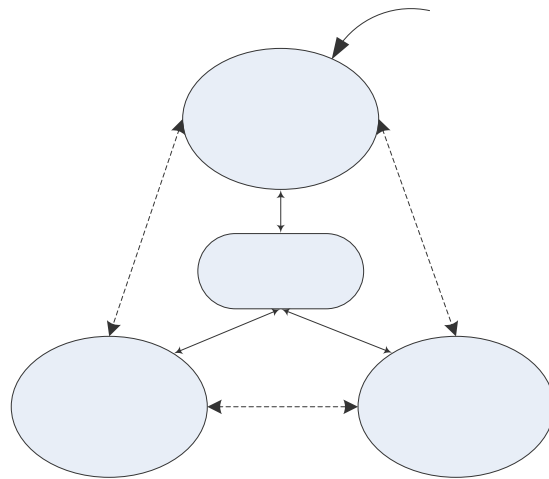


Fig. 3: Development of self-identity

Figure 4 conceptualises the development of practices, and is informed by the participative perspective on learning (e.g. Lave & Wenger, 1991), and by research on the construction of 'provisional selves' through modelling and experimentation (Ibarra, 1999). Clearly, there are close inter-relationships between development of these forms of knowledge, particularly in relation to self-identity and practices.

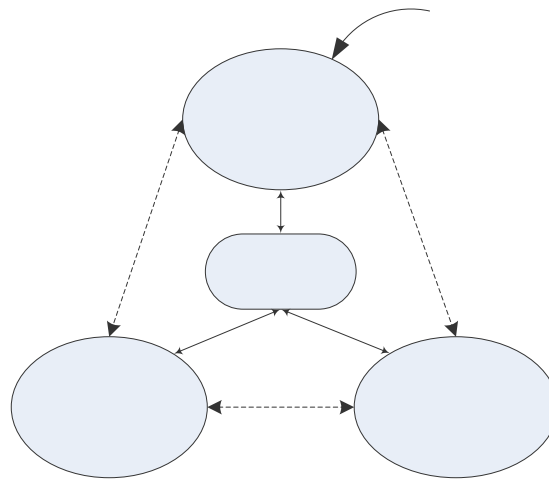


Fig. 4: Development of practices

Having set out the provisional conceptual frameworks which are guiding our empirical research, we now turn to the selection of appropriate methods.

4.5 Methods

Prior empirical research on consultants' role as mediators of knowledge is limited in several respects. In particular, most studies rely solely on post-hoc interviews (or surveys) with informants to obtain their reconstructions of learning processes. Such reconstructions are useful, but inevitably limited. For example, reconstructions miss what the informant cannot or is not sensitised to 'see'. Secondly, people tend to present events in ways which allow them to tell a coherent and consistent story while ambiguous or discordant data may be ignored (Bartlett, 1932).

In contrast to the static emphasis of prior research, the aim of this study is to explore knowledge and learning *in action and therefore also over time*. Methods were chosen for their ability to provide insights into the static/conceptual as well as the dynamic/processual nature of client-consultant relationships and projects. Method selection was also shaped by our early experiences of negotiating access to case study projects, and by the apparent resistance from informants to observational methods (in commercially-sensitive strategic projects) and diary methods (because of the anticipated burden of time commitment). By contrast, informants involved in operational or advisory consultancy projects were more comfortable with - and often welcomed - observational involvement because their interest in the research findings was less constrained by concerns about commercial risk.

Observational methods provide a window at the interaction level of analysis. In the two cases studied so far they have provided useful insights into the processes over time through which individuals develop ideas, self-identities and practices. However, for our research we were also concerned with wider contextual influences and how they frame and shape the development of knowledge. To address this broader context would require methods and resources to shed light on the cultural tools, meanings, practices, role-distributions and guiding principles brought to the client-consultant engagement. For the purposes of this research, we therefore complemented observational data with semi-structured interviews to obtain informants' perspectives on knowledge, the project, the client-consultant relationship, and their sense of their own and other's identities as team members and as members of wider communities.

Of equal importance were the resources available to the research team. A valuable resource was the prior research experience of three of the team members, based on their extensive interview and observational research with consultants and their clients. Another resource was the previous consulting experience of two members of the team,

who brought insiders' perspective on the consultants' worldview. Interpretive frameworks generated from these experiences shaped the team's understanding of the locally-observed interactions. To complement these internal sources, a further resource was obtained through our relationship with the Management Consultancy Association ('MCA'), an umbrella body representing the interests of UK consulting firms. At later stages of this research, a survey will be conducted with consultants and their clients, through the auspices of the MCA, to test emergent hypotheses generated from the exploratory work.

Using the resources available, and influenced by our pilot work, the research design was developed and modified to reflect the empirical objectives. Table 1 summarises the methods and approaches selected for our research, used in conjunction with the provisional conceptual frameworks introduced earlier.

| Empirical focus | Data collection methods | Data analysis approach |
|---|--|--|
| Development of: <ul style="list-style-type: none"> • Ideas • Self-identities • Practices | <ul style="list-style-type: none"> • Observation • Interviews • Dramaturgical methods • Critical incident techniques • Survey | Interpretations are informed by our theoretical perspectives, drawing in particular on socio-constructivist and participative theories of learning, and by the understandings brought by relevant prior experience of the research team. |

Table 1: *Data collection techniques and analytic approaches used in current research project, entitled 'Knowledge Evolution in Action: Client-Consultancy Relationships'*

4.6 Reflections on initial cases

As part of our research we have begun two of our four case studies: one involving a leading multinational company and major strategy consultancy firm; and the second involving a public sector organisation and small independent consultancy firm. From a *methodological* perspective, the early cases have been a useful test of our assumptions and expectations concerning the conduct of research, as well as indicating important areas for future focus. Reflecting on our initial fieldwork, three points deserve note.

Firstly, findings suggest that the early stages of a project are critical in the positioning of individual (as well as corporate) identity, the negotiation of forms of participation (e.g. roles, responsibilities and expected contributions), and demonstration of participatory capability. This indicates the importance of negotiating early access to research informants and their activities.

Interactions to negotiate identities and participation were clearly evident in the first case study, a business portfolio strategy project involving a leading multinational

organisation and a strategy consultancy. From the beginning, the consultants were keen to shift the client's implicit perception of themselves from that primarily of data analysts and strategic modellers, to one of creative and experienced interpreters of that analysis. In the early stages of the project, senior members of the consultancy firm negotiated project deliverables and forms of participation with the client which presupposed regular debate with senior client executives around how to optimise the client's portfolio. Such debate was to be grounded on initial analysis of data from the business units. However, during those early phases, the consultants became 'stuck' in ever more detailed and rigorous data analysis - a practice they felt comfortable about and identified with. This prompted the client's reassessment of their capabilities for innovative data interpretation, which in turn led to a slight but perceptible shift in the type of client access granted to the consultants: essentially, they received fewer invitations than they originally expected to the type of strategic discussions with senior client executives. The consultants were therefore less able to participate in, and learn from, extended encounters at senior executive levels in the client organisation.

Secondly, it is often during early stages of the project that important framing concepts, methodologies, and other management ideas are introduced by clients and consultants to each other. However, it is through *use* of those conceptual tools that questions about their applicability and legitimacy are raised (e.g. based on use in previous projects), and their practical use is shaped and internalised or neglected. Thus, from a research perspective, attention on only the early stages of a project may be misleading, just as reliance on the post-hoc justifications for ideas which *were* ultimately adopted can also be misleading. By contrast, a processual approach opens a window onto the actual shaping and legitimisation of ideas, through application and discussion.

Finally, it is important to distinguish between the content of the project - for example, the decisions to be made and solutions to be developed and advocated - and the evolution of more enduring forms of business knowledge - for example, the concepts, ideas and forms of participation which can be brought to later engagements. It is *through* monitoring the pursuit of project-related objectives that knowledge and the processes of learning are facilitated. Over-emphasis on the project deliverables may produce useful data about decision-making, but little about how project members have developed; on the other hand, attempts to study knowledge and learning apart from the context of day-to-day project goals and objectives may be fruitless or misleading. For this reason the approach adopted in the ongoing research study is to consider the

development of ideas, self-identities and practices through the mediating influences of the client-consultant relationship and project.

5 Conclusion

Participative perspectives on knowledge acknowledge the heterogeneous nature of learning and knowing-in-action. If these processes cannot be determined in advance of their study, is the goal of predefining a strongly-operationalised research design illusory? In this paper we have described an alternative - though not necessarily novel - approach. The approach is to develop provisional conceptual frameworks to guide research inquiry, allowing for adaptations to the framework based on findings, yet limiting the risk entailed in fully-exploratory approaches whose ambitions over-extend the resources available to the research team.

6 References

- Alvarez, J-L (1998): 'The sociological tradition and the spread and institutionalisation of knowledge for action', in Alvarez, J-L (Ed.) *The diffusion and consumption of business Knowledge*, London: Macmillan.
- Anderson, J. R., Reder, L. M. & Simon, H. A. (1997): 'Situative versus cognitive perspectives: form versus substance', *Educational Researcher*, 26, 1, 18-21
- Blackler, F (1995): 'Knowledge, knowledge work and organisations – an overview and interpretation', *Organisation Studies*, 16, 6, 1021-1046.
- Brown, J. S. & Duguid, P. (1993): 'Stolen Knowledge', *Educational Technology*, 33, 3, 10-15
- Alvesson, M & Willmott, H. (2002): 'Identity regulation as organizational control: producing the appropriate individual', *Journal of Management Studies*, 39, 5, 619-644
- Bakhurst, D. (2003): 'Reflections on activity theory', unpublished presentation to Institute of Education, London, 9th October 2003
- Bandura, A. (1986): *Social foundations of thought and action: a social cognitive theory*, Prentice Hall, New York.
- Bartlett, F. C. (1932): *Remembering*, Cambridge University Press, Cambridge.
- Blackmore, S. (2003): *Consciousness*, Hodder & Stoughton, London.
- Chaiklin, S. & Lave, J. (eds.) (1996): *Understanding practice: perspectives on activity and context*, Cambridge University Press, Cambridge.
- Chia, R (2003): 'From Knowledge Creation to the Perfecting of Action – Tao, Basho and Pure Experience as the Ultimate Ground of Knowing', *Human Relations*, 56, 8, 953-981.
- Clancey, W. (1995): 'A tutorial on situated learning', in *Proceedings of the International Conference on Computers and Education (Taiwan)*, Charlottesville, VA: AACE, pp. 49-70, [available from <http://cogprints.soton.ac.uk/documents/disk0/00/00/03/23/cog00000323-00/139.htm>]; [last accessed 2nd February, 2004]
- Clancey, W. (1997): *Situated cognition: on human knowledge and computer representations*, Cambridge University Press, Cambridge.
- Contu, A, Grey, C and Ortenblad, A (2003): 'Against Learning', *Human Relations*, 56, 8, 931-952.
- Contu, A. & Willmott, H. (2003): 'Re-embedding situatedness: the importance of power relations in learning theory', *Organization Science*, 14, 3, 283-296
- Dewey, J (1969): *Experience and Education*, London: Collier-Macmillan.

- Easterby-Smith, M., Crossan, M. & Nicolini, D. (2000): 'Organizational learning: debates past, present and future', *Journal of Management Studies*, 37, 6, 783-796
- Eisenhardt, K. M. (1989): 'Building theories from case study research', *Academy of Management Review*, 14, 4, 532-550.
- Engestrom, Y. (2001): 'Expansive learning at work: towards an activity theoretical reconceptualization', *Journal of Education and Work*, 14, 1, 133-156
- Engestrom, Y. (1987): *Learning by expanding: an activity-theoretical approach to developmental research*, Orienta-Konsultit, Helsinki.
- Ericsson, K. A. & Simon, H. A. (1984): *Protocol analysis: verbal reports as data*, MIT Press, Cambridge.
- Fenwick, T. (2000): 'Expanding conceptions of experiential learning', *Adult Education Quarterly*, August 2000. Early draft available at <http://www.ualberta.ca/#tfenwick/ext/pubs/print/aeq.htm> [accessed 13th February 2003]
- Fox, S (1994): 'Debating Management Learning II', *Management Learning*, 25, 4, 579-597.
- Gardner, H. (1987 for epilogue; 1985 for original text), *The mind's new science: a history of the cognitive revolution*, BasicBooks, New York. ISBN 0-465-04635-5
- Gibson, J. J. 1986): *The senses considered as perceptual systems*, Houghton Mifflin, Hillsdale, New Jersey.
- Greeno, J. G., Collins, A. M. & Resnick, L. B. (1996): 'Cognition and Learning', in D. Berliner & R. Calfee (eds.) *Handbook of educational psychology*, Macmillan, New York
- Greeno, J. G. (1997): 'On claims that answer the wrong questions', *Educational Researcher*, 26, 1, 5-17
- Ibarra, H. (1999): 'Provisional selves: experimenting with image and identity in professional adaptation', *Administrative Science Quarterly*, 44, 764-791
- Latour, B. (1999): 'On recalling ANT', in J. Law & J. Hassard (eds.), *Actor Network Theory and after*, Blackwell, Oxford.
- Lave, J. (1996): 'The practice of learning', in S. Chaiklin & J. Lave (eds.) *Understanding practice: perspectives on activity and context*, Cambridge University Press, Cambridge.
- Lave, J. & Wenger, E. (1991): *Situated learning: legitimate peripheral participation*, Cambridge University Press, Cambridge.
- Nonaka, I. (1994): 'A dynamic theory of organizational knowledge creation', *Organization Science*, 5, 1, 14-37
- Nonaka, I and Takeuchi, H (1995): *The Knowledge Creating Company*, Oxford: Oxford University Press.
- Patriotta, G. (2003): *Organizational knowledge in the making - how firms create, use and institutionalize knowledge*, Oxford: Oxford University Press.
- Piaget, J. (1970): 'Piaget's theory', in P. Mussen (ed.), *Handbook of child psychology*, 3rd edn., Wiley, New York.
- Polanyi, M. (1962): *Personal knowledge: towards a post-critical philosophy*, University of Chicago Press, Chicago.
- Sackmann, S. A. (1992): 'Cultures and subcultures: an analysis of organizational knowledge', *Administrative Science Quarterly*, 37, 140-161
- Skinner, B. F. (1958): 'Teaching machines', *Science*, 128, 969-977.
- Skinner, B. F. (1968): *The technology of teaching*, Appleton-Century-Crofts, Meredith Corp, New York.
- Snowden, D. (2002): 'Complex acts of knowing: paradox and descriptive self-awareness', *Journal of Knowledge Management*, 6, 2, 100-111
- Sturdy, A J (2004): 'The adoption of management ideas and practices – theoretical perspectives and possibilities', *Management Learning*, forthcoming.
- Van de Ven, A. H. & Poole, M. S. (1990): 'Methods for studying innovation development in the Minnesota Innovation Research Programme', *Organization Science*, 1, 3, 313-335
- Van de Ven, A. H. & Poole, M. S. (1995): 'Explaining development and change in organizations', *Academy of Management Review*, 20, 3, 510-540

Vellino, A. (1987): Review published in *Artificial Intelligence*, 31, 213-261 of T. Winograd and F. Flores, (1986) *Understanding Computer and Cognition*, Ablex, Norwood, New Jersey.

Vygotsky, L. S. (1978): *Mind in society: the development of higher mental processes*, Harvard University Press, Cambridge.

Woolfolk, A. E. (1998): *Educational psychology*, 7th edn., Allyn & Bacon, Boston.

Zinchenko, V. P. (1995): 'Cultural-historical psychology and the psychological theory of activity: retrospect and prospect', in J. Wertsch, P. del Rio & A. Alvarez (eds.) *Sociocultural studies: history, action and mediation*, Cambridge University Press, Cambridge.