Chapter 2: Theoretical Framework: The Concept of Practice


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Chapter 2

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2 THEORETICAL FRAMEWORK: THE CONCEPT OF PRACTICE

Academic literature specifically ascertaining what constitutes best training practice concerning fellow trainers in the pharmaceutical industry is sparse. Moreover, literature within the field of clinical research about practices that constitute the training process is generally lacking. This gap in the academic literature provides a basic rationale for research in this field of practice.

Meanwhile, the concept and meaning of practice is well established from five theoretical perspectives, outlined as follows:-

- MacIntyre’s (1985) concepts of standards (of excellence) within a practice that depend on the relationship between its internal and external goods
- Giddens (1984) structuration theory, where the nature of practice is both shaped by, and depends on, how it is structured by agents according to the rules and resources or sets of transformation relations that constitute the properties of social systems
- Bourdieu’s (1990) logic of practice, where practice is considered in terms of agents’ embodiment of practical sense for the “rules of the game” (or habitus)
- Wells’ (2001) theory of dialogic inquiry as a socio-cultural practice of learning
- Engeström’s (1987, 2007) development of cultural-historical psychology to generate a theory of activity that informs expansive learning in various fields of societal practice.

Therefore, in order to construct an operational definition of practice that has relevance for clinical research training as a field of practice, these perspectives are drawn into an examination of the literature concerning practice, particularly in terms of its professionality (referred to in terms of quality or standards of practice).
2.1 Aim and scope of the Review

The aim in this review is to consider and examine ways in which practice may be conceptualised and subsequently examined within the context of this research study. Consequently, the focus is on both theoretical and pragmatic aspects of practice that affect and define its quality. Since the quality of practice concerns the standards that define it, various fundamental perspectives concerning the concept of practice are considered including that of the philosophical (MacIntyre, op.cit.), the sociological (Bourdieu, op.cit.; Giddens, op.cit.) and the educational or socio-cognitive. This latter perspective includes considering learning either as: a social practice of communication (Wells, op.cit.), situated within communities (Lave and Wenger, 1991); or as complex networks of activity each with its own set of contradictions and tensions that drive the process of expansive learning (Engeström, 1987).

Therefore, in the sections that follow, a number of concepts and theories are reviewed, which are central to this research and subsequent analysis of the practice of training: the concept of professionality; the concept of community of practice; and Activity Theory.

2.2 Grounding the concept of practice: professionality versus professionalism

The term ‘practice’ is familiar and well used in a variety of contexts including within traditional and newer professions such as medicine and law, or nursing and teaching. However, its meaning may have changed reflecting changes within society. For example, in a sociological context, practice has been a defining characteristic or feature of professionalization exemplified by the ability to achieve a definable basis of background knowledge and practice (Millerson, 1973:6). In this respect, it refers to the everyday conduct of a recognised occupation, where particular ways of behaving or operating are customary.

Moreover, in this traditional, idealistic view of professions, they exerted a moral influence in society through their selfless civic-minded service, or altruism (Millerson, ibid.).
From this traditional perspective, one customary defining characteristic of professional practice is that it depends on a university level of education to develop specialised knowledge, and/or passing qualifying examinations for professional membership (Vanderstraeten, 2007; Nicholls, 2001; Goode, 1957). Thus, established professions shared this way of doing things, or common practice, by inculcating members through the basic achievement of academic qualifications representing specialised knowledge (Millerson, op.cit.:13). The challenge is then for members to maintain their professional knowledge at a level that ensures practice is current through the process of continuing professional development (CPD) defined as:–

…the maintenance and enhancement of the knowledge, expertise and competence of professionals throughout their careers according to a plan formulated with regard to the needs of the professional, the employer, the profession and society. (Madden and Mitchell, 1993:12)

This definition of CPD infers that knowledge, expertise and competence are considered as defining qualities of practice (Lester, 1995:4). With the emphasis on practice, CPD is then about

…the systematic maintenance, improvement and broadening of knowledge and skill, and the development of personal qualities necessary for the execution of professional and technical duties throughout the practitioner’s working life (Lorriman, 1997:2).

A progressive perspective reflects society’s egalitarian quest to involve and recognise everyone’s capacity for lifelong learning (Criten 1999). Here, the term professional practice encompasses those with experience and knowledge acquired or developed in a variety of contexts: pre-professional training (academic), workplace (vocational) or personal (experiential). Thus, individuals may have developed equivalent levels of knowledge and skill, via different routes, and be capable of applying their knowledge and skill with equal competence. In effect, competency based education and training (or CBET) is based on this particular premise (Bates, 2002). So, now the possibility is considered that regardless of educational background, skill and competence - in effect practice - may be developed effectively in everyone, through a particular process, involving shared understanding and open dialogue that encourages professionalism (Nixon, Martin, McKeown & Ranson, 1997; Gillearid, 1996:20).
For example, even if the background knowledge to some professional training practices is not necessarily attained through a university education, practitioners may be assumed to share qualities and standards of skill and competence that define them as professional. Thus, as Critten (op.cit.) states “we’re all capable of demonstrating professionalism” such that it may be recognised on the basis of competence, expertise or conscientiousness (Chambers Compact Dictionary, 2001). Consequently, such attributes of professionalism are not considered exclusive to those with academic training or status, but are universal to those aspiring to a particular standard or level of conduct. Traditionally that standard or level of conduct concerned integrity where professionals operated according to moral codes of behaviour, at the heart of which was the notion of selfless service for the “public good” (Shirley and Padgett, 2004: 37). According to Evetts, (2003: 396):

“...there is extensive agreement about the appeal of the idea of profession and professionalism and its increased use in all work contexts. It is used increasingly as a marketing device in advertising to appeal to customers (Fournier 1999) and it is used in mission statements and organizational aims and objectives to motivate employees. It is an attractive prospect for an occupation to be considered a profession and for occupational workers to be identified as professionals. The concepts of profession and professionalism are increasingly used (or misused?) in the organizational, commercial and service contexts in which ‘professionals’ are increasingly employed.”

Therefore, against the backdrop of changing relations in society, reflected in changing institutional arrangements within society, the changing status of professionals in relation to the nature of their professionalism and practice has been extensively studied (Evans, 2008; Bacon, et al, 2000; Bellman, 2001:230; Friedson, 1994; Nixon, 1996; Nixon et al, op.cit.; Gleeson 2005; Ranson, 2003). In particular, debate concerns whether professionalism may be recognised as a standard of behaviour, or practice rather than as, in Bourdiesusian terms - a mark of elitist distinction (e.g. through the acquisition of privileged academic “knowledge” (Catto, 2005; Evans, op.cit.; Svennson, 2006). The specific conditions and characteristics of professional work in education have also been analysed (Vanderstraeten, op.cit.). However, much of the discourse of past decades about professionalism has focussed on the relationship between the structure of professions and the agency of professionals in terms of a dualism rather than a duality concerning the relational aspects of agency and structure (Grace,
Specifically, professionals are either considered as the recipients of change or the agents of change culminating in polarised camps of theorists who either “privilege subjective agency,” or who elevate “structure over action” (Gleeson, op.cit.).

On the one hand, focus is on how market conditions and organisational structure may determine the shape of professional practice, either to the detriment of practitioners through the loss of professional autonomy (Ozga, 2000; Campbell, 2002) or to the benefit of wider society through greater accountability. On the other, practice is emphasised as a reflection of the agency of its practitioners (Knights & Wilmott, 1999). Yet, according to Evans (op.cit.:16): “critical analyses of professionalism do not stress the qualities inherent in an occupation”. She contends that because the substance of professionalism – “remains under-examined in the broad sociological field” in terms of what it is, and how it is constituted in the context of education, “this is problematic because without understanding of its substance it is difficult to appreciate how professionalism functions and, therefore, how it may be influenced”.

Yet, in every day society, the idea of professionalism as a particular standard of behaviour operates routinely as a measure of the quality of practice (“he’s a consummate professional”; “he’s an amateur”; “he’s a cowboy”). On the one hand, its unconscious adoption may reflect the successful dissemination and distillation of professional attributes throughout society (competence: cowboy; expertise: amateur; and, conscientiousness: consummate professional). On the other, it may represent the dilution of professional status as the preserve of academically trained professionals. In effect, use of the term *professionalism* is no longer restricted or confined to describe the professions, their professional conduct, or the situation of their practice.

Equally, then Boyt, Lusch & Naylor’s (2001:322) notion that “…professionalism consists of the attitudes and behaviour one possesses toward one’s profession. It is an attitudinal and behavioural orientation that individuals possess toward their occupations” differs from the broad consensus view of professionalism as an “an externally imposed, articulated perception

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of what lies within the parameters of a profession’s collective remit and responsibilities” (Evans, 2008: 23). In any event, the concept of professionalism has been "significantly affected by social and cultural changes over the past two decades" (Eraut, 1994: 223).

Perhaps then, taking professionalism as a standard of behaviour, related to the generically inherent qualities of a practice, circumvents issues of status associated with the values of particular occupations that are defined by their practices. Accordingly, Evans re-visits Hoyle's (1975) notion of professionalism in relation to teachers’ practice, which re-focuses attention on the concept of practice in terms of its quality, and context, since it concerns: -

“...those elements of the job that constitute the knowledge, skills and procedures that teachers use in their work” (Evans, op.cit.:26).

After due consideration and analysis, she redefines professionalism as: -

“...an ideologically-, attitudinally-, intellectually- and epistemologically-based stance on the part of an individual, in relation to the practice of the profession to which s/he belongs, and which influences her/his professional practice” (Evans, ibid.:26).

Moreover, Hoyle defined professionalism within a continuum or spectrum of standards ranging from restricted behaviours at one end, to extended behaviours at the other. In effect, these behaviours then translate into restrictive or expansive codes defining the quality of practice. Consequently, in his theorised models of restricted or extended professionalism, he defines restricted behaviours as dependent on experience and intuition, guided by a narrow, classroom-based perspective that is concerned principally with the day-to-day practicalities of practice. Extended behaviours, by contrast concern the ‘bigger picture’ and value the theory underpinning pedagogy, adopting a rationally-based approach to the job.

Consequently, the concept of professionalism represents a sea change in thinking about professional practice: -

“...whereby the claim to professionalism is based not on cultural capital of expert knowledge, but on professionalism as necessarily involving continuous learning. The shift we are trying to define is away from ‘professionalism as the ideology of service and specialist expertise; away from ‘professionalization’ where the status of the occupation is at stake; and towards ‘professionality’ which focuses on the quality of practice in contexts that require radically altered relations of power and control.” Nixon et al (op.cit:12).
Therefore, just as professional practice now extends into the commercial world of business and is not restricted to the cloistered world of public service, the concept of professionality redirects attention towards standards of practice in recognition of the changing contexts of practice.

However, whereas medics, lawyers, nurses and teachers consider themselves as practitioners in the sense of the everyday conduct of their practice, neither clinical research personnel (i.e. clinical research monitors\(^9\) and managers) nor their trainers seem to refer to themselves in this way, at least not overtly. Yet, in the field of clinical research, regardless of whether commercially based or set in academia, the term *practice* is familiar and used extensively in the guise of *good clinical practice* or GCP. Does this then signify a difference in how clinical research personnel are perceived or how they perceive themselves? That is, does it signify a difference in the state of their professionalization, or their professionality in terms of their identity?

It may well signal a difference in perceived status as a distinct group within the field of practice (i.e. clinical research), as well as within society at large. In particular, the recognition of an occupation as a profession depends on internal perception by those performing the occupation and on external recognition by those outside it (Millerson, 1973: 6; Nixon *et al.*, op.cit.). Hence, the adoption of the term *practitioner* may herald a perception shift for particular occupational groups for both insiders and outsiders (Cochrane-Smith & Lytle, 1993) in terms of appreciation of a particular identity.

That the term *practitioner* has not yet overtly emerged within the industry probably reflects that the discipline of clinical research is in a constant state of flux as opposed to being fully established, as noted in the comments of the editors of the standard industry reference ‘Principles of Clinical Research’ published by the Institute of Clinical Research: -

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9 The role of the clinical research monitor involves monitoring clinical research data produced by clinical investigators for integrity and generation in compliance with GCP.
“...Clinical research is a continually evolving discipline; almost by definition, change is a part of its make-up and could be described as its only constant.” (Di Giovanna and Hayes, 2001:xii)

In view of this dynamic fluidity, it is then perhaps a little more plausible why practitioners in this discipline are yet to emerge fully-fledged. In particular, the changes that have taken place in clinical research reflect the wider changes in the landscape of pharmaceutical research and development (Fisher, 2005:13), as well as the regulatory landscape.

In addition, general awareness of clinical research, let alone clinical research training as an area of practice, may be low both outside and inside the industry, possibly reflecting the highly specialised nature of the industry. Nevertheless, despite efforts to de-mystify the process of clinical research (Buckland, 2005), the industry’s role remains shrouded in mystery, engendering suspicion and mistrust for outsiders (Abraham 2007; Busfield, 2006, 2007), and lacking transparency for insiders (Parrott, 2005).

Nevertheless, as an occupational group, clinical research trainers may share particular characteristics, such as educational background; or, they may share common behaviours and assumptions, adopting particular training strategies influenced by organisational factors such as social and cultural traditions mediating practice. For example, the organisational focus on the evaluation of training may be confined habitually to establishing trainees’ satisfaction, rather than on evaluating learning transfer from the classroom back to the job. Rather than basing ways to create learning opportunities for trainees on a participative or deliberative pedagogic model of learning, organisational focus may be on creating materials to convey information underpinned by a transmissive pedagogic model of training.

They may perform similar tasks in a particular way, with different degrees of accomplishment, such that these characteristics of education, behaviours and tasks define their role, its responsibilities and its nature as professional. In other words, the complexity of tasks assigned to the training role may require a level of education, skill and accountability, which inherently demands a particular standard of conduct. As MacIntyre (op.cit.:190) states

“A practice involves standards of excellence and obedience to rules as well as the achievement of goods. To enter into a practice is to accept the authority of those standards and the inadequacy of my own performance as judged by them. It is to subject my own attitudes,
Thus, examining these ‘professional’ elements of the training role does not necessarily give a complete understanding of the nature of practice related to clinical research (CR) training, since the standards of excellence associated with practice also partially define it.

Such understanding requires an exploration not only of factors mediating practice within the practice setting, but of the structural elements of practice embodied within a community of practice. Davis and Taylor-Vaisey (1997) frame this as practice settings and practitioner characteristics, which in their empirical study were common characteristics affecting the adoption of guidelines into practice.

For example, as a constituent of an operational training function the quality of CR trainers’ professional practice and their CPD, or professionality, has potential implications for the achievement of training goals and their evaluation. For example, the ultimate objective of GCP training programmes is adequate training of suitably qualified staff in the meaning of ethical conduct of clinical research (Armstrong & Kaul, 2004). So, in turn, professional practice refers to a standard of competent ethical conduct of those tasks and responsibilities that define the role of CR trainer. Therefore, standards concern whether the role is commonly defined, or whether it varies depending on a company’s needs, expectations or perceptions of the role. In effect, such standards also concern tacit understanding of the role within the community of practice. It also relates to what extent they can “… exercise independent judgement and self-regulation”, which according to Nicholls (op.cit.:78) is representative of professional status and autonomy.

In that sense then, of exercising independent judgement, the professional practice or professionalism of CR trainers may also affect the level of investment in the training process, which ultimately enables those whom they train to comply with regulatory standards for the conduct of clinical research (Zimmerman, 2000e). Therefore, although it may be early days for the recognition of CR trainers as “fully-fledged professionals”, in the traditional sense of a
well-defined occupational identity, nonetheless their role is pivotal to the clinical research process (2000c).

Furthermore, in a clinical research-training context, use of particular language may be an expression of the distinction between training as an activity or as a practice. That is, a session that is *facilitated* may imply a qualitative difference in how information is imparted and shared to build knowledge, from a session that is “delivered”. However, to assess whether a training session is facilitated or delivered requires more than an examination of intent. That is, it requires an examination of teaching and learning approaches and the corresponding methods adopted in order to achieve such an objective. In this respect, artefacts such as training manuals or curricula that encompass particular T & L methods indicate routinisation of the training role within an organisation, and suggest operationalisation of training as a practice.

In order to consider why clinical research personnel do not consider themselves as practitioners, the nature of practice is deliberated in subsequent sections, based on philosophical, sociological and socio-cultural conceptualisations within the literature. Through distilling the concept of practice from these theoretical perspectives, each provides a particular means to deconstruct the nature of practice.

### 2.3 The philosophical perspective: The definition of practice

From a philosophical perspective, understanding what *practice* means involves considering the fundamental virtues of courage, justice and honesty guiding it. For example, in considering the nature of the “Virtues”, MacIntyre (op.cit.:187) defines *practice* as

> "Any coherent and complex socially established human activity through which goods internal to that form of activity are realised in the course of trying to achieve those standards of excellence which are appropriate to, and partially definitive of, that form of activity, with the result that human powers to achieve excellence, and human conceptions of the ends and goods involved, are systematically extended.”

The difficulty with this dense definition, as MacIntyre appreciates, revolves around the philosophical concept of “goods internal to” a practice, and how this concept relates to the notion of virtues arising from practice. He further elaborates:
“Tic-tac-toe is not an example of a practice in this sense, nor is throwing a football with skill; but the game of football is, and so is chess. Bricklaying is not a practice; architecture is. Planting turnips is not a practice; farming is. So are the enquiries of physics, chemistry and biology, and so is the work of the historian, and so are painting and music.”

According to this understanding, MacIntyre’s definition of practice uses three criteria to distinguish an activity from a practice. Namely, practice has:

- complexity
- internal goods, and
- standards of excellence.

Accordingly, while engaged in a practice, a practitioner will develop particular skills and qualities in the process of becoming accomplished in the practice, or in the pursuit of excellence. The concept of *goods internal to the practice* concerns the moral dimension of the skills and qualities that are developed while engaged in a practice and through the pursuit of excellence.

MacIntyre’s definition of practice therefore, concerns standards, which are motivated by an appreciation of the nature of accomplishment associated with the practice, which he differentiates into *internal* and *external* goods. At a more pragmatic level, based on Marx’s (1973:89) theory of value, this ‘moral’ dimension concerns the “use” value of such skills and qualities in terms of their ‘greater’ social purpose. *Goods external to the practice* concerns the “exchange” value or material dimension of the skills and qualities so developed, and thus, the economic capital that may be derived from them. Therefore, based on MacIntyre’s (op.cit.) perspective, practice may be considered as those internal (moral) & external (material) goods achieved through a complex activity that is defined by its standards of excellence.

However, as Bourdieu (1977) has considered, other forms of capital can also be associated with attributes of practice namely social, cultural and symbolic capital i.e. the value commonly ascribed in social, cultural and symbolic terms. Consequently, to understand what it means to practice in a sociological context, it is then necessary to consider not only the social, cultural and symbolic derivatives of the ‘goods’ or virtuous qualities embodied within
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a particular activity that define it as a practice, but the historical basis of these derivatives. By this means, the social norms that govern the expression of a practice and its social consequences might be more fully appreciated (Levinson, 1998:91). For example, balancing the tension between these two types of goods is necessary if practice is to withstand corruption by the pursuit of external goods, particularly where the exchange value of the practice may eclipse its use value.

Understanding proceeds on the basis that practice refers to the specific way in which a particular activity is conducted and the nature of its internal goods, which help to uphold its continuation, sustain its individual practitioners, and which benefit the wider community (MacIntyre, op.cit.:288). Correspondingly, in a workplace context, a practitioner uses his or her knowledge not just to perform the tasks and responsibilities that define his or her occupational role, but (s)he endeavours to reflect on the nature of intrinsic ‘goods’ within practice of that role, and in so doing strives to achieve standards of excellence.

While so engaged, consideration of ethical relations forms a part of the analysis of the nature of practice (Jones, 2003), since engagement in practice involves the practitioner reflecting on, if not defining, the relationship between self and others, including implications and responsibilities. In this respect, the concept of selflessness is embedded within ethical practice, especially since:

"...the moment one is generous in hopes of reciprocity, that relation no longer involve generosity but the commercial relation, the exchange of good behavior" (Levinas, 1999:101).

Relationships then are considered and negotiated along the lines of what's in it for me, you and us, reflecting the complex stages involved in building trust within modern relationships (Halliday, 2008:5). Hence, MacIntyre’s definition of practice acknowledges the relational element involved in reaching agreement concerning what constitutes the internal goods of a practice, since it involves accepting the authority of defined standards of excellence and constitutive rules associated with their practice. Therefore, achieving the internal goods of practice is contingent on reflecting on the standards of excellence.
The relational element involved in practice is considered in the next section, where attention turns to how *practice* is constituted from a sociological perspective.

### 2.4 The sociological perspective: What constitutes practice and how can it be understood?

Bourdieu (1990) refers to the structures, laws, and systems that might describe an individual’s reality as *objective regularities*. Such regularities are ontological aspects that define an individual’s small world of practice, as for example in the context of this study concerning training within either the pharmaceutical industry, or the wider field of clinical research.

However, according to Jenkins (2002:96), Bourdieu (op.cit) makes little attempt with respect to social practice and history, to develop *a theorised model of why people do things, or why things are the way they are* – in order to understand the process and history leading to certain practices (Jenkins,ibid.:96). Yet, Bourdieu’s conceptions of *habitus* and *the logic of practice* or *practical sense*, point to a basic framework with which to analyse practice in terms of its objective regularities. That is, habitus concerns the embodiment of agents’ values and disposition with regard to their perceptions, understandings and actions, which then translate into the objective regularities of practice, determined by their practical sense or *ability to comprehend and negotiate cultural fields* (Webb, Schirato and Danaher, 2002: 49). Hence, to operate within a cultural field (i.e. the site of practice bounded by rules, rituals, conventions, categories) individuals or ‘agents’ need first to recognise the game that is played out between agents in the field, and need second to learn the rules of that game. This involves:-

> “…a knowledge of the various rules (written and unwritten), genres, discourses forms of capital, values and imperatives which inform and determine agents’ practices, and which are continuously being transformed by those agents and their practices. This knowledge allows agents to make sense of what is happening around them, and to make strategic decisions as to how a field or fields should be negotiated – in other words, which practices, genres or discourses are appropriate in certain circumstances.”  (Webb et al, ibid.:50)

However, because habitus infiltrates practice, agents' actions tend to become routinised in everyday activity (Bourdieu, 1990). Therefore, as Jenkins (op.cit. 96) suggests, mere descriptions of objective regularities does not necessarily explain them. So, describing the structure of the pharmaceutical industry or the field of clinical research, laws governing it and
history forming it, does not help us understand why or how trainers in this field train the way they do. In order for us to do this, we must also consider the conditions that govern practice in a particular situational context.

In Bourdieu’s view, the positions of practitioners within the field of practice, both as individuals and collectively, needs to be considered in relation to past and present influences that shape practitioners: their practice and power relations in the field of practice. Perhaps, then, it may be possible to understand why CR trainers practice as they do, as well as how they practice in their role. Moreover, it should not be assumed that the why and how elements are related to each other, since accepted or habitual practices might defy or resist rational explanation, having become inviolable customs shaped either by prevailing traditions or by circumstances within a community’s cultural environment, or an organisation’s. In effect, practices might have developed, or been adopted for political reasons. Orthodoxy may also govern which practices predominate. Bourdieu (1977) frames this as doxa – where the core values and discourses articulating the fundamental principles within a field are considered as inherently true and necessary. In practice, this takes the form of bodily and unconscious submission to conditions that are in fact quite arbitrary and contingent (Webb et al, op.cit.:ix).

Alternatively, Murray and Lawrence (2000: 38) describe conditions governing practice as social norms. In this instance, they are referring to the constraints affecting practitioner-based enquiry, which they consider as a system-based practice. As such, they provide the following explanation:

“The concept of ‘system’ suggests constraint. A constraint is a limit on action. It may be self-imposed or it may be externally imposed as in the case of a social norm. A constraint is not only a limit on action, it may also be a sense of restriction on feelings and emotions, and acting in this way sharpens an individual’s sensitivity to social circumstances. Constraints produced by and in social structure are said to be ‘normative’. That is, they become transformed into rules which not only publicly define expectations in institutional life, but also contribute to the beliefs and knowledge that people hold about institutional life.”

Murray and Lawrence’s notion of constraint, as self-imposed limits on action, as opposed to an externally imposed norm, implies conscious awareness of effects of constraints on behaviour. Hence, practitioners’ self-imposed limits on action are expressed as sensitivity.
within their practice and social awareness of how circumstances affect expression within practice. In other words, they have social awareness of constraints within the situation of their practice and consequently they can modify their behaviour in response, accordingly. In Giddens’ terms, such rules and resources are structural elements of social practice. Rules may also be culturally bound. Resources are of two types: authoritative – concerning control of people; and allocative – concerning control of things. Consequent social interactions, in terms of rules and resources, and power relations within a community of practice, for example, may then shape (enable/constrain) practice.

By contrast, Bourdieu’s concept of doxa implicates habitus, which is expressed through bodily behaviour and not within conscious awareness. Hence, in this view, the response to an externally imposed norm is not a conscious response or conscious modification of behaviour to fit the circumstances. Rather, the notion of ‘doxic attitude’ is of unconscious submission to prevailing conditions (Webb et al., op.cit.:xi). Yet, as such, whether the restriction on feelings and emotions that Murray & Lawrence (op.cit.) refer to operates at the conscious or unconscious level, the effect on behaviour is the same if it means that potential actions are suppressed through conformity with a social norm.

In practice then, if constraints have effects at both the conscious and unconscious levels, overt or subtle manifestations of the effects on behaviour may nevertheless be considered or examined through deconstruction of objective regularities (i.e. the rules, structures and systems governing an individual's reality). For example, Bourdieu considers the phenomenon of suppression as an inherent element in recognising the game among players in terms of the ‘rules of the game’ governing linguistic and cultural production in any field of practice. In addition,

“…In the taking and occupying of positions, what is also at stake is that which cannot be said: suppression and censorship are one of the prime characteristics of the operation of any field” (Jenkins op.cit.:xv)

Consequently, if the tendency of social pressure is to ensure conformity with a given orthodoxy, such pressure also has the potential to ensure certain ‘truths’ are taken for granted.
rather than examined logically or rationally. Any challenge to the scientific credibility or technical expertise of those in positions of power and with a vested interest in maintaining a particular ‘truth’ is then effectively suppressed (Martin, 1999).

However, this raises the issue of blind adherence to certain practices, implying that practice is static or stagnant, rather than dynamic, since the suppression of challenge or potential conflict means that the opportunity for changed or improved practice is stifled. Moreover, such practice is potentially unethical by virtue of adherents’ lack of critical thought, particularly if practice is based on a set of ‘taken-for-granted’ assumptions. Bourdieu considered this as the ethical imperative of reflexively analysing the history of a practice (Webb et al, op. cit: x) in order to recognise that …our knowledge and actions are bound and liberated by the social contexts in which they arise (Collier and Toomey, 1997). Yet, regardless of whether practice is theoretically, empirically or culturally-based, to be ethically valid, surely it must be able to withstand challenge?

In effect, Popper (1959) envisaged such challenge as the essence of critical practice, which was subsequently accepted within practice of scientific experimental research. Popper emphasised the ‘critical’ component within critical enquiry using the principle of falsification rather than the principle of verification. If after subjecting hypotheses to rigorous testing we cannot show it to be false, then it holds true as a reasonable explanation to our research question, until such time as another theory disproves it. So, if hypotheses withstand the process of critical enquiry, in light of the available evidence, then we can be confident that they provide a reasonable explanation for findings, until shown otherwise. Likewise, Popper’s logical imperative holds when applied to educational research, especially when Stenhouse’s (1975:156) definition of research is considered i.e. systematic, critical and self-critical enquiry which aims to contribute to the advancement of knowledge.

Thus, to consider the automatic or ‘taken-for-granted’ assumptions on which practice may be based, Bourdieu & Wacquant (1992: 90) refer to the need to reflexively examine the dynamics of the associated field of practice through historical or
…genetic analysis of its constitution and of the tensions that exist between positions in it, as well as between this field and other fields, and especially the field of power”.

Reflexivity then provides the means to overcome tendencies to reproduce assumptions perceived as common sense or that infer a rational basis for the development of practice.

Finally, Bourdieu argues that reflexivity begins by forming a radical doubt concerning the values, questions and categories of the field and the society in which the researcher operates (Webb et al, op.cit.:52) such that the construction of a scientific object requires first and foremost a break with common sense (Bourdieu op.cit.:235). To make sense of practice, our own and others, we need to contemplate our own social and cultural influences (i.e. categorised as class, religion, ethnicity, age etc.). We also need to reflect on how these factors affect our view of, and participation within, the field, as well as our thinking in relation to practice within the field (i.e. our intellectual bias towards considering practice as an abstract idea originating or pre-constructed within the field, or a problematic issue requiring solution).

Consequently, a reflective approach to improving the quality of practice, especially educational practice, is also an approach to social scientific or educational enquiry that addresses the issue of internal goods related to educational practice. Moreover, as a means of self-evaluation it enables people to hold themselves accountable for what they think and do (McNiff, Lomax and Whitehead, 2003:14). Thus, as a reflexive methodology, action research is proposed as a means to understanding practice that has far-reaching social consequences beyond that of the immediate benefits gained through improvements to practice for the practitioner or those within his or her sphere of influence:-

“The idea of social change is embodied in the processes of groups of individuals who are committed to changing the way they think and act. Individual practitioners can become dynamic change agents who can generate wide-scale social change by working together. Action research is a form of personal enquiry, but it is always done collaboratively because it involves individuals working together to achieve commonly agreed goals.” (McNiff et al, ibid.:14)

So, through developing the sense of responsibility, and insight, reflexivity has the potential to bring about emancipation from libidinal, linguistic, epistemic, institutional, or environmental forces that limit our options and our rational control over our lives but have been taken for granted or seen as beyond human control (Mezirow, 1991:87). As a methodological approach
to improving the quality of practice, the reflective process within action research potentially raises awareness of the issues surrounding knowledge: its validity, utility, value, control and power.

Murray and Lawrence (op.cit.:6) appear less convinced about action research as a democratising and empowering process, as its advocates claim (Carr and Kemmis, 1986; Lomax, 1986; NeNiff & Whitehead, 2006). They dispute the internal goods of its constituent reflective process (i.e. its democratising epistemology and empowering nature) that can sustain both practitioners and their communities, on grounds of methodological and intellectual rigour of the action research approach. Subjective attempts to improve one’s own practice are considered invalid as a form of research because this approach lacks in objectivity; and because some attempts fail to consider links with the body of knowledge, limiting its general applicability.

Murray and Lawrence’s scepticism is grounded in concern for the failure of reflective practitioners to appreciate the intellectual milieu of the practice being reflected upon, in terms of either historical antecedents or theoretical possibilities. They conclude that: -

“Practitioner research ought to be informed about and by established paradigms or bases of explanation in social and behavioural science. It should also be guided by well-established precepts in the literature.” (ibid.:41)

They emphasise that practitioner research is likely to be sidelined if it cannot keep up with developments in social science (ibid.:40). Hence, they highlight the ‘new rules’ of social science method (as formulated by Giddens), which includes:

“…the recognition of power as a crucial, inseparable component of action; the acknowledgement of norms as both constraining and enabling; the idea that the enactment of moral obligations does not necessarily imply moral commitment; and the acceptance of the principle that the production of society is always a skilled accomplishment of its members.” (ibid.:41)

In effect, their argument recognises the effect of social norms and doxa on behaviour. Their concern particularly relates to the recognition that institutional behaviour is constrained by normative beliefs (Murray and Lawrence, ibid.:38).
Hence, in their view, because educational research is bounded within social systems, any examination and analysis of practice in an educational context needs to take account of both historical and current thinking about interpretations of the social world. Such awareness of past and present ideas then enables further building on the foundations provided by social science. In particular, they highlight Giddens’ work regarding explanatory theory, where he used the work of classical sociologists such as Spencer, Marx, Weber and Durkheim as his stable benchmarks for explanatory theory. They further advocate that practitioner-researchers be familiar with the ideas involved in this line of descent. For example, one idea concerns the conceptualisation of ‘action’ which:

…may be regarded as conduct which is oriented towards norms or conventions. This can then lead in different directions, depending upon whether the analysis concentrates upon actors purposes or motives, or whether the emphasis is placed, as by Durkheim, upon norms themselves as properties of collectivities. (Giddens, 1976:93)

In conclusion, if we are to interpret the social world, this involves finding a way to deconstruct practice in order to analyse it, from both historical and current perspectives and which accounts for the constraints involved. The merits and limitations of such an approach are discussed in the next section.

2.5 The socio-cognitive perspective: using CHAT to deconstruct practice

As discussed in the preceding section, in order to develop insight and understanding of practice, such as that of trainers’ in the field of clinical research, any critically objective analysis of practice must be more than mere descriptions of the mechanics of practice and the artefacts used to mediate practice. However, the nature and diversity of social and work practices is reflected in their correspondingly diverse interpretation. To be effective, then, the means by which participants interact with each other and through the use of artefacts, must also be considered, which includes examining rules and structures governing practice.

For example, in the field of information systems, or in the field of human-computer-interaction (HCI), lessons have been learned. The failure to understand or appreciate the subtleties of situated work practices, is considered a key reason for end-users’ failure to adopt
technological information systems (Nathanael, 2005). In particular, common problems were failure to recognise the contingency of real-life action on cooperation, or failure to capture its complexity through task analysis that focussed on individual users.

Consequently, designers of information systems were encouraged to examine work practices to understand how fundamental patterns of behaviour ultimately determine a technology’s intended and unintended consequences (Barley 1988; Blomberg et al. 1993; Brown and Duguid 1991; Davenport et al, 1996; Schultze et al, 1998).

The significance of cognitive and social aspects of work practices in this field means that work settings are studied in an effort to learn about what is done today and the reasons why it is being done that way (Nardi, 1996). In this context, this involves considering the artefacts in use (instruments), the habitual action and communication patterns and the current cognitive ontology. (Nathanael op.cit.: 66)

However, as acknowledged in this field, a difficulty exists in observing work practices in particular settings (Schultze et al, op.cit.). Namely, neither physical processes nor accompanying technology necessarily define practice settings and their dynamics. Moreover, the stability of either processes or technology may highly constrain individual and collective intentionality. Rather, it is recognised that in certain fields of practice, such as in the service sector:

“…practice dynamics are more dependent on social conventions, norms and habits of participants than on natural or other causal laws. However, conventions and habits are not as stable as natural or causal laws. Consequently, the structure of domains … is typically vague, open to situated interpretation and subject to historical evolution.” (Nathanael op.cit.: 66)

Hence, as is appreciated in this particular field, to understand workplace practices, the constituents of social practice and the subtleties of behavioural codes (or culture) governing the expression of particular practices must be explored. The focus of such exploration is on the members of a community of practice and their local habits, assumptions and tacit knowledge. In this context, local habits encompass the cognitive and cooperative tasks involved in the activities constituent of particular workplace practices. Tacit knowledge describes what is understood and shared within a community of practice. However,
practitioners may not necessarily express this tacit knowledge overtly (Polanyi, 1967). Moreover, in some instances, practitioners may be unable to articulate tacit knowledge (Turner, 1994; Altrichter et al, 1993). Despite these limitations, particularly concerning the difficulty involved in defining settings, dynamics or domains of practice, as discussed above, the regularities of practice within the field of information systems have been extensively and commonly defined as:-

- Human agent activity: both co-operative and cognitive elements (as revealed by cognitive task analysis)
- Associated competencies
- Instruments / tools developed to achieve activity

Consequently, Activity Theory (AT) or Cultural-Historical-Activity-Theory (CHAT) has been harnessed in this field to classify the cognitive, physical and social processes involved in performing specific tasks as constituents of complex activity. Human-computer-interaction (HCI) professionals can then understand better, within this descriptive framework, how specific tasks relate to the “bigger picture” of activity (Crawford and Hassan, 2006).

At the same time, due to perceived complexity in defining the unit of analysis, or delineating boundaries between activities and actions (with respect to integrating Leontiev’s hierarchical structure of human activity, shown in Figure 2-1, where “activity is the minimal meaningful context for understanding individual actions” (Leontiev, 1978)), various researchers have developed guidelines or structured methodologies to standardise or help with the application of AT to HCI studies (Crawford and Hasan, op.cit.; Mwanza, 2002a, 2002b, 2001; Nardi, 1996). Moreover, in technology-rich learning environments the question of how the “activity” and its constituent actions are identified or how the boundaries of the activity system are delineated from its neighbours has received critical attention. Hall (2001: 208) in particular, has raised concerns about failure to integrate the hierarchical elements of the structure of
activity (shown in Figure 2-1), thereby overlooking the potential sources of contradiction and subsequent transformation through their resolution.

CHAT or third generation Activity Theory was developed by Engeström, and arose out of the work of Vygotsky, Leontiev, and Luria (Engeström, 1990, 1999). First generation Activity Theory (AT) concerned subjects’ artefact-mediated and object-oriented action (Vygotsky, 1978:40).

In second generation AT, the concept of collective activity mediated by others through social relations was integrated into Vygotsky’s triangular model of action (subject-artefact-object). This was accomplished through incorporating Leontiev’s (1981) hierarchical structure of human activity, which distinguished between collective activity and individual action, shown in Figure 2-1, below:

![Figure 2-1: Leontiev’s hierarchical structure of human activity](image)

**Figure 2-1: Leontiev’s hierarchical structure of human activity**

Leontiev (1978; 1981) provides an example of a primeval hunt to explain the difference, summarised as follows:-

*Activity is governed by its conscious motive(s): The man is engaged in a communal hunt because he wants to feed his family.*

*Component actions are governed by their aggregate goals (which are subordinate to the main goal or object of activity): The man performs the role of "beater" (the goal being to scare the prey away from himself and toward the other members of the hunting party).*

*Operations are governed by the conditions in which component tasks are performed, where operations are the routinised or automated form of the constituent actions within an activity: Operations are governed by the conditions of the hunt. How he carries out the various tasks involved in his role will depend upon the terrain, kind of game-animal sought, wind direction, the weather, the season of the year, etc.*
In effect, Leontiev’s conception of the hierarchical structure of activity, and its illustration through the example of the hunt, demonstrates how mediated action has particular social meaning or makes sense in the context of collective activity (Williams et al, 2007).

Finally, in the third generation, components that were omitted by Vygotsky to describe the socio-historical aspects of mediation were added, namely: the rules, community, and division of labour (Engeström, 1999). This situates activity within a collective system. Moreover, through analysing different levels of contradictions within and between its elements, the potential for identifying neighbouring systems is also created, such as those that produced the subject, instruments or rules governing the system.

Hence, third generation AT, or CHAT as it is now known, provides a means to explore practice and its constituent elements from shifting perspectives that focus respectively on: the subject, object and mediating artefacts; which transform the object through the activity of the subject (Engeström, 1987, 1990, 1996a). Consequently, CHAT provides the framework for understanding activities, actions and operations - as elements of practice - performed by participants in an activity system. By this means, the collective motives, goals and instrumental conditions within a community may be revealed and understood through the contradictions within and between the elements of the activity system, including its system of rules, and division of labour.

As a theory of expansive learning, Engeström’s (1999) model of an Activity System (AS) provides a descriptive and explanatory framework to classify the cognitive, physical and social processes involved in performing a specific task, and to understand how specific tasks relate to the “bigger picture” within a system, or systems, of activity. Moreover, as an applied theory, AT can be operationalised, where “operationalisation means that the framework developed during the conceptual development phase is focused, is specific, and contains unique measurable/observable and understandable elements” (Storberg-Walker (2008: 567). These observable and understandable elements are apparent in Engeström’s activity system model, shown in Figure 2-2.
Figure 2-2: The structure of human activity (Engeström, 1987: 78)

Thus, in his triangular representation, Engeström provides a unit of analysis that encompasses within its structure the dialectic relationship between subject-object, which is mediated by tools and community (Crawford and Hasan, op.cit.). That is, through this framework, we can attempt to understand the relationships involved in an activity system, and hence to explain their origins, in terms of the conditions giving rise to them, rather than just trying to describe them. As Yamagata-Lynch (2003:104) explains:

"...The unit of analysis in AT is the mediated action itself (Engestrom, 1987; Rogoff 1995; Wertsch, Del Rio & Alverez, 1995). When conducting research based on sociocultural theory, examining individual behaviour is the gateway for the researcher to enter into and vicariously experience the activity of the subject. Once the researcher identifies the activity, she needs to shift the focus of her examination to understanding the motive-goal-instrumental conditions rather than the observable individual behaviors, and use that information to understand the collective meaning making process."

The pivotal idea in activity theory is that, individually and collectively, we relate to our environment, or mediate our interaction, with culturally meaningful tools and signs (semiotics).

Hence, language and artefacts created using language (like laws, rules, rituals, textbooks, oral and written discourse, contracts, tests etc.) form the instruments we use to mediate our activities, relationships or interactions, all of which can be defined within social and historical contexts. Use of these instruments is therefore a transformative process, where both the subject and object of activity are transformed.

However, subject, object and the instrument mediating change may be considered simultaneously as stable dimensions within an activity system, and as a dynamic three-dimensional (3-D) unit of analysis ‘continuously in the midst of transformation’ (Worthen,
Moreover, because all elements within an activity system are interconnected, heterogeneous, and multi-voiced, this 3-D unit of analysis unpacks the nature of transformation(s) taking place. In effect, the dynamics within the activity system may be revealed, along with its intended and unintended outcomes.

Furthermore, rather than delimiting context as a container of situationally created experiences with distinct and well defined boundaries, context is visualised as an expansive series of dynamic activity systems that “...tie the actor(s), the outcomes, and mediating artifacts into a unified system of action.” (Halverson, 2003). Hence, in the workplace, engaging in the tasks of work means actors participate in a localised activity system, which interacts with a network of other activity systems. In turn, these are defined, bounded and determined by the activities of various communities to which participants belong, in terms of their division of labour and rules governing practices within them. Although AT cannot predict those actions that may constitute an activity, it can nevertheless explain how one relates to the other, through the motives, goals and conditions within the specific context (Cole, 1996).

AT may then be understood as a social theory of consciousness, where context is socially constructed, and consciousness is defined as “...a product of our social interactions with other people and of our use of tools” (Nardi, op.cit.). Our mental processes of classifying, generalising and abstracting (which are represented by our mental models) are then accessible through the application of AT to our activity, where consciousness is central to its depiction.

The utility of AT, as a means to examine practice has been demonstrated in a variety of contexts, including: education (Meyers, 2007; Blin, 2005; Lim and Hang, 2003; Yamagata-Lynch, op.cit.; Engeström et al, 2001); healthcare (Engeström, 2000); organisational learning (Boreham & Morgan, 2004; Daniels and Warmington, 2007; Engeström, 1991).

Thus, in developmental work research (derived from a CHAT approach):

“practices are analysed as socially distributed collective activities, which evolve over time through tension, contradiction and innovation. New models of practice emerge from the research participants’ experience, similar to action research models of organisational learning (Argyris and Schön, 1996). Solutions are never adopted as prescriptive, but are adapted to individual contexts with the guidance of the researchers” (Meyers, op.cit.:3).
Engeström’s activity system model therefore, provides a means to capture the complexity of systemic relationships transforming training as a practice, within the field of clinical research. These systemic relationships may be internal or external to activity. For example, various institutional systems impinge on practice, such as professional or regulatory bodies, as well as the rules and division of labour within the community in which the activity is situated.

However, the scale and the variety of organisations operating within the field of clinical research make it difficult to observe and to generalise about the everyday context and situation of practice constituted by communities within the workplace. Given this limitation, how then can we analyse practice in situ?

2.6 The socio-cultural perspective: How can we learn about practice?

Wenger’s (1998) concept of a community of practice (CoP) provides a means to contextualise practice within a community. Wenger, McDermott and Snyder (op.cit.) further explain that communities of practice are social structures developing and sharing knowledge, which may differ in attributes such as size, life span, physical boundaries and the extent by which they are recognised in organisations. In addition, “…Knowing the boundaries helps members to decide exactly what’s worth sharing, how to present their ideas, and which activities to pursue” (Wenger, McDermott and Snyder, ibid: 28). However, all communities of practice are characterised by three fundamental, yet unique structural elements, namely, domain, community and practice:

“…a domain of knowledge, which defines a set of issues; a community of people who care about this domain; and the shared practice that they are developing to be effective in their domain.” (ibid.:27)

The structural features of these elements described further by Wenger et al, (ibid.) are shown in Table 2-1 at the end of the chapter.

Community refers, on the one hand, to the environment in which people interact, learn and build relationships, ranging from professional associations to business organisations (Lesser & Storck, 2001: 832; Gongla & Rizzuto, 2001). On the other, its members “are groups of
people who share a concern, a set of problems, or a passion about a topic and who deepen
their knowledge and expertise in this area by interacting on an ongoing basis” (Gongla &
Rizzuto, ibid.: 4). In effect, because such communities are self-forming and self-governing,
identities form or emerge, as do authority relationships, through the interaction around the
expertise of members who contribute their time, and their knowledge to engage in developing
practice (Monaghan, 2006:13-14; Lessor & Storck, op.cit.: 832; ).

Practice then, is the set of frameworks; ideas; tools and documents; as well as discourse and
its particular insider language that community members share (Barton & Tusting, 2005). The
domain of practice relates to the cognitive or knowledge focus of practice within a given field
of practice and may range from mundane know-how to specialised professional expertise.
Therefore, communities of practice may be considered as social structures developing and
sharing knowledge in organisations (Wenger, McDermott & Snyder, op.cit.).

Moreover, if, as Lave & Wenger (op.cit.) posited, learning is situated in the context of
everyday experience, then a community of practice collectively embodies situated approaches
to learning.10 Hence – a CoP may be a defining component within a social theory of learning,
representing a knowledge-based social structure. Building on the concept of situated learning,
Wenger regards the concept of a CoP as a means to examine learning - in naturally occurring
contexts - as a fundamentally social process that is an inevitable consequence of everyday
living, as opposed to its being confined to the artificial setting of a classroom. Hence, the term
“Community of Practice”, or CoP, is defined as a component of a social theory of learning,
representing a knowledge-based social structure.

Consequently, according to Wenger et al (op.cit), the value of such communities concerns the
facility to connect the personal development and the professional identity of practitioners to
organisational strategy. Whereas their focus mostly concerns the development of communities

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10 Lave and Wenger (1991) developed the concept of communities of practice to convey the role of activity in binding
individuals to communities and to convey the notion of a collective embodiment of situated approaches to learning.
For them situated learning took place in the context of everyday experience.
Chapter 2: Theoretical Framework: The Concept of Practice

of practice distributed within organisations, which largely encompasses business enterprises such as companies, they also envision the scope of communities of practice to areas of practice within society ‘at large’. Thus, communities of practice external to the work setting may nevertheless impinge upon this process of connecting practitioners to their organisational strategy, albeit at a distance, as in the case of professional body affiliations. Moreover, a study of a professional community of practice answers Young and Mitchell’s (2003: 10) call:

“...to strongly locate the investigation of practice – including the knowledge, documents and tools the community develops – at the heart of their communities of practice: to continue to focus on their practice within their communities of practice”.

In conclusion, due to its cross-boundary nature within the field of clinical research, a professionally affiliated community of trainers provides a means to analyse training practice in situ on the assumption that its members share particular tools that create a sense of identity and common ground. However, whether the construct also provides a comprehensive way to analyse practice as complex activity, as well as learning in situ is discussed in the next section.

2.6.1 Situating learning and practice within a community

In a professional community of practice, the endeavour to connect practitioners to their organisational strategy may reveal contradictions between the professional and organisational activity systems in terms of their concepts and models of practice that may unintentionally lead to conflict rather than bring about the desired harmony in operations between practitioners and organisations. Thus, conflicts of interest may be more prominent if not necessarily more problematic in a professional CoP, possibly manifesting as tensions between the internal and external goods of practice.

For example, such tension may be observed in the public spaces within communities of practice, which Wenger et al (op.cit.) define as official events organised for all members; private spaces concern one-on-one interaction among members. Consequently, if the express intention within these public spaces is to develop and share knowledge that can be applied in the workplace setting, then it follows that meetings held within communities based within
professional institutions (i.e. like the Institute of Clinical Research) will nevertheless impact upon workplace practice in a CPD capacity, despite being external to the workplace setting. Moreover, such public spaces within a professional setting might be expected to uniquely embody values related to practice, expressed as *professionality* or a concern for improving the quality of practice through continuous learning. Therefore, in a study of practice, such public spaces provide a focal point for observation. Furthermore, as Giddens (1984: 374) states, 

“...the structural properties of social systems do not exist outside of action but are chronically implicated in its production and reproduction.”

Moreover, he defines the duality of structure as *the medium and outcome of the conduct it recursively organises*. Consequently, the forms these meetings take, the ideas or best practices that are shared at them provide a ‘window’ not only into topical issues of concern to members, but into the collective practices and embedded *modus operandi* of trainers made visible within the localised confines of the ‘professional’ public space. At the same time, the sharing of practice may affect an individual member’s *modus operandi* within the wider (clinical research training) community, distributed within individual practitioners’ organisations.

In effect, in this setting, through their habitus, agents participating in the sharing of practice as a learning activity will unintentionally or otherwise, display dispositions towards *certain activities and perspectives that express the culturally and historically constituted field of practice* (Webb et al, op.cit.: xiii). Accordingly, the localised confines of the ‘professional’ public space form an intentionally accessible and socially amenable setting within a community of practice for community members to observe how others engage in the activities not only of the community, but also of their professional practice. Thus, in this respect, observation serves as a learning strategy, particularly for peripheral members. Equally, as a tool, it allows researchers to learn more about the CoP, in terms of its role, workings, and collective practices.

Therefore, as Lave and Wenger (op.cit.) intended, the concept of a *community of practice* also conveys the role of activity in binding individuals to their community in keeping with its
theoretical construct as a social theory of learning. However, as a model it is limited as a unit of analysis for examining the constituent elements of practice, which is the focus of this thesis.

Nevertheless, it offers a useful guide to analysis of phenomenon within a community (via an ethnographic methodology) including structural features (as outlined in the previous section) and the social processes of learning, which may be understood in terms of relationships through which participants manage their domain, define their practice and interact in their community (i.e. as core, active and peripheral members). As Lave and Wenger suggest, tensions in these relationships may drive the learning process in a CoP. However, although tensions may be observed, identifying their nature by analysing them closely poses a challenge (Barab, 2002), particularly in the absence of a systematic framework.

Therefore, if the CoP construct is conceived as a component of a social theory of learning it might usefully guide phenomenological exploration of a community of practice and its activities, particularly if it is considered as a knowledge-based social structure. But, how might this structure and its potential for causing conflict be explored? For example, what might be considered as the unit of analysis to explore learning in such a structure where “learning is an integral and inseparable aspect of social practice” (Lave and Wenger, 2002:57)?

In this respect, other than specifying the criteria of its structural elements, the construct does not perhaps provide a systematic means or framework to explore the tensions between constituent elements of practice despite its relationship to a specific knowledge domain within a particular community. Nevertheless, in a CoP, the focus is on the relationships between practitioners and how learning depends on, and is facilitated by, these relationships, particularly since learning is theorised as a function of increasing immersion and participation in the practices of the community. In particular, in his original conception of the CoP construct, Wenger (1998) suggests that the potential for learning in situ exists through increasing levels of participation in the social structure of the community (moving from the
periphery of the community to become gradually more active). Yet, the means to analyse how the relationships in the social structure of the community enable or constrain such immersive learning in a CoP is limited to describing the structural features of domain, community or practice, rather than explaining them.

Therefore, although Wenger’s work on Communities of Practice seeks to illuminate the complex relationship between learning, practice, community, and identity (Storberg-Walker, op.cit.), no definitive model exists to operationalise the elements that might serve as a unit of analysis in an applied theory of social learning. In view of this, how then can we address this methodological deficit in order to build up a picture over time of practice and its domain within a community? This question is answered in the next section.

### 2.6.2 Examining a community within an activity system framework

Cultural- Historical-Activity-Theory (CHAT) offers a way to analyse a community of practice by considering it as an activity system, where the community provides the context of the practice in terms of its constituent complex activities. In such a system, activity is undertaken by a human agent (subject) who is motivated toward the solution of a problem or purpose (object), and mediated by tools (artefacts) in collaboration with others (community). The structure of the activity is shaped and constrained by cultural factors including conventions (rules) and social divisions (division of labour) within the context. Engeström emphasizes the mediational role of the community and that of social structures including the division of labour and established procedures.

Moreover, because activity does not take place within a vacuum, it can be further situated within a network of activity systems, which invariably impinge rules and instruments upon its activities or its operations, the effects and outcomes of which may be perceived to differing degrees of awareness. For example, in the case of the Trainers Forum, its host organisation, the Institute of Clinical Research, has a set of rules for the constitution and conduct of Special

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11 For example, the novice participant, analogous to an apprentice, may subsequently develop identity through legitimation of his/her participation in meaningful activity in the community and through progressive levels of engagement moving from peripheral to active and core participants.
Interest Groups (SIGs) and Steering Groups (SG). However, members’ general awareness of these terms & conditions probably reflect their limited circulation among serving members of SIGs or SGs, but which may shape activity in the TF nevertheless.

Thus, activity theory provides the means to probe the complexity of practice in the field of clinical research training within a community of practice. Subsequently, Engeström’s model of an activity system, based on what he refers to as 3rd generation activity theory (or CHAT), provides the means for understanding activities, actions and operations performed by participants of a particular community, as elements of practice. By this means, the collective motives, goals and instrumental conditions, within the activity system may be understood.

However, whereas activities-actions-operations are observable, the collective meaning making process may be less transparent since these behaviours are contingent on conditions, goals and means that are perhaps less apparent. Nevertheless, as Yamagata-Lynch (op.cit.) explains:

"...Examining learning situations using activity systems not only allows the analysis of collective action as a unit of analysis (Cole & Engestrom, 1993; Engestrom, 1987; Engestrom, 1993), but also allows researchers to capture: (a) the dynamic structure of activity, (b) the historical development of activity over time, and (c) the multivoiced nature in the formation of human activity (Engestrom, 1999a)."

The key strength of activity theory is that it offers the capability to consider various aspects within an activity system (in this case, the TF), including the subject(s) and object(s) of activity, from multiple perspectives. The unit of analysis is then constituted by the relationships formed between these aspects. These include: division of labour, community, rules and instruments mediating the outcome of activity. In effect, as a conceptual theoretical and methodological framework, CHAT transcends the dichotomies between microcosm and macrocosm, subjective and objective, quantitative and qualitative, observation and intervention that pervade methodological debate concerning the choice of appropriate research methods.

In conclusion, the structuration of practice may also be considered in terms of its historical development within an activity system framework in terms of its least meaningful unit of
analysis – activity, or in its entirety (i.e. all 6 components of the AS – subject-tools-object-rules-community-division of labour). The rules, structures, and processes, by which participants in a community interact through their activities, can then be further expanded. For example, activities in the TF concern:

- how TF members share (i.e. communicate and agree) best practices, or specifically in this context - pedagogies;
- its emergent structures encompassing the planning and decision-making processes;
- and finally,
- the underlying codes or organising principles indicating how the practices of the TF are constituted by members.

Moreover, as the medium or artefact transforming activity into outcomes, language and its modes of expression are fundamental to understanding the nature of the activities in the TF that may be considered constituent of its practices and pedagogies. The implications of language and its uses in association with particular pedagogies, therefore, will be considered in the next section, particularly in terms of how differences in its expression translate into different actions, and ultimately activities.

2.6.3 Analysing dispositions expressing the culturally and historically constituted field of practice

Gee (1996:59) encapsulates the focus on language and its modes of expression with the premise that:

"what is at issue in the use of language is different ways of knowing, different ways of making sense of the world of human experience, that is, different social epistemologies".

Bourdieu encapsulates these different social epistemologies in his concept of habitus, where agents display dispositions towards certain activities and perspectives that express the culturally and historically constituted field of practice (Webb et al, 2002: xiii). In addition, as discussed in section 2.2, epistemology also featured in defining an individual’s disposition towards their professionality (or quality of practice).
How then, have these social epistemologies been operationalised and analysed?

These different ways of knowing have been considered further in studies of classroom interactions in terms of exploring the link between teachers’ and students’ epistemologies. Although empirical studies of this type are limited in number, researchers’ interest in this area concerns the use of language as a medium in interactions between teachers and their students and its effect on learning (Johnston, Woodside-Jiron and Day (2001); Wells’ (2000; 2001; 2007); Wells & Claxton, 2002). In this context, language is the medium of thought. The focus of such classroom studies is on modes of interaction, associated language, and its effects on students.

In addition, Wells (1999) considers particular approaches to teaching, and their associated vocabularies, as artefacts of a particular pedagogy. That is, teachers with a learner-centred approach tend to adopt dialogic or learner-centred teaching and learning methods; whereas, teachers who use teacher-centred methods in their lessons conduct a monologue in their classrooms, and give students little opportunity to interact.

Johnston et al (op.cit) contend that teachers’ classroom discourse is the likely mediating variable linking teachers’ epistemologies to that of their students. As they explain:

“Gee (1996) points out that, in literacy, "what is important is not [merely] language, and surely not grammar, but saying-writing-doing-being-valuing-believing combinations," which he calls Discourses. Discourses, he argues, come from, reveal, and produce social epistemologies. The view of epistemology Gee invokes here is consistent with Popkewitz (1998), who uses epistemology "to focus on the rules and standards of reason that organize perceptions, ways of responding to the world, and the conceptions of 'self'" (p. x). These are clusters of beliefs about knowledge and knowing, but also about authority and language. In theory, there should be some systematic connection among the epistemologies of teachers and their students and the discourse in which they are engaged.”

In essence, these saying-writing-doing-being-valuing-believing combinations – or epistemological frames of discourse (EFsD) – provide a framework to analyse social epistemologies evident within oral or written discourses. However, such a framework is not limited to understanding the development of literacy, but has applicability to other areas of what is coined as knowing and ways of knowing (Wells, 2001; Lave, 1996). Hence, if language is the medium by which we communicate, then who we are (in terms of our
experience of knowing, and our ways of coming to know) is apparent in the semiotic expression of what we say, write, do, value and believe within our social contexts. Wells (2007) expresses this as

"...individual persons appropriate the normative values and practices of society and the tools (including language) that mediate their acting, thinking and valuing through their participation in interpersonally performed actions (Vgotsky, 1981). At the same time, since action transforms not only its object but also the persons and artifacts involved, it is through participation in such jointly undertaken actions that individuals instantiate society's normative practices and to some degree transform them."

Therefore, although Johnston et al (op.cit.) acknowledge the lack of consensus that Hofer and Pintrich (1997) observe among researchers in defining epistemology as a construct within studies, they nevertheless simplify it to a dichotomy between constructed and received knowers (terms borrowed from Belenky, Clinchy, Goldberger, & Tarule (1986)). In so doing, Johnston et al demonstrate the systematic connection, which Gee refers to, between teachers’ epistemological stance, which is reflected in classroom discourse, and their students’ epistemological development, since its effect can be seen subsequently in students' discourse and experiential outlook.

For example, teachers who are constructed knowers view knowledge as constructed by individuals in interaction through language (or semiotic systems) (Johnston et al, op.cit.:7). On the basis of their study, Johnston et al explain how such knowers value discussion as a learning tool, and think of knowledge in the active sense of knowing. Constructed knowers, therefore, view knowledge as being constructed socially through dialogue. Knowledge is viewed as an integral part of experience. They expect to be most engaged by its complexity and ambiguity and rarely view it in simplistic terms of right or wrong. Constructed knowers have an authoritative voice in the building of knowledge, but a non-authoritarian stance. They share a distributed sense of responsibility with other sources of knowledge with whom, or through which, they interact.

Moreover, as Johnston et al (op.cit.) describe in their study, depending on teachers' EFD, differences are apparent within the classroom in the type of interactions and activities that take place. A teacher who is a constructed knower will endeavour to create an opportunity for
learning based around a shared experience. For them, the activity of learning encompasses three domains (cognitive, affective and psychomotor) to some degree (Bloom, Engelhart, Furst, Hill & Krathwohl, 1956; Krathwohl, 1964; Dave, 1970; Anderson & Krathwohl, 2001).

That is, learning involves thinking, feeling and doing in order for knowledge to be developed effectively, since

“…real change requires a fundamental shift at each of the three levels. This can be accomplished by designing learning tasks that have cognitive, affective and psychomotor components” (Vella, 2002:18).

Therefore, how teachers refer to the process of knowing and coming to know through their words and actions not only reflects their entire approach to the experience of \textit{knowing and coming to know}, but determines how they affect their students’ subsequent experience of it.

Since the act of teaching and learning is learner-centred, the approach is less controlled. Hence, if a trainer facilitates the process of knowledge construction, then both learners and trainers may appreciate knowledge as a unique end-product of a spontaneous and dialectical process of teaching and learning.

By contrast, for \textit{received knowers}, knowledge is “out there” in the sense that it exists separately and distinctly as facts. Someone “in authority” can convey it to them, so that they can learn through its transmission to them. Discussion is not viewed as helpful to learning as any ambiguity that arises is likely to make received knowers uncomfortable, as facts are perceived as right or wrong. Personal experiences and feelings are not considered part of \textit{real knowledge} and are separated from their learning. A hierarchical framework of authority and control is implicit to this perspective. In this schema, knowledge is a commodity that can be transferred from teacher to learner, in the act of training. Thus, the teacher or trainer maintains control of the process of transfer through the teaching and learning methods used (e.g. slides). The act of learning is then implicated predominantly as a listening exercise.

Johnston \textit{et al} (op.cit.) consider that their work fits with the sociolinguistic argument that discourse environments affect more than the acquisition of facts and strategies. Apparently, over time, discourse environments may powerfully affect children’s epistemologies, in effect
changing the course of their development (Cazden, 1988; Fairclough, 1992; Gee, 1996). The routines of behaviour, patterns of values, beliefs, roles, identities, and ways of knowing inherent within these discourses may unconsciously affect children’s perceptions and ultimately their responses both inside and outside the classroom. (Reichenbach, 1998: 84).

Alexander (2005) highlights the nature of epistemology, as a learned cultural response to our way of understanding the world we know. From his studies of pedagogy he posits that culture and pedagogy are inextricably linked, which he considers unsurprising since “…Vygotsky’s claim that ‘the true direction of the development of thinking is not from the individual to the socialised, but from the social to the individual’” (ibid.:11). He also considers this to fit with “…Bakhtin’s account of social and semiotic influences in the development of thinking” particularly where dialogue offers a potent tool for intervening in an individual’s progress across the zone of proximal development. His proposition, therefore, is that

“Pedagogy is not a mere matter of teaching technique. It is a purposive cultural intervention in individual human development which is deeply saturated with the values and history of the society and community in which it is located. Pedagogy is best defined, then, as the act of teaching together with the ideas, values and collective histories which inform, shape and explain that act.” (Alexander, ibid.2)

Although Alexander (ibid.) focuses on pedagogy rather that epistemology, he is in agreement with Johnston et al (op.cit.) that where most of the classroom talk is teacher-dominated, authority and control are either assumed or implicit in the frame of discourse in such classrooms:

“…teachers rather than learners control what is said, who says it and to whom” (Alexander, op.cit.:2).

Furthermore, Alexander makes the point that in English culture, considering expository or teacher-centred methods of instruction didactic expresses disapproval. Whereas “…elsewhere, la didactique and die Didaktik celebrate the place in teaching of the subject and its conceptual imperatives” (ibid.:4). Thus, he illustrates how culture affects how we think of our teaching methods, whereas Johnston et al explain how it permeates classroom activity through epistemology.
Part 1: Introduction

Thus, the changing view of epistemology from a dimension of stage wise intellectual or cognitive development in adolescents or young adults (Belenky et al., op. cit.; Perry, 1970) to that of complex sociocognitive learning has shifted focus to classroom instructional practices i.e. pedagogy (Carlsen, 1997; Gee, 1996; Hofer & Pintrich, 1997; Kardash & Scholes, 1996; Lyons, 1990; Nystrand, Gamoran, Kachur & Prendergast, 1997). Again, such concerns are limited to the effects on the learning processes of young adults as opposed to mature learners.

Yet, if epistemology is considered as a dimension within a sociocognitive theory of learning, this changing view of it surely extends focus into how it features in situated learning processes, such as those within communities of practice. However, other than its recognition as a tension driving “...educators towards identifying new theories of, and explanations for, how people learn” and its referencing within acquisition and participation metaphors equating to epistemologies of ownership / participation (Barab, op. cit.), epistemology appears to receive little mention, far less consideration. In addition, as Boreham and Morgan (op. cit.:321) conclude: “... whilst there is an extensive literature on the concept of organisational learning itself, there is a lack of empirical evidence about the practices through which it is brought about, especially its pedagogy”.

Finally, Daniels (2007:389) reflects that there is a need to expand the general working hypothesis of learning to include “notions of experiencing and identity formation within an account that includes a systematic and coherent analysis of the wider social structuring of society as an inseparable part of the analysis”. He bases this on what he considers as a largely ignored “new unit of analysis, namely, perezhivanie” that Vygotsky was focussed on in the last year of his life. This unit of analysis equates to the concept of lived or emotional experience, which began to integrate the cognitive, affective and psychomotor dimensions of learning (developed later in terms of a cohesive approach by Lewin, 1951). Perezhivanie represented the unity of psychological development in the study of the social situation of development (Gonzalez-Rey, 2002: 136). In effect, Vygotsky’s ideas concerned the largely overlooked role of affect in thinking and action (Mann and John-Steiner, 2002).
Daniels (op.cit.:389) explains the concept of lived or emotional experience further:

“The emotional experience [perezhivanie] arising from any situation or from any aspect of his environment, determines what kind of influence this situation or this environment will have on the child. Therefore, it is not any of the factors themselves (if taken without the reference of the child) which determines how they will influence the future course of his development, but the same factors refracted through the prism of the child’s emotional experience (Vygotsky, 1994, p. 339)”.

He also explains that Vasilyuk (1991) refined the idea further “...when he introduced the notion of experiencing, defined as a particular form of activity directed towards the restoration of meaning in life” (Daniels op.cit:389).

Therefore, the possibility that epistemology forms through the prism of emotional experience (or affective learning), and thus represents a cultural artefact, either within an activity system or as a sociocognitive dimension within a CoP, apparently remains unexplored. Moreover, according to Davis (2005: 5):

“Activity Theory has not been used to any great extent to address issues of classroom learning and teaching (Wells, 2002), although it has proved a useful tool for analysing and theorising about workplace activity settings (e.g. Williams, Wake and Boreham, 2001)”.

However, if a CoP is no less a discourse environment than a classroom, then it follows that the epistemological frames of discourse (EFsD) within them are no less tools of enculturation. Consequently, if members within a CoP view themselves as adult learners, then studying their interactions in terms of the language and behaviour evident as Gee’s (op.cit.) saying-writing-doing-being-valuing-believing discourses could elaborate "what is happening" within that CoP. For example, practitioners’ contrasting epistemological stances within the CoP might explain possible tensions or contradictions between what is said and what is done.

Thus, if a link can be demonstrated it may show that members’ approach to learning, and their preferred choice of methods (to have/lead ‘discussions’, or to establish a dialogue, or to give/receive instruction) depends on their enculturation (i.e. as constructed or received knowers), within either the local level of their community’s activity system, or perhaps at an expanded level of interacting activity systems. Thus, a practitioner’s enculturation as a constructed or received knower might also explain their position on Hoyle’s (op.cit.)
spectrum of professionalism, operating either according to restrictive or expansive codes, as discussed in section 2.2.

Accordingly, dialogue and discussion representing particular epistemologies (i.e. constructed knowing versus received knowing) that elicit particular emotional responses then need to be defined, particularly if they are to be operationalised as modes of interaction with an associated language or idiom in the sense of a specialised and shared vocabulary. From his context of pedagogic repertoires within classrooms, Alexander (op.cit.) describes discussion as one type of teaching talk and defines it as an exchange of ideas with a view to sharing information and solving problems. This definition of discussion has pertinence to this study of trainers’ embodiment of practice within their community. In addition, he describes dialogue as one of five kinds of teaching talk, where the remaining three are rote, recitation and instruction/exposition. Here dialogue is defined as “…achieving common understanding through structured, cumulative questioning and discussion which guide and prompt, reduce choices, minimise risk and error, and expedite the ‘handover’ of concepts and principles”; and instruction/exposition as “…telling the student what to do, and/or imparting information, and/or explaining facts, principles or procedures” (Alexander, ibid.: 12).

For the purposes of studying trainers’ practice, then, the two types of “teaching” talk that best represent the opposite ends of an epistemological-pedagogical spectrum of adult socio-cultural learning are dialogue and instruction. In this context, dialogue represents the tool of choice for constructed knowers and instruction or monologue the preferred tool of received knowers, since received/constructed knowers will correspondingly use methods that conform to their beliefs about the nature of knowledge and knowing, as described by Johnston et al (op.cit.).

Moreover, learners may receive more than just information communicated via a particular pedagogy, particularly, if as Alexander (op.cit.) has elaborated, culture is an element of pedagogy (i.e. part of the Teaching and Learning approach) that is often overlooked. In effect, they "see" how the process of Teaching and Learning (T & L) is enacted, since teachers’ or
trainers’ epistemology, inherent in their T & L approach, is subsequently translated through their actions into the activity of T & L (Wells, 2000). That is, a trainer’s beliefs about the certainty, simplicity, source and justification of knowledge, which Hofer & Pintrich (op.cit.) define as the key elements involved in knowing and the nature of knowledge or, as Wells (2001) prefers - modes of knowing\(^\text{12}\), is apparent in their T & L approach. This is because...

“...knowing in any mode is not a purely cognitive process. All modes of knowing are embedded in action, and since they are mediated by material tools of various kinds, they involve the body as well as the mind.”

Hofer and Pintrich (op.cit: 120) condense these epistemological constructs into the four elements of certainty, simplicity, source and justification (Table 2-2).

Wells (op.cit.) emphasises an inquiry approach, in terms of pedagogy, as "a means of learning and coming to know" because "...we have to engage in meaningful activities with others, using the relevant texts, tools, and practices, in order to come to understand them". As such, knowledge construction is mediated through dialogue between people engaged in a common endeavour - looking for meaningful answers, where contributions depend on and are determined by participants' responsivity to each other's utterances (Bakhtin, 1981, 1986). Correspondingly, advocacy of a dialogic approach to teaching and learning is based around analysis of the nature of classroom interactions between teachers and learners, in terms of observing how it operates as a “thinking tool” through language (Lotman, 1988).

As Wells (op.cit.) suggests, therefore, the choice of activities - their form and expression - inevitably affects what is learned and more significantly – how it is learned. Moreover, if language is the medium of expression for thoughts and ideas, which are then translated into actions, then its form and expression inevitably has a bearing on the experience of learning as well as what is learned. Furthermore, language is a central tool in Vygotsky’s (1978, 1987) concept of artefact-mediated joint activity. Therefore, if language and how it is used is

\(^{12}\) Wells refers to theoretical, practical and artistic modes of knowing
f
t

fundamental to sense making, then “...language is the essential condition of knowing, the process by which experience becomes knowledge” (Halliday, 1993:94).

2.7 Conclusion

As is appreciated from this theoretical exposition based on reviewing the literature, the concept of practice is complex, and subject to wide interpretation. It ranges across philosophical (MacIntyre), sociological (Giddens; Bourdieu) and sociocultural psychological theory (Engeström, Wenger; Wells). These perspectives provide the concepts of: internal goods (MacIntyre); duality of structure (Giddens); habitus and objective regularities (Bourdieu); dialogic inquiry (Wells); and activity (Engeström) as the gateway to understanding expansive learning in various fields of societal practice.

Consequently, a concept of practice, represented in a conceptual model (shown in Figure 3-1 in the next Chapter), is distilled from these theoretical perspectives into the following:-

- Practice concerns those internal (morally driven) & external (materially driven) goods achieved through a complex activity that is defined by its standards of excellence.

- Its structuration depends on those social processes of domination, legitimation and signification, which agents manifest as practical and discursive consciousness in their negotiation of its rules and resources (Giddens, op.cit.) through their habitus.

- Habitus concerns the embodiment of agents’ values and disposition with regard to their perceptions, understandings and actions, which then translate into the objective regularities of practice especially in contexts of situated learning. It manifests through agents’ epistemological frames of discourse (EFsD: saying-writing-doing-being-valuing-believing combinations (Gee, 1996) and culminates in monologic or dialogic patterns of interaction (Wells, 2001), particularly in contexts of situated learning (Lave & Wenger, 1991).
• Because habitus infiltrates practice, agents' actions become routinised in everyday activity, which is constituted by both cognitive and cooperative elements. Viewing these familiar elements, some of which may be tacitly understood, as unfamiliar makes them explicit and reveals them as objective regularities of practice.

• As subjects within related activity systems in various fields of societal practice, the complex activity within practice is mediated through artefacts (such as habitus and EFsD) to transform the object (of activity).

Furthermore, the literature has been reviewed for ways to develop an analytical framework that can accommodate these theoretical perspectives while supporting a study of practice among a group of trainers, drawn from the field of clinical research, in their journey towards becoming a community. In particular, if this study evolves from observing what's going on around here, how do we explain how we’re doing things systematically in terms of the concept of practice, in order to understand why we do things the way we do? According to these theoretical perspectives, various artefacts (habitus, objective regularities of practice and EFsD) may be considered to mediate complex activity within practice. Therefore, Activity Theory provides the tools to encompass and analyse the concept of practice and its constituent complexities within a specialised community, referred to as the Trainers Forum. It also provides the means to understand the opportunities in the Forum’s internal and external contradictions for different features of expansive learning within their related contexts or associated activity systems (Engeström 2004, 2007).

Development of the analytical framework based on the literature is presented in Chapter 3.

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Engeström (2007) characterises these features of expansive learning as transformative, experiencing, horizontal and dialogical, and subterranean.
Table 2-1: Features of the structural elements of a Community of Practice

(Wenger, McDermott and Snyder, 2002)

<table>
<thead>
<tr>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creates common ground</td>
</tr>
<tr>
<td>Creates a sense of identity</td>
</tr>
<tr>
<td>Legitimises the community by affirming its purpose and value to members/stakeholders</td>
</tr>
<tr>
<td>Inspires members to contribute and participate</td>
</tr>
<tr>
<td>Guides learning</td>
</tr>
<tr>
<td>Gives meaning to actions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creates the social fabric of learning</td>
</tr>
<tr>
<td>Fosters interactions and relationships based on mutual respect and trust</td>
</tr>
<tr>
<td>Encourages a willingness to share ideas, expose one’s ignorance, ask difficult questions and listen carefully</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprises a set of frameworks, ideas, tools, information, styles, language, stories, and documents that community members share</td>
</tr>
<tr>
<td>Involves the specific knowledge the community develops, shares and maintains</td>
</tr>
<tr>
<td>Assumes mastery of the basic knowledge of the community</td>
</tr>
<tr>
<td>Enables community to proceed efficiently in dealing with its domain through body of shared knowledge and resources</td>
</tr>
</tbody>
</table>
Table 2-2: Four dimensions of knowledge and knowing

<table>
<thead>
<tr>
<th>Nature of knowledge</th>
<th>Nature of knowing</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is Knowledge?</td>
<td>Where does Knowledge come from and how do we know we know?</td>
</tr>
<tr>
<td><strong>Certainty</strong>: How sure are we of our Knowledge?</td>
<td><strong>Source</strong>: External /internal authority?</td>
</tr>
<tr>
<td><strong>Simplicity</strong>: What form does it take?</td>
<td><strong>Justification</strong>: How are arguments constructed &amp; used?</td>
</tr>
</tbody>
</table>

**PART 1 INTRODUCTION**