

Overlooking the conceptual framework

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The conceptual framework is alluded to in most serious texts on research, described in some and fully explained in few. However, examiners of doctoral theses devote considerable attention to exploring its function within social science doctoral vivas. A literature survey explores how the conceptual framework is itself conceptualised and explained. Drawing upon experience of conducting programmes for doctoral candidates and supervisors, field-tested models illustrate how conceptual frameworks may be devised and used.

Introduction

Reading any doctoral thesis prompts you to consider its relationship to other research. Then you would want to know why it was designed in a particular way. Finally, you require explanations that justify conclusions and their relationships to the research of others. In these areas of curiosity you would look for arguments that provided conceptual coherence to the research for it to be a contribution to knowledge.

As readers of doctoral research proposals, plus draft and completed theses, we always have these thoughts. However, similar questions have arisen whilst reading masters dissertations, research articles and reports. So it seems that these are generic questions in the social sciences through addressing critical issues that authors are expected to answer satisfactorily for the benefit of their readers.

In doctoral research various individuals have different involvement with these questions. Firstly, doctoral supervisors are responsible for guiding candidates so that theses satisfy the assessment criteria of a university (Delamont *et al.*, 1997). Secondly, doctoral candidates are expected to provide scholarship that contributes to knowledge (Winter *et al.*, 2000). Thirdly, examiners judge the merit of doctoral theses against similar assessment criteria (Tinkler & Jackson, 2000; Pearce, 2005). Our research into the operation of doctoral vivas complements these conclusions by showing that examiners place importance on the significance, role and use of conceptualisation in a doctoral thesis (Trafford & Leshem, 2002a, b). Subsequent evidence

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suggests that a thesis which has no conceptual framework is unlikely to gain a pass (Trafford, 2003a).

As doctoral supervisors and examiners we have observed how candidates encounter difficulties in conceptualising their research, and workshop discussions expose uncertainty about what constitutes a conceptual framework. Workshops for doctoral supervisors also show some unawareness of the pluralist function of conceptual frameworks, consequently some supervisors encounter difficulties in guiding candidates on this issue. These respective difficulties perhaps result from research methodology texts lacking a common language regarding the nature of conceptual frameworks.

Our paper explores the notion of conceptual frameworks from a theoretical and practical perspective for:

- doctoral candidates—to raise their level of conceptual thinking about research;
- doctoral supervisors—to raise their awareness of how to assist their candidates when handling this aspect of the research process;
- doctoral examiners—to raise their appreciation of conceptual components in theses and vivas.

Our reasons for writing this paper were to:

- consolidate observations on conceptual frameworks that appear in texts used by doctoral candidates to offer a more thorough appreciation of its role and function;
- facilitate understanding by candidates, supervisors and examiners of the conceptual framework and its function.

Our evidence is drawn from reflections-in-action and reflections-on-action (Schön, 1983) and engaging in ‘a basic mental process with either purpose or an outcome, or both, that is applied in situations where material is ill-structured or uncertain’ (Moon, 1999, p. 10). Constant professional reflection on our data enabled us to detect emergent theories incrementally and cumulatively (Leshem & Trafford, 2006).

Origins and background

The ideas for this paper, and models, are the product of collaborative researching and lecturing since 1998. Our interest in the nature of doctorateness has influenced the design and conduct of workshops for over 600 doctoral candidates and supervisors nationally and internationally. During this period we have developed materials based upon insider-researcher approaches into our professional practice (Middlewood *et al.*, 1999; Radnor, 2001). This research includes participation and observation within doctoral vivas, analyses of examiner reports regarding theses and vivas, textual analysis of submitted theses, and presenting work-in-progress on doctorateness at international conferences and workshops. Thus, we were directly involved in bringing about change through disseminating findings among colleague supervisors and examiners.

We have experienced over 70 doctoral vivas as examiner, chair, or supervisor-in-attendance where data have been collected through observing the dynamic between examiners and candidates (Trafford *et al.*, 2002). This demonstrates that patterns of questioning are detectable within agendas followed by examiners (Trafford & Leshem, 2002a; Trafford, 2003). We have

incorporated those findings into our materials for use in subsequent workshops. All candidates held masters degrees, and most had professional qualifications so workshops focused specifically upon conceptualisation of research processes rather than research methods to avoid duplicating such specialised texts as Oppenheim (1992). Thus, the workshops sought to equip candidates with appropriate conceptual appreciations to undertake doctoral research.

Conducting workshops with candidates during 2001–2005 showed that many struggled with the issue of conceptual frameworks. Their difficulty arose despite the sessions/tutorials that many had previously received elsewhere ‘on research’. This led us to reflect upon the content and conduct of our own workshops which enabled our materials to be modified from observations, notes and feedback from participants.

The majority of candidates could identify concepts and relate them to their intended research design and research process. However, despite clarifying research questions and ‘reading-around-their-subject’, one-third of candidates still had problems in visualising concepts within a framework (see Table 1).

We concluded that the conceptual framework warranted specific attention, and since early 2003 our workshops have included two-hour sessions on conceptual frameworks. Examples of how successful theses demonstrate the contribution of conceptual frameworks support this contention. This recognises its critical role in doctoral research and examination processes.

Exploring the literature

We ‘interrogated’ the primary sources and contemporary commentaries on methodology that were regularly used by our doctoral researchers. The contents and index pages were used to identify respective textual handling of theoretical perspectives and practical applications that were claimed for conceptual frameworks. Quite frequently, the notion of conceptual frameworks was disguised when it appeared as a metaphor. Some books did not mention it at all. Only two texts provided a thorough handling of the issue.

The most frequently cited primary text was Miles and Huberman (1984, p. 33) who define a conceptual framework as ‘the current version of the researcher’s map of the territory being investigated’. Implicit in their view is that conceptual frameworks may evolve as research evolves. Their notion accommodates purpose (boundaries) with flexibility (evolution) and coherence of the research (plan/analysis/conclusion) which all stem from conceptual frameworks. However, Weaver-Hart (1988) argues that conceptual frameworks contain an inherent dilemma: the term

Table 1. Candidates’ comprehension of conceptualising research

Understandings	Misunderstandings	Consequences
Clarifying the research issue(s)	Omitting paradigm(s) which locate, and critique, research issues	Focus upon research methods at the expense of concepts
Identifying concepts from a ‘survey of the literature’	Not visualising linkages between various concepts	A framework was not devised nor its function appreciated
Designing research, and explaining methodology and the methods	Overlooking strategic and guiding roles for conceptual frameworks	Lack of explicit and cohesive relationships throughout the research

itself is a contradiction because concepts are abstract whereas frameworks are concrete. She reconciles this dilemma by acknowledging that conceptual frameworks are: 'tools for researchers to use rather than totems for them to worship' (Weaver-Hart, 1988, p. 11). As a consequence, she views it as: 'A structure for organising and supporting ideas; a mechanism for systematically arranging abstractions; sometimes revolutionary or original, and usually rigid' (1988, p. 11). Thus, the conceptual framework can be viewed as providing a theoretical overview of intended research and order within that process.

These ideas complement Kuhn's notion of paradigmatic thinking. For him, a paradigm conveys the way that the world is seen through our perceptions, understandings and interpretations. He suggests that: 'Acquisition of a paradigm of the more esoteric type of research it permits is a sign of maturity in the development of any given scientific field' (Kuhn, 1962, p. 11). Kuhn's notion that a paradigm shift explains changes in how 'something' is perceived influenced Covey (1989, p. 30) who observed that: 'whether they are instantaneous or developmental paradigm shifts move us away from one way of seeing the world to another'. The paradigm is therefore a way to model possible patterns and relationships which Barker (1992, p. 32) suggests: 'establishes or defines boundaries'. Thus, paradigms and conceptual frameworks display certain similar dimensional characteristics and roles in doctoral research.

Similarly, Berger and Patchner (1988, pp. 156–159) propose that: 'reviewing the literature leads to a delineation of the conceptual or theoretical framework of the study'. They pose two questions: 'Has the conceptual or theoretical base for the study been clearly described and are they related to the research problem?' and 'Is there a theory underlying a research question?' They ask how conceptual frameworks guide the entire research process: 'Is there a clear and explicit connection between the theory, earlier findings and purpose of the present study?' Thus, Berger and Patchner advocate a pluralist, and cyclical, role for conceptual frameworks in providing coherence for research.

Likewise, Rudestam and Newton suggest that:

A conceptual framework, which is simply a less developed form of a theory, consists of statements that link abstract concepts to empirical data. Theories and conceptual frameworks are developed to account for or describe abstract phenomena that occur under similar conditions. (1992, p. 6)

By connecting theory with practice, they make the link that many researchers often overlook, but which Lewin expressed succinctly: 'There is nothing so practical as a good theory' (Lewin, 1952, p. 169). They argue that conceptual frameworks serve a particular purpose: 'Generalisations are made on the basis of the particular data that have been observed and are tied to a conceptual framework which then leads to the elucidation of further research questions and implications for additional study' (Rudestam & Newton, 1992, p. 7). Their delimitation of 'conceptual framework' suggests that: 'A causal network is a graph displaying the independent and dependent variables in a naturalistic study. This chart may serve as the basis for a conceptual framework' (Rudestam & Newton, 1992, p. 118).

Linking concepts and heuristic devices, Berger and Patchner's questions address raising the levels of thinking by doctoral candidates. The former is reflected in Bryman's observation that: 'A concept provides a set of general signposts for researchers in their contact with a field of study. While the concept may become increasingly defined, it does not become reified such that it loses contact with the real world' (Bryman, 1988, p. 68). He reminds researchers that concepts

must have relevance to the field of study. Similarly, Bouma (1993) argues that research must direct the attention of the researcher through defining focal questions which themselves draw upon appropriate concepts. The latter point is echoed in Salmon's recollection of her own Ph.D. experiences: 'research [demands] the development of understanding—an understanding which is able to grasp the conceptual underpinnings, the values, the human stance that lie within particular ways of doing social science research' (1992, pp. 16–17). She directs our attention on to concepts to gain understanding and personal development from research itself.

In contrast to functionalist views of conceptual frameworks, May proposes a discipline-based perspective:

The idea of theory, or the ability to interpret and understand the findings of research within a conceptual framework which makes 'sense' of the data, is the mark of a discipline whose aim is the systematic study of particular phenomena. (1993, p. 20)

He emphasises that social theory is integral to research by observing that: 'Theory informs our thinking which, in turn, assists us in making research decisions and sense of the world around us'. Supporting Salmon's observation, May indicates that the significance of theory (conceptualisation) is central to the research process as a maturation process for each researcher.

A similar view from Cohen *et al.* (2000, p. 13) is that: 'Concepts express generalisations from particulars ... a concept is a relationship between the word (or symbol) and an idea or conception'. They remind us that: 'Whoever we are and whatever we do, we all make use of concepts' and 'Concepts enable us to impose some sort of meaning on the world; through them reality is given sense, order and coherence. They are the means by which we are able to come to terms with our experience'. They suggest that concepts have a particular relevance for researchers, since: 'The more we have, the more sense data we can pick up and the surer will be our perceptual (and cognitive) grasp of whatever is "out there"'. These three views emphasise conceptualisation as 'meaning making' in research.

Robson combines these perspectives by saying that:

Developing a conceptual framework forces you to be explicit about what you think you are doing. It also helps you to be selective; to decide which are the important features; which relationships are likely to be of importance or meaning; and hence, what data you are going to collect and analyse. (1993, pp. 150–151)

This statement presents the conceptual framework in a pluralist manner. It corresponds with Bryman's (2001) belief that undertaking research involves constantly making decisions, and it complements those of King *et al.* (1994). They argue that: 'No empirical investigation can be successful without theory to guide its choice of questions' and 'If the reader has to spend a lot of time extracting the precise meanings of the theory, the theory is of less use' and 'tedium never advanced any science' (1994, pp. 29, 112). Thus, these authors present a case for the conceptual framework to fulfil two roles: firstly, providing a theoretical clarification of what researchers intend to investigate, and, secondly, enabling readers to be clear what the research seeks to achieve, and how that will be achieved.

Correspondingly, Blaxter *et al.* explain the components of conceptual frameworks as:

Defining the key concepts and contexts of your research project should also assist you in focussing your work ... They define the territory for your research, indicate the literature that you need to consult and suggest the methods and theories you might apply. (1996, pp. 36–37)

Using different terminology, Maxwell nonetheless complements Blaxter *et al.* by suggesting that: ‘[Conceptual frameworks are] the system of concepts, assumptions, expectations, beliefs and theories that supports and informs [your] research’ (1996, p. 25) and

A concept map, like the theory it represents, is a picture of the territory you want to study, not of the study itself. It is a visual display of your current working theory—a picture of what you think is going on with the phenomenon you’re studying. (Maxwell, 1996, pp. 25, 37)

The term ‘intellectual puzzle’ is used by Mason (1996, p. 14) which, she suggests, has to be resolved as researchers address ‘the intellectual and theoretical contributions’ of their work.

A similar explanation is provided by Glatthorn who, like Robson and King *et al.*, combines origin and synergy to portray conceptual frameworks: ‘A conceptual framework is typically developed from theory. It identifies the concepts included in a complex phenomenon and shows their relationships. The relationships are often presented visually in a flowchart, web diagramme or other type of schemata’ (Glatthorn, 1998, p. 87). Glatthorn allows for the conceptual framework to emerge from naturalistic research due to the grounding of data which gives rise to theory (Glaser & Strauss, 1967; Strauss & Corbin, 1990). However, Blackmore and Ison (1998, pp. 52, 55) suggest that ‘systems’, ‘Venn diagrams’ and ‘conceptual modelling’ shape how that data is interpreted and conceptualised.

It is Punch (2000, pp. 22–23) who offers a general framework for developing research proposals and, by implication, how research might be conducted. For him, the most effective way to plan research is to answer ‘what’ questions before ‘how’ questions because ‘what’ addresses issues of purpose, intention, and strategy, whilst ‘how’ addresses issues of means via the methods to be adopted. Thus, Punch is recommending that researchers should clarify their research strategy before resolving which methods could achieve those strategic intentions.

From this position, Punch (2000, p. 54) explains that a conceptual framework represents: ‘the conceptual status of the things being studied and their relationship to each other’. The significance of this is how and where the conceptual framework appears within different research approaches. He suggests that an ‘advantage of planning research in terms of research questions is that it makes explicit the idea of levels of abstraction in research’. He identifies five levels of concepts and questions that form an inductive–deductive hierarchy (see Figure 1).

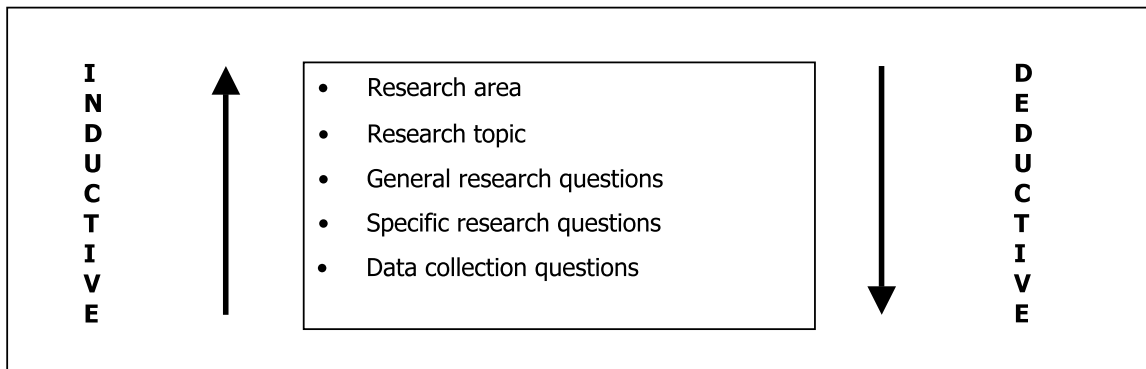


Figure 1. Punch’s hierarchy of concepts (Punch, 2000)

Punch (2000, p. 23) explains that this hierarchy portrays a continuum which varies in levels of abstraction and generality. He argues that levels of conceptualisation for deductive approaches would decrease as the research process ‘descended’ the hierarchy. The opposite tendency would apply to inductive approaches, where levels of conceptualisation would increase as the research process ‘ascended’ the hierarchy. According to Punch, viewing the coherence of research in this manner assists researchers to explain their research, write their proposal and sharpen the logic of their thinking. Thus, Punch offers an integrated view for the role and function of the conceptual framework. This is confirmed by Mullins and Kiley (2002, p. 383) who conclude, in the Australian context, that experienced examiners ‘look for internal linkages and cohesion within doctoral theses’. Similarly, Burton and Steane (2005, p. 53), whilst accepting that ‘the notion of a conceptual framework often causes concern amongst those new to research because of uncertainty as to what it means’ they should, nonetheless ‘clarify the intellectual thinking on which the(ir) study is based’.

Implications

The notion of the conceptual framework is presented differently by different authors. However, most authors use the term to describe a specific function and set of relationships within the research process. This approach locates the conceptual framework as fulfilling an integrating function between theories that offer explanations of the issues under investigation. Conceptual frameworks also provide a scaffold within which strategies for the research design can be determined, and fieldwork can be undertaken. Finally, this approach offers the potential for conceptual frameworks to shape how research conclusions are presented by emphasising the conceptualisation of those conclusions within their respective theoretical context. This view of the conceptual framework locates it as giving coherence to the research act through providing traceable connections between theoretical perspectives, research strategy and design, fieldwork and the conceptual significance of the evidence. Thus, the conceptual framework is a bridge between paradigms which explain the research issue and the practice of investigating that issue.

Others view the conceptual framework as a map of theories and issues relating to the research topic. This map gives meaning to the relationship between variables, by showing that theories have the potential to provide insight and understanding insight on research topics. These authors urge researchers to view the conceptual framework as a device that makes sense of their data. They also believe that researchers should recognise the relationships between theoretical variables as an essential component of ‘high quality’ research, and express that explicitly through conceptualisations and frameworks.

Our selected writers on research methodologies view conceptual frameworks as:

- emerging from researchers’ appreciation of reading, personal experience and reflection upon theoretical positions towards the phenomena to be investigated;
- presenting the researchers’ paradigm through a combination of identified conceptual variables;
- serving different purposes within deductive, inductive and staged approaches in the design and interpretation phases of research;

- providing a shared language for researchers to clarify, design, undertake and conclude their research thereby enabling their readers to ‘appreciate’ that research;
- being the catalyst that raises the level of researchers’ thinking from the simple and descriptive, via analysis to conceptualising the research itself.

These issues enabled us to appreciate how our doctoral candidates struggled to comprehend the nature of the conceptual framework.

Applications

As research practitioners, we recognise the significance and role of conceptual frameworks in doctoral level research. As Weaver-Hart (1988, p. 11) says ‘all researchers claim to seek intellectual rigour in their work’ and ‘academics are happy to encourage students to reflect on their studies to gain deeper understanding’. We too are guilty of these aspirations! However, being faced by the practicalities of candidates’ questions, we have provided answers through the development of ‘practical theory’ responses (Kroath, 1989, 2002).

Questions about conceptual frameworks that candidates regularly ask include:

- Where do conceptual frameworks come from?
- What does a conceptual framework look like?
- Why should I have a conceptual framework in my thesis?
- Where would I place my conceptual framework in my thesis?
- Who is interested in whether or not I have a conceptual framework?

We answered these questions through visual models that portrayed elusive concepts in an easy-to-understand format. In this way, we made the ‘taken-for-granted’ visually explicit by illustrating the origins, design and use of conceptual frameworks. The following models have been modified by feedback from candidates and supervisors in their respective workshops, plus our own ‘constructive and awareness-reflection upon the issues’ (Moon, 1999, p. 87).

Doctoral candidates explain that they derive their conceptual frameworks from three interrelated areas:

- the works of writers and researchers;
- their own experience and observations, and,
- the act of reflecting on reading, experience and developing research assumptions.

The resultant benefits of generating their conceptual frameworks from these sources are tangible and practical (see Table 2).

The traditional locations of conceptual frameworks in theses each convey a methodological rationale whose explanation clarifies understanding of the research design. Firstly, in unfolding inductive research the conceptual framework may appear following a survey of theoretical perspectives (the literature). Alternatively, it may emerge as a conceptual model after the fieldwork, thereby providing theoretical cohesion to the evidence and conclusions from theory-building research. Secondly, in deductive theory-testing research conceptual frameworks are normally determined by theoretical perspectives (the literature) and therefore precede the Research Design chapter. Thirdly, in staged research its location will be

Table 2. Benefits of using conceptual frameworks in the research process

Conceptual frameworks help researchers by:

- modelling relationships between theories;
- reducing theoretical data into statements or models;
- explicating theories that influence the research;
- providing theoretical bases to design, or interpret, research;
- creating theoretical links between extant research, current theories, research design, interpretations of findings and conceptual conclusions.

Thus, conceptual frameworks introduce explicitness with research processes.

The critical tests of conceptual frameworks are for them to demonstrate:

- unity within appropriate theories;
- direction to research design and accompanying fieldwork;
- coherence between empirical observations and conceptual conclusions.

Thus, conceptual frameworks offer a self-audit facility to ensure cohesion and appropriate conceptualisation for research conclusions.

determined or modified, as before, by the predominant research approach in each stage. Multiple, and evolving, conceptual frameworks typify staged research. Thus, the type of research approach determines the location and function of conceptual frameworks in doctoral theses (Punch, 2000, p. 71).

Our research into the nature of examiners' questions in doctoral vivas (Trafford & Leshem, 2002a) shows the predictability of certain questions. One cluster of questions illustrates how examiners might explore 'conceptualisation' and its implications. These are key questions in any viva since they address how conceptualisation has been used to display scholarship in a thesis (see Table 3).

Workshop discussions and supervisory tutorials confirm that many candidates have difficulty recognising how separate components in the research process are inter-linked conceptually and in practice.

Figure 2 emerged as a visual conceptual tool that enabled candidates to appreciate the overall research process and then be able to audit that process. Moving clockwise from the Research Issue shows activities that are concerned with the Gap in Knowledge with iterations between Research Design and Fieldwork revealing the cyclical nature of most research. The final three activities involve differing levels of contributing to knowledge. The internal self-balancing nature of research is shown by the diagonal lines inside the circle which link pairs of activities having direct causal relationships. The model reveals the 'ideal' internal cohesion

Table 3. Examiners' questions regarding the use of conceptual frameworks (Trafford & Leshem, 2002a)

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- What led you to select these models of...?
 - What are the theoretical components of your framework?
 - How did you decide upon the variables to include in your conceptual framework?
 - How did concepts assist you to visualise and explain what you intended to investigate?
 - How did you use your conceptual framework to design your research and analyse your findings?
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The generic question in this cluster is of a quite direct nature, and it may be asked in a direct way: 'How did you arrive at your conceptual framework?'

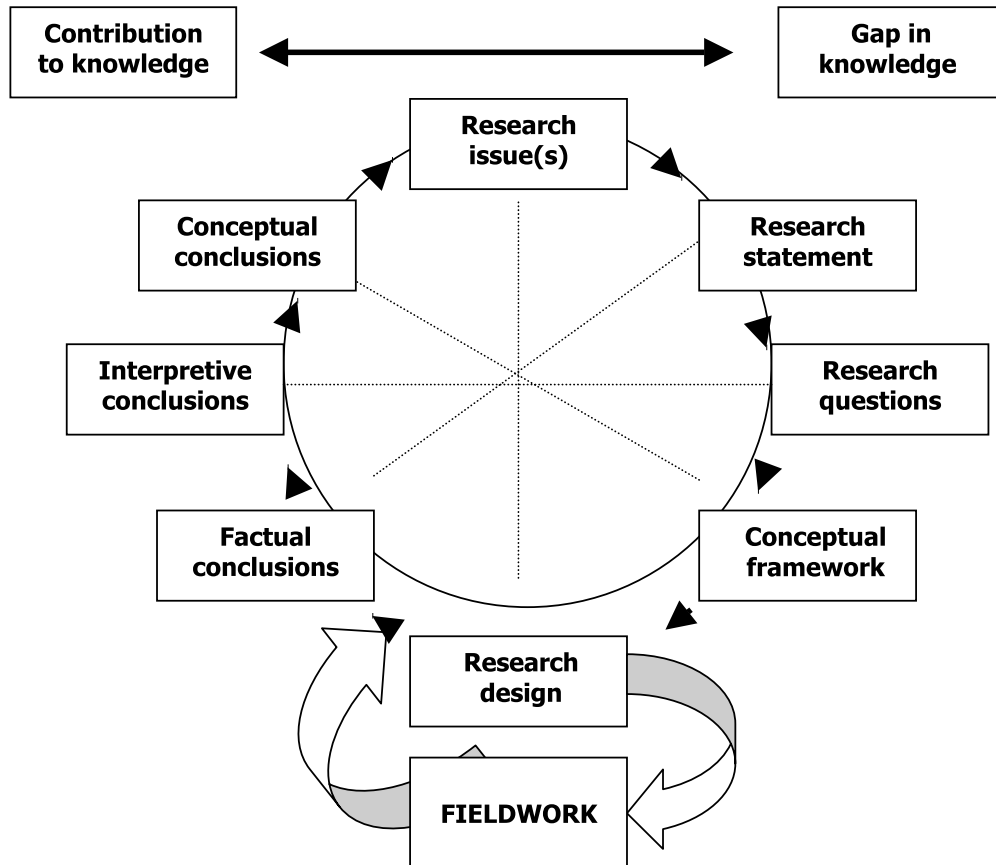


Figure 2. Visualising the doctoral research process

and interrelationship between research components as a framework that is conceptually founded.

Figure 3 illustrates the relationships between levels of thinking and the hierarchy of activities in the research process. The level of thinking (vertical axis) is compared with the level of research activity (horizontal axis). Doctorateness emerges for researchers as they progress ‘up’ the diagonal, coping with the different intellectual demands from description through analysis and interpretation and then to the conceptual. This illustrates how doctoral candidates who raise their levels of thinking beyond descriptive and content aspects of research will increasingly display doctorateness. Vivas and examiner reports show that theses which focus upon the conceptualisation of issues are more likely to pass first time (Trafford & Leshem, 2002a, b), or have just minor changes (Trafford, 2003). Theses without such characteristics will not display doctorateness and so they are unlikely to pass. This view regarding doctorateness is further confirmed by Murray: ‘[This issue] poses a particular type of question [in the doctoral viva] inviting students to consider, where in the thesis they have engaged, explicitly, with doctoral criteria’ (2003, p. 78).

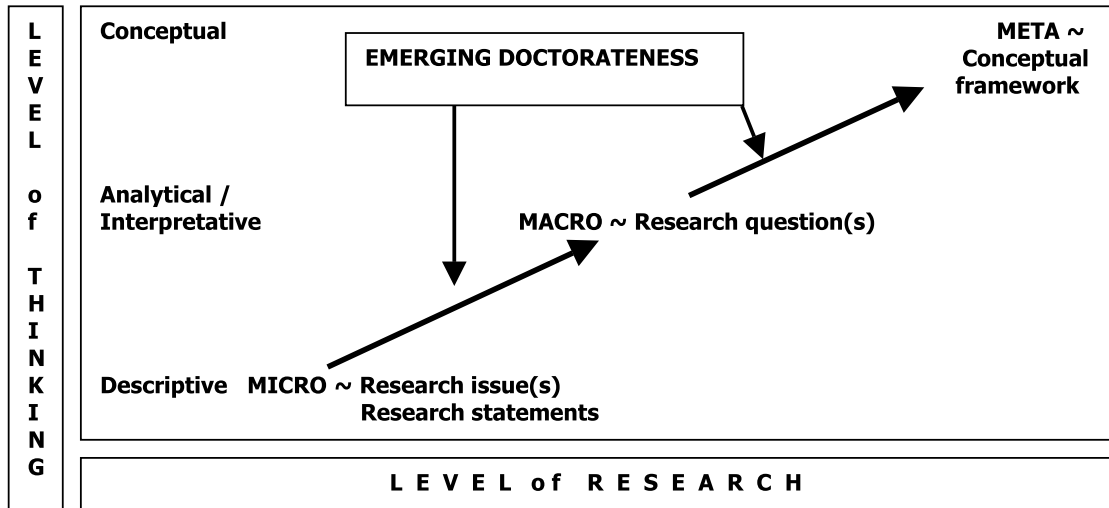


Figure 3. Technical, practical and conceptual aspects of doctoral research

Afterthoughts

Each of our models is a conceptual framework. They were developed as practical theories for candidates to use as they create their own conceptual frameworks. Supervisors may include them in discussing conceptual frameworks with their own doctoral candidates. For examiners the models may be of assistance as heuristic devices or an agenda item for a viva. As Hills and Gibson (1992) argue, 'one's ability to make flexible, purposeful use of a variety of conceptual frameworks seems to be contingent on possession of a conceptual framework for thinking about conceptual frameworks'. This view places an obligation upon doctoral candidates to raise their level of thinking from content to meta-levels of conceptualisation. Thus, the practicality of conceptual frameworks is their capacity to introduce order in candidates' thinking process about the conceptual background and context of their research.

In writing this paper it became apparent that metaphors frequently replaced the term conceptual framework. They have been grouped into three meta-metaphors that reveal architectural, geographical and schematic functions of conceptual frameworks (see Table 4).

Engaging with conceptual frameworks is an essential prerequisite for candidates in order to achieve doctorateness in their thesis. The conceptual framework is therefore the means through which doctoral candidates provide their examiners with answers to such questions as:

- What was the wider theoretical significance of that reading?
- Why was the research designed in that way?
- What is the conceptual significance of the evidence?
- Why does the thesis make a contribution to knowledge?

But, isn't this where we started? Thus, by melding the conceptual framework explicitly within their thesis, doctoral candidates can display scholarly maturity and so avoid omitting this essential component of doctoral research.

Table 4. Categorisation of metaphors for the conceptual framework

Architecture	Geography	Schemata
Audit	Chart	Construct
Base	Graph	Device
Bridge	Map	Flowchart
Core concept	Network	Hierarchy
Foundation making	Picture of territory	Meaning
Framework	Signpost	Mechanism
Scaffolding	Status relationship	Model
Tool	Totem	Paradigm
Underpinning		Puzzle
Visual display		Web diagram

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