From Practitioner to Researcher: A Threshold Concept – A personal reflection on my own 'tug of war'

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Abstract

A threshold concept can be considered as a gateway, opening up a new way of thinking about something. In this paper, I share my personal journey and reflections as I embark upon a professional doctorate programme. I share my changing ontological and epistemological views as I undertake a paradigm shift moving from clinician to researcher. As a consequence of understanding a threshold concept, I will share my transformed worldview and the impact of this upon my doctoral studies.

Keywords: epistemology; ontology; paradigm shift; threshold concept

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NOTE: The reflection in this article, although personal, has been initiated through a formal course of study that necessitates recognition of supervisors as secondary authors.
Introduction

In this article, I wish to share the personal journey that I have undertaken since embarking on a professional doctorate programme at a UK university during my transition from clinical practitioner working in the National Health Service (NHS) to researcher. The features of a threshold concept can be used to define transformative points in my development as a doctoral student. My doctorate is a phenomenological study which explores the experiences of practice-based learning within a seven-day model of working\(^1\). The aim of this study is to gain insight into, and understanding of, the lived experience of physiotherapy practice-based educators, and of physiotherapy students’ encounters of seven-day working.

A threshold concept defined by Meyer and Land (2003) may be considered a gateway, opening up a new way of thinking about something. It represents a transformed way of understanding, or interpreting something without which the individual cannot progress (Meyer and Land 2003). As a consequence of comprehending a threshold concept, there may be a transformed worldview (Meyer and Land 2003). Land, Meyer, and Baillie (2010) describe the features of a threshold concept as relational, where, during the preliminal stage, the main feature is encountering troublesome knowledge, before moving on to the liminal stage. This is where ontological and epistemic shifts may occur which permit movement to the consequential post liminal stage where transformation may occur which is irreversible. I will draw on these features to discuss how I moved through the preliminal stage as I struggled to comprehend my identity as a researcher. This was followed by the liminal stage where I tussled with my ontological and epistemological stance. Finally, realisation that I had undergone a paradigm shift with consequences for me personally and on my doctoral studies emerged in the postliminal stage.

The preliminal stage

According to Stokes, King and Libarkin (2007), the first stage in acquiring a threshold concept involves entering a liminal space. This is a suspended state of partial understanding where individuals may encounter difficulties in understanding, or find that what they once thought was certain is now challenged in some way. Meyer and Land (2005) suggests that in this state of ‘liminality’, individuals will attempt to grasp new concepts and understandings that will ultimately transform how they think and practice, or how they perceive, apprehend, or experience particular phenomena within their discipline (Meyer and Land 2005).

In identifying my worldview as a novice researcher, I consider my multiple roles as a physiotherapist; as a clinician, facilitator and leader. I often adopt a different stance according to the situation, adopting a pragmatic approach in order to meet the demands and requirements of each role. This is demonstrated in Table 1.

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1 “Seven day service provision is about equitable access, care and treatment, regardless of the day of the week. The level of service provided should ensure that the patient has a seamless pathway of care when accessing services no matter what day of the week” (NHS Improving Quality, 2013: 9).
Table 1. The multiple roles I undertake as a pragmatic physiotherapist

<table>
<thead>
<tr>
<th>Role</th>
<th>Aim</th>
<th>Ontology</th>
<th>Epistemology</th>
<th>Methodology</th>
<th>Influences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiotherapist - Clinician</td>
<td>• Evidence based practice</td>
<td>• Realist</td>
<td>• Positivist</td>
<td>• Quantitative; RCTS, case studies, Objective</td>
<td>• Acceptance by medical model, standards to achieve, guidelines to meet,</td>
</tr>
<tr>
<td></td>
<td>• Ensure excellent patient experience</td>
<td>• Critical Realist</td>
<td>• Post positivist</td>
<td>measures, Mixed methods; patient satisfaction,</td>
<td>objective measures, need to measure success</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>use of triangulation</td>
<td>• Patient satisfaction, standards of care, effective treatment</td>
</tr>
<tr>
<td>Physiotherapy - Manager</td>
<td>• Financial; managing budgets</td>
<td>• Realist</td>
<td>• Positivist</td>
<td>• Quantitative; facts and figures</td>
<td>• Targets, financial constraints</td>
</tr>
<tr>
<td></td>
<td>• Maintaining productivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cost effective service</td>
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<td></td>
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<tr>
<td>Physiotherapy - Practice based</td>
<td>• Provision of high standard of student placements</td>
<td>• Critical Realist</td>
<td>• Post positivist</td>
<td>• Mixed methods, student and staff feedback</td>
<td>• CSP / University standards</td>
</tr>
<tr>
<td>educator</td>
<td>• Development of junior staff</td>
<td></td>
<td></td>
<td>• Rotation feedback</td>
<td>• Appraisals</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>• Achieving objectives</td>
<td></td>
</tr>
<tr>
<td>Physiotherapist - Team Leader</td>
<td>• Involvement of staff in service development</td>
<td>• Critical Realist</td>
<td>• Post positivist</td>
<td>• Mixed methods, reflections, evaluations,</td>
<td>• Objective measures and standards, guidelines, meeting criteria</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>surveys, audit</td>
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</table>
In contrast, as a professional doctorate student, I believe each individual will have her/his own interpretation of experiences, and knowledge may be constructed from these social interactions. In my research journal, I reflected upon my own internal paradigm war by depicting it pictorially as a tug of a war (Figure 1). I felt I was being pulled one way by the demands of the NHS and another by my beliefs as a researcher. By contrast, as a pragmatic physiotherapist, I sat in the middle, with the scope to be pulled either way according to the need or demand of the research. I was in a state of liminality, tugged one way by my profession as a physiotherapist, and the other by my developing knowledge as a researcher. I was challenged by the way I think and practice as a physiotherapist and was not always willing to change the way in which I viewed the world, thus making it an uncomfortable place to be. It took me a long time and lots of grappling with philosophy before I moved forward as a researcher, with a clearer stance as explained in the next section.

Figure 1. My paradigm tug of war

The liminal stage

A key feature of threshold concepts is that they are 'bounded' (Cousin 2006). That is, they help to define the scope or boundaries of a subject area (Smith 2006). A significant point in my research journal occurred as I reflected and analysed my stance in relation to my role as a clinician and that as a researcher. Figure 2 is an extract from my research journal.

From my reflections in my journal, it is evident that I was transforming and becoming a researching practitioner, rather than just a clinician. Life would never be the same again as described in the next section.
The pull towards quantitative methods has been hard to resist. Not because I believe that is the right approach to take, but that I have been influenced by authority and the need for physiotherapy to be accepted in the medical profession. It seemed comfortable to keep drifting back to ‘measuring’ and ‘proving’ because that is what I have always done. However, in this instance as a researcher I want to explore the phenomena of seven day working from the perspectives of the educators and the students. I want to know what their experiences are – that way I will better understand the subject area. If we understand and interpret these experiences, it may provide important discoveries around this area and we know that the profession has to adopt seven day working. So rather than stick my head in the sand and assume it will be alright, I’m sticking mine above the parapet and asking ‘what is your experience of practice based education in seven day working’. This might answer the concerns and questions of my peers, but more importantly it will provide me as a researcher the data I crave. Additionally, I have to look at myself as a researcher, not a clinician. Therefore I am ‘free’ to have my own worldview and philosophy as the only influence is myself and my beliefs which include believing that no two experiences are the same and judgement/ values/ truth are all relative to the individual.

Threshold concepts are both ‘troublesome’ and ‘transformative’ (Cousin 2006). I have battled emotionally with the concepts of epistemology and ontology, at times reluctant to leave the safe, secure position of a senior clinician, to that of a novice researcher, unsure of who I am and what I believe. Perkins (2006) explains that mastering threshold concepts often requires acquisition of knowledge that is troublesome, often the learner does not want to change or let go of their customary way of seeing things. It has taken time for me to understand that I can continue to be pragmatic about my clinical practice, but as a researcher I am free to be myself and that I need to allow my values and beliefs to be demonstrated and explained through my writing.

I used the analogy of a ‘roller coaster ride’ to depict my emotional battle pictorially in my research journal (Figure 3). This picture represents my paradigm shift and illustrates how my research question developed. It shows how I was initially troubled by the thought of altering my world-view, but then accepted that I could be an individual researcher with my own stance. Additional reflection about this roller coaster picture is included in Figure 4, which demonstrates that I am no longer feeing like a ‘tug of war’ as depicted in Figure 1.
Figure 3. My philosophical journey and paradigm shift

Figure 4. Extract from research journal relating to Figure 3

This drawing [Figure 3] really helped me to understand how I have to think as a researcher and can put aside the demands of a clinical role for the purpose of this research and that I am undertaking a personal journey of discovery, as well as a research study. No longer am I being pulled in different directions in a paradigm war but have made a paradigm shift which demonstrates my beliefs as a researcher within the interpretivist stance.

Once understood, a threshold concept changes the way in which an individual views the subject, and represents a transformed way of understanding, without which one cannot progress (Meyer and Land 2003). I felt at this stage that I had made a breakthrough and was able to continue on my research journey.

Threshold concepts are probably ‘irreversible’, and are unlikely to be forgotten (Meyer and Land, 2003). The doctoral process has changed me as a person and as a professional. Nothing is straight forward anymore, I am more analytical and I never take anything on face value now. My work colleagues have commented that I am no longer able to give a straight answer to a question, rather throwing questions back at them so they can explore the problem. Another situation I can recall was recorded in my research journal, Figure 5.
Figure 5. Extract from research journal - Life will never be the same!

At 6am this morning, whilst swimming in the local pool, another swimmer challenged whether I was quick enough to be swimming in the fast lane, my response; ‘what is your understanding and interpretation of the term fast?’ I’ll never be the same again.

I am now beginning to see this change in myself. As an individual I am becoming more comfortable and confident with the new me and can begin to see how I have grown during this process and that it is impacting on my whole life.

Post liminal stage

Threshold concepts, once learned, are likely to bring together different aspects of the subject that previously did not appear, to the student, to be related (Meyer and Land 2005). That is, they are ‘integrated’ (Meyer and Land 2005). Mastery of a threshold concept often allows the learner to make connections that were hitherto hidden from view.

It has been evident that whilst developing my research question, my own internal paradigm war contributed as I wrote the research question, phrased my research objectives and selected the methodology. Table 2 shows the development of my research question. At the time, I didn’t realise that my developing philosophical stance had such a direct impact on my research question; it was hidden from immediate view. It is only now, as I reflect back on my journey, I can see how it affected my thinking and writing.

Table 2. The development of my research question and myself from a pragmatic physiotherapist to a researcher with an interpretivist approach

<table>
<thead>
<tr>
<th>Research question</th>
<th>Assignment 1</th>
<th>Assignment 2</th>
<th>Assignment 3</th>
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</thead>
<tbody>
<tr>
<td>A team supervision model: Is this a viable, effective and sustainable approach to supporting physiotherapy students in clinical education across seven day working</td>
<td>How can the development of a team supervision model affect physiotherapy clinical education across seven day working?</td>
<td>What are the experiences of practice-based learning within a seven day model of working for practice-based educators and physiotherapy students?</td>
<td></td>
</tr>
<tr>
<td>Realist / positivist approach – looking for a practical solution to a problem ‘Prove’ ‘Justify’</td>
<td>Pragmatic approach – multiple roles, action orientated Manager: realist / positivist approach – quantitative data Clinician – critical realist / post positivist approach as concerned about people Educator – subjectivist / interpretivist approach as exploring experiences</td>
<td>Subjectivist / interpretivist approach My beliefs as a researcher; No two experiences are the same Judgement/ values/ truth are all relative to the individual</td>
<td></td>
</tr>
<tr>
<td>Quantitative methods – facts and figures</td>
<td>Action Research – looking to solve a problem in the real world. Allows a mixed method approach to match multiple roles. Manager – facts and figures; productivity / cost Clinician – productivity, patient-centred care Educator – experiences and evaluations</td>
<td>Phenomenology – as a researcher I want to explore and discover experiences and interpret their meanings</td>
<td></td>
</tr>
</tbody>
</table>
**Figure 6.** This diagram demonstrates my understanding of my philosophical stance within research and an increased confidence with terminology and how the process links together.

<table>
<thead>
<tr>
<th>Ontology</th>
<th>Epistemology</th>
<th>Methodology</th>
<th>Methods</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjectivist – people are individuals who respond to different situations and socially construct knowledge.</td>
<td>Interpretivist – as a researcher I will interact with participants. My role is to understand people's interpretation of the event. I will therefore discover meanings and measure them.</td>
<td>Interpretive Phenomenology – I come with a common background and with interaction and interpretation may develop and understand of the phenomenon.</td>
<td>Interviews – in-depth research conversation. Where I will establish the participant's experience in context to the study. Allow them to describe their experiences and what it means to them. Use prompts to delve deeper.</td>
<td>Practice-based educators and physiotherapy students who have experienced the phenomena. Utilize thematic analysis to identify themes and then to discover the meaning of those themes.</td>
</tr>
</tbody>
</table>

**What's out there to know?**

Physiotherapy has moved to seven-day working – how has this affected the provision of practice-based education from the perspective of the educator and student, what is their own experience of this reality?

**What and how can we know about it?**

The study will develop inductively by utilising a cognitive process of the participants' own interpretation of the experiences. I have acknowledged that there is not a correct path to determining knowledge, but depends on individual values and perceptions.

**How can we go about acquiring knowledge?**

As the researcher I have an understanding of the experiences. The process of phenomenology recognises the situated meanings behind the events from an individual perspective, but also will gain a general insight into the phenomenon.

**What procedures can we use to collect data?**

The interview will allow me to gain a comprehensive account of the individual's experience. By using prompts such as “what does this mean to you”, “please elaborate/illuminate” and “how does this make you feel” to gain interpretations of situation rather than just description of events.

**Which data can we collect?**

I will invite physiotherapy educators and students who have experienced seven-day working. I will then review all interviews individually before looking at whole as utilizing systematic circle to gain general insight.
A discursive process

Meyer and Land (2003) suggest that the crossing of a threshold is a 'discursive' process in that it incorporates an enhanced and extended use of language, and this is true of me. At the start of the doctorate, words such as ontology and epistemology were new to me, as were positivism and interpretivism. I am now able to use these terms with greater knowledge and confidence, and rationalise their impact on my research journey. Figure 6, a PowerPoint™ slide used to explain my research at a student conference, demonstrates my understanding of my philosophical stance with research and an increased confidence with terminology and how the process links together.

Conclusion

The notion of threshold concepts and their potential to characterise ways of thinking and practising within a discipline has emerged as a useful and effective means of gaining insight into students’ conceptual understandings (Stokes, King, and Libarkin 2007). I have learnt that adjusting one’s worldview is very challenging. It is a journey of reflection, self-analysis, questioning, self-doubt, lack of confidence in my ability as a doctoral student, and moving back and forth between my old comfortable lens and my new lens. It is only now I can look back and feel comfortable and familiar with my new worldview as a researcher on a doctoral programme and take my studies forward with confidence. I have a new understanding of who I am, how I see and feel. I was not aware at the time that I crossed a conceptual threshold and I have no doubt I will revisit, and pass back and forth on many more occasions according to the situation, and I as continue to grow and change as a researcher.
Acknowledgements

I would like to extend my thanks to my research supervisors who have supported me, and continue to support me, on my research journey.

References


