Research learning

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Abstract

The article maps the process of research learning, that is, that domain of learning which novice researchers (such as doctoral students) experience in the complex process of becoming researchers. This exploratory qualitative study foregrounds the voices of the students and their accounts of *research learning*. The article questions the efficacy of the traditional 'how to write a doctoral dissertation' guidebooks and suggests that there are no clear steps to be followed in the writing of the proposal and that the journey each student traverses is filled with obstacles, reversals, breakdowns and, yet, progression. What could be gleaned from this study is that research learning is even more complex than we anticipated, and that making firm statements about 'the right way' to prepare doctoral students might in fact be the first error in seeking to improve the learning and support of novice researchers.

Introduction

How do doctoral students make the move from being work-based practitioners to being researchers? This article maps the initial scholarly growth of individual education doctoral students as they embark on the journey of learning to become researchers. We use the development of their research proposals as the basis for the inquiry. The study seeks to identify and interrogate significant moments in this development process and to understand how doctoral students make the transition from being work-based practitioners to university-based researchers.

We introduce the concept of *research learning* – which we define as that domain of learning which novice researchers (such as postgraduate students) experience in the complex process of learning to become a researcher. *Research learning* therefore encompasses but extends beyond the knowledge of how to complete the specific research project (usually the dissertation). It is the totality of learning events that includes the technical competence to deliver

a research report as well as the emotional, social, political and cognitive experiences that together constitute such learning.

There are relatively few attempts to directly explore the terrain of *research learning*. A project undertaken at the University of Western Sydney probes the emotional and the social implications of writing a PhD (Dinham and Scott, 1999). Kerlin (1995) studied the socialisation of PhD students into the academy and how this experience was influenced by departmental politics. The *Review of Australian Research in Education* (RARE) dedicated a rare volume to exploring student and supervisor accounts and experiences of doctoral supervision. The editors, Holbrook and Johnston (1999), acknowledge the paucity of empirical research dealing with postgraduate studies (especially in education), and view their work as a small step to advancing research in this area. However, the focus of their work is on supervision. Furthermore, in existing studies, student reflections were gained through retrospection (Orton, 1999) or through the recollection of the supervisor (Parry and Hayden, 1999); indeed, the limited research available tends to privilege supervisorial accounts of managing doctoral students (see Salmon, 1992; Burgess, 1994). A recent article by Labaree (2003) identifies the difficulties that *teachers-turned-doctoral-students* encounter because of their different perspectives on educational issues (more about this later). Again, the authoritative voice being heard is that of the supervisor. This article aims at extending this limited knowledge base on doctoral student experiences by exploring the complex and unpredictable processes through which working students learn to become researchers. In addition we foreground the voices of the doctoral students and their accounts of *research learning*.

We deploy the metaphor of a *journey* in describing the learning that takes place as students develop the required research proposal, something we consider to be the first significant milestone in research learning. We assume that this journey is neither smooth nor linear and that it likely to have numerous, possibly unpredictable, twists and turns between the points of entry and the destination, i.e. defending the proposal. Such a journey, as Angela Brew contends, is an all encompassing learning experience:

> . . . in the *journey variation*. . . research questions go beyond the intellectual issues and are carried over into all aspects of life. Content, issues and processes are viewed as all contributing to the process of critical reflection. In this variation. . . there is frequently the idea of a personal journey and an emphasis on the assimilation of research into the researcher's life and understanding (Brew, 2001, p.132).

With this broad frame in mind, our aim was to investigate how the students

think about, understand and articulate their experiences about research learning.

Background

We interviewed a group of doctoral students who were occupied with designing and preparing their proposals, with the aim of exploring their understanding of the research process and their own learning within it. Our sample consisted of PhD candidates from the Faculty of Education at the University of Pretoria, South Africa. The group participated in a seminar-based doctoral programme intended to provide advanced training in education policy for policy practitioners on the theme 'implementing educational policies'. By 'policy practitioners' we mean persons already working within policy environments, such as government departments, statutory policy authorities, agencies or councils, policy research organisations such as non-governmental organisations, teacher unions, and parastatals.

The programme combines theoretical studies of education policy with practical training in resolving problems related to the implementation of educational policies. The programme consists of seven one-week modules (140 training contact hours) with each focusing on a specific policy implementation concern.[1] The seven modules are completed over a two-year period. The module structure seeks to add theoretical and methodological depth to the policy inquiry combined with peer learning among a group of about 30 policy practitioners. Each module comes with an extensive reader of current theoretical and empirical studies on policy implementation in addition to a broader and required policy reading list. The students are required to complete combinations of assignments for each module. The fifth day of each module is reserved for training in research design focussed sharply on the development of each candidate's research proposal. In this way, it is intended that doctoral students will slowly but systematically develop their research proposal which they defend at the end of the first year of doctoral studies. In other words, the research proposal is a major product of study after twelve months and an ideal site for investigating research learning among these

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[1] The seven modules were: Introduction to policy; Quality assurance, evaluation and assessment at system level; The curriculum in a transforming and globalising world; Qualifications-driven educational reform; The emotions of educational change; Education policy implementation: comparative perspectives; Policy consulting.

beginning doctoral students.

Our cohort began the programme early in 2003. At the end of the first module, which took place in March of that year, the candidates were requested to prepare a five-page proposal in which they would focus briefly on the topic of their research, their research questions, the aims of and rationale for the study. The response from the supervisors required them to rewrite, rephrase or refine the initial statement of proposals. The second module, during June, focused on research methodologies and the literature review. The candidates were asked to prepare a relevant literature review for their research. The due date was August, when the third module took place. At the same time, the candidates also had assignments and reading relating to the work done in each of the modules.

The candidates who joined the programme came mainly from South Africa and from neighbouring countries such as Botswana, Namibia, Mozambique, Kenya and Zimbabwe. While most candidates came as individuals, one group of seven came from a single institution in South Africa. The majority of students were older than 35 years, a trend also observed in Australia (Holbrook and Johnston, 1999) and the United States (Labaree, 2003). Most occupied senior positions in their work environments. Such positions included executive officers, school principals, managers, project coordinators, directors and deputy directors. It followed that these doctoral candidates commanded significant authority in their work environments, and came to their studies with a rich work experience. Even though the majority of the candidates worked in education-related institutions, their previous studies were not necessarily in education.

Research methodology

This inquiry drew partly on the respective experiences and observations of the three researchers. Jansen is the doctoral programme leader; Herman and Pillay had both passed through the same programme as part of a previous cohort of doctoral students. However, the principal source of data for this study was in-depth, semi-structured interviews with 24 of the PhD candidates in the current (2003) programme. The interviews took place six months after the beginning of the doctoral programme, and during the course of the third module.

A set of core questions was developed that encouraged candidates to reflect on

how they developed their *initial* research questions (the start of the journey), how these questions evolved over the sixth month period (the travel experience), and how close these students were to completion of their proposal (the destination). In other words, the candidates were asked to take us along their journey. The beginning of the journey was explored by asking the students to identify their first thoughts about their research idea and the nature of the initial struggles in their minds. They were asked to recall what their first idea or question was like, and where it had come from. Pursuing the journey metaphor, the students were asked how those initial questions changed, what kind of feedback they received from peers and supervisors, and what various iterations or versions of the research questions they developed based on their initial research ideas. To explore where they were along the route, the students were asked about their latest thinking on their emerging proposals and how it differed from their initial thinking. They were also asked about the challenges or the next level of learning that they anticipated. The students were then asked to reflect on what they had learnt over the course of the journey as a whole. They were asked to consider what they wished they had known before starting this journey, what their high and the low points were in the course of these travels, whether they felt they were prepared for that journey, and what helped them most in the first six months along the route to designing their first academic research proposal. Towards the end of the interviews the students were asked how they had changed personally and professionally as a result of this research journey. Throughout, the guiding concept that framed the interviews was the research learning that occurred in this process.

Each interview lasted approximately 30 to 45 minutes. All interviews were recorded and transcribed. We did not approach the data with predetermined hypotheses. Our aim was to explore how candidates articulated and understood their experiences of learning during the first six months of their research journey. In broad terms, we used a grounded theory approach which allowed us to theorise 'upwards' drawing on the experiences of the doctoral students. The data were managed and analysed using the qualitative data analysis software 'Atlas.ti' which facilitated the recognition of converging trends and emergent themes.

Findings

The findings are described in terms of the various locations and positions that the candidates found themselves along the journey. We grouped the responses into six categories or stages that replicated the progress of a journey, from *taking off* (1), *refin(d)ing* a *destination* (2), *navigating* (3) through the six-month journey. We were also interested in what candidates believed were the *necessary provisions* (4) for the journey, in other words – their needs, and how the journey affected those who undertook it. At the point of the *sixth month* (5) we examined the nature of the struggles that students engaged in to get to this point. Finally we describe the *travellers' personal growth* (6) as they reflect on their journey. Throughout, we recognised and indeed demonstrate in the analysis of the data, that the stages of the journey are not always clear, even or distinctive.

In this article we use pseudonyms when referring to our students. We recognise the limitations of using names without substantive biographical identifiers, particularly with our large cohort size. However, for the purpose of style and narrative smoothness, we refrain from referring to them repeatedly as 'students'.

Taking off: choosing a topic

Three trends are most clearly evident in descriptions of how candidates came to choose a specific topic. The first and perhaps most obvious observation was that the work environment was directly linked to the selected area of study. Since the programme targeted practitioners, this was not surprising. However, a number of factors within the work situation were identified as stimuli for study. Alexa and Marius sought an area of study that would help develop the conceptual skills within their work environment, where much time was spent on research. According to Marius:

> It's about the kind of difficulties that is experienced at the moment. . . within this country but also in other countries. How would a different understand[ing], you know, perhaps lead to better implementation and better practices?

While Marius suggested that an improvement within his organisation would have an effect on the work done outside of that organisation, John (a university academic) felt that the programme would directly help him to solve specific problems within his work environment:

> I think my journey didn't really begin when I registered for the doctoral studies, but it began in my work situation. . . I started to see the problems. What came to my mind was "Ah, maybe one of the things that one can do is to research. . . the problems that we are being confronted with in the work situation". . . I felt this is the chance maybe to get into the programme . . . to be guided. . .

Similarly, Paul and Carl both identified problems in their work environment that they sought to address through their research. Eric took a slightly more personal approach and said that he saw that he had a "lack of knowledge to deal with work issues".

Dorothy on the other hand had a practical approach to research, thinking she could use data from her work situation in order to conduct the doctoral study. She hoped to enrich this data by "add[ing] a qualitative analysis to quantitative data already gathered in the course of [her] work".

What was common to the above respondents, with the exception of Dorothy, is that they all expected their study to have *practical* value and that it was going to make real difference to their professional outputs and indeed would enhance the impact of their work in the broader community.

A second identifiable trend was that some candidates entered the programme with a vague idea of a possible research area and set about looking for a topic when they began the programme. Kathy said that she did not know what she was going to study until she "came across this decentralisation programme". Others said that they had a general interest in a research area but had not been able to define the focus of their study. For example, Monica said that she had a topic but did not know what her research questions could be. Daphne said that she was looking for a topic worth researching within a broad area of interest. She pointed out that she had done "three little drafts. . . to change from one idea to the other". Despite her apparent confidence in knowing her area of study, Janet, too, did not appear to have a clear idea of what she was going to do. She said that she had a number of research interests but realised that she had to choose something related to policy studies as required by the specific doctoral programme. Kay said that she wanted to translate her emotional ideas to scholarly ones but that her ideas were still "hazy".

A third identifiable trend was that some candidates came into the programme knowing exactly what they wanted to do. Tanya said that she had mulled over her research topic for two years prior to entering the PhD programme.

However, she went on to say that she had discarded her initial commitments when confronted with new knowledge gained in the course of the programme, only to come back to it later. George was clear that he was going to study educational transformation in his country and he had identified the particular reform process that he planned to research. Sibu had an idea of what he wanted to research but found that his idea was too broad. He said that six months after beginning the programme, he was still at the beginning of proposal development.

A common thread running through the responses cited thus far was the sense of emotional commitment to their studies. Labaree (2003) makes a similar point by observing that educational researchers bring into the academia three significant traits: maturity, professional experience and dedication. Admittedly such commitment ranged from the extreme of changing their country through research to the more modest goal of improving their work situation. A related feature was the anticipation of personal growth through the study, either through being able to do one's job better or through a sense of personal fulfilment that doctoral studies was expected to offer.

Given these responses, it is safe to claim that those coming into the programme with a topic and/or research question in mind would not necessarily have a clear idea of their research questions at the end of the six-month period. At the same time, not having a topic after six months was not experienced as an inability to benefit from undertaking the journey. In reflecting on our own experiences (Herman and Pillay), we also realised that we had both entered the programme with no idea of an area of research, and had happened upon our topics quite accidentally, through casual conversation with others in the programme, which in turn prompted us to reflect on our personal experiences.

Finding and refin(d)ing a destination: formulating the research questions

In this section we look at students' experiences in developing their research questions. In the main, candidates had to refine and reformulate their research questions while, in some exceptional cases, the original research questions were retained. For some, the initial research questions were changed either because they were too broad or their focus was too narrow.

Kathy, Eric and Alf were advised that their topics were too broad. For example Kathy was looking at decentralisation policies without finding a focus area; Alf was looking at "all policies regarding education management post-1994 that have brought about or failed to bring about necessary changes in school reform. . .". Some of the research questions were so broad that one of the supervisors was led to comment: "there's actually four or five PhDs in this and you have to decide which one you want to do".

Elisabeth's proposal was hugely ambitious in scope:

> I wanted to select a few Commonwealth countries. But with time it was like maybe you just need to be practical and say you can't afford to catch up with the selected Commonwealth countries that you would have liked. Yet I was saying to myself, there are Commonwealth countries that are classified small states, small island states and small desert states, so I knew exactly. . . all the countries. . . I would have ease of access and I would have no problems in terms of getting in there, collecting the data. But it was a question of time. So in the process I thought, let me just take a small state. . .

Thobs and Rani discovered that their questions were too abstract and theoretical, and that they were attempting to investigate a vague philosophical concept and not a social or policy problem.

On the other hand Tanya had reduced her research questions to a needs assessment survey, probably because she was familiar with such surveys:

> I thought it would be more exciting. I thought it would be easier. I thought it would be easier because I would analyse the policy, I would go into the field and ask questions about what people think about the policy and what their needs are and whether those needs are reflected in the policy but it should be easier and straightforward, looking at it from a historical perspective. So I sort of put together what I thought would be. . . the initial proposal, the five pages. And I sent it to. . . and it came back with lines all over. . .

A striking problem that some candidates identified was that their research questions had a 'missionary-like' purpose. According to Alexa, her research questions implied that she was going "to tell people how they could change their faculties of education". John also formulated his research question with missionary fervor. He wanted to ensure that a specific policy was being implemented. Closely related to the missionary-like commitment of research questions was the recognition that for some the desire to make the world or the work environment a better place would probably result in non-operational, non-measurable research questions. Kay began by planning to analyze the effectiveness of a particular policy but discovered that it would be difficult to

measure such effectiveness. It was then that she determined to move from an emotional to a scholarly approach to her study.

The necessary shift from the emotional impetus for a study to the recognition of a broader scholarly agenda was probably more difficult for those who believed that their research would result in some form of social and institutional reform. For example, Alexa had anticipated that her study would have an impact on the way in which her organisation would function in the future. However, she found that her research questions had assumed certain outcomes as inevitable. She had to change her questions from being suggestive or 'leading questions' to being more open-ended and exploratory. Moosa too found that his research questions had assumed a preferred conclusion. Interestingly, Kay, Rani and Marius – who all began with a clear idea of what they wanted to study – found that their research questions were not easily operationalised. This may be attributable to the misconception that the research was intended to *change* a social phenomenon while obscuring the need to first *understand* such a social problem. Labaree (2003) refers to this as the cultural clash between the normative character of the teaching profession and its effort to produce valued outcomes, and the analytical perspective of the research and its effort to produce a valid explanation of an educational phenomenon.

The findings show that the candidates had difficulty in understanding the qualities of good research questions and the purpose of a doctoral dissertation. In their attempts to find a focus for their research, they moved between broad and narrow questions; from questions dealing with the practicality of their work, such as "is my [work] project effective?" – to questions imbued with missionary zeal, aiming to make the world a better place; from questions that suggest solutions to questions that seek understanding. Supervisory intervention ranged from refining existing questions to completely rethinking them. The students also assigned importance to the readings and the exposure to new knowledge as instrumental in shifting their focus and broadening the conceptualisation of their research.

Navigating the highs and the lows

The 'low points' in the research journey of the students could be divided into three categories which are not mutually exclusive. The first category related to practical matters, the second with difficulties in understanding the learning

materials, and the third concerned the disconnectedness between the research, the study programme and the work environments of the students.

The practical concerns were mainly about finding the time to manage their work and study lives. Maureen, for example, said that she was lagging behind in both her work and her studies. Alexa was particularly upset because she personally placed importance on meeting a commitment:

> I always pride myself on delivering and if there's a due date I must deliver. . . there's. . . an ethic in there. . . So I really was upset that I came and I didn't do a literature review.

The students identified other practical problems such as difficulty in accessing the material; prioritising and choosing relevant material; and the financial cost of participating in the programme.

The second set of 'lowlights' in the journey was the frustration experienced in trying to understand the prescribed academic material. For some students this was a major learning curve, especially for those who did not speak English as a first language, or for those who came from another discipline.

George felt that he did not fare well in terms of academic work: "I tried to do research using the Internet. I read something about a subject. I was convinced that it was clear for me. But then I scored zero marks on that subject." Tanya appeared to be distressed about how to structure her research proposal and was particularly disturbed that the supervisor had not accepted her first draft proposal:

> There were times, I think in the beginning I didn't even know what the sub-headings of the proposal should be. That was a real struggle. . . Even now I still don't think I'm okay with my theoretical and conceptual framework.

Thirdly, students found that there was no clear link between their work, the area of their research endeavors, and the reading material for the programme. Daphne had difficulty in finding information, synthesising it and applying her new knowledge to her work situation. Kathy came to realise that her doctorate would not solve her problems at work. Perhaps what Kathy described as a low point may indeed be viewed as a high point. She went to explain:

> I realised that. . . maybe doing research does not solve problems; it's actually to learn something. And I also believe it too, the way I look at life sometimes that one learns even from bad experiences.

Despite being excited about the material he was engaging with in the modules, Eric said that he had a 'low point' when he discovered that the modules did not relate to his specific area of study. Likewise, Kay expressed disappointment with the content of the modules because they did not have an adequate international flavor.

There was greater homogeneity with respect to the 'high points' than with the 'low points' in student experiences. Candidates spoke of an almost traceable path from struggling to 'suddenly clicking' and being able to apply their knowledge. Perhaps Carl's exuberance is especially illustrative:

> I have had some good moments one of which was when I was still grappling with the idea of formulating a research topic. It suddenly struck me that I'm engaged in change, change in education, policy studies, policy and change. . . my high point is what I've always had in mind was suddenly clicking with the policy, with me starting to discover more about its implementability.

The sense of finding learning connections was also taken up by others. Billy's high point was "to discover that we can actually put this thing together". Tanya could clearly identify her high point as the day she "understood the questions clearly, what is the problem and what is it that I will be contributing, what new knowledge I will be contributing". Moosa spoke of the highlights not as a single moment but as a "continuing excitement. I wouldn't call it a kind of a euphoric moment – I think there's just a re-engaging with the critical [literature] and that's been very exciting."

The sense of discovery was also identified as a high point in the journey. Janet, Billy, Dorothy and Maureen explicitly identified the exposure to other scholars and to new knowledge as the highlights of their experiences in the programme. It was Thobs who made direct reference to being able to take the moment of excitement a step further by finding ways to apply her new knowledge. She said that she was immediately able to apply the new knowledge into a project she was working on, and she found that "the people were really responding to it and reacting to it in a good way and I've obviously found some of the blind spots".

Compared to the others whose significant moments came from within themselves, Kay, Rani and Daphne identified their high point as the moment when drafts they had submitted were deemed to be acceptable by the supervisor.

While the beginning of the journey, and to a certain extent, the formulating of the research questions were mostly associated with the students' working lives, the high and low points were in the realm of their academic achievements. While the low points for the candidates ranged from low levels of learning, like retrieving information to gaining understanding, the high points were associated with the synthesis and applicability of their research. In other words the 'ah-ah' moment was undoubtedly their high point. What emerged from the students' approaches to formulating and reformulating the research questions was that in seeking to make a difference to the world, they found that change and growth occurred instead at a personal level. In addition, the process helped respondents to develop a sense of *critical* awareness of the issues that had previously been simply understood as areas of interest or areas requiring reform.

Provisions for the journey: student needs

We understood needs to include elements that both assisted and hindered student progress through the research journey. We sought to identify students' needs by asking them about the problems that they had encountered, what helped them the most during the journey and what they believed they should have known at the outset of their journey. The findings were then grouped in three categories. The first category dealt with practical and technical needs, the second category was the need for more knowledge, and the third category was the need for more interactions with others.

The overwhelming need was to have enough time. The lack of time was particularly challenging for those candidates who prided themselves on keeping to a timetable, mostly their own. Certain students found time by sacrificing their family lives. Rani put it simply, "I don't sleep, I don't have a social life." Daphne also found it hard to divide her time between study, work and family. She hoped to gain time by learning to work and think fast. The words 'quick(ly)' and 'fast' appeared frequently in her response indicating a level of desperation that she probably felt:

> I don't have time on my side and that I need to start thinking as fast as possible and of course there's all different kinds of forces that are pulling or pushing from outside and I'm right in the middle. . . My challenge is to actually really, as fast as possible, as quick as possible from now when I leave here to really find much more information and more relevant information and to read as fast because I'm really scared, November [the defence] is coming. . .

In contrast, for Tony, thinking was a slow process which could not be rushed. He therefore found it difficult to find the time to reflect on his research proposal and find coherence and meaning in his writing. He felt that keeping the pace removed the joy from this journey:

> The only thing that I would have wished for is. . . more time. . . I just found over this weekend, my head is so full of a whole lot of things and I don't like it for my head to be just full of a lot of things. I need to savor and just distil and make it a part of and fit it in, do it like kind of a mind map. I can't do a mind map over the weekend.

For some students, taking off from work seemed like a solution to the problem of time. It was Thobs who made us aware that there is a price to pay for such a decision as well. She found that the unintended effects were professional isolation and the difficulty of relating the theoretical with the practical. She therefore decided to take on part-time projects in her professional life.

The second category of needs dealt with the perceived lack of knowledge on the part of students. In particular, they spoke of a lack of knowledge and understanding about education, research methodology, and about the doctoral programme itself. Sibu, Maureen and Monica, who had no background in education, felt most disadvantaged. Extensive reading in order to fill the gaps was not always beneficial because they argued that there was a lack of focus with such an approach.

Some candidates thought that they should have had more knowledge on the scope, the outcomes, the requirements and the challenges of a PhD programme before they undertook the journey. This finding came as a surprise to the researchers given the extensive information that was made available to candidates at the outset of the programme. It is possible, of course, that the information was overlooked, misunderstood, inadequate, given insufficient attention – or that no amount of detail could have actually prepared the candidates for the enormous task ahead of them. This problem could be seen to resemble a shortcoming of the 'how to' books on doctoral studies since understanding often only comes once you are at a particular point in the research journey. What was evident among our students was that there was a lack of coherence between what the programme co-ordinators expected of them and what the students thought was expected of them. For example, John was overwhelmed by the number of articles he had to read for the literature review, and thought that he should have known about it before so he could have started with the reading earlier. But as Janet pointed out, it is difficult to

find focused and meaningful readings when one does not have a clear idea of the research questions.

In spite of the seminar-based character of the programme, there was expression of a strong need to have more interactions with peers. Alf wished for mentors who would constantly interrogate his understanding of the research process until he got to a point where he could be safely on his way:

> You need people to interrogate what you're thinking and how you're thinking. . . and then along the journey interrogate it again. . . because. . . we came wanting to solve the world's problems. But really what it is we want to do is not clear, we know in which area we would like to work, but really that hasn't been interrogated. . .

For most candidates the encounters with the supervisors were paramount. Some found such meetings practically difficult because of the physical distances they had to travel and the need to use electronic communication which was not always reliable for candidates in remote or rural settings.

Although it has long been recognised in the academic community that PhD research is largely an individual venture, the candidates in this cohort seemed to expect a significant level of support from the university and its staff. The need for more supervisor support, for research skills training, for training in accessing information, for understanding better the requirements of the programme appeared to be part of a dependency pattern. At the same time there is evidence that suggests that the articulation of the needs themselves indicates a growing understanding of the process. For example Alf, in calling for more frequent interrogation of his writing from an external person, revealed his own self-interrogation which allowed him to progress from having aspirations of changing the world to writing a solid academic proposal. When candidates independently engaged with the literature and found the time to do this, they were able to make progress with the writing of the proposal.

After six months

A striking and central thread in the responses of candidates, despite being at different points along this journey at the end of six months, was the sense of struggle that they were engaged in and of being in a state of constant searching. All students had defined particular goals that they were trying to reach and were each occupied with their personal struggle to get there. The

points at which they found themselves in the continuum of this journey ranged from confusion about the choice of topic to refining the research proposal and even to selecting an appropriate research methodology.

While Sibu and Janet were still looking for a research topic, most had progressed beyond this point and were occupied with their literature searches. But many struggles were going on at this point. For example, Marius had a problem identifying what was considered to be a research article or document. He found it difficult to distinguish between institutional working documents and research literature. Tony was stuck at the point of trying to make sense of the readings:

> I certainly think that I've always read a lot and I've always read widely. . . But I think what this has made me do is really knuckle down and try and shape something. . . into a coherent whole. I'm not there yet.

Another common struggle for candidates was to identify the appropriate research questions. Moosa was still grappling with articulating the "question that would cover that broader concern that I was expressing and not become too focused. . . I'm still not very clear about exactly the question that I'm going to finally ask".

The search for coherence within the proposal, to make things fit, was another arena of struggle for some students. Marius and Billy were trying to find a theoretical framework within which they could locate their research. Kay expressed this as the need to make a connection between the proposal and the end results. Carl was looking for:

> . . . that thin line of continuity throughout the proposal from the introduction through the literature review, through the methodology, the design in general. I need to establish that thin line of connectivity, the connection throughout from the introduction right up to the methodology.

For yet others the struggle centred on finding the focus of the study. Alf knew what he wanted to research now but was still looking:

> . . . to sharpen the focus now because the field is so broad. And in order for me to get some workable project out of it I'm going to have to narrow it down. . . I'm. . . trying to focus specifically on how did researchers conduct research on accountability within schools specifically.

A few candidates had moved beyond the point of finding a focus and were thinking about what methodology would be appropriate for their study. According to Kathy:

> What I'm busy doing is now to strengthen my methodology especially to be more clear about sampling, which regions I'm going to focus and which school I'm going to focus on, and which research methodology I'm going to use.

Rani ventured further and was the only one who made specific reference to the problems of reliability and validity in developing her methodology.

Six months into the research journey, students appeared to be involved in an intense process of searching and re-searching. They were searching for a topic, for the appropriate research questions, for coherence, for relevant literature and for a methodology. What the next section shows is the importance of looking inwards as well as outwards in order to find the best route for the journey. In other words, students had to make significant personal shifts in order to achieve a level of success in their study.

The travellers

The saying 'I travel to seek the world and I discover myself' is illustrative of the changes that these doctoral students reported. The candidates observed changes in their level of confidence, in their knowledge, in their skills and in their approach towards their work and their colleagues.

Kay was pleased that she could "feel good about [herself]". Thobs who was not employed at the time found that her studies "helped [her] to have [her] own life back and to have an aim". Similarly Eric who felt "stuck" at work because of institutional politics stated that the doctorate helped him to feel that he was "worth something again".

While the above students gained confidence and self-esteem, Alexa had a contrary experience:

> It's made me feel like a student again. . . you know that fear of not being able to perform. . . to get to the end of it.

Tanya was quite expressive about the battle to overcome her fears and doubts and to gain confidence in her ability to deal with the content, the skills and

"the amount of knowledge and understanding that you require at this level":

> Just in those initial sessions we had, it sort of scared me. I thought to myself: Am I really ready for this? Am I going to make it? But you know, of course the minute you say to yourself "yes, you'll make it". . . you know, this whole thing I'm battling with. . . So it was . . . scary but what has happened now. . . with the information that we've got, through the sessions that we're having and the understanding that I have. . . I'm more confident. . . Initially. . . I went through a process of going "wow am I really going to do this thing?". . . I think I've just realised that it's okay.

The PhD programme and the exposure to knowledge was a humbling experience for students as it exposed many of their weaknesses and struggles. George realised that all his previous studies as well as his work did not prepare him for the doctoral experience:

> There are no mathematical answers; you cannot give for each question an answer. There are different viewpoints to interpret, and some viewpoints are contradicted, are opposite and so on. So those kind of issues are extremely important for me, they sensitise me to understand that I need to learn more. I am convinced that I don't know anything about education. I still need to. . . I thought that I had the experience, I've worked in education for more than 20 years but I realised that education is really complex.

Carl who was drawn into the course by the frustration he felt in the shortcomings of his senior colleagues and the systems in his workplace, discovered the weaknesses within himself:

> . . . in a sense it has highlighted my weak points. I've come to discover that there are certain areas which I need to work on. I am weak in conducting research, in writing proposals. . . I believe that it has changed me. . . I was able to realise that I'm weak there. . . and that I still need to read more. The more you read the more you realise that you know very little.

The acquisition of new knowledge and the critical engagement with it was another important learning point in the journey. Paul and Janet found that the readings gave them another perspective on issues that they had encountered in their professional life. Paul felt that after starting the programme, his work had become more interesting. John found that he started to read more extensively than before, mostly academic literature. He and Monica were the only candidates that acknowledged the help they received from the guides about 'how to write a research proposal' and from the sessions dedicated to developing the proposal (that is, the fifth day of each five-day seminar). John explained:

> I think that has changed my thinking, my attitude towards the research and also I think the first few weeks with all the explanations and the input of the lectures I think was a very good foundation.

While some felt that they learned to prioritise, sacrifice and discipline themselves, for others, becoming more critical was a significant change. This was most pronounced in the way students began to relate to their work. Kay is a good example:

> It has made me very cautious also of my work and what I do. The last assignment I was doing was for UNESCO – writing a manual for their teachers, teacher training for HIV and Aids – I was very cautious on what I say because I was more focussed on the outcome. . .

John reported that he became critical both of himself and his colleagues. He kept questioning his colleagues' and his own thinking. This sometimes had negative consequences for him:

> Yes, I think it's changing me; I'm starting to ask more questions and also to be critical. To other people it's not good but I think immediately when I get something at my work situation I start to be critical. . . people don't feel comfortable. . . it's not a major problem but people are saying that before they come to me they need to think of what they are going to say because I may be very critical. Though at times I don't even feel it.

A conspicuous point to emerge from the above responses is that the writing of the proposal is an extremely personal experience. Despite the many requests for extended external support, the intimacy of the writing experience becomes stark at this point. Whether it was a feeling of self-worth or intellectual stimulation gained from intellectual development, or the ability to confront personal weaknesses, or the experience of a sense of triumph, or frustration, the students had established a personal relationship with the scholarly enterprise. For many, the development of their writing was accompanied by a parallel sense of personal growth. Simultaneously there appeared to be a decentering of the import and weight of their professional lives in their scholarly plans.

Conclusion

The organisation, funding and delivery of doctoral training have in recent times come under severe scrutiny (King and Dobson, 2003; Malfroy and Yates, 2003). Changing the status quo with respect to doctoral student training will be difficult, in part because of the lack of research and insight into an

endeavour in which "the unwritten rules of doctoral study" remain poorly understood (Hawley, 1993). And yet this study on research learning begins to both add conceptual substance to a neglected concept (research learning) but also points to practical insights for those responsible for designing and managing PhD supervision.

Stanley Pogrow's (1997) point made in his paper on the effects of age on the performance of doctoral students at Stanford University, that older candidates often seek a more practical orientation to their study, is borne out among the students that we interviewed. In choosing their area of study and developing their research questions, students showed a strong leaning towards the importance of the practical value of their study to themselves, to their work environments and to their country. While students did not necessarily forsake this commitment, the commitment had begun to be redefined after the six-months in their personal and collective journeys. From an almost activist fervour to change an aspect of their external environment, students began to identify a need for and indeed to experience a sense of personal growth that began to assume a level of priority in their thinking. It is likely that given the compelling history of the South African struggle against apartheid, experienced by many of these students, the compulsion to reform and improve the environment were quite understandable. However, the question of interest here is what factors intervened to reshape this activist zeal into scholarly commitment?

Dorn and Papalewis (1995) argue that students have a better chance of staying with their study if their external needs like social interaction and fostering a sense of collegiality are met. Admittedly, our study does not look at what factors contribute to the completion of doctoral studies as does theirs, but it is feasible to argue here that it was not the external factors that drove students in their endeavour to complete and improve their proposals. Indeed the external needs that students identified were largely unmet needs and in the main, at the end of six months, such needs were still unfulfilled. While the fulfilment of external needs like improved search skills on the Internet are likely to facilitate student progress, they cannot account for the student's personal growth and development in the writing of the research proposal.

In describing the point at which they found themselves at the end of six months, students made repeated reference to their personal growth and none had attributed this growth to having an external need met. Instead there was reference to their engagement with the literature, that such engagement was a

struggle and that, even if they did not have a final proposal at this point, they had made progress in understanding themselves and what was expected of them in order to write an acceptable proposal. That the journey had been a humbling one for these senior professionals is telling. What it suggests is that students had moved from the point of seeking answers to crafting problems, from searching for solutions to understandings of the research problem.

That doctoral students in education are more likely to seek to reform an institution or solve a problem and, therefore, more likely to experience difficulty in developing the appropriate skills necessary for the writing of a PhD, is a view taken up by Labaree (2003, p.13). He argues that:

> Students and professors in researcher training programmes often encounter a cultural clash between the world-views of the teacher and researcher. Students may feel they are being asked to transform their cultural orientation from normative to analytical, from personal to intellectual, from particular to universal, and experiential to theoretical. They often resist.

There is evidence to suggest that students in our study experienced a similar 'jarring' that Labaree (2003) describes as the clash or divide between conflicting cultures. Students had expressed difficulty in reading the appropriate academic literature that was necessary for the writing of a proposal, they had begun with somewhat grandiose plans to correct the wrongs in their work environment, they were angry about social injustice and sought a way to right such wrongs, and they found that their writing often required significant rewriting and improvement. Students were often deeply disappointed when their work was returned 'with lines all over'. But significant shifts began to occur when students began to redefine their project. George realised that there were no answers to be found and Billy, Carl and others eventually recognised the need for an intellectual focus for their study. What was notable was that their professional lives began to occupy the margins of their thinking about their proposal, and were no longer at the centre of their research endeavours; in short, they were able to stand back from the immediacy of the work environment.

It is probably significant that the students in our study were mainly older, more mature learners. It is possible that such maturity allowed them to be dedicated to their study and to persevere despite the setbacks. Labaree (2003) argues that older students are more likely to "take charge of their doctoral program and make it serve their own needs instead of waiting for the program to shape them" (p.16). We suggest that in addition, translating the passion for

change and reform into a passion for scholarly work is a crucial element in enhancing the probability of success in the writing of the dissertation. We differ therefore with Bell's (1993) simple guide that writing a doctoral thesis is really a matter of mastering the techniques of doctoral study and that there are identifiable steps to achieving this; we found that there were no clear steps to be followed in the writing of the proposal and that the journey that each student traversed was filled with obstacles, reversals, breakdowns and, yet, progression. What could be gleaned from this study is that research learning is even more complex than we had anticipated, and that making firm statements about 'the right way' to prepare doctoral students might in fact be the first error in seeking to improve the learning and support of novice researchers.

References

Bell, J. 1993. *Doing your research project.* (2nd Edition). Open University Press.

Brew, A. 2001. *The nature of research. Inquiry in academic contexts.* London: Routledge Falmer.

Burgess, R.G. 1994. (Ed.). *Postgraduate education and training in the social sciences. Processes and products.* London: Jessica Kingsley Publishers.

Dinah, S. and Scott, C. 1999. *The doctorate: talking about the degree.* NEPEAN University of Western Sydney.

Dorn, S. and Papalewis, R. 1995. Educators earning their doctorates: doctoral student perceptions regarding cohesiveness and persistence. *Education*, 116: pp.305–315.

Hawley, P. 1993. *Being bright is not enough. The unwritten rules of doctoral study.* Springfield, Illinois, USA: Charles C. Thomas Publisher.

Holbrook, A. and Johnston, S. 1999. (Eds). Supervision of postgraduate research in education. *Review of Australian research in education (RARE)*, No.5.

Kerlin, S.P. 1995. Surviving the doctoral years: critical perspectives. *EPAA,* 3.

King, M.L. and Ian R.D. 2003. The flawed nature of Australia's research training scheme. *Journal of Higher Education Policy and Management,* 25: pp.195–202.

Labaree, D.F. 2003. The peculiar problems of preparing educational researchers. *Educational Researcher*, 32: pp.13–22.

Malfroy, J. and Yates, L. 2003. Knowledge in action: doctoral programmes forging new identities. *Journal of Higher Education Policy and Management,* 25: pp.119–129.

Orton, J. 1999. Learning to think like a researcher. In Holbrook A. and Johnston S. (Eds). Supervision of postgraduate research in education. *Review of Australian research in education (RARE)*, No.5, pp.153–156.

Parry, S. and Hayden, M. 1999. Experiences of supervisors in facilitating the induction of higher degree students to fields of education. In Holbrook A. and Johnston S. (Eds). Supervision of postgraduate research in education. *Review of Australian research in education (RARE)*, No.5, pp.35–53.

Pogrow, S. 1997. The effect of age on the attitude and performance of doctoral students at Stanford University. *Education*, 98: pp.78–81.

Salmon, P. 1992. *Achieving a PhD – Ten students' experience.* London: Trentham Books.

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