Chapter

3

FINDING OUR WAY

This chapter describes the research design, rationale, methodology and data analysis process. Reference will be made to the credibility and trustworthiness of the study, as well as ethical considerations.

F inding our way through the forest of events and stories is not an easy task. I have found myself walking in circles in the process of reading and re-reading research texts. I have come to realise that just as there is no clear path that leads the way towards our meeting point and into the core of the friendship circle, there is also no single research method, but rather a multitude of methods available to try and capture the richness of experience. The stories of our experience as co-researchers and participants are intermingled and it is therefore difficult to give a full description of our experiences; all we can offer are accounts or stories of our experience. An additional dimension is added when you, the reader, become part of this experience as a witness to the co-construction of knowledge between researcher and participant. In this study's time and place, plot and scene work together to create the experiential quality of the research narrative. My position as researcher has informed the way I have structured this study. The methodology will serve as a guide through the forest of events and stories in order to enable you and I to find our way towards the meeting point.

Entering the Forest: Qualitative Research

Establishing my own position in psychology has come a long way. It is a journey in which I do not believe that I have reached my final destination yet. Social Constructionism has accompanied me on my journey and has allowed my own voice to become louder (as discussed in chapter 2). My transition process from a modernistic to a more post-structuralist approach in psychology has influenced my research approach and methodology. I started my research journey with a Master's dissertation written from a modernistic, positivistic and quantitative paradigm. The research involved working with large numbers of 'respondents' and focused explaining phenomena through systematic and statistical relations. The individual escaped the focus of my attention and I was concerned with group data, statistical prediction and probabilities (Kerlinger, 1986). Kvale (1996) states that quantitative research attempted to eliminate or reduce the subjective dimensions of the subjects examined. According to positivist thought, research aimed to search for causal relationships, and scientific statements were supposedly value neutral, objective and quantifiable (Kvale, 1996). Quantitative research offered me the ontological assumption that the social world exists in numerical form and accordingly, "the objective data of a science of the social world must be quantitative" (Kvale, 1996, p.67). From an epistemological perspective I thought that the only way that research data could be commensurable across theories and even cultures was to present it in a quantitative report. I also believed that hard, quantified facts would appear more trustworthy in convincing my anticipated modernist audience (Kvale, 1996). However, along my research journey I came across qualitative research methods, post-structuralist perspectives of the social world, and social constructionism, which instigated a process of reflection that changed me as a traveller through the world of research.

Kvale (1996) presents a metaphor of the researcher as a traveller and suggests that "the journey may not only lead to new knowledge; the traveller might change as well… The journey might instigate a process of reflection that leads the [researcher] to new ways of self-understanding" (p.4). I believe that in the process of my research journey and with Social Constructionism as a travelling companion, I have found new ways of

understanding myself. Qualitative research means different things in different historical moments. Richardson (1991) describes the historical moment of post-structuralism in which I find myself at this point of my research journey as a position where no discourse has a privileged place and where no method or theory can make a general claim to authoritative knowledge.

Many researchers have attempted to define qualitative research. Punch (1998) argues that "qualitative research is not a single entity, but an umbrella term which encompasses enormous variety" (p.139). The definitions of qualitative research share the following common characteristics:

1) It is naturalistic (Banister, Burman, Parker, Taylor & Tindall, 1994; Denzin & Lincoln, 1998; Showler, 2000).

2) It draws upon multiple methods that respect the humanity of participants in the study (Banister et al., 1994; Flick, 1998; Showler, 2000).

3) It is emergent and evolving (Denzin & Lincoln, 1998; Janesick, 1998; Showler, 2000).

4) It is interpretive (Banister et al., 1994).

The starting point of qualitative research in psychology is an awareness of the gap between the subject matter and the way we try to represent it as researchers through interpretation:

> The process of interpretation provides a bridge between the world and us, between objects and our representations of them, but it is important to remember that interpretation is a *process*, a process that continues as our relation to the world keeps changing. We have to follow that process and acknowledge that there will always be a gap between the things we want to understand and our accounts of what they are like if we are to do qualitative research properly (Parker et al., 1994, p.3).

Qualitative researchers seek answers to questions of how social experience is created and given meaning. Within the post-structuralist paradigm the focus is on "the socially constructed nature of reality, the intimate relationship between the

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researcher and what is studied, and the situational constraints that shape inquiry" (Denzin & Lincoln, 1998, p.8). I, as researcher, approach the research process with a set of ideas or framework (an underlying ontology of socially constructed realities) that will specify a set of questions (epistemology) that will then be examined (methodology, analysis) in specific ways. The main focus of the study is on narratives about experience. The social sciences are founded on the study of experience, because they are concerned with humans and their relations with themselves and their environment (Clandinin & Connelly, 1998). Experience is therefore the starting point and key term for this social science inquiry. I have chosen to take Qualitative Research and Social Constructionism with me as my companions in this forest of stories, because I believe that they will be able to offer me an appropriate starting point for my study of human experience from within the context of human experience (Kelly, 1999).

The Longing

It doesn't interest me what you do for a living. I want to know what you ache for, and if you dare to dream of meeting your heart's longing (Oriah Mountain Dreamer, 1999, p.15).

My interest or longing to become immersed in this study is inspired by my passions: passion (and compassion) for people, passion for teaching and learning, and passion for constructing understanding through conversations with people. When my co-researchers invited me to become a part of a new historical moment in southern African history, by designing and presenting an applied psychology course for B.Tech Medical Orthotics and Prosthetics at Tshwane University of Technology (formerly known as Technikon Pretoria), it heralded the beginning of a very exciting journey in my life. The invitation to become part of the journey stimulated my intellectual curiosity and triggered the ensuing research questions: What are the public narratives on existing teaching and learning practices circulating in higher education, orthotics/prosthetics and psychology; and what authority do these narratives have on the unfolding stories of students and facilitators in a

psychology course for health professionals?   Being immersed in the teaching and learning journey, my interest is in the process of how knowledge was constructed in the collaborative process of narration and meaning making. Within this social constructionist research study, it is not my primary intent to find something, but rather to explore and re-construct the way in which public and private narratives come together in the unfolding research story.

The story in this study takes place within the higher education context (research setting), where learners are trained as health professionals (orthotists and prosthetists). The story also takes place within a larger life story, in which I as researcher am observing myself in collaboration with participants. In this process, my motivation as facilitator becomes one of creating conditions that allow for students to co-construct knowledge that is powerful and meaningful.   The stories that the participants and I will tell of our experience come out of our personal and social history, as "stories are the closest we can come to experience as we and others tell of our experience" (Clandinin & Connelly, 1998, p.155). This research report is a re-construction of narratives about experience that moves between the subjective experiences of participants (learners and facilitator) and situates these experiences within the relational process of co-constructing knowledge in a collaborative learning context (Souza, 2003).

Seeing the Trees from the Forest

My inquiry experience in this study is storied on several levels, namely that my co-researchers and I live, tell and re-live our stories. Clandinin and Connelly (1998) propose personal experience methods as a means to collect and analyse empirical material: "our principal interest in experience is the growth and transformation in the life of stories, we, our students, and research participants author" (p.160). As researcher/facilitator and learners/participants we are already engaged in narrative processes as we enter the research process. The collaborative learning context can be seen as "interactions of experiences of participants in a field and researchers' experiences as they come to that

field" (Clandinin & Connelly, 1998, p.161). In the process of moving from field texts to research texts, as proposed by Clandinin and Connelly (1998), I find myself in the metaphorical position of a researcher as *bricoleur*:

> A *bricoleur* is a 'Jack of all trades or a kind of professional do-it-yourself person'. The *bricoleur* produces a *bricolage*, that is, a pieced together, close-knit set of practices that provide solutions to a problem in a concrete situation. The solution (*bricolage*) which is the result of the *bricoleur's* method is an [emergent] construction that changes and takes new forms as different tools, methods, and techniques are added to the puzzle (Denzin & Lincoln, 1998, p.3).

It was noted earlier that qualitative research is multi-method in focus. As a *bricoleur*, I will employ multiple methods to attempt to secure an in-depth understanding of the phenomenon in question.   In this research study different accounts (personal narratives and field notes) were collected from the participants. This is known as data triangulation (Janesick, 1998). Personal narratives and public literature were also employed to look for convergent evidence from different sources, also known as methodological triangulation (Terre Blanche & Durrheim, 2002).   In this context, triangulation is seen as an alternative to validation (Denzin, 1989a, 1989b; Fielding & Fielding, 1986). Denzin and Lincoln (1998) believe that "the combination of multiple methods, empirical perspectives and observers in a single study is best understood, then, as a strategy that adds rigor, breadth, and depth to any investigation" (p.4).

From a post-structuralist perspective, triangulation can be seen as a process of crystallisation that recognises the many facets and angles of any given approach:

> The crystal combines symmetry and substance with an infinite variety
> of shapes, substances, transmutations, multi-dimensionalities, and
> angles of approach. Crystals grow, change, and alter, but are not
> amorphous (Richardson, 1994, p.522).

Janesick (1994) proposes the use of crystallisation to incorporate the use of other disciplines to both inform our research processes and broaden our understanding of method and substance. In this study, reflective journal writing by participants offers a

different facet of the crystal through which experience is viewed. In the case of triangulation, a fixed point of reference is implied that can be triangulated. Crystallisation, therefore, offers an ever-changing image of multiple realities that can be constructed.

As a narrative inquirer, I need to become aware of the many-layered narratives at work in this inquiry space. Clandinin and Connelly (2000a) suggest that I should imagine narrative intersections and anticipate possible narrative threads that might emerge from my inquiry and that may "coalesce out of a past and emerge in the three-dimensional space we call our inquiry field" (no page number). Education can serve as the narrative intersection that offers interpretations of experiences as expressed in our stories about life (Clandinin & Connelly, 1998). The nature of my narrative inquiry will also involve the 'insider' (as an inside researcher, I share a similar lived experience with the participants in the study), which opens up possibilities for exploring multiple meanings of the outsider's interpretation of data (the results of outside researcher's studies on similar topics). Bartunek and Louis (1996) believe that "by capturing, conveying, and otherwise linking the perspectives and products of inquiry of both insider and outsider, a more robust picture can be produced of any particular phenomenon under study" (p.13).

Employing personal experience methods through narrative inquiry allows me to study personal experience by simultaneously focusing my attention in four directions: inward and outward, backward and forward. An inward focus represents "the internal conditions of feelings, hopes, aesthetic reactions, moral dispositions, and so on" (Clandinin & Connelly, 1998, p.158). In the context of this study, an inward focus captures the internal conditions and feelings of the facilitator/researcher and participants/co-researchers in the form of private narratives. By focussing outward, Clandinin and Connelly (1998) refer to an emphasis on "existential conditions, that is, the environment or … reality" (p.158). The research setting, where public and private narratives come together in a collaborative learning setting in the health sciences, contextualises the outward conditions. Backward and forward focus refers to "temporality, past, present, and future" (Clandinin & Connelly, 1998, p.158). The

historical landscape of the participants in the study (backward) and where they are going (forward) are captured in the (current) collaborative story of their experiences.

In finding my way through the forest of events and stories pointing inward, outward, backward and forward, Clandinin and Connnelly (1998) propose three sets of methodological questions to help me to see the trees from the forest: one set of questions has to do with the field of research experience, the second set concerns the texts told and written about the field experience, and the third set refers to the research account. In the realm of this study I need to ask myself whether I have succeeded in providing an interpersonal context that is conducive to the production of stories. I also have to take account of the authority that meta-narratives circulating in higher education, psychology and orthotic/prosthetic practices have on the private narratives that are storied and those that are not storied due to the imposition of the dominant narratives. Field texts were collected through reflective journals, reflections on formative evaluations and field notes. The field texts (reflective journals and field notes) were constructed in a descriptive way and were shaped around particular events. The field texts are close to experience, and not constructed with a reflective intent, as is the case with research texts. The research account in this study looks for the patterns, narrative threads, tensions, and themes within or across individuals' personal experiences (Clandinin & Connelly, 1998). In the process of moving from field texts to research texts, my own research voice needs to be presented.

My struggle to make my research voice louder can be described by using the analogy of living on a knife edge as I struggle to express my own voice while trying to capture the participants' experience and represent their voices, while also attempting to create a research text that will speak to, and reflect upon, the audience's voice (Clandinin & Connelly, 1998). Clandinin and Connelly (1998) believe that the issue of voice will never be resolved, except judicially. This implies that I, as researcher, have to speak partially naked and open myself up to legitimate criticism from participants and from the audience. I also have to consider the voice that is heard and the voice that is not heard. My signature as researcher is just as important. Geertz (cited in Denzin & Lincoln, 1998) posits: "'being there' in the special way that marks each of us as writers constitutes our

research signature" (p.173). Just as painters learn to paint by adopting a painter's style, so too have I chosen to adopt the signature of my preferred authors, including Clandinin and Connelly (1998), Riessman (1993), Richmond (2002) and Giovannoli (2004), to assist me as a fledgling learning to fly in narrative inquiry.

Picking up Leaves

As a researcher entering the field of inquiry, I need to be sensitive to the stories already being lived, told, relived and retold by my participants: "as we compose our narrative beginnings, we also work within the three-dimensional space, telling stories of our past that frame our present standpoints, moving back and forth from the personal to the social, and situating it all in place" (Clandinin & Connelly, 2000a, no page number). The stories that I bring as researcher are also set within the institution in which I work and the landscape on which I live. In the process of researcher and participants coming together, we begin to live and tell a new collaborative story of our experiences. In the midst of a temporal, storied flow, experiences come together to create new hopeful possibilities. These new collaborative stories have an influence on other stories in our lives. The new collaborative story of my experience of being involved in the facilitation of the psychology course for orthotics and prosthetics influences the research story that I tell.

Clandinin and Connelly (1998) believe that the transition from field texts to research texts brings the end of the research process in a full circle to the beginnings of the inquiry: "in personal experience methods we must acknowledge the centrality of the researcher's own experience: their own tellings, livings, relivings and retellings. Therefore, one of the starting points is the researchers' own narratives of experience" (p.161).

Story is central to the methods that we can use as researchers to get in touch with our experiences and to come to know what we know about our experiences.

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Clandinin and Connelly (1998) suggest the following methods to move from field experience to field text: oral history, annals and chronicles, family stories, photographs, memory boxes, other personal/family artefacts, research interviews, journals, autobiographical writing, letters, conversations, field notes and other stories from the field.

At this point I would like to introduce you to my research participants, Peter and James, who will negotiate different positions in the research narrative. Peter and James invited me to design and present the psychology module for B.Tech Medical Orthotics and Prosthetics.   In their wider life context they are positioned as lecturers/facilitators in orthotics and prosthetics, and are practising health professionals. Peter and James would participate as learners in the newly approved B.Tech Medical Orthotics and Prosthetics programme based on the principle of train-the-trainer. In the purposive sample for this PhD study, I invited Peter and James to join me, as the facilitator, to participate in the practice of reflective journal writing to represent stories of our field experiences which were employed as the units of analysis. The concept of sampling in field research is often complicated and attempts to observe everything within the field of study (Rothe, 1994). However, through inviting both the learners (Peter and James) and the facilitator to participate in the practice of reflective journal writing, I purposively picked all participants who met the same criterion (learners and facilitator in the first B.Tech learning programme offered for Medical Orthotics and Prosthetics in South Africa) to provide the units of analysis (Rothe, 1994).

Journals can be a powerful way for individuals to give an account of their experiences, because they

> are a way of finding out where I really am… They have to do with
> encounters with people who come here, who talk to me, or friends
> whom I see, or the garden. They sort of make me feel that the fabric
> of life has a meaning (Sarton, 1982, p.25).

In addition to the use of journals to provide a record of thought and experiences (Dacre & Mackey, 1999; Hatton & Smith, 1995), journals can also be used to narrate the collaborative process of knowledge construction and meaning making. Journals

can aid the development of internal dialogue; they can help to establish and maintain dialogue with an instructor/researcher, and can provide a safe instrument for venting personal concerns or frustrations (Canning, 1991; Dacre & Mackey, 1999; Riley-Doucet & Wilson, 1997; Spalding & Wilson, 2002). Clandinin and Connelly (1998) have found many journal writers among teachers who weave the accounts of their private and professional experiences together to capture fragments of their experiences in an attempt to find meaning and purpose. Kember et al. (2001) posit that journal writing by itself can be seen as a valuable stimulus to encourage reflection upon practice. They find journal writing of particular value in the health professions context, and "the implication of this development is that the students may be able to apply these same principles of reflection when they are in clinical practice and dealing with the ill-defined problems of clients and client treatment" (Kember et al., 2001, p.99). Journal writing can be successful as a spur to self-reflective thinking. However, these authors warn that "the provision of extensive structuring in journals is likely to stifle individual reflection and lead to stereotyped responses" (Kember et al., 2001, p.119).

Throughout the one-year B.Tech Medical Orthotics and Prosthetics learning programme at Tshwane University of Technology, South Africa, I asked participants to reflect on their experiences throughout the presentation of the psychology module, as well as after the completion of each formative evaluation. Since learners were not previously introduced to reflective journal writing in their academic training, I provided open-ended questions as guidelines to facilitate reflective journal entries and prevent the extensive structuring that might lead to stereotyped responses.

The following questions served as a guideline for participants for entries in their reflective journals, and were offered as the teaching and learning process unfolded:

- The start of a new journey…
- What is it that you heard from today's class discussion that caught your attention?
- Which personal stereotypes/dominant stories about substance use are you aware of or did you become aware of in your own life?

- How did the alternative stories about substance use in the class discussion challenge your own dominant stories?

- My experience today…

- Walking down memory lane… Reflect on stories in your life-span development that stand out for you.

- What was your experience of completing the life analysis project?

- My own story of trauma…

- My own story of the meaning of life and death…

- How do you foresee will the meaning that you have constructed from this outcome influence your occupation as an orthotist and prosthetist practitioner?

- Page back to the first entry in your journal. Write a reflection on your journey in the meeting point between psychology and orthotics/prosthetics.

- Find a metaphor to describe your personal journey.

- How will things be different for you now?

After these initial guidelines, the finer application and use of the journal was left to the writer. Within this study, the facilitator and participants based their writings on their personal context for reflection and the experiences they encountered. As researcher, I was interested in how the participants' narration of their experiences unfolded and moved in the process of co-constructing knowledge; therefore I opted not to interfere with the journal writing process by taking the learners' journals in through the year. However, I believe that a facilitator's comments on reflective journal entries can be very valuable in a collaborative social constructionist learning setting. Ellis and Bochner (1992) conclude that "personal narratives bridge the dominions of public and private life. Telling a personal story becomes a social process for making lived experience understandable and meaningful" (p.80).

Field notes are another method for collecting data. Field notes can be written by researchers or by participants, and will "become an important field text in personal experience methods when we acknowledge the relationship we have as researchers with our participants" (Clandinin & Connelly, 1998, p.168). The nature of my relationship with the participants shaped the construction of the records.

Clandinin and Connelly (1998) posit that researchers are often reluctant to use field notes, because they are concerned that field notes will be insufficient to capture field experience adequately.   I have shared this same concern with other researchers, but realised that this concern has to do with my own dominant narratives regarding 'proper research'.   Clandinin and Connelly (1998, p.169) challenged this meta-narrative: "what we fail to acknowledge clearly enough is that all field texts are constructed representations of experience".

I used the field notes of my experiences as an additional unit for analysis in this study. My field notes include short notes from my conversations with participants from the starting point of our relationship, highlights of events that stood out for me as facilitator in the process of co-constructing knowledge, and other experiences in the field. Private narratives were thus collected from personal journals and field notes.

The literature about teaching and learning practices in higher education, psychology and orthotics/prosthetics represents the 'public voice' in this study.   For the most part, this involved an in-depth literature survey of existing research findings and models of teaching and learning in higher education, historical texts regarding the history of orthotics/prosthetics and psychology in South Africa, and informal and formal documentation on the process of establishing a new postgraduate learning programme in B.Tech Medical Orthotics and Prosthetics. In the process of using public narratives as data in the writing of this research report, ways of knowing became possible in my interaction with the written text that would not have been there otherwise (Bruffee, 1986). The writing process thus evolved in a process of constructing knowledge, rather than merely restating the existing literature in a different way.

Organising Leaves: Narrative Inquiry

Entering the process of working with the research text requires an analysis of field texts (data that is presented through the metaphor of leaves). Data analysis is thus

the process whereby order, structure, and meaning are imposed on the data that are collected from journals, field notes and public texts. Giovannoli (2004) suggests that "because we create ourselves in narrative, narrative methodology is a most appropriate means for the study of human beings" (p.2). Sarbin (1986) offers a description of narrative, as

> a way of organising episodes, actions, and accounts of actions; it is an achievement that brings together mundane facts and fantastic creations; time and place are incorporated. The narrative allows for the inclusion of actors' reasons for their acts, as well as the causes of happening (p.9).

Clandinin and Connelly (2000b) emphasise the dialogical nature of narrative research as a way of understanding experience: "simply stated… narrative inquiry is stories lived and told" (p.20). As narrative inquirer, I am living and telling, reliving and retelling the stories of the experience of participants' involvement in the process of co-constructing knowledge.

In my search and readings on narrative inquiry, I have come to realise that narrative analysis does not have a single heritage or methodology; it has been described as being unclear about its epistemological influences (Redwood, cited in Priest, Roberts & Woods, 2002). Regardless of the different approaches in narrative analysis, the function of narrative analysis is to consider the potential of stories to give meaning to people's lives, and the treatment of data as stories (Emden, 1998). The historical event (story) can only be understood when it is located in the context of time and space. Giovannoli (2004, p.19) refers to the historical event as the root metaphor for *"contextualism"*, which is the basic metaphor of story and narrative. In this study the thick realm of experience can only be described and researched through the contextual window in which the story takes place.

Riessman (1993) divides the narrative method of inquiry into three stages, namely telling, transcribing and analysing. The first stage of telling was captured in this study through the field texts of reflective journals and field notes. Furthermore, historical texts of teaching and learning practices in higher education, the history of

orthotics/prosthetics and psychology were captured in the telling stage. The second stage, namely, transcription of the units of analysis, was done to organise the text and put it into a 'crunchable form' for narrative analysis to take place (Riessman, 1993). The third stage involved analysing. Lieblich et. al. (1998) identify two emerging perspectives for story analysis: holistic/categorical and content/form (see figure 1).

Holistic-content	Holistic-form
Categorical-content	Categorical-form

Figure 1   Lieblich et al.'s (1998) intersecting model

The first dimension (holistic/categorical) is equivalent to Sutton-Smith's (1986) perspectives of paradigmatic and narrative streams of analysis. Categorical/paradigmatic analysis implies a textual or structural analysis in which stories are analysed for criteria that place them in one or the other category and thus reinforce a hypothesis. The holistic/narrative approach focuses on the complete story in the context in which it is told. The second dimension, content versus form, refers to either reading for what the story is about (content), or reading for the structure, grammar, style and sequence of the story (form). Lieblich et al. (1998) propose an intersecting model, illustrated in figure 1, for reading a text that offers possibilities and middle points within the matrix of four cells created by the intersecting model.

I used the intersecting points of holistic-content and holistic-form to structure the narrative analysis of this study. In the holistic-content mode, I used the complete stories of participants and focused on the content of the story. The holistic-form mode assisted me in looking for the plot or structure within the stories.

The 'story map', developed by Richmond (2002), integrates the intersecting points of holistic-content and holistic-form (Lieblich, 1998) into a model of narrative analysis:

> The storymap organises the learners' recounting of past and present experiences and future intentions under the rubric of character, setting, events, conflicts, incidents, themes and resolutions (or outcomes). This "map" gives a shape to individual stories and allows for a more penetrating analysis in relation to the objectives of the research (Richmond, 2002, p.3).

The form of a story serves as a pattern to both storytellers and listeners, allowing them to "reconstruct and make sense of what is being told and heard" (Richmond, 2002, p.3). The story map approach relies on three dimensions – temporal, personal and experiential. Richmond (2002) outlines the temporal dimension as past, present and future, the personal dimension as a continuum ranging from disorder and confusion to organisation and clarity, and the experiential dimension as being situated in the categories of self, family, community and schooling.

The story map was adapted to the context of this study and serves as a structured map to assist me, as researcher, and you, the reader, to find our way through the forest of events and stories and to enable us to see the trees from the forest. The adapted story map follows later in this chapter.

A Multitude of Positions

Willig (2001) acknowledges the impossibility of remaining outside of one's subject matter while conducting research. In this study I have negotiated different positions for myself, which shape my identity and offer the content of my subjectivity. Burr (1998) defines 'positioning' as "the process by which our identities and ourselves as persons come to be produced by socially and culturally available discourses" (p.140). Within the prevailing meta-narratives of the study, I see myself as a person having room to manoeuvre and choose (Davies & Harré, 1990). Burr (1998) suggests that "one's actions in the world as well as one's claim to 'voice' depend upon how one is positioned within prevailing discourses" (p.141).

In the context of the study I became aware of three specific meta-narratives that impact on how I positioned myself. I will refer to the first meta-narrative as the *medical narrative*. In the context of the B.Tech Medical Orthotics and Prosthetics programme a medical narrative contains the positions of those who offer treatment through their medical knowledge (orthotist and prosthetist practitioners) and of patients who receive their care. Those without medical training are positioned as 'patients or non-medics', with the lesser rights and obligations associated with their non-expert position.   The second meta-narrative is the *scientific narrative in psychology* that accords researchers and academics a greater claim to truth than the subjects of their study who are positioned as 'lay persons' (Burr, 1998). The third meta-narrative, the *educational narrative*, positions the educator as the person with all the knowledge and power and the learners as the 'receivers' of the knowledge. The positions offered by the medical, educational and scientific psychology meta-narratives that can be accepted or resisted in everyday talk are "the discursive practices by which discourses and their associated power implications are brought to life" (Burr, 1998, p.147).

My position as a counselling psychologist working from a social constructionist perspective informs my reasons for resisting the power of meta-narratives, and supports the alternative positions that I have negotiated as facilitator, participant and researcher in the study. I considered my power as a facilitator and how I may be perceived as the 'expert' in relation to my learners. By taking on the 'not-knowing position' (Freedman & Combs, 1996), I can remove myself from the expert position – thus resisting the scientific meta-narrative in psychology. I negotiated the position of facilitator, rather than educator, and accepted the rights and obligations of interactive discussions, equal power relations and an informal learning setting. By keeping a personal journal of my experiences in the learning process, I also positioned myself as a participant. This created the opportunity for me to resist the educational meta-narrative. The learners offered me a position as a co-learner by sharing their world and their knowledge of orthotics and prosthetics with me. During our interactions, the learners did not treat me as a non-medic, which allowed us the opportunity to resist the medical meta-narrative.   My positioning is not always intentional and some subject positions that I take in this study are more temporary or

even fleeting, implying that who I am is constantly in flux and dependent upon the changing flow of positions that I negotiate in my social interactions (Burr, 1998).

I invited Peter and James to collaborate in the research and the analysis process in order to recognise and include the experiences of both the researcher and the participants. Souza (2003) states that:

> Collaboration is the reciprocal sharing of knowledge and experience between researcher and the researched. Although researchers' understanding of what has been researched will always be incomplete, collaborating with research participants can provide the opportunity to compare and modify researcher perceptions with the participants so that shared meaning about the research becomes more apparent and a more complete understanding is available (p.3).

In my position as researcher, I used reflexivity to address the interactional, relational and power dynamics of the research rather than focusing on a confession of my own emotional positioning (Macleod, 2002). Reflexivity is regarded as a qualitative approach to increase credibility (Lui & Lui, 1997) and is defined by Mead (cited in Steier, 1995) as "turning back one's experience on oneself" (p.71). My subjective involvement in this study is described by Hoskins (2000) as follows:

> Although the meaning of research is to search again in order to uncover a truth, constructivist theory argues that meaning is created *between* people, not lying in wait, ready for discovery. If there is no reality separate from the active agent, it follows that, when studying human experience, the subjectivity of the researcher is already included (p.56).

Hoskins (2000) goes on to suggest that researcher subjectivity can be acknowledged by integrating the voice of the researcher into the research text. The way in which I include my own voice in this study allows you, the reader, to acknowledge that the interpretations of the phenomenon under study are embedded within my own discursive relationships, and thus to see the meta-narratives that frame the interpretations. I integrated my voice as researcher in negotiating a position as

narrator in a play in chapter 4. This allowed me to take a critical look at the public and historical texts and to 'interact' with the public actors, Orthotics/Prosthetics, Psychology and Higher Education, on the stage. In chapter 5, I face the challenge of analysing data written about myself (as facilitator) by myself. I overcame this challenge and gave a voice to my position as researcher by referring to my facilitator self in the third person. In this way, I was better able to challenge my assumption about myself in practice. Reflexivity further relates to how I construct my world and how these constructions might impact on the way I deconstruct and analyse the texts. Chenail and Maione (1997) refer to the practitioner-as-researcher dilemma by suggesting that

> …researching clinicians must face their previous constructions (i.e., sense-making from experience), create methods which allow for deconstruction (i.e., sense-making challenged), and then work towards building reconstructions (i.e., sense-making remade). In this manner, that confidence therapist-researchers have in their observations can be both rigorously challenged and bolstered (p.3).

Chenail and Maione (1997) propose that researching therapists should reflect upon their sense-making activities by asking themselves questions. "The Y of the How: Sense-making in qualitative inquiry" (p.3) proposes three foci of the researcher's sense-making activities in a qualitative research project. These relate to the literature and sources of knowledge, and both the researcher's clinical and research experience (Chenail & Maione, 1997). To legitimise the process and give credibility to the interpretations in this study, the facilitator-as-researcher can conduct different analyses, involve different analysts or co-researchers, juxtapose different themes, and so forth.

Wagner (2003) emphasises the important distinction between reflexivity and critical reflection. Reflexivity can lead us into a spiral of self-questioning that can prevent us from doing something practical (Parker, 1999a). In contrast, critical reflection can mobilise the researcher to take action: to "gather information about the context in which the practices that interest the study take place and to reflect on the structures of these activities with the aim of suggesting changes where necessary" (Wagner,

2003, p.104). Although the main objective of this study is explorative and descriptive in nature, I have integrated the information gathered from private and public narratives to provide facilitators and health professionals with guidelines on life-long learning (in the form of an e-learning platform).

I have referred to the multitude of positions adopted by the researcher and participants in this study, and the impact that these positions might have on the data analysis. Now I turn to a consideration of the role of you, the reader, who also has a choice of positions vis-à-vis a reading of this thesis. You can be a passive reader or you can accept the invitation to become a co-creator of meaning (Brearly, 2000). Becoming a co-creator of meaning is based on the belief that "meaning is not encountered, but constructed and that the act of constructive interpretation is a creative event" (Barone & Eisner, cited in Brearly, 2000, p.1). You may also position yourself as a questioning critic in the process of reading and/or evaluating the text. Through reading this thesis you are given the opportunity to experience the ordinary and to learn to understand in new and different ways (Morgan, 1996). Derrida (1978) believes that meaning does not reside in a text but in the writing and reading of it. As this text is re-read in different contexts it is given new meanings, which will always be socially embedded. By becoming more aware of the positions we are being offered and that we offer to others in our interactions, change and empowerment can be accomplished (Burr, 1998).

A Story Map to Guide the Way

Compiling a story map to guide us along our path through the forest of events and stories is both a process and product that is socially constructed within the broader philosophy of constructed possibilities. The story map allows me as researcher to integrate the methodology of personal experience methods (Clandinin & Connelly, 1998) and narrative analysis (Riessman, 1993; Mishler, 1986) into a single model that represents the voice of public and private narratives in a specific temporality of past, present and future.

The following steps serve as a guideline for approaching the narrative analysis (Riessman, 1993, Richmond, 2002):

Step 1: Telling

This stage involves the exploration of public narratives on teaching and learning practices circulating in higher education, orthotics/prosthetics and psychology. The public narratives also set the stage for participants and facilitator to tell the stories of their experiences through the use of reflective journals and field notes.

Step 2: Transcribing

Moving from the field texts to research texts requires transcribing texts into a 'crunchable' form (Clandinin & Connelly, 1998). It involves determining which narrative segments or selected portions are most suitable for unpacking the structure that is essential to interpretation. The story map provides a narrative framework or skeleton plot by means of which the private narratives of each participant's journal as well as the public narratives are structured, focusing on four categories:

- Orientation – describing the setting and character
- Abstract – summarising the events or incidents of the story
- Complicating action – offering evaluative commentary on events, conflicts and themes
- Resolution – describing the outcomes of the story or conflict

Labov (1972) also suggests including the categories of evaluation (which functions to make the point of the story clear and includes evaluative commentary) and coda (which signals that a story has ended and brings listeners back to the point at which they entered the narrative). In the process of presenting the public narratives and the literature, I disguised my voice as researcher through negotiating a position as a narrator in a play. This allowed me to integrate evaluative comments and codas with Labov's (1972) categories of narrative structure.

The categories used serve as a broad guideline only in the attempt to move towards a reduction of the narration to answer the question: "What is the point of this story?" (Mishler, 1986, p.236). Structuring the story map into past, present and future

experiences helps me to focus my attention on the backward-forward direction of personal experience methods (Clandinin & Connelly, 1998). The voices of the participants and facilitator in a particular time, place or setting were organised in the story map through the recounting of past, present and future experiences. My attempts to find these voices allowed me to focus my attention on the inward conditions (Clandinin & Connelly, 1998). Outward conditions were captured in the story map through the transcription of public narratives of psychology, orthotics and prosthetics, and higher education in South Africa.

The following adaptation of the story map, presented in table 2, provides the narrative framework for the study. The story map involves intersecting points where participants' private narratives may go beyond narratives about their experiences of themselves to include stories of their experiences of orthotics and prosthetics, psychology and higher education.

Step 3: Analysing

There is an overlap between steps two and three because "analysis cannot be easily distinguished from transcription" (Riessman, 1993, p.60). The narrative analysis in this study partly uses Mishler's (1986) 'core narrative' and Riessman's (1993) analysis of poetic structures in the form of a story map (Richmond, 2002). Reducing the narrative in step three to a core narrative provided me with a skeleton plot or generalisable structure to compare the plots of the participants in the study who share a common life event. The analysis of poetic structures focuses on the frame, affect and conflict and enduring role strains that emerge from the text (Riessman, 1993). Riessman (1993) suggests that researchers cannot bypass issues of power in narrative analysis, but should rather ask questions such as: "whose voice is represented in the final product? How open is the text to other readings? How are we situated in the personal narratives we collect and analyse?" (p.61). Integrating public and private narratives into the model of a story map and asking the questions proposed by Riessman allowed me to examine the process by which public and private narratives came together in the unfolding research story, and to scrutinise the power relationships underpinning this process.

FINDING OUR WAY

Table 1 Adaptation of the story map for the purpose of this study

Backward – forward	Inward		Outward		
	Private narratives of		Public narratives of		
	Learners	Facilitator	Psychology	Orthotics & Prosthetics	Higher Education
Past experiences	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda
Present experiences	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda
Future intentions	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda	▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda

To assist in uncovering the complex phenomena hidden in the data in an exploratory way, I employed the Atlas.ti 5.0 scientific software programme (Thomas Muhr Scientific Software Development, 1997). Atlas.ti offers tools to manage, extract, compare, explore and reassemble meaningful pieces from qualitative data in a creative, flexible, yet systematic way. The overall process of text interpretation with Atlas.ti proceeds on three levels:

- The first level, textual level work, entails breaking down or segmenting the primary documents, adding my own comments to respective passages and assigning codes to the text. From a methodological standpoint, codes are

meant to capture some meaning in the data and are used as 'handles' to find specific pieces of text through references to other pieces of text.

- The second level, conceptual level work, allows me to move beyond the mere coding and retrieval of data. The Atlas.ti's networking feature allowed me to visually connect codes, passages and memos into diagrams, which graphically outline complex relations. On this level, I visually clustered codes into families (or narrative themes) and explored the network of relationships between elements. Codes assigned to pieces of text are not mutually exclusive; therefore some overlap may occur in the process of clustering codes into visual family trees.

- The third level is the organisational level where I prepared the materials and collapsed the public and private texts to examine possible similarities and differences between them.

Step 4: Reporting

The final step in the narrative analysis process involves reporting. Reporting is an interpretive practice and represents a multitude of voices. In writing this research report I attempted to find a balance between the participants' voices through their stories and quotes from their journals, the public stories from the literature, and my own voice in interpreting the narratives. Rabinow and Sullivan (1987) posit that every text is "plurivocal, open to several readings and to several constructions" (p.12). My interpretive stance was informed by my position of social constructionism in which my supervisors' comments, the participants' stories of their experiences and my personal experience of being involved in the teaching and learning process collaborated in the construction of the final research report. In this report, my interpretation of public and private narratives exists in historical time and within prevailing relations of power. I cannot tell all; therefore, my representation of experience is a "limited portrait" (Riessman, 1993, p.15).

<div align="center">Sustenance</div>

I want to know what sustains you, from the inside, when all else falls away (Oriah Mountain Dreamer, 1999, p.115).

The process of analysis, evaluation and interpretation is ongoing, unpredictable and unfinished. In this research journey through the forest of events and stories, it is important to look at how the stories are sustained and at the criteria by which you and I evaluate the stories. My own worldview as researcher, and your worldview as researching audience, will inform the selection and definition of standards for judging the quality of the research. The meaning of validity is stated by Winter (2000) as follows:

> From Foucault's definition of the multiplicity of truths, one could suggest that each different truth inevitably requires different means of validation… Therefore, 'validity' appears to reside within the appropriation of research methodologies to those systems of truth that their processes best represent (p.11).

The truths of personal narratives are not open to proof, unlike the truth of the scientific ideal (Riessman, 1993). Narratives do not 'speak for themselves', but require descriptions and explanations that should be believable, reasonable and convincing. Riessman (1993) argues that our analytic interpretations are partial, alternative truths that should aim for believability and enlargement of understanding.

Denzin and Lincoln (1998) describe four positions towards the criteria of evaluating qualitative research: the positivist, post-positivist, postmodernist and post-structuralist positions. The first position (positivist) applies four standard criteria to all inquiry. These are internal validity, external validity, reliability, and objectivity. Positivist researchers often evaluate qualitative research against criteria appropriate to quantitative inquiry (Krefting, 1991). These researchers are concerned with scientific objectivity, which assumes that the researcher and the subject researched are independent of each other; they want to determine whether the research measures what it should be measuring (validity), and whether the results are consistent across situations (reliability).

The second position (post-positivist) is adopted by qualitative researchers who propose alternative criteria for judging qualitative research. Although there is

disagreement over what these criteria should be (Denzin & Lincoln, 1998), Hammersly (1992) offers a summary of the key elements of post-positivist criteria:

> Such researchers assess a work in terms of its ability to (a) generate generic / formal theory; (b) be empirically grounded and scientifically credible; (c) produce findings that can be generalized, or transferred to other settings; and (d) be internally reflexive in terms of taking account of the effects of the researcher and the research strategy on the findings that have been produced (p.64).

Post-positivist researchers such as Guba and Lincoln (1994) propose alternative criteria such as credibility, transferability, dependability and confirmability for judging qualitative research. Credibility involves establishing whether the interpretations presented by the researcher after rigorous analysis are credible or believable from the perspective of the research participants. According to Trochim (2002), "the participants are the only ones who can legitimately judge the credibility of the results" (p.2). Taking the interpretations back to the participants to do member checks can thus increase credibility. Transferability refers to "the degree to which the results of qualitative research can be transferred to other contexts or settings" (Trochim, 2002, p.3). A qualitative researcher, working from a post-positivist position, can enhance transferability by doing a thorough job of describing the research context and the assumptions that are central to the research. However, the reader who wishes to 'transfer' the results to a different context is responsible for making the judgment of how sensible the transfer is. Looking at social research from the assumption that society is in a constant state of flux, that the social world and our understanding of it is constantly changing, it seems that the value of generalisation in qualitative research is limited. The idea of dependability emphasises the need for the researcher to account for the ever-changing context within which research occurs (Wainwright, 1997). Researchers are responsible for describing the changes that occur in the setting and how these changes affect the way that they approach the study (Trochim, 2002). Another criterion used to evaluate qualitative research is the confirmability of the research process. According to Byrne (2001), this can be achieved through the researcher's audit trail:

> An audit trail allows an independent examiner to track the decisions made and steps taken in the study. Specific documentation that should be kept includes a researcher journal, original data, early data interpretation or analysis, research reports and communication with peer debriefers and research participants (p.3).

Denzin and Lincoln (1998) argue that constructivists depart from post-positivism by presenting important criteria such as trustworthiness and authenticity. In qualitative research, "reliability refers to the trustworthiness of observations or data", whereas "validity refers to the trustworthiness of interpretations or conclusions" (Stiles, 1993, p.601). Byrne (2001) states that "although different terminology is used throughout the literature, the terms credibility, trustworthiness, rigor, and truth-value have similar definitions that indicate plausibility of the methods and findings" (p.1).

The third position, postmodernism, replaces the modernist conception that knowledge is a reflection of reality with the position that knowledge is a social construction of reality (Kvale, 1996). From this position, all criteria for judging qualitative research are rejected (Hammersly, 1992). The objective is rather to achieve a temporary understanding of the phenomenon under study, because "any notion of validity is considered to be socially constructed within specific discourses and communities, at specific historical moments, for specific sets of purpose and interests" (Sparkes, 1998, p.375).

According to Denzin and Lincoln (1998), the fourth position, post-structuralism, argues for the construction of "an entirely new set of criteria, divorced from the positivist and post-positivist traditions" (p.277). Johnson (cited in Denzin & Lincoln, 1998) describes the non-positivist search for validity as a position whereby the academic audience sees validity as a process shaped by culture, ideology, gender, language, relevance, standards, and reflexive accounting. Altheide and Johnson (1998) propose validity-as-reflexive-accounting as an alternative perspective which "places the researcher, the topic, and the sense-making process in interaction" (p.291). These authors connect this position to the framework of analytic realism: "based on the view that the social world is an interpreted world, not a literal world,

always under symbolic construction (even deconstruction!), the basic idea is that the focus is on the process of the ethnographic work" (p.291).

It was important for me to use reflexivity throughout the study and to be aware of the influence of my own historical landscape and perceptions on the account of the research process. Altheide and Johnson (1998) emphasise the value of reflexivity as an additional resource for authority in ethnography, when "field workers place themselves in the contexts of experience in order to permit the reflexivity process to work. Experienced ethnographers, then, do not avoid reflexivity; they embrace it" (p.307). Breuer and Roth (2003) advocate a reflexive analysis of the context in which knowledge production takes place, by explicitly acknowledging a constructionist epistemology in the methodology.

Riessman (1993) believes that "a personal narrative is not meant to be read as an exact record of what happened nor is it a mirror of a world out there" (p.64). Riessman (1993) proposes persuasiveness/plausibility, correspondence, coherence and pragmatic use as ways of approaching validation in narrative work. Interpretations in this study are considered to be reasonable or convincing when I am able to support the theoretical claims that I make with evidence from personal narratives. Taking the results back to the participants, Peter and James, provided an additional source of insight and created the opportunity to collaboratively co-construct meaning. According to Riessman (1993), the overall goals that I, as narrator, aim to accomplish by speaking (global coherence) should be continuously modified in light of the structure of particular narratives (local coherence) and recurrent themes that unify the text (thematic coherence).

The authenticity of this text relies on the credibility and plausibility of my interpretations and the trustworthiness of my account of my observations, especially given the subjectivity with which I make interpretations. My epistemological starting point, that realities are socially constructed, is the frame for this inquiry. The only claim that I can make for 'sustenance' is the authentic account of my own experience and the experiences of my participants. The latter is obtained by taking the interpretations back to the participants to collaborate in making sense of the

meanings that evolve. This position is expanded on by Altheide and Johnson (1998) as follows:

> One approach to making ourselves more accountable, and thereby sharing our experience and insights more fully with readers, is to locate inquiry within the process and context of actual human experience. Our experience suggests that researchers should accept the inevitability that all statements are reflexive, and that the research act is a social act… Tacit knowledge exists in that time when action is taken that is not understood, when understanding is offered without articulation, and when conclusions are apprehended without an argument (p.298).

Ethical Considerations

Willig (2001) highlights a number of basic ethical considerations, which apply to this study. Participants were fully informed about the research procedure and gave their written consent to participate in the research before data collection commenced. Permission from the relevant authorities (Department Head: Orthotics and Prosthetics, Sport and Physical Rehabilitation Sciences, Tshwane University of Technology) was obtained, and participants were informed that the research results would be made available in the form of an unpublished doctoral thesis and a scientific article. Data are stored for the purpose of an audit trail (Byrne, 2001) in order to allow an independent examiner to evaluate the confirmability of the research process, if necessary. Should access to the data be requested, permission would be obtained from the participants.

Deception of participants was avoided, and participants received clear information about the purpose of the study in the form of an information leaflet (see appendix A). Furthermore, participants were assured that they were free to withdraw from the research study without fear of being penalised, and could continue to participate in the psychology module. Based on the generative nature of narrative analysis,

participants were given access to the interpretation of the personal narratives, as well as any publications arising from the study. Access to these publications could benefit and enrich the participants because they also act as facilitators and course coordinators for subjects in orthotics and prosthetics.

Finally, pseudonyms were used to protect the participants' identity.   Participants gave their full consent to use the information gathered from the reflective journals and field notes in the way that it was presented in this research report. Clandinin and Connelly (1998) highlight the ethical dimensions of researcher-participant relationships in personal experience methods:

> When we enter into a research relationship with participants and ask them to share their stories with us, there is the potential to shape their lives, told, relived, and retold stories as well as our own.   These intensive relationships require serious consideration of who we are as researchers in the stories of participants, for when we become characters in their stories, we change their stories (p.169).

As a researcher, I have a responsibility towards Peter and James. I need to be sensitive to and responsible for how this research text shapes their lives.

Reflections

Looking back, my research journey in this chapter has been an enriching experience. When I entered the forest of stories, I did not envisage that my journey would lead me back to the beginnings of my inquiry. My longing for a deeper understanding of human experience reminds me that narratives of experience are at the core of this inquiry, and that I have a responsibility as a researcher to be sensitive to the impact of this research text on the shaping of the participants' lives. As a traveller on this research journey, I have gained new knowledge and insights regarding narrative inquiry, but I have come to realise that I have also changed. The journey has allowed me a new understanding of my research position and of my voice and signature as a researcher. I trust that the research journey of seeing the trees from the forest and

picking up leaves has allowed you to engage symbolically with me as a travelling companion, and to enter through the research window of clarity and opportunity.

To Follow

We are getting closer to the meeting point between psychology and orthotics and prosthetics. The next chapter sets the stage for the meeting between the three actors, Orthotics/Prosthetics, Psychology and Higher Education. The chapter takes the form of a play and includes a narrative analysis of these public narratives.

picking up leaves has allowed you to engage symbolically with me as a travelling companion, and to enter through the research window of clarity and opportunity.