

CO-CONSTRUCTING KNOWLEDGE IN A PSYCHOLOGY COURSE FOR
HEALTH PROFESSIONALS:
A NARRATIVE ANALYSIS

by

ILZÉ GROBLER

Submitted in partial fulfilment of the requirements for the degree

PhD (PSYCHOLOGY)

In the Faculty of Humanities
Department of Psychology
University of Pretoria

Supervisor: Professor G.J. van Schalkwyk

Co-supervisor: Dr. C. Wagner

September 2006



*For Herman and Inge,
who share my life and fill it with their light.
It is my blessing to share in theirs.*



ACKNOWLEDGEMENTS

This knowledge product has been socially constructed in a community of concern and represents a multiplicity of voices. Many conversations (mostly via e-mail) with Gertina van Schalkwyk and Claire Wagner, to whom I have ascribed special membership as my co-researchers and supervisors, have shaped my ideas and thoughts in major ways. I am thankful for their willingness to read draft after draft, for entering into dynamic dialogue with me and for guiding me in finding my position and voice as a researcher. Lourens Human, Elizabeth du Preez and Melissa Brokensha invited me to put my silent thoughts into spoken words and to criss-cross ideas, which shaped the research process. Thea Stopforth and Braam Hoffmann provided incredible assistance in realising my dream of creating an e-learning platform. Writing and expressing myself in English posed an additional challenge. I have been fortunate to receive assistance with language editing from Penny Kokot-Louw. When a doctoral thesis is compiled, it requires a lot of hard work, dedication and fortitude from the researcher. However, staying power of this kind is socially constructed and fuelled by my passion and interest in the topic and sustained by the enthusiasm and support of my colleagues, friends and family. I owe my deepest thanks to my husband Herman, daughter Inge, my parents, Ig and Rita, my brother, Nathan, and in-laws Herman and Joey, whose love is the source of my energy. Last, but not least, I thank Peter and James for extending an invitation to me to become a member of a collaborative learning community in constructing the first B.Tech course in Medical Orthotics and Prosthetics in South Africa.

TO HIM BE ALL THE GLORY

Work hard and cheerfully at whatever you do, as though you were working for the Lord rather than for people (Colossians 3:23)

ABSTRACT

The ever-changing demands of working life pose considerable challenges to higher education. The literature indicates that traditional forms of university instruction positioned a deficit model of teaching and learning, which is embedded in a logical positivist paradigm, as authoritative in the production of 'experts' who possess legitimate knowledge. However, in professional practice, health practitioners often deal with ill-defined problems. If health practitioners are to be prepared properly for their future careers, the development of reflective thinking should be an integral component of professional education courses. The aim of this study was to explore the public narratives on existing teaching and learning practices in higher education, orthotics/prosthetics and psychology, and to examine the authority of these narratives in the unfolding stories of students and the facilitator in a pilot applied psychology course designed for orthotist/prosthetist professionals. There is a paucity of psychological research in orthotic/prosthetic practice and further research in this domain is needed, particularly from a qualitative approach. A story map was used to integrate the methodology of personal experience methods and narrative analysis into one model that represents the voice of public and private narratives in a specific temporality of past, present and future. The analysis of public and private texts revealed the narrative themes of teaching and learning, co-constructing knowledge, reflection-on-practice, disability, community of concern and agency. A critical psychology and social constructionist approach is proposed to facilitate reflective clinical practice in a psychology module for orthotics and prosthetics. In a collaborative learning community, the lived experiences, knowledge, skills, and desires that invited orthotist/prosthetists into this helping field are honoured. In addition, they are encouraged to reflect on the value of professional interventions by using pragmatic criteria of whether an approach fits or is useful for a client, rather than relying on some abstract notion of 'truth'.

Key terms

Higher education, critical psychology, orthotics/prosthetics, health practitioners, story map, personal experience methods, narrative analysis, social constructionism, reflection-on-practice, collaborative learning community, co-constructing knowledge, agency

TABLE OF CONTENTS

	Page
1 THE INVITATION	1
The public context of this study	3
Aims of the study	7
Methodology	8
The way ahead	10
Conclusion	12
2 ACCEPTING THE INVITATION	13
Circle of friends	13
Meeting a different kind of Knowledge: An alternative story	21
Reflections	24
To follow	25
3 FINDING OUR WAY	26
Entering the forest: Qualitative research	27
The longing	29
Seeing the trees from the forest	30
Picking up leaves	34
Organising leaves: Narrative inquiry	38
A multitude of positions	41
A story map to guide the way	45
Sustenance	49
Ethical considerations	54
Reflections	55
To follow	56
4 THE MEETING POINT: PUBLIC NARRATIVES	57
Cast of characters	59

Act I Orthotics and Prosthetics, Scene One	59
Act I, Scene Two	75
Act I, Scene Three	78
Act II: Psychology, Scene One	83
Act II, Scene Two	89
Act II, Scene Three	91
Act III: Higher Education, Scene One	95
Act III, Scene Two	105
Act III, Scene Three	114
Act IV: The Culmination and Meeting Point, Scene One	119
Act IV, Scene Two (Monologue)	124
Act IV, Scene Three	129
Synthesis	132
Narrative themes	133
Reflections	140
To follow	140
5 PRIVATE STORIES AT THE MEETING POINT	141
The setting	142
Peter: Story map	144
Narrative themes	154
Narrative core	160
James: Story map	163
Narrative themes	170
Narrative core	176
The Facilitator: Story map	178
Narrative themes	189
Narrative core	198
Synthesis	201
Reflection	204
To follow	205

6	LOOKING BACK AND SAYING GOODBYE	206
	Looking back	207
	Theme of teaching and learning	207
	Theme of co-constructing knowledge	210
	Theme of reflection-on-practice	212
	Theme of disability	214
	Theme of community of concern	215
	Theme of agency	216
	Limitations and critical reflection	220
	Performing new meaning	223
	Doorways to future stories	224
	Saying goodbye	224
	REFERENCES	226
	APPENDICES	251
	Appendix A: Respondent Information Leaflet	251
	Appendix B: Story Maps	255
	Appendix C: Certificate of Special Knowledge	269
	Appendix D: Extract from the Atlas.ti Analysis (Facilitator's journal)	271

LIST OF FIGURES

		Page
Figure 1	Lieblich's (1998) intersecting model	40
Figure 2	The reflective-practitioner model	93
Figure 3	Conceptual framework for the transactional perspective	112
Figure 4	Network view of teaching and learning	134
Figure 5	Network view of co-constructing knowledge	135
Figure 6	Network view of reflection-on-practice	135
Figure 7	Network view of disability	136
Figure 8	Network view of agency	137
Figure 9	Network view of teaching and learning (Peter)	155
Figure 10	Network view of co-constructing knowledge (Peter)	156
Figure 11	Network view of community of concern (Peter)	157
Figure 12	Network view of reflection-on-practice (Peter)	158
Figure 13	Network view of the life-analysis project (Peter)	159
Figure 14	Network view of agency (Peter)	160
Figure 15	Network view of teaching and learning (James)	170
Figure 16	Network view of co-constructing knowledge (James)	171
Figure 17	Network view of community of concern (James)	173
Figure 18	Network view of reflection-on-practice (James)	173
Figure 19	Network view of the life-analysis project (James)	174
Figure 20	Network view of agency (James)	175
Figure 21	Network view of teaching and learning (Facilitator)	191
Figure 22	Network view of co-constructing knowledge (Facilitator)	192
Figure 23	Network view of community of concern (Facilitator)	193

Figure 24	Network view of reflection-on-practice (Facilitator)	195
Figure 25	Network view of the life-analysis project (Facilitator)	196
Figure 26	Network view of agency (Facilitator)	197

LIST OF TABLES

		Page
Table 1	Adaptation of the story map for the purpose of the study	48
Table 2	Proposed curriculum for Applied Psychology II	121

THE INVITATION

This introductory chapter invites you, the reader, to join me on a journey to the meeting point between public and private narratives at the culmination of a postgraduate psychology module for orthotists and prosthetists. Furthermore, it provides a concise framework for the research that was undertaken in fulfilment of the requirements for a doctorate in psychology. What follows is an overview of the context in which the study is located, an elucidation of the research question and a brief outline of each chapter.

The Invitation is the threshold of this thesis, a place of entrances and exits. The “welcome” doormat invites you to enter and if you are reading this introduction, it may mark the beginning of a more extended dialogue that can emerge from our initial meeting. Therefore, I would like to invite you to not linger any longer in the foyer, but to come in and join me on an exciting journey of exploration and discovery in the narrative world. ‘The Invitation’ is a declaration of intent, a longing for you to join me as a travel companion on a metaphorical journey to the meeting point between public and private narratives, during the pilot implementation of a psychology module for B.Tech Medical Orthotics and Prosthetics. However, you should know that simply saying “yes” to the invitation is not the same thing as actually making the journey. If we are to traverse this journey together with the intent to co-construct knowledge and meaning, you have to immerse yourself in the text, open yourself up to new experiences and collaborate in the knowledge construction process. We cannot know in advance what meaning or knowledge construction will inspire from taking this journey, nor predict what you and

THE INVITATION

I will create with it: “whatever the outcome, it will be something different than either started with, something socially constructed” (Anderson, 2000, p.1).

This research report has been long in the making. It started with an invitation to me, from Peter and James¹ (whom you will meet in chapter 3), to become a facilitator for a postgraduate psychology course for Medical Orthotics and Prosthetics. What made this invitation so unique is the lack of applied psychology courses, specifically in the health professions, as well as the opportunity to become part of the construction of the first postgraduate course of its kind ever to be offered in Medical Orthotics and Prosthetics in southern Africa.

Before I continue any further, I am sure that you must be very curious to know what exactly orthotics and prosthetics are. Allow me to give you a brief description:

Orthotics and prosthetics are unique allied health professions involving orthopaedic braces and artificial limbs. The industry provides a vital service to the rehabilitation medicine community and to individuals with disabilities. Orthotics is the designing, fitting and manufacturing of orthopaedic braces for individuals with disabling conditions of the spine and extremities. Prosthetics is the designing, fitting and manufacturing of artificial limbs for people with limb loss. These individual disciplines are traditionally combined as a single industry, because they share similar scientific background and manufacturing processes. (<http://tech.spokanefalls.edu/OandP/Home.htm>)

From my involvement in constructing and facilitating an Applied Psychology II module, a curiosity and passion to know more about teaching and learning in the health professions spontaneously emerged. Furthermore, I wanted to learn and understand more about the craft of social constructionism and narrative analysis in psychology – concepts that I knew very little of before I embarked on this exciting journey. Writing this research report allowed me the opportunity to amalgamate my

¹ Pseudonyms for purpose of confidentiality

THE INVITATION

interests, curiosity and passion and for it to become public knowledge by sharing it with others.

The Public Context of This Study

It seems that the ever-changing demands of working life pose considerable challenges to higher education. Tynjälä (1999, p.358) posits:

Peculiar to today's society and working life is rapid change; experts continuously must construct and reconstruct their expertise in a process of life long learning. In combination, these requirements pose considerable challenges to educational systems, which are expected to produce experts for working life of the future.

However, practices in higher education have been criticised for not developing and preparing learners for the expertise required in real environments. Mandl, Gruber and Renkl (1996) argue that traditional forms of university instruction focus on rote learning and the acquisition of inert knowledge, which cannot be transferred into complex problems of working life. Schön (1983) posits that the logical positivist paradigm has dominated in higher education, and in particular in the training of health professionals. According to positivists, science is the only valid knowledge and any procedure of investigation that cannot be reduced to scientific method is rejected (Edwards, 1967). From this perspective, students are taught a body of knowledge originating from the pure or traditional disciplines that is considered to be building blocks for applied science or professional practice. However, in professional practice, health practitioners often deal with ill-defined issues that require the development of reflective thinking as an integral component of professional education courses if they are to be prepared properly for their future careers (Kember et al., 2001).

Furthermore, the underlying implication of Tynjälä's (1999) statement sustains the discourse that higher education should produce 'experts' who possess legitimate

THE INVITATION

knowledge. Within this modernist² educational perspective the authority for knowing and teaching rests with the educator/trainer, and the learner is merely the receiver of pre-existing knowledge. Knowledge, from a modernist conceptualisation, is positioned as a single truth and education as the process of training in truth production (Kelly, Hickey & Tinning, 2000). It is evident that the discourses circulating around knowledge and the way in which power is circulated in higher education are maintained by conditions that lie deeper than what is evident on the surface:

There can be no possible exercise of power without a certain economy of discourses of truth, which operates through and on the basis of this association. We are subjected to the production of truth through power and we cannot exercise power except through the production of truth (Foucault, 1980, p.93).

Simpson (2000) contests the concept of unity of knowledge in a postmodern³ university, arguing “there is no total account of human understanding but a plethora of knowledges unconnected by an encompassing vision” (p.157). This indicates a movement towards a view of knowledge as social construction and as being in a constant state of transformation.

In researching psychology’s contribution to the profession of orthotics and prosthetics, I discovered that Fishman (1977) identified the psychological sciences as an indispensable area of skill and knowledge in professional orthotic-prosthetic practice. However, despite the acknowledgement of psychology’s position in orthotic-prosthetic practice as early as 1977, Desmond and MacLachlan (2002) note in a 25-year review of reported research (between 1977 and 2001) those psychological issues have been largely overshadowed by physical aspects of the profession:

² Modernism refers to the basic assumptions, beliefs and values that arose in the Enlightenment era (Neuman, 2000). The objective of the enlightenment project was to search for truth and to understand the true nature of reality through the application of reason and rationality (Burr, 1998).

³ Burr (1998) defines postmodernism as “the rejection of ‘grand narratives’ in theory and the replacement of a search for truth with a celebration of the multiplicity of (equally valid) perspectives” (p.185).

THE INVITATION

It is important to emphasise that this is not necessarily any reflection of editorial policy, rather it most likely reflects the scarcity of psychological research and indeed psychological practice, in the area (Desmond & MacLachlan, 2002, p.185).

In a thematic analysis of the profile of psychology in prosthetic and orthotic research, as evidenced by the content of *Prosthetics and Orthotics International* since its inception in 1977, the following contributions have been made by psychological research (Desmond & MacLachlan, 2002):

- Body image and cosmetics

The relationship between the cosmetic appearance of the prosthesis as a factor in acceptance and rejection of prosthetic use is acknowledged by studies such as Burger and Marincek (1994) and Millstein, Heger and Hunter (1986). Also, Narang and Jape (1982) referred to the psychological impact of dramatically changed body image.

- Coping, adjustment and acceptance

Furst and Humphrey (1983) reported on the psychological aspects of coping with losing a limb; Gallagher and MacLachlan (2000) investigated factors that promote positive adjustment following amputation, and references were also made to grief reactions (Chadderton, 1978) and the amputee's acceptance of the prosthesis (Millstein et al., 1986).

- Developmental issues

Only four articles published over a fifteen-year period afford very brief reference to developmental issues: Paul (1977), Narang and Jape (1982), Setoguchi (1991), and Lord and Foulston (1991). Desmond and MacLachlan (2002) conclude:

To date, *Prosthetics and Orthotics International* has not included an article explicitly addressing psychological aspects of paediatric development specific to the needs of families where a child requires orthotic and/or prosthetic intervention (p.184).

- Psychosocial well-being

THE INVITATION

Reference to psychosocial well-being post-amputation was made in a number of papers (Chadderton, 1978; Hunter, 1985) and focuses mainly on the negative effect of such an event.

- Quality of life

The most recent contribution towards the psychosocial dimension of quality of life includes Hagberg and Branemark's (2001) survey of the quality of life of non-vascular trans-femoral amputees.

- Psychological factors leading to amputation

The potential for psychological factors to lead to amputation has been published in four papers between 1984 and 1992 (Hunter, 1985, 1992; Hunter & Middleton, 1984; Wood, Hunter & Millstein, 1987). Psychological disorders, including alcoholism, chronic pain syndrome, artefactualists (individuals whose amputations result from secondary complications associated with self-injurious behaviour), self-mutilation, personality disorders and attempted suicide (where severe physical injury leads to amputation in survivors of suicide attempts) are referred to in these papers.

Although *Prosthetics and Orthotics International* represents only one journal's contribution towards psychological research in orthotic and prosthetic practice, it illustrates the paucity of reported research and the urgent need for further research in this domain, in particular from a qualitative approach:

Indeed those papers published have relied heavily on quantitative methodology, thereby largely ignoring the perspective of the individual amputee, indicating a clear need for research using a qualitative approach to provide opportunity for amputees to voice their opinions (Desmond & MacLachlan, 2002, p.186).

Furthermore, there exists a gap in the current literature relating to the psychology of practice as applied to orthotic and prosthetic training. Stories of experiences of orthotic and prosthetic practitioners-in-training have been largely neglected.

Aims of the Study

It is these public narratives (and many more) circulating around teaching and learning in higher education and the need to fill the gaps identified in current literature relating to psychology's contribution to orthotic and prosthetic practice, that inform my main research question: What are the public narratives of 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? I will look at the process of knowledge co-construction in a collaborative learning setting with an exploration of the way in which public and private narratives come together in the unfolding research story. This study is positioned as a descriptive and exploratory undertaking that will unpack the public narratives that inform the co-construction of knowledge in a collaborative learning environment.

In this study, the story unfolds 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 a researcher, observe myself in interaction with participants. In this process, my motivation as a facilitator becomes one of creating conditions that allow for students to co-construct knowledge that is powerful and meaningful. Stories about experiences are, therefore, the starting point and key term for this social science inquiry:

Stories are the closest we can come to experience as we and others tell of our experience. A story has a sense of being full, a sense of coming out of a personal and social history (Clandinin & Connelly, 1998, p.155).

Narratives shape and constitute us - we construct and portray our understanding of self through our narratives (Riessman, 1993; Rodriguez, 2002). A narrative inquiry approach opens up possibilities to look at how different narratives have the potential to shape and constitute us. However, Rodriguez (2002) warns against reducing narrative to merely methodology, and advocates rather reframing the ontological,

THE INVITATION

epistemological, and axiological context that situates narrative theory and inquiry: “I want to understand the implications of our narrativeness on our potentiality to construct rich and complex narratives” (p.2). When we look at how compellingly different narratives speak to us and give us new possibilities of understanding and experiencing the world, narrative inquiry is moved from the realm of methodology to the realms of epistemology, ontology and axiology. In this study I want to embrace the narrative theory of lived experience and not reduce narrative to a methodology; rather, I want to explore both the quality of experience as well as the narration thereof.

I believe that this attempt to bridge the gap between public and private narratives in a collaborative learning context may offer the possibility of bringing previously silent voices (health practitioners-in-training) to the attention of educators, policy makers and orthotic-prosthetic-practitioners. Through exploring the process of knowledge construction and meaning making in a collaborative way, in the context of higher education, this study may contribute towards the development of educational programmes that meet the ever-changing demands of the working life of health practitioners in general, and orthotic-prosthetic practitioners in particular. A social constructionist perspective of co-constructing knowledge in a psychology course for health practitioners may help facilitators to recognise the complexity of teaching and learning, knowing and being (Souza, 2003). Furthermore, it is hoped that this study may make a valuable contribution in the domain of narrative research.

Methodology

The inquiry experience in this study is a storied one on several levels, namely, that my co-researchers and I live, tell and relive our stories. Clandinin and Connelly (1998) propose personal experience methods as a means to collect and analyse empirical material, stating that “our principal interest in experience is the growth and transformation in the life of stories, we, our students, and research participants author” (p.160). Methods for the study of personal experience are simultaneously focused in four directions: inward (internal conditions or private narratives), outward

THE INVITATION

(external conditions or public narratives), backward and forward (temporality, past, present, and future). Furthermore, “to experience an experience is to experience it simultaneously in these four ways and to ask questions pointing each way” (Clandinin & Connelly, 1998, p.158).

The story map (which I have adapted from Richmond, 2002) creates an opportunity for me as researcher to integrate the methodology of personal experience methods (Clandinin & Connelly, 1998) and narrative analysis (Labov, 1972; Mishler, 1986; Riessman, 1993) into one model that represents the voice of public and private narratives in a specific temporality of past, present and future. 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). Working towards finding the voice of the participants and facilitator in a particular time, place or setting allows me to focus my attention on the inward conditions (Clandinin & Connelly, 1998). Outward conditions are captured in the story map by transcribing public narratives of psychology, orthotics and prosthetics and higher education in South Africa.

The participants, Peter and James, and I used reflective journals to represent stories of our field experiences. These were employed as the units of analysis. I also used field notes of my experiences as an additional unit for analysis in this study. The 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. Public literature on teaching and learning practices in higher education, orthotics/prosthetics and psychology were collected as further sources of information for the purposes of analysis. For the most part, this involved an in-depth literature survey of existing research findings and models of teaching and learning in higher education. The literature survey also included the history and process through which the first B.Tech Medical Orthotics and Prosthetics course was constructed as a new postgraduate learning programme at Tshwane University of Technology (South Africa), as well as the design and structuring of the first Applied Psychology II module.

THE INVITATION

Furthermore, I divided the narrative method of inquiry into four stages, namely telling, transcribing, analysing and reporting (Riessman, 1993). The first stage of telling was captured in this study through the field texts of relevant literature regarding orthotics/prosthetics, practices in higher education, and psychology, as well as reflective journals and field notes. The second stage, transcription of the reflective journals and field notes, was done in order to organise the text and put it into a 'crunchable form' for narrative analysis to take place (Riessman, 1993). The third stage involved analysing. The narrative analysis in this study uses in part Mishler's (1986) 'core narrative', Riessman's (1993) analysis of poetic structures, and Labov's (1972) categories of abstract, orientation, complicating action, resolution, evaluation and coda. I also employed the Atlas.ti computer software programme to facilitate the grouping of codes into narrative themes (Thomas Muhr Scientific Software Development, 1997). While transcribing the public and private narratives, it is inevitable that I engaged in analysing the texts, following Riessman (1993) who believes that there will always be an overlap between the second and third stage of narrative inquiry, because analysis cannot be easily distinguished from transcription. The fourth stage, reporting, involved my interpretation of the public and private narratives. I acknowledge that the research report is a social construction in itself and does not represent a universal truth claim.

The Way Ahead

This section provides a brief preview of each chapter to help you understand the structure of the research report and the relationship of each part to the whole.

The study comprises six chapters, beginning with *The Invitation*. In Chapter 2, *Accepting the Invitation*, I introduce you to my position as researcher. You are invited into the 'circle of friends' where you will meet Megan, Social Constructionism, Power and Knowledge. The process of establishing these new friendships is described, as well as my understanding of these relationships and what impact they

THE INVITATION

have had on my understanding of my world. The chapter concludes with an alternative story: meeting a different kind of knowledge.

Chapter 3, *Finding Our Way*, describes the research design, rationale, methodology and data analysis process by means of the analogy of a journey through a forest of events and stories. The journey starts with entering the forest of qualitative research, in which I defend my rationale for selecting a descriptive qualitative approach. This is followed by an elucidation of the research question in *The Longing*. *Seeing the Trees from the Forest* describes the multi-methods approach involved in qualitative research and the nature of the research design. This is followed by *Picking up Leaves*, which describes the process of collecting the units for analysis (field texts) and the process of moving from field texts to research texts. I acknowledge the multitude of positions that the participants and I might take in this study and the impact that these positions might have on the analysis of the data. *A Story Map to Guide the Way* offers a construction of the methodology that I have adopted, which represents the voice of public and private narratives in a specific temporality of past, present and future. The credibility and trustworthiness that sustains the study and ethical considerations conclude the chapter.

We finally arrive at *The Meeting Point* of public narratives in Chapter 4. This chapter is structured in the form of a play in which the three main characters, Orthotics/Prosthetics, Psychology and Higher Education meet on the stage. It includes a transcription of historical literature and reaches a climax at the culmination of the construction of a psychology module for B.Tech Medical Orthotics and Prosthetics. The narrative structure of the story map divides the stories of public literature into the categories of past experiences, present experiences and future intentions. Narrative themes evident in the public literature of orthotics/prosthetics, psychology and higher education are synthesised in the summary of the chapter.

Chapter 5, *Private Stories at the Meeting Point*, follows a similar structure of the story map to chapter 4. Private stories of experiences of the participants, Peter and James, and the facilitator are transcribed into the categories of past experiences, present experiences and future intentions. Narrative themes evident in each

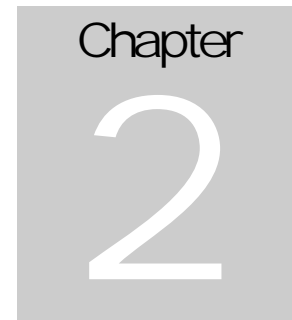
THE INVITATION

participant's story are first discussed independently after which story patterns emerging from participants sharing a common life event are synthesised. In both chapters 4 and 5, Labov's (1972) categories of abstract, orientation, complication action, resolution, evaluation and coda are employed in the analysis phase.

In chapter 6, *Looking Back and Saying Good-Bye*, the study concludes with a reflection of the narrative thread that weaves together public narratives (chapter 4) and private narratives (chapter 5) about teaching and learning, psychology and orthotics/prosthetics. Possible doorways to future stories about teaching and learning in the health professions and the value of the research narrative are explored.

Conclusion

Now that the formal introduction has been concluded and I have mapped out what you can expect to find ahead, I would like to invite you to sit back, make yourself comfortable and enjoy our extended dialogue. In the next chapter, I will introduce you to the 'circle of friends' and tell you more about my meeting with a different kind of knowledge.



ACCEPTING THE INVITATION

This chapter introduces you to my position as researcher, my externalising conversations⁴ with Megan, Social Constructionism, Power and Knowledge, and a deconstruction of my relationship with Knowledge.

I would like to welcome you, the reader, to the meeting point between psychology and orthotics and prosthetics. I would also like to take the opportunity to introduce you to some friends of mine, who will join us at this meeting point and whom I have chosen to take along with me on my personal journey. Throughout the chapter I will try to introduce you to my understanding of these new relationships, how the process of establishing these friendships took place and what impact these relationships have had on my understanding of my world. I invite you to become familiar with my position so that the meaning that is constructed while reading the text might be even richer.

Circle of Friends

I met Megan⁵ three years ago, whilst she was doing her psychology internship under my supervision. Our relationship started out as a supervisor-supervisee relationship. My role

⁴ Externalising conversations are “ways of speaking that separate problems from people” (Morgan, 2000, p.17). Externalisation provides a foundation on which narrative conversations are built and requires a shift (in attitude, orientation and skill) in the use of language (Morgan, 2000).

⁵ Pseudonym for purpose of confidentiality

as supervisor reflected a hierarchical relationship in which my knowledge was assigned a 'super'-vision status (White, 1997). I recognised and acknowledged my uneasiness with this power relation and Megan's reaction sparked the beginning of an alternative story of supervision in my life. She helped me to reposition myself in a 'non-expert' position. Our relationship has grown and developed into a deep friendship. I carry Megan's voice with me even now that she has broadened her career horizons. Her voice reminds me of the creative part within me and I often phone her when I need a sounding board for my thoughts. Megan also played a very significant role in my life because she introduced me to a friend of hers, Social Constructionism. In the past two years I have come to realise that my meeting with Social Constructionism symbolises a sparkling event in my life. The term *sparkling event* refers to an exceptional event that is inconsistent with a problem-saturated story and which creates doorways to the creation of a preferred story in a person's life (White & Epston, 1990). Also known as unique outcomes, sparkling events "are like events that shine or stand out in contrast to the dominant story" (Morgan, 2000, p.52).

My first impression of Social Constructionism was that it was a strange character, it must be a foreigner; I felt confused. However, there was a mystery surrounding Social Constructionism that made me curious to know more about it. Social Constructionism spoke a language that was unfamiliar to me and which challenged my set ideas about life and psychology, which I experienced as threatening and confusing. Social Constructionism challenged my modernistic belief that psychology's purpose is to understand how the individual psyche works in order to understand human phenomena. It argues that "the only way of properly understanding human beings is to study them as part of and integral with the fabric of social life" (Burr, 1997, p.1). There are thus no 'essences' inside people or things that make them what they are; our realities are rather a product of our own construction and arise through our social interaction with one another (Burr, 1998; Freedman & Combs, 1996). When we interact with one another, we are offering definitions of ourselves and responding to other's definitions of us and of them. Our definitions of reality are thus embodied, and individuals and groups of individuals serve as definers of reality (Berger & Luckmann, 1966; Gergen, 1985). Perhaps this is what attracted me to Social Constructionism: the realisation that I can shift my focus from

ACCEPTING THE INVITATION

how I as an individual construct a model of reality from my individual experience, to how my interaction with others influences the construction and maintenance of what our society holds to be true, real, and meaningful (Freedman & Combs, 1996).

For realities to be socially constructed a form of negotiation needs to take place. Through this negotiation process we decide how to do things, how to believe, how to relate to one another, our customs, habits – our reality that we have chosen to create through social interaction over time. Berger and Luckmann (1966) describe these processes of negotiation as typification, institutionalisation and legitimation. Reification is the combination of these three processes.

Typification involves the process of labelling: it refers to how we create categories into which we put our experiences. We tend to accept the categories that we learn from our families, teachers and so forth as real. By accepting certain labels as reality we close ourselves off to other possible labels and therefore other experiences. When these typifications are put together, they become an institution: “the reality of everyday life maintains itself by being embodied in routines, which is the essence of institutionalisation” (Berger & Luckmann, 1966, p.149). Once these institutions become legitimised through media, authority, and those with power, they are accepted as the truth and can blind us to other possibilities. Berger and Luckmann (1966) believe that when established typifications are passed down through generations, the objectivity of the institutional world ‘thickens’ into a social world or given reality that confronts the individual as an external and coercive fact.

Reification is the combined process of the three. This implies that we accept concepts as they are and do not question their origin; it implies that we take the reality we live as an external reality, and one that is beyond control. We forget that it is a negotiated construction that helps us to refer efficiently to a certain aspect of experience (Berger & Luckmann, 1966; Freedman & Combs, 1996).

ACCEPTING THE INVITATION

Through my conversations with Social Constructionism, I realised that I have passively received pre-negotiated realities without questioning their origin. Social Constructionism taught me to take a critical stance towards my taken-for-granted ways of understanding the world and myself (Burr, 1998). Burr (1998) postulates: “we construct our own versions of reality (as a culture or society) between us” (p.6).

Social Constructionism was even so bold as to question the meaning of my language! Modernism (as a language) served as my reliable and accurate link between the ‘real world’ (external reality) and my subjective world. In other words, modernism informed the meaning of my subjective world: as Burr (1998, p.7) puts it, “most of traditional psychology at least holds the tacit assumption that language is a more or less straightforward expression of thought, rather than a precondition of it”. Social Constructionism believes that the only worlds we can know are the worlds we share in language. Meaning and understanding are thus constructed in conversation, rather than existing prior to the utterances of language (Anderson & Goolishian, 1988).

Social Constructionism believes that it is essential for me to understand language in order to understand the reality of everyday life (Freedman & Combs, 1996). In other words, my way of talking lends form and structure to what I know about the world; and what I know about the world is rooted in my way of talking (Souza, 2003). Because we constitute ourselves and our world through conversational activity, stories play an important part in how Social Constructionism knows people and their realities (Shotter, 1993).

Morgan (2000) states that

The stories we have about our lives are created through linking certain events together in a particular sequence across a time period, and finding a way of explaining or making sense of them. This meaning forms the plot of the story. We give meaning to our experiences constantly as we live our lives. A narrative is like a thread that weaves the events together, forming a story (p.5).

ACCEPTING THE INVITATION

Social Constructionism believes that the success of storying experience provides people with a sense of continuity and meaning in their lives. The meanings we give to these stories are not neutral in their effects on our lives – they will constitute and shape our lives in the future (White & Epston, 1990). As a therapist, I have listened to people's stories from within a modernist worldview, in terms of 'making an assessment' or 'taking a history of the illness' or even 'offering an interpretation' of their stories (Freedman & Combs, 1996). Social Constructionism challenged my approach and warned me that I might risk missing the whole point. It argues that there are no prior meanings hiding in stories or texts and invites me to engage in conversations with clients where the conversation becomes the author of the narrative and not the therapist (Freedman & Combs, 1996).

Our lives are multi-storied: "there are many stories occurring at the same time and different stories can be told about the same events" (Morgan, 2000, p.8). There are also many different sorts of stories - stories about the past, the present and the future, and stories that belong to individuals or to communities. It is important to attend to cultural and contextual stories as well as to individual stories (Freedman & Combs, 1996). A friend of Social Constructionism, Michael White (1991), infers that cultural stories determine the shapes of our individual life narratives. Within a culture, certain narratives become dominant over others. When a system develops from statements, practices and institutional structures that share common values, it becomes the preferred way of believing and behaving in a certain culture and is known as a discourse (Hare-Mustin, 1994). Meta- or grand narratives operate on the same level as discourses and describe master theories or preferred practices that maintain the power of institutions (Parker, 1990; Potter & Wetherell, 1987). Within the context of meta-narratives, individual self-narratives develop that are viewed as significant and meaningful in a person's life. These narratives are known as dominant narratives because of their constitutive or shaping power. People story some events, while other events are not storied due to the imposition of the meta-narratives of the dominant cultures (Gergen, 2001). If an individual narrative is experienced differently from the meta-narrative, then the experience becomes marginalised. This marginalised narrative becomes rediscovered and relived through the re-telling of it (Bruner, 1990). These new constructions and reconstructions need to be

ACCEPTING THE INVITATION

experienced and lived in order for people to become 'unstuck' from the dominant narrative.

Social Constructionism also challenged what I believe to be the 'truth'. For Social Constructionism "the interesting question is not how to recognise the truth about human beings, but why some accounts of human beings rather than others are currently bestowed with the status of 'fact' or 'truth'" (Burr, 1997, p.2). I found this attitude to be extremely presumptuous! Its radical doubt about the possibility of establishing any facts or truths about human nature cuts right to the heart of psychology as a science: "psychology as a discipline fashioned itself upon the model of natural sciences, and has at its very heart the search for truth through the ideals of objectivity and impartiality" (Burr, 1997, p.2). I started to question the power claims of truth in psychology. For example, I recalled that homosexuality was classified as an abnormality in the DSM III-R, but not in the DSM IV. Social Constructionism explained to me that, from its perspective, "the theories and explanations of psychology become time- and culture-bound and cannot be taken as once-and-for-all descriptions of human nature" (Burr, 1998, p.6). What I regard as 'truth' is a product of the social processes and interactions in which I am constantly engaged with others: "from a constructionist perspective, truth and falsehoods exist only within traditions of talk" (Gergen, 2001, p.7).

I slowly started to realise that knowledge and social interactions go together and that it is through the daily interactions between people that our versions of knowledge become fabricated. However, I also realised that my own version of knowledge, which I recognise as my friend, becomes muddled by 'power games'. I invited Social Constructionism over for tea and a conversation about Power's impact on our circle of friends and on my relationship with my friend, Knowledge. Social Constructionism asked me if it could bring along one of its friends, Michel Foucault. Foucault is a French intellectual who studied, among other things, the various ways that people in Western society have been categorised as 'normal' or 'abnormal'. He seems to understand the political games that Power loves to play.

ACCEPTING THE INVITATION

Foucault elucidates that in order for me to understand how discourses are maintained through power I need to look at the relationship between knowledge and power. A discourse is a system of statements that constructs an object (Parker, 1999b). I told Foucault that I was under the impression that Knowledge and Power were my friends and that my own knowledge increased my power. What I call *knowledge* refers then to the particular construction or version of a phenomenon that has received the stamp of 'truth' in my society (Burr, 1998).

Foucault (1982) believes that knowledge and power are inseparable and that what counts as 'the truth' is a product of discourse and power, in other words, a displacement of the will-to-truth (the way in which knowledge is put to work and distributed) by the will-to-power. Foucault sees language as an instrument of power. People have power in a society in direct proportion to their ability to participate in the various discourses that shape that society (Freedman & Combs, 1996). He argues that there is an inseparable link between knowledge and power: "the discourses of a society determine what knowledge is held to be true, right, or proper in that society, so those who control the discourse control knowledge" (Freedman & Combs, 1996, p.38).

Knowledge is the power over others, the power to define others (Burr, 1998). I wanted to know from Foucault how I could stand for it if I knew that more power was attributed to those with more voice than others, thus making their constructions or knowledge truthful. Foucault sees this hidden aspect of power as the essence which keeps it in place. We tolerate power only on condition that it hides a substantial part of itself. Its success is its ability to mask its own mechanisms. As Burr (1998, p.71) sums it up:

Discourses offer a framework to people against which they may understand their own experience and behaviour and that of others, and can be seen to be tied to the social structures and practices in a way, which masks the power relations operating in society.

Foucault (cited in Hook, 2001) concludes that power is entangled in discourse, but in his conceptualisation, resistance is a feature of every power relationship; there can

be no relation of power without resistance. Foucault (cited in Hook, 2001) suggests that “one should approach discourse not so much as a language, or as textuality, but as an active ‘occurring’, as something that implements power and action, and also *is* power and action” (p.532). The following strategy is proposed:

It is more of a question of increasing the *combative power* of potentially subversive forms of knowledge than of simply attempting to amplify their ‘truth-value’; more a tactic of sabotage and disruption than a straightforward head-to-head measuring up of ‘supposed truth’ with a ‘truer’ counter-example (Foucault cited in Hook, 2001, p.536).

To critically engage with discourse one does not need implicitly interpretative approaches; one needs, by contrast, to map discourse, and to trace its outline and its relations of force across a variety of discursive forms and objects (Hook, 2001).

Over a cup of tea with Social Constructionism and Michel Foucault I have come to realise that there are no ‘essential truths’, that objective reality does not exist, only our own perception of reality. Since we cannot objectively know reality, all we can do is interpret experience as our constructions of reality (Freedman & Combs, 1996).

As my relationship with Social Constructionism developed, I discovered that it has a gentle side to it, of which I had previously been unaware. Although Social Constructionism challenged me at times, it always did this in a very respectful way and never expected me to disregard my own beliefs; but perhaps just look at my beliefs from a different perspective. Social Constructionism motivated me to allow my own voice to become stronger. It also taught me to be humble, not to think that I am better than others or think that I know more than them. Gergen (1992) postulates “the postmodern argument is not against the various schools of therapy, only against their postures of authoritative truth” (p.57).

My relationship with Social Constructionism developed into a friendship. It is no longer a challenge to me; it has become a companion whom I love to invite with on

ACCEPTING THE INVITATION

my journeys through life. I have expanded my vocabulary (including phrases such as externalising language, discourses, and the ‘not-knowing-position’) and understand Social Constructionism much better, although I have adopted my own dialect when I have conversations with it. My dialect is a mix between my mother tongue (modernism) and post-structuralism⁶.

Along my journey through life, I have encountered some people who have misunderstood Social Constructionism’s intentions. They misinterpreted its statements about ‘truth’ as “theoretically parasitic and politically paralysing” (Soper cited in Edley, 2001, p.434). Edley (2001) claims that the mistake that critics make is to assume that when Derrida (1978, p.158) states that “there is nothing outside of the text”, he is making an ontological rather than an epistemological pronouncement; in other words, a claim about what the world is actually about. Misreadings such as these can easily be taken to imply that the world is purely textual. However, from an epistemic point of view language is seen as “the operating medium through which we come to understand or know the world” (Edley, 2001, p.437). Reality is thus the product of discourse; epistemologically speaking, it cannot exist outside of discourse. Social Constructionism’s intention is therefore not to propose that there is no reality to discursive objects. Language is also not seen as the only reality. Edley (2001) believes that when the ontological and epistemological sense of social constructionism is kept apart it does not look as contentious as when they are mixed up together.

Meeting a Different Kind of Knowledge: An Alternative Story

I have known Knowledge all my life. I was introduced to Knowledge through my parents, teachers, lecturers, the media and many more agents of knowledge. Knowledge was, and still is, my friend. My friendship with Knowledge gave me a sense of security and a

⁶ Burr (1998) defines post-structuralism as “the rejection of structuralism’s search for explanatory structures underlying social phenomena. In linguistics, also the view that the meanings of signs (e.g. words) are not fixed, but shifting and contestable” (p.185).

ACCEPTING THE INVITATION

hunger to know more about psychology and life in general. Knowledge is a driving force and a motivator in my life.

However, Knowledge sometimes made me feel that I was inferior, especially in situations where I encountered other people who knew more about a specific topic than I did. Knowledge tried to convince me of pre-existing truths, that there are 'right' and 'wrong' answers. The voice of Knowledge was very critical at times. It tried to convince me that I did not know enough about post-structuralism, orthotics and prosthetics or qualitative research to be a good supervisor, psychologist, facilitator or researcher. It even affected my courage to write this thesis by wanting to let the experts' voices become louder than my own voice.

Knowledge had very specific ideas on what constituted being the expert. It thought that I should know almost everything about a specific topic to be able to be an expert. It tried to convince me that only certain information is valid and true. Knowledge tried to remind me of my responsibility as supervisor to be 'superior', to give solutions to problems. In the higher education teaching and learning environment, it tried to convince me that it is my responsibility, as facilitator, to transmit knowledge to less knowledgeable others (students). The authority for knowing, teaching and learning rested solely on my shoulders as educator.

The effect of Knowledge's ideas on my life was very unhelpful. I often felt incompetent, agitated, and as though I could never measure up to those who had more knowledge than I did. In the process of writing this thesis, it sabotaged my own thoughts, disqualifying them as less important or knowledgeable in comparison with what I read in books or journals. I ascribed a superior status to tertiary educational institutions as acknowledged centres of knowledge producers and also to the people who represent these institutions, such as my supervisors. An awareness and respect of the power hierarchy in knowledge institutions taught me never to challenge processes of knowledge production and teaching and learning.

ACCEPTING THE INVITATION

My meeting and ensuing relationship with my circle of friends (Megan, Social Constructionism, Foucault, Power and Knowledge) opened up a narrative space in my life that allowed me to discover an alternative relationship with Knowledge. Narrative space refers to “the space that opens up in our lives when we realize that there are many new options and possibilities available to us” (Nooney, 2002a, no page number). By discovering this narrative space, I entered into what Michael White (1997) refers to as ‘re-membering practices’. Nooney (2002b, no page number) defines re-membering as

... a re-engagement of history [that] involves remembering events of my history that I may not have considered important. It involves re-engaging with those memories in an active way, so that the details are known and the connections between those details and various aspects of myself, my motives, my hopes, my principles, etc. can be made.

I joined an action learning and teaching group in my working environment. Through a process of telling and sharing our stories of action learning and teaching, and listening to others re-telling their stories in ways which acknowledge and support us, I was able to thicken the plot of my alternative story – a story in which I became aware of a different kind of relationship that I shared with Knowledge: an empowering relationship and narrative. I remembered the times when I engaged with Knowledge in an experiential learning setting, which repositioned me as a facilitator (and not in my traditional definition as teacher) and allowed me to be comfortable in the ‘non-expert’ position. What was amazing about this memory is the fact that I realised that I did this even before I knew Megan or Social Constructionism! I also remembered teachers and lecturers in my life whose teaching style encouraged me to construct my own personal meaning of knowledge in comparison with a parrot-like recall of knowledge. Kecskemeti and Epston (1995) refer to this re-membering mission as “appreciation practices” (p.3). Through the process of re-membering, I was able to resurrect my own forgotten knowledge and share my indigenous knowledge (Foucault, 1980) with the group. I shared the success of applying reflective teaching and learning practices in the health professions, as well as the learners’ appreciation and stories of their experiences of these practices. Foucault (cited in White & Epston, 1990) offers a description of the story of my experience:

Through the recovery of the details of these autonomous and disqualified knowledges (in the “union of erudite knowledge and local memories”), we can rediscover the history of struggle and conflict. And, in the provision of an adequate space in which these knowledges can be performed, we can develop an effective criticism of the dominant knowledges, a criticism “whose validity is not dependent on the approval of the established regimes of thought” (p.26).

The narrative space opened up an opportunity to redefine the process of knowledge creation as a social process that is situated in a specific cultural and historical context, rather than as the production of knowledge as single truth. Furthermore, it allowed me to invite learners to collaborate with me in the co-construction of knowledge in the classroom.

In my journey through this narrative space and the richness of my experiences, I am able to redefine my own identity and my relationship with Knowledge. I embrace this redefined relationship and celebrate our friendship. I continue to live this alternative story through my own teaching practices and by introducing my circle of friends to learners, colleagues and to you, the reader. Writing this thesis is another way to formally record my indigenous knowledge and invite my co-researchers to collaborate in the construction of meaning. Sharing this thesis with you, the reader, is not with the intention that this ‘knowledge’ should be used as expert guidance. Instead, by reading this story, the intention is to encourage you to add to your own experiences and ideas or even write your own book by telling your story in a different way: “the helpfulness of handbooks lies just as much in the reading of them as in the writing of them” (Morgan, 2000, p.95).

Reflections

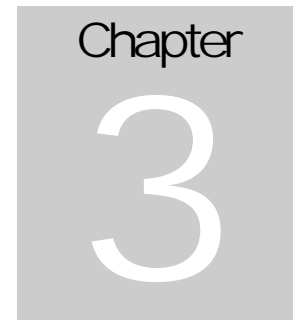
Reflecting on this chapter, I have introduced you to my own position and to my understanding of the process and meaning of being part of a particular circle of friends. I have also invited you, the reader, to become a part of the friendship circle. The impact

ACCEPTING THE INVITATION

and meaning of these relationships on my understanding of my world and on myself, allowed me to re-describe myself and re-author my life in ways that I never envisaged was possible. I have found writing this chapter extremely empowering and therapeutic. Through my externalising conversations with Megan, Social Constructionism, Power and Knowledge, I have allowed my own voice and the story of my experiences to be heard. Every time I read and re-read the texts, I was able to construct new meaning in terms of understanding my own position. Through sharing the story of my own re-membering conversations, I have linked my life with the lives of Social Constructionism, Knowledge and many others, and created avenues by which insider-knowledges could be shared. I trust that accepting the invitation will be an enriching experience for all of you as you read on.

To Follow

In the chapter to follow, I introduce you to the research narrative that guides this study. Personal experience methods and narrative analysis are the tools that I use to explore and describe the stories of the participants' experiences in the process of co-constructing knowledge.



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.

Finding 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

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 reconstruction 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-dimensionality, 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 Connelly (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.

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?

FINDING OUR WAY

- 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.

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	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda 	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda 	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda 	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda 	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda
Present experiences	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda 	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda 	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda 	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda 	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda
Future intentions	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda 	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda 	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda 	<ul style="list-style-type: none"> ▪ Orientation ▪ Abstract ▪ Complicating action ▪ Resolution ▪ Evaluation ▪ Coda 	<ul style="list-style-type: none"> ▪ 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).

Sustenance

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.

THE MEETING POINT: PUBLIC NARRATIVES

This chapter sets the stage for the meeting between the three actors, Orthotics/Prosthetics, Psychology and Higher Education. The story map organises the public narratives in past and present experiences and future intentions. The narrative framework provides a narrative core for orthotics/prosthetics, psychology and higher education as the plot unfolds.

In this chapter I introduce you, the reader, to The Meeting Point of the public narratives in the form of a play, because just like Burke (1945, 1969, 1973), I believe that life itself is a theatre and that all utterances are performances. Rising to the challenge of creating a 'story' from historical texts (the literature), I have applied the logic of Burke's (1945) pentad in analysing narrative performances (acts) to see how Orthotics/Prosthetics, Psychology and Higher Education (the actors) interact with culturally available meta-narratives (genres) in the course of a psychology module for B.Tech Medical Orthotics and Prosthetics (scene). The pentad serves as an analytic system by which to understand human motives rhetorically. The pentad consists of act or action (what happens/happened or is/was done), an agent or actor (the one who does/did the act), the scene (the setting in which an act takes/took place), agency (the means by which the act is/was carried out), and purpose (the goal or objective of the act) (Burke, 1945).

I am specifically interested in how public narratives emerge in social interaction and how meta-narratives position performers as authoritative or not. Burke (1945) suggests that critical analysis should be directed at the dyadic tension between pairs

of elements in the pentad. When some element in the pentad is disturbed – for example, an actor may find that the scene changes or that a new action has been initiated – the elements no longer maintain their balance and seek a new balance, or are destroyed in the process of change (Burke, 1945).

Richmond's (2002) story map provides temporality to the stories being told by dividing them into past experiences, present experiences and future intentions. Furthermore, the narrative framework focuses on the core narrative through the categories of abstract, orientation, complicating action, resolution, evaluation and coda (Labov, 1972) (see chapter 3, *A story map to guide the way, Step 2: Analysis*, for a discussion of these concepts).

In the following section, I introduce my construction of academic texts regarding teaching and learning practices 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. These narratives are presented in the form of a play that takes place in different historical scenes that represent the 'evolution' of Orthotics/Prosthetics (Act I), Psychology (Act II) and Higher Education (Act III) in the South African context. The meeting point between the three actors culminates in the construction of a psychology module for B.Tech Medical Orthotics and Prosthetics (Act IV). I conclude this section by synthesising highlights in the public narratives and reflecting on narrative themes that emerged in the analysis of the public texts.

As the narrator and author of this thesis I cannot remove myself from the text; I can only pick the disguise in which I will appear (Tenni, Smyth & Boucher, 2003). You will recognise my research voice in the disguise and position of the narrator that I have negotiated in the play. Furthermore, I include my research voice through sections printed in italics, which contain evaluative comments following the Labov's (1972) structure of abstract, orientating the audience, complicating actions, resolution and coda. The public stories that I tell about The Meeting Point are my interpretation of interpretations of historical texts and are influenced by the meta-narratives that were culturally available to me. The way in which I allow some voices to be heard and other voices to be silent is

merely one of representation (or social construction) and not truth statements. I would like to invite you, as the audience, to construct your own meanings of the play.

THE MEETING POINT

A play by
Ilzé Grobler

Cast of Characters

Orthotics/Prosthetics (O/P): Can be played by a male/female dressed in a white jacket that represents the professional practice of orthotics/prosthetics.

Psychology: Can be played by a male/female whose formal role is to help people manage the distressing problems of life and represents the professional practice of psychology, as well as the academic involved in knowledge construction and theory building.

Higher Education: Can be played by a male/female who represents the institutional practice of knowledge construction.

Act I: Orthotics and Prosthetics

Scene One

(Draw curtain, lights on)

Scene

The scene is depicted in the décor of a world war and transforms later in Scene One into an Artificial Limb Centre somewhere in South Africa.

Time

Past experiences

The narrator introduces the first actor, Orthotics/Prosthetics, to the audience

Narrator: *(Orientating the audience)*

Orthotics and prosthetics are unique allied health science professions focusing on a common overall goal of rehabilitation. Orthotics involves precision and creativity in the design and fabrication of external braces (orthoses) as part of a patient's treatment process. The orthosis acts to control weakened or deformed regions of the body of a physically challenged person. Orthoses may be used on various areas of the body including the upper and lower limbs, cranium, or spine. Common orthotic interventions include spinal orthoses for scoliosis, haloes used in life-threatening neck injuries, and ankle foot orthoses used in the rehabilitation of children with cerebral palsy. More recently, orthoses have been designed to dramatically realign the bones of the skull in infants with positional plagiocephaly (Georgia Institute of Technology, 2003).

Prosthetics involves the use of artificial limbs (protheses) to enhance the function and lifestyle of persons with limb loss. The prosthesis must be a unique combination of appropriate materials, alignment, design, and construction to match the functional needs of the individual. These needs are complex and vary for upper and lower extremities. Lower limb protheses might address stability in standing and walking, shock absorption, energy storage and return cosmetic appearance and even extraordinary functional needs associated with running, jumping, and other athletic activities. Upper limb protheses might address reaching and grasping, specific occupational challenges such as hammering, painting, or weight lifting, and activities of daily living such as eating, writing, and dressing (Georgia Institute of Technology, 2003).

Certified orthotists and prosthetists in practice commonly lean towards providing care in a single discipline, although they have the knowledge to combine their training and experience in both disciplines to enhance each. The orthotist/prosthetist works as a member of the patient's

rehabilitation team. Potential members of a rehabilitation team include physician, orthotist/prosthetist, nurse, physical and/or occupational therapist, psychologist, social worker, dietician, vocational counsellor, and, most importantly, the patient. A sound understanding of the patient's condition, prognosis, and available treatment options can help each member in the multidisciplinary team to educate patients to become active partners in their own rehabilitation (Georgia Institute of Technology, 2003).

Abstract

The profession of orthotics and prosthetics began with the training of tradesmen as bonesetters and brace makers and evolved after the First and Second World War to in-service training of orthotists and prosthetists with the establishment of national and international Artificial Limb Centres. Standardisation of training led to the introduction of a National Diploma: Medical Orthotics and Prosthetics (equivalent to International Society on Prosthetics and Orthotics [ISPO] Category II) at Technikon Pretoria in 1985. The ISPO recognised the need for Category I professionals in developing countries to train and supervise Category II and III professionals. This, together with the larger international context of orthotist/prosthetist training, set a specific standard or social reality by which southern African training would be benchmarked. The approval and introduction of a new learning programme in B.Tech: Medical Orthotics and Prosthetics at Tshwane University of Technology in 2003 represents the first step towards the international recognition of orthotists and prosthetists as key members of the rehabilitation team.

Narrator: *(Orientating the audience)*

The narrative beginnings of the orthotist/prosthetist profession and the international context seem to guide the public narratives of the evolution of a B.Tech Medical Orthotics and Prosthetics programme in southern Africa. These public narratives shape the development of a professional identity in orthotics and prosthetics. Could you tell me more about the origins of this profession?

O/P: The first traces of the orthotist/prosthetist profession date back to the

5th Egyptian Dynasty (2750-2625 B.C.), with the excavation of the oldest splint – a primitive brace. In 500 B.C., Herod wrote of a prisoner who escaped from the stocks by cutting off his foot, which he later replaced with a wooden substitute – the earliest known reference to an artificial limb (Oandp.com development team, 1990). Bonesetters and brace makers eventually developed into what we now call orthopaedic surgeons and orthotists.

The study of prosthetics has been closely associated with amputation surgery performed as a lifesaving measure from the aftermath of battle. Each major war has been the stimulus for the improvement of amputation surgical techniques and for the development of improved prostheses. It was not until the twentieth century when the most significant contributions to prosthetic/orthotic sciences were made, stimulated by the aftermath of the First and Second World Wars and the polio epidemics of the late 1940s and early 1950s (Wilson, 1992). In order to improve the quality and performance of assistive devices at the end of World War II, particularly for veteran amputees, the U.S. Government sponsored a series of research and development projects under the auspices of the National Academy of Sciences that would forever change the manner in which orthotics and prosthetics would be practised (Committee on Artificial Limbs, 1947).

Narrator: How did the profession evolve in South Africa as opposed to the rest of the world?

O/P: Between 1945 and 1976, universities, the Veterans Administration, private industry, and other military research units were subcontracted to conduct various prosthetic research projects (Fishman, 2001). Although the focus of the Artificial Limb Programme was prosthetics, it was anticipated that these efforts would also benefit orthotics. In 1947, Artificial Limb Centres were established in South Africa. The Auckland Park Centre (Johannesburg) and Vrede Hospital (East London)

opened their doors for a four-year in-service training programme for orthotic and prosthetic technicians, driven by physicians and nursing personnel (J. Burger, personal communication, August 3, 2004). By the 1980s the continuing introduction of new materials and methods spurred the profession of prosthetics and orthotics to rapidly evolve as a changing discipline.

In an attempt to keep its professionals updated, the 1990s saw significant advancement in the development of educational programmes with the establishment of national education accreditation through a subsection of the American Medical Association. The Department of Education in South Africa standardised the training of orthotists and prosthetists in 1978, and in 1985 Technikon Pretoria offered the first diploma training in orthotics and prosthetics (J. Burger, personal communication, August 3, 2004). The diploma consisted of three years of theoretical and practical training followed by one year of experiential training (internship).

Narrator: It seems as though there was a movement towards standardisation within the profession of orthotics/prosthetics, but what's in a title?

O/P: Because different titles were used in different areas for the same kind of work, with further confusion introduced by language and translation, the International Society on Prosthetics and Orthotics (ISPO) developed a categorisation system based on the levels of education and training provided, which avoided dependence on titles (Hughes, 1998). The categories include the following (ISPO, 1998, no page number):

- *Category I*

Prosthetist/Orthotist (or equivalent term)

Entry requirement: University entry level (or equivalent)

Training: three to four years formal structured training leading to university degree or equivalent

- *Category II*

Orthopaedic Technologist (or equivalent term)

Entry requirement: 'O' level (or equivalent) – the usual requirement for paramedic education in developing countries

Training: three years formal structured training – lower than degree level

- *Category III*

Prosthetic/Orthotic Technician (or equivalent term)

Entry requirement: Elementary school diploma.

Training: in-service

Narrator: What informs the need for training in developing countries?

O/P: Only two institutions in Africa offer training in orthotics/prosthetics. The Tanzania Training Centre for Orthopaedic Technologists (TATCOT), Tanzania, and the Tshwane University of Technology (formerly Technikon Pretoria), South Africa catered for Category III (Orthotic/Prosthetic Technician) and Category II (Orthopaedic Technologist) training until 2002. However, at the International Society on Prosthetics and Orthotics (ISPO) Asian Prosthetics and Orthotics Workshop 1998 in Japan, the need for Category I (Prosthetist/Orthotist Meister) training in developing countries was recognised. This marked a significant step forward in African history:

It is recognized that for the meantime training in Category I does not exist anywhere in the developing countries and is only available in the industrial world. Despite this it is felt important that some personnel in developing countries should be trained to this level to provide leadership for the prosthetic/orthotic profession and be responsible for education and training within their own countries (Hughes, 1998, no page number).

Furthermore, the ISPO (1998) indicated that only Category I professionals will be qualified to manage centres, supervise Category II

and III practitioners and act as educators for students and staff.

Narrator: It is good to see that the ISPO acknowledges the need for training in developing countries! Are there any obstacles or problems that affect prosthetic and orthotic development in developing countries such as South Africa?

O/P: The following issues and problems of prosthetic and orthotic (P&O) development in developing countries were identified at the ISPO Congress in Glasgow (Pupulin, 2001, no page number):

- The P&O services are often limited to the capital or major provincial cities;
- The services often focus on prosthetics production, though there is a greater need for orthotics;
- The number of P&O personnel in developing countries is completely insufficient;
- Category I professionals are needed for the supervision of training and education, and as consultants;
- The P&O schools are insufficient in number to cover the demand for professionals;
- It is difficult to find funds for the training; the students themselves cannot meet the costs and it is difficult to find fellowships; and
- Many of the students that are trained cannot get employment in their home countries – some of them therefore emigrate.

Narrator: Surely disability must also be a problem in developing countries. What are the current statistics?

O/P: The ISPO Asian Prosthetics and Orthotics Workshop specifically highlighted the problems of disability in developing countries.

According to Milan (1998), as many as 300 million people in the Asian and Pacific region are disabled, compared to the estimated 500 million people globally. Up to 80% of the disabled live in isolated rural areas and, for the most part, are subjected to poverty and deprived of accessible rehabilitation services (Milan, 1998). Following a World Health Assembly resolution in 1976 and the Alma Ata Conference, the World Health Organisation (WHO) launched community-based rehabilitation (CBR) as the innovative approach to enable developing countries to offer essential services to as many disabled persons as possible in the areas where they live, at a low cost and at a convenient time. Implemented in the context of primary health care, CBR is believed to be the most viable strategy to meet the global challenge of disability.

However, the biggest challenge is to find some way to produce and adequately train prosthetists and orthotists in sufficient numbers to tackle the developing world's problems: "it is probable that in the developing world there is a need for about 20,000 trained professionals and a current provision of at the most 2,000" (Hughes, 1998, no page number). In South Africa, only 69 orthotic/prosthetic practices are registered with the South African Orthotic and Prosthetic Association in 2005 (<http://www.saopa.co.za>). Furthermore, it is predicted that by the year 2020, more than 1.5 million people nationwide will not have access to certified orthotic services and over 227,000 will not be able to receive prosthetic care (Hovorka, Shurr & Bozik, 2002).

Narrator:

In light of the need in developing countries and efforts of the ISPO to upgrade training of orthotists/prosthetists, Tshwane University of Technology (formerly Technikon Pretoria) initiated a Bachelor's Degree in Technology: Medical Orthotics and Prosthetics that would enable candidates to be classified as Category I practitioners.

Elsewhere in Africa, the Tanzania Training Centre for Orthopaedic Technologists (TATCOT) recently initiated a four-year Category I (BSc) curriculum accredited by the International Society of Prosthetics and Orthotics (ISPO) in addition to the three-year Category II degree, through the support of the USAID and the World Health Organisation. In 2003, the International Society of Prosthetics and Orthotics (ISPO) also recognised the wheelchair technologist qualification, offered by TATCOT, as equivalent to the Category II Lower Limb Prosthetics and Orthotics Technologist certificate courses (<http://www.kcmc.ac.za/TATCOT/>).

However, the process to compile and approve a new learning programme in the higher education context is a lengthy one. In my readings of minutes of Medical Orthotics/Prosthetics Advisory Committee meetings, I discovered that the process took eight years (from 1994 to 2002) before the first B.Tech degree in Medical Orthotics and Prosthetics was offered at Tshwane University of Technology in South Africa, in January 2003. Could you give me some more information about the background to this development and why it took so long to instate the training programme?

O/P: On 17 November 1994 the Medical Orthotics/Prosthetics Advisory Committee gave their formal support to the development of a degree course in orthotics/prosthetics, which would be in line with the introduction of degree courses at technikons nationwide. All orthotist/prosthetist practitioners in southern Africa were invited to attend a 're-curriculation workshop' on 22-23 June 1995, facilitated by Mr. Louis Steyn, an expert on the development of new learning programmes from the Skiereiland Technikon (Koeleman, 1995).

In recognition of prior learning, the Professional Board for Medical Orthotists and Prosthetists, under the auspices of the South African Medical and Dental Council, sent a formal notification to all of its

members with specific reference to the rules for registration of medical orthotists and prosthetists. In terms of section 32(1) read with section 61(4) of the Medical, Dental and Supplementary Health Service Professions Act, 1974 (Act 56 of 1974), the following rules would substitute the rules published under the Government Notice R1846, dated 16 September 1977, as amended by Government Notice R268 and promulgated on 16 April 1981 (Prinsloo, 1996):

Rule 1: Registration categories

The council may register a person in the following categories:

- National Certificate Medical Orthotics and Prosthetics

Persons in possession of a junior certificate may sit for a practical proficiency test on completion of four years' practical training in an institution approved by the council for the training of medical orthotists and prosthetists, and persons in possession of a senior certificate may sit for this examination on completion of three years' practical training in an institution approved by the council for the training of medical orthotists and prosthetists.

- National Diploma Medical Orthotics and Prosthetics (will only be recognised if studies commenced after 1 January 1985)

Persons who have been trained for a period of at least four years of which the first three years will be in order to attain the National Diploma in Medical Orthotics and Prosthetics and the fourth year will be an internship during which the holder of the National Diploma will undergo practical training of a minimum of 1200 hours at a unit approved by the council.

Rule 2: Persons who were registered as medical mechanics and surgical appliance makers under the provisions of Government Notices 2041 of 30 September 1949, 667 of 22 March 1951, as amended, or R1712 of 30 October 1964, or as medical technicians under the provisions of Government Notice R3211 of 5 September 1969, shall be deemed to be registered under these rules as medical

orthotists and prosthetists.

Rule 3: Where, in the case of an application for registration, the qualification on which the application is based has not already been approved by the council, the applicant shall be required to cause the Professional Board for Medical Orthotists and Prosthetists and the council to be furnished with authoritative information for such qualifications, where upon if such standard of training is considered satisfactory by the council, such qualification may be recognised (Prinsloo, 1966).

Narrator: The amendment of the rules for registration as Medical Orthotists and Prosthetists recognised prior learning and set the platform for all medical orthotists and prosthetists to continue with an advanced career path.

O/P: Yes, indeed! The compilation of a new curriculum/learning programme in B.Tech Medical Orthotics and Prosthetics became a standard item on the Medical Orthotics and Prosthetics Advisory Committee agenda. A proposed curriculum for the B.Tech degree was sent to all members and the Professional Board for inputs and comments in 1996. Shortly after submission, the Medical Orthotics and Prosthetics Advisory Committee received a letter from the Professional Board stating that the syllabus for the Diploma and B.Tech Degree should include Cerebral Palsy, Ethics, Forearm Muscle Anatomy and Practice Management. It was decided that a modular or short course for the Management subject could be accommodated in the diploma course and a full Management subject in the B.Tech degree course (Orthotics and Prosthetics Advisory Committee meeting, 11 October 1996).

In February 1997, the B.Tech Medical Orthotics and Prosthetics curriculum was presented to the Department of Education for approval

and to the Certification Board of Technikons (SERTEC) for quality evaluation. November 1997 marked another important event in history: “the B.Tech proposal has been accepted by the Department of Education which is a major break-through and means that this course was found substantial enough to warrant a B.Tech” (Orhotics and Prosthetics Advisory Committee meeting, 28 November 1997, p.2). However, acceptance of the curriculum did not imply that the course would be implemented the next year or the following. The Advisory Committee discussed entry requirements for the B.Tech course, of which a national diploma or equivalent, as recognised by the South African Qualifications Authority (SAQA), would be a prerequisite.

Narrator: The larger international context for the training of orthotists/prosthetists set a specific standard or social reality by which southern African training would be benchmarked. How was this achieved?

O/P: AOPPP and Orthomed sponsored a representative of the Department of Medical Orthotics/Prosthetics to visit various training institutions in Germany, the Netherlands, England and Scotland in order to compare international training with training in southern Africa. A presentation on training practices of the world’s leading international institutions in orthotics and prosthetics, Strathclyde University (Scotland) and the Bundesfachschule für Orthopädie Technik (BUFA, or Federal School for Orthopaedic Technology), Germany was given at the Medical Orthotics and Prosthetics Advisory Committee meeting in September, 1998.

The University of Strathclyde (Scotland) has a National Centre for Training and Education in Prosthetics and Orthotics operating within the Faculty of Engineering. The Centre focuses primarily on high-quality training and education for health care professionals and students. However, it also conducts research and maintains an awareness of worldwide clinical research and development (Stephens,

1999a). Strathclyde offers a four-year full time BSc (Hons) degree course for persons planning to enter the prosthetist/orthotist profession as clinical practitioners. This qualification is similar to the National Diploma in Medical Orthotics and Prosthetics at Tshwane University of Technology, South Africa, and equivalent to ISPO Category II registration. The MSc and Postgraduate Diploma in Prosthetics and Orthotics are specialist courses offered by Strathclyde. Applicants for the MSc are required to have an Honours degree in prosthetics and orthotics from a recognised academic institution; however, candidates with alternative professional qualifications or appropriate experience are also considered. The normal duration of the MSc course is 12 months. Supervised research programmes enable prosthetists/orthotists to achieve a Master's (MPhil) or doctoral (PhD) degree at Strathclyde University. Postgraduate diploma courses by distance learning enable participants to explore biomechanical implications of P&O techniques without leaving full-time employment. Postgraduate diplomas are available in Lower Limb Prosthetic Biomechanics, Lower Limb Orthotic Biomechanics, and Clinical Gait Analysis (www.strath.ac.uk/Departments/NatCentre/).

BUFA is acclaimed for its technological expertise, a strong sense of prosthetic/orthotic education, and a long-standing tradition of craftsmanship. Another world leader in prosthetics and orthotics is Germany. There are about 1,600 registered orthotic/prosthetic facilities in Germany, each run by a certified orthotist/prosthetist, or Meister. Only Meisters may operate an orthotic/prosthetic facility and train apprentices (Stephens, 1999b). The BUFA School is unique in that it is funded entirely by private O&P facility owners themselves via membership of a funding association also assisted by manufacturers, under the aegis of the Federal Association of Guilds in Orthopaedic Technology. The school employs 17 permanent faculty and staff members, along with 60 outside lecturers per year. A dual system exists in which the theoretical aspect of orthopaedic vocational

education is provided through vocational schools and the practical aspect is provided by a registered O&P facility. The journeyman degree (ISPO Category II) involves a three-and-a-half year apprenticeship with final exams, which includes structured theoretical training in a vocational public school and parallel practical training in an orthopaedic technology business under the supervision of a Meister. Entry requirements for the Meister-training course are a journeyman degree and a minimum of two or more years of working experience under the supervision of a Meister. The Meister-training course involves one full year, filled with about 2,040 intensive hours of education at the BUFA. The programme leads the successful graduate to a Meister certification, matching ISPO Category I and the European directive.

Narrator: What was the stance of the world's leading international institutions towards the establishment of postgraduate training of orthotists and prosthetists in South Africa?

O/P: The Medical Orthotics and Prosthetics Advisory Committee noted at its meeting on 22 September 1998 that "Prof. Hughes (University of Strathclyde, Scotland) is positive about mutual suggested liaison where ever practical. Dr. Funkelstad (BUFA, Germany) is positive about higher education in Africa as well as broadening our field in terms of training in South Africa". Furthermore, it was noted that the possible future name change from Technikon to University of Technology should solve problems that might arise in terms of international acceptance and the query of standard equivalents. The Medical Orthotics and Prosthetics Advisory Committee added that the B.Tech degree would be equivalent to a university honours degree because it is a post-diploma qualification. In order to address the problem that the University of Technology requires lecturers to have the same or higher qualification than the qualification in which they lecture, the committee proposed that various professionals, like

orthopaedic surgeons, could be contracted in.

Narrator: Getting formal accreditation for a learning programme must be a cumbersome process.

O/P: Although the B.Tech degree has been approved by the Department of Education, Technikon Pretoria retains the prerogative as to whether it is economically viable to offer the learning programme or not. The Department of Orthotics and Prosthetics was in dire need of an additional lecturer. The Medical Orthotics and Prosthetics Advisory Committee (23 April 1999) decided to advertise a position through mailing all registered South African orthotists/prosthetists using a list obtained from the South African Medical and Dental Council. The committee also noted the benefit of the outcomes based educational (OBE) system in recognising prior learning in order to ensure equal access to all orthotists/prosthetists applying for the B.Tech degree (Medical Orthotists and Prosthetists Advisory Committee, 23 April 1999).

In May 1999 a survey was conducted amongst all advisory committee members to decide whether the B.Tech degree should lead to two separate qualifying categories (orthotics **or** prosthetics) or remain, as initially proposed, a qualification in orthotics **and** prosthetics. The results of the survey indicated that the majority of the Medical Orthotics and Prosthetics Advisory committee members were in favour of the B.Tech degree allowing candidates to qualify in both Orthotics and Prosthetics. All technikons in southern Africa were surveyed to indicate their interest in offering the B.Tech degree in Medical Orthotics and Prosthetics. From this survey Technikon Pretoria was the only institution that indicated an interest in offering the B.Tech learning programme. Possible reasons for the other institutions' lack of interest can be attributed to the extensive costs involved in running such a learning programme, as well as the unavailability of trained

staff.

The approved curriculum for the B.Tech degree in Medical Orthotics and Prosthetics was discussed at the Medical Orthotics and Prosthetics Advisory Committee meeting on 14 September 2000, and it was resolved that the curriculum would include the following modules:

- Applied psychology and Pharmacology II (Psychology I – prerequisite subject)
- Business practice I
- Research methods and techniques
- Orthotics and prosthetics theory IV

The means of offering the learning programme, either full-time, part-time or on a block basis still had to be decided. The formation of a Standard Generating Body (SGB) for Orthotics and Prosthetics was initiated at this meeting (Medical Orthotics and Prosthetics Advisory Committee, 14 September 2000). The SGB was made official with the implementation of Continual Professional Development points in April 2002, and the Professional Board for Occupational Therapy and the Medical Orthotics and Prosthetics Board became members of the SGB.

The South African Association for Prosthetics and Orthotics (SAOPA) congratulated Technikon Pretoria on its approval of the B.Tech curriculum (Medical Orthotics and Prosthetics Advisory Committee meeting, 26 October 2001). The technikon's staff, total infrastructure and resources were evaluated by the Council on Higher Education (CHE), Higher Education Quality Committee during 2002, and on 3 September 2002 the Council on Higher Education (CHE) formally accredited the new learning programme Baccalaureus Technologiae: Medical Orthotics and Prosthetics (Magabane, 2002). The

commencement date of the B.Tech learning programme coincided with the formal name change of Technikon Pretoria to Tshwane University of Technology in January 2003, as a result of the merger announced by the Minister of Education between Technikon Pretoria, Technikon North-West and Technikon Northern Gauteng (Ministry of Education, 2001). The two lecturers from the Department of Medical Orthotics and Prosthetics were the first pilot (train-the-trainer) group to attend the B.Tech Medical Orthotics and Prosthetics programme. Successful completion of the B.Tech degree would lead to ISPO Category I registration as Orthopaedic Meister and enable them to train and supervise Category I, II and III students.

(Fade lights)

Curtain

Act I

Scene Two

(Draw curtain, lights on)

Scene

Tshwane University of Technology, School for Medical Orthotics and Prosthetics

Time

Present experiences

Narrator: Finally, the B.Tech Medical Orthotics/Prosthetics learning programme was offered in January 2003. Can you tell me more about the instatement of the programme and the selection of the first learners for the pilot group?

O/P: The B.Tech Medical Orthotics and Prosthetics learning programme is registered with the South African Qualifications Authority (SAQA) as a NQF level 8-qualification within the field of Health Sciences and Social Services (09). Entry requirement is a National Diploma or first degree:

Medical Orthotics/ Prosthetics, or its equivalent.

In addition to the current competencies of practitioners, the degree adds the following exit level outcomes (SAQA, 2002):

- Exit level outcome 1

Apply advanced techniques to assess (a), measure (b), design (c), manufacture (d), maintain (e) and fit (f) specialised orthosis/prosthesis and educate (g) the patients/clients.

- Exit level outcome 2

Establish and manage a laboratory.

- Exit level outcome 3

Apply basic research skills.

- Exit level outcome 4

Communicate effectively with patients, employees and other medical professionals.

An integrated assessment approach applies to the B.Tech Medical Orthotics and Prosthetics course, where continuous evaluation and formative assessments are done based on the following:

- Case studies of relevant situations
- Several written tests per module per year
- Laboratory work
- Two practical tests per year
- The design and submission of a comprehensive management programme
- A case study analysis
- A seminar based on current research in the form of a colloquium
- A research project of limited scope (mini thesis)

Summative assessment consists of:

- Colloquia in the area of specialisation
- One written examination per module

- One practical examination per module
- A portfolio of models and practical work

Peter and James were the first learners who were selected to form part of the pilot group. They both complied with the entry requirements for the B.Tech learning programme. Their particular selection for the pilot group was based on the principle of train-the-trainer in that they are lecturers and course coordinators in the Department of Orthotics/Prosthetics.

Narrator: It seems that the principles inherent in the B.Tech programme include life-long learning, responsibility, and collaboration. Additional values seem to be the continuous re-evaluation of knowledge and the co-construction of new knowledge and processes in a multidisciplinary approach to learning.

O/P: The B.Tech programme is aligned with the institutional mission and plan of Tshwane University of Technology. It encompasses the philosophy of transmitting applied technology to learners based on recent research findings. This philosophy stimulates self-study in students, which implies that learning becomes a life-long process. Teaching and research are important practices in the profession of Orthotics and Prosthetics, thus promoting a philosophy that is inherent in career-orientated learning (SAQA, 2002).

Professionals from different disciplines (such as orthopaedic surgeons, psychologists, medical practitioners, pharmacists and researchers) were contracted to present the specified learning outcomes. In consultation with the two learners, these professionals form a panel that co-constructs knowledge within the B.Tech Medical Orthotics and Prosthetics course. Continuous re-evaluation of knowledge and the co-creation of new knowledge and processes take place where all members are equal partners in the meeting point between the different

disciplines. This process creates transparency in the teaching and learning environment.

Narrator: The process of collaboration and reflection throughout the presentation of the B.Tech Medical Orthotics and Prosthetics programme creates a narrative thread for future developments in the profession and for new stories of teaching and learning to evolve.

(Fade lights)

Curtain

Act I

Scene Three

(Draw curtain, lights on)

Scene

Orthotics/Prosthetics dreams about its future

Time

Future intentions

Narrator: All these developments are very interesting and it is encouraging to hear about the development in the field, but what about the future?

O/P: The Professional Board for Medical Orthotics and Prosthetics, the Health Professions Council of South Africa and the South African Orthotic and Prosthetic Association (SAOPA) will be regulating the number of students who are annually trained as professionals. From the approximate 20 National Diploma: Medical Orthotics and Prosthetics (ISPO Category II) students who qualify on an annual basis, and from the total of 69 orthotic and prosthetic practices currently registered in southern Africa (<http://www.saopa.co.za>), it is envisaged that 10 students will be selected on an annual basis for the

B.Tech: Medical Orthotics and Prosthetics (ISPO Category I) course (Tshwane University of Technology, 2002). The two newly registered orthotic and prosthetic Meisters will lead the future training of the B.Tech Medical Orthotics and Prosthetics course in southern Africa, in consultation with the rest of the multidisciplinary team of professional trainers/lecturers. The application for further learning programmes in M.Tech and D.Tech Medical Orthotics and Prosthetics is already in process.

Narrator: In reflecting on the future of the orthotist and prosthetist profession, it is necessary to take cognisance of the past. The role of the orthotists/prosthetist in the rehabilitation team can be compared to the role of a goalkeeper in a soccer team (Oates, 2003).

O/P: Imagine a soccer team of small children in their first year at school. The goalkeeper would have been the least athletic, most uncoordinated child; one who could not be placed anywhere else on the field. If the soccer team were one player short, they would play without the goalkeeper. The early orthotist/prosthetists were selected from the least educated and were only brought onto the rehabilitation team to fill in the last stage of rehabilitation. Tradesmen such as blacksmiths were used in this role. They would have had good hand skills but no formal education, and would have been relatively ignorant of the roles of the other team members. They were also often not even asked to play and when they were, they were forced to do as they were told or were kicked off the team, just like the uncoordinated child in the soccer team.

As the children in the soccer team grew up, so did the role of the goalkeeper. Some of these previously uncoordinated goalkeepers would have developed physically, gained some special skills and possibly pulled off some good saves. The same can be said for the orthotist/prosthetists of the past. Some would have taken a special

interest in the field and made an effort to learn more about the function of the team as a whole and how other team members' actions affect the potential rehabilitation of their patient. However, the misconception still remained that if something went wrong, it was the orthotist/prosthetists' fault as they were the last in line of contact.

The football team is now at the level of a teenage team. Some goalkeepers have turned into genuinely useful and valued members of the team. They are competent in their own ability and know enough about the game to make beneficial comments on other aspects of play. There are, however, still those that are only able to do what they are told and are content to function at that level. Similarly, orthotist/prosthetists in South Africa are in a transition phase where some carry their weight on the rehabilitation team and have gained enough knowledge about the roles of the other team members that they can refer a patient back to one of the members for necessary further treatment. In so doing they have gained the respect of the other team members, which reinforces their role as key members of the team.

Into the future it will be necessary to consider the role of the goalkeeper in a higher league soccer team. In a high school or university first team the choice of a goalkeeper is as important as the centre forward, as there is now a realisation that the team cannot function to its full potential without the contribution of all its members. So too, the role of orthotist/prosthetists in the rehabilitation team should be considered to be as vital as that of any other member.

To venture further into the future, the role of a goalkeeper in an international team is an appropriate metaphor. Goalkeepers in an international soccer team have excellent knowledge of the game as a whole. They are able to observe the game as it is played before them and offer advice on why certain events unfolded as they did during the

game. They can do all this while still fulfilling their own specialised role in the team. The orthotist/prosthetists of the future should develop a wide knowledge of the game of rehabilitation that encompasses the special skills of all the team members. This must be done without losing focus on their specialist role. Just as a goalkeeper can captain an international team, so may an orthotist/prosthetist head a rehabilitation team of other health professionals. However, this may only be achieved by earning the respect of the other team members through gaining knowledge of their fields and excelling in their own. Thus, the future role of orthotist/prosthetists both nationally and internationally should not only be to continue to make a contribution to the rehabilitation team, but to cement their position in the team and make themselves the first choice when the team is selected.

One might argue that this metaphor does not so much describe the future role of orthotist/prosthetists as their goal. However, if the goal and role are separated the nature of the rehabilitation game will change to a point where one of the other team members could fill the orthotist/prosthetist's role. Already in some U.S. states, podiatrists are doing work of such a broad scope that one could call them below-the-knee orthopods (Oates, 2003). Although other healthcare professionals have encroached on the traditional domain of orthotist/prosthetists, if the latter are able to enforce their role as mentioned, they are likely to survive and thrive. Future prosthetists may well find themselves doing amputation and rehabilitation surgery!

Narrator's commentary on Act I: *In creative writing, the character that is pursuing the goal is known as the protagonist or 'first actor'. The first actor, Orthotics/Prosthetics, is in pursuit of a specific goal – to elevate the profession of orthotics and prosthetics in accordance with international standards with the purpose of repositioning itself as a key member in the multidisciplinary rehabilitation team. As the protagonist, Orthotics/Prosthetics faces the challenges of disability in developing countries and the*

limited number of trained professionals (antagonists) that are attempting to prevent the attainment of the goal. Through the following complicating actions, Orthotics/Prosthetics takes agency in repositioning itself and shaping its future.

- **Complicating Action**

The establishment of international education accreditation and the introduction of an ISPO categorisation system for orthotists and prosthetists signified important advancements in the orthotist/prosthetist profession. The ISPO's recognition of the need for training Category I professionals in developing countries, and the recognition of prior learning through the amendment of the rules for registration as a medical orthotists and prosthetist by the South African Medical and Dental Council had a profound effect on the career advancement opportunities of orthotists and prosthetists in southern Africa. Two leading world institutions, the University of Strathclyde (Scotland) and BUFA (Germany) set a standard for education on which the development of a B.Tech Medical Orthotics and Prosthetics learning programme in southern Africa was benchmarked. Training of Category I professionals in southern Africa on B.Tech level is the first step towards the development of postgraduate training, and is the forerunner of further courses on M.Tech and D.Tech level in orthotics and prosthetics. The acquisition of knowledge and skills on B.Tech level contributes to the development of a professional identity in orthotics and prosthetics and reinforces the importance of the role of the orthotist/ prosthetist on the rehabilitation team.

Two themes run through the story of orthotics and prosthetics: the need for international recognition and the role of knowledge in contributing to the development of a professional identity.

- **Resolution**

The ISPO's recognition of the need for training Category I professionals in developing countries and the approval of a new learning programme in B.Tech Medical Orthotics and Prosthetics by the Council on Higher Education has elevated the profession of orthotics and prosthetics to international standards. In offering the B.Tech qualification, Tshwane University of Technology acts as a higher education leader in

the orthotist/prosthetist field in southern Africa. The acquisition of knowledge and skills assists the orthotist/prosthetist to earn the respect of other professionals on the multidisciplinary team. The B.Tech learning programme acts as a change agent in future plans to develop learning programmes on M.Tech and D.Tech level.

(Fade lights)

Curtain

End of Act I

Act II: Psychology

Scene One

Scene

Narrative beginnings of the history of psychology in South Africa

Time

Past experiences

Abstract

The development of psychology in South Africa parallels the discipline's international history. In the 1920s psychology was established as a separate discipline in South Africa, but it was only after the Second World War that psychology experienced a time of exponential growth and rapid professionalism. Although psychology initially negotiated a position of scientific neutrality, the emergence of critical psychology in the 1980s drew attention to psychology's political unconscious. Critical psychology succeeded in creating spaces for itself in institutional settings in the 1980s and early 1990s. The coming of democracy to South Africa in 1994 shaped the transformation of psychology as a discipline. The 'turn to discourse' in European social psychology informed present trends of driving towards higher standards of professionalism through restructuring within the profession.

(Draw curtain, lights on)

The Narrator introduces the second actor, Psychology, to the audience.

Narrator: *(Orientating the audience)*

Before you and I can attempt to reflect on the experiences of developing an Applied Psychology II module for the B.Tech Medical Orthotics and Prosthetics learning programme, it is necessary to take cognisance of the public narratives that dominated the development of psychology in South Africa and informed the development of the Applied Psychology II module.

Psychology:

The development of psychology in South Africa followed a path that closely paralleled the discipline's international history. Various psychological tools and technologies, mostly dominated by American and European intellectual and methodological trends, were enthusiastically imported and adapted by South African psychologists with the establishment of psychology as a separate discipline in the 1920s (Louw & Foster, 1991). The impetus for the development of psychology derived from the popularity of the medical model and its new focus on mental deficiency or disorder. During this time South Africa was characterised by intense class ordering, 'race-thinking' (informed by social Darwinism) and concerns about a potential class alignment between emerging black and white proletariat in the cities (Foster, 1993). The era after the Second World War marked a time of exponential growth and rapid professionalism of psychology as a discipline nationally and internationally. With the formation of a professional body of psychology in South Africa in 1948, the focus of the discipline and practice expanded from intelligence testing, education and industry to the establishment of a therapeutic industry (Louw, 2002).

Terre Blanche (2004, p.3) posits that "the major achievement of the psychology mainstream in South Africa was...to hide politics". Psychology was able to do this by playing the politics of scientific neutrality and neutral professionalism:

The ideological structure of South African psychology promoted certain themes, which supplied warrants for ignoring race. Specifically by adopting the medical model and by understanding their practice as value-free science, psychologists could 'legitimately' ignore issues of race (Durrheim & Mokeki, 1997, p.211).

South African psychologists sought to add local colour to the discipline through the development of local psychometric tests and theories (e.g., Taylor, 1994), as well as debates about 'relevance' (e.g., Dawes, 1986; Nell, 1990).

Narrator: It seems as though the establishment of psychology as a profession in South Africa has been largely influenced by international trends, specifically the medical model and modernistic approach to research and practice. However, your reference to the scientific neutrality of psychology has left me with a question. Is it possible for a discipline, such as psychology, to be totally objective or neutral in its approach to understand the intricacies of human experience?

Psychology: At this point, you may have become aware of the dyadic tension between the medical model and a modernistic approach in psychology versus an alternative, critical model that challenged the scientific neutrality of psychology. Critical psychology is one such movement that challenged psychology to work towards emancipation and social justice.

Narrator: I am curious to know more about critical psychology. Where did it emanate from and what does critical psychology stand for?

Psychology: Critical psychology is a movement that challenges psychology to work towards emancipation and social justice, and that opposes the uses of psychology to perpetuate oppression and injustice (Parker, 1999a).

Austin and Prilleltensky (2001) posit that it is a meta-discipline in that it enables the discipline of psychology to critically evaluate its moral and political implications. The diverse origins of critical theory can be traced to the first generation of Frankfurt school theorists (Horkheimer, Adorno, Marcuse, Lowenthal, Pollock, and Fromm) who were critical of the denial of subjectivity found in positivism and sought to establish a social science that went beyond the positivist tradition (Geuss, 1981).

The second generation of critical theorists included Habermas, who identified three interests served by knowledge seeking: (a) technical control, (b) interpretive understanding, and (c) emancipatory interest (Sullivan, 1984). According to Geuss (1981), the emancipatory nature of knowledge, as identified by Habermas, is also inherent in critical/reflective theory. Klaus Holzkamp is known as the founder of German critical psychology that sought to improve psychology by developing an alternative ontological and epistemological foundation (Tolman & Maiers, 1991). Latin American psychologist Martin-Baro (1994) proposed a psychology that openly concerned itself with ending oppression and promoting emancipation. The advent of postmodernism introduced a critical analysis of the way power is used in the process of developing theories (Teo, 1998), whilst concepts of post-structuralism were used to discuss how psychology's insistence on the split between individual and society has contributed to perpetuating oppression rather than promoting emancipation (Henriques, Hollway, Urwin, Venn & Walkerdine, 1984). Community psychology developed in response to the growing sense of disempowerment and alienation, and in doing so set the stage for contemporary critical psychology to emerge.

Feminist psychology, recognised as another origin of critical psychology, critiqued mainstream psychology's exclusion of women as psychological subjects and creators of psychological knowledge (Wilkinson, 1997). Dei's (1996) anti-racism theory "explicitly names

the issues of race and social difference as issues of power and equity rather than as matters of cultural and ethnic variety” (p.25).

Narrator: My own journey as a narrator has taken me on many paths through the land of psychology. Meeting Social Constructionism (chapter 2) challenged me to take a critical stance towards my taken-for-granted ways of understanding the world. This personal experience informed my choice to give authority to the voice of critical psychology as a meta-discipline and umbrella term within psychology. It was important, however, that I also realised that critical psychology represented but one voice in psychology and that many other voices also existed. It is important to acknowledge the contribution of other movements, such as the psychoanalytic, cognitive behavioural, social, phenomenological and humanistic approaches (to name but a few) to psychology; however, against the backdrop of my own theoretical framework of social constructionism, I am curious to know more about the positioning of critical psychology in the South African context.

Psychology: During the early 1980s critical psychology emerged in the process of exposing the political unconscious of psychological science and practice. Foucault (1979) addressed the complexes of power-knowledge that linked psychological technologies to the regulation of subjectivities and bodies through government. Once the ideological architecture of scientific and applied psychology had been revealed, the process of reconfiguring psychology as a socially relevant and progressive practice along new epistemological, theoretical and methodological lines could begin.

Although attempts at the ‘rehabilitation’ of psychology (by providing a theoretical rationale and practical guidance for actual political struggles) were met with resistance, critical psychology did succeed in creating spaces for itself within higher education institutions. Terre Blanche (2004) states:

Among these emerging institutional spaces counted: psychology departments such as those at Rhodes University and the University of Cape Town, that started offering courses and modules in critical psychology; progressive lecturers in these and other departments who incorporated critical theory into their teaching or training in various areas of academic and applied psychology; the formation of anti-apartheid groupings like the Organisation for Appropriate Social Services in South Africa (OASSSA), Psychologists Against Apartheid and the South African Health and Social Services Organisation (SAHSSO); the establishment of the alternative academic journal PINS; and a number of critically orientated conferences, such as those hosted by OASSSA annually in the late 1980's (p.6).

The 1980s and early 1990s was a time of rapid development of alternative bodies of theoretical tools, knowledge and practices in South African critical psychology. Other approaches that were added to Marxism or historical materialism included critiques inspired by Black Consciousness, feminism, Foucauldian discourse analysis, postmodernism, post-structuralism, Lacanian psychoanalysis and postcolonial theory (Terre Blanche, 2004). The journal *Psychology in Society* (PINS) repositioned itself in the international community of critical psychology through regular contributions by prominent critical scholars such as Ian Parker and Erica Burman. In South Africa, an increasing number of black psychologists responded to 'white' critical psychology by devoting projects to the analysis of black identity and the reconstruction of that identity in the context of political struggle and racial empowerment (Biko, 1989; Manganyi, 1991).

Narrator: I wonder if the coming of democracy to South Africa in 1994 has not somehow prepared South Africa politically to accept a critical voice?

Psychology: Well, with the democratic government elected in 1994, transformation in the psychology discipline was evident when the Psychological Association of South Africa (PASA) was disbanded and a more inclusive body, the Psychological Society of South Africa (PsySSA) was founded. The psychology discipline was characterised by an eagerness to rejoin the Euro-American-dominated international mainstream, as well as a pattern of racial reconciliation and redress (Terre Blanche, 2004).

(Fade lights)

Curtain

Act II

Scene Two

(Draw curtain, lights on)

Scene

Repositioning Psychology in a 'new South Africa'

Time

Present experiences

Narrator: *(Orientating the audience)*

Can you elucidate on the process through which a voice was given to previously 'marginalised voices' within psychology in the new democratic South African context?

Psychology: Critical psychology has negotiated a more prominent position for itself in academia that manifests in different forms, including critical conferences, books, articles and university courses. The PsySSA 2000 conference had a theme 'What is critical in critical psychology?' and the Institute for Therapeutic Development (ITD) hosted conferences in South Africa on discourse analysis, narrative therapy

and social constructionism in 2002 (presented by David Epston) and 2003 (presented by Michael White). A large number of universities are introducing theories that developed in the post-structuralist period in psychology, such as narrative therapy, critical psychology and social constructionism, in their postgraduate training for counselling and clinical psychologists. Critically-orientated books that are published in South African psychology include Ratele and Duncan's (2003) social psychology text and Hook's (2004) South African *Introduction to Critical Psychology*. The South African Journal of Psychology (SAJP) and Psychology in Society (PINS) has had a series of special editions focussing on issues such as gender, postmodernism, black scholarship, the HIV/AIDS epidemic and the Truth and Reconciliation Commission (TRC) (Terre Blanche, 2004).

These developments in South African psychology are inspired by the 'turn to discourse' and the rise of discourse analysis and similar approaches in European social psychology. Interwoven with other forms of critical psychology, feminist theory and practice, and authors such as Potgieter and De la Rey (1997), have helped to ensure that the politics of gender remains at the forefront of local psychology (Terre Blanche, 2004). The common element in all these movements is a critical stance towards taken-for-granted knowledge and an attempt to uncover the hierarchies of power in the production of what is perceived as scientific knowledge and truth.

Narrator:

As the audience, you might pose the same question to me: what is critical in critical psychology? Perhaps the answer lies in the position that psychology has negotiated for itself. Psychology has moved from an authoritative position of 'absolute scientific truths' to negotiating an alternative position of 'reflective practitioner', in which the focus is on the social construction of realities. However, this process of repositioning brings with it a new dyadic tension between the authorities of a so-called non-authoritarian, social

constructionist/postmodern position and a silencing of previously authoritarian, modernistic voices within psychology. Repositioning within the professional body of psychology is also evident.

Psychology: The drive towards higher standards of professionalism is taking on various forms. For example, to align the discipline of psychology with other South African health professions, newly-qualified clinical psychologists are now required to undertake a year of community service. A continuing professional development (CPD) programme has also recently been implemented, obliging practitioners to earn a certain number of credits through accredited educational activities on an annual basis (although the logistics of implementing such a process has resulted in postponement). The psychology clinic on the Phelophepa train is only one of many examples of the visible impact that the mandatory community service has on South African psychological practice (Hargoon, 2003).

(Fade lights)

Curtain

Act II

Scene Three

(Draw curtain, lights on)

Scene

Envisaging Psychology's future

Time

Future intentions

Narrator: The future of academic psychology in South Africa may bring a historical shift where critical ideas and practices are mainstreamed for the first time. The 10th anniversary congress of PsySSA (2004)

adopted the theme ‘Democratising the Psyche,’ providing an opportunity for critical reflection on psychology’s place in South African society. Social psychology’s interaction with other disciplines might also flourish in the future. Just as the discipline of psychology has been socially constructed, deconstructed and reconstructed in the South African history, the future of psychology will be in a constant state of flux, being influenced by the dominant discourses or alternative voices of the time.

Psychology: Harper (2004) suggests some ways of introducing ideas from social constructionist and critical psychology into a generic mainstream training context for clinical psychology training.

Narrator: Harper’s (2004) proposal for clinical reflective practice sounds really exciting. Can you tell me more?

Psychology: Harper (2004) believes that “critical teaching needs to be tactical and flexible and my own [Harper’s] viewpoint is to expose trainees to critical ideas and practice with a view to them forming their own views on what kind of clinical psychologist they want to be” (p.3). In creating a context where trainees can learn to develop their practice whilst also enabling them to deconstruct notions of ‘expert knowledge’, models which are more consistent with critical and social constructionist approaches have emerged to link theory and practice. This includes the reflective-practitioner model (as illustrated in figure 2) (Clegg, 1998; Walsh & Scaife, 1998). Thus, trainees are encouraged to reflect on their work from a number of perspectives, from thinking about the influence of personal experience to interpreting their work in accordance with relevant theory or empirical work. The reflective-practitioner model draws on similar philosophies of learning to those described by Kolb, Rubin and McIntyre (1974) and Anderson (1992):

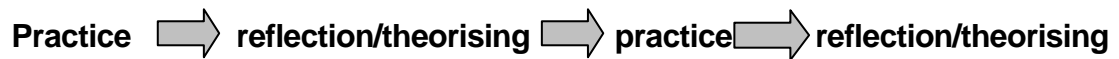


Figure 2 The reflective-practitioner model

In developing 'knowledge of practice' (Hoshmand & Polkinghorne, 1992), trainees can make use of Mason's (1993) concept of safe uncertainty. Embracing uncertainty can be accomplished through exercises where trainees are invited to examine the effects of expert knowledge models in their professional life since they often find themselves in real life situations that are more complicated than the expert solutions they are taught (Spellman & Harper, 1996). Harper (2004) suggests that "this approach can be helpful in learning 'not knowing' approaches to therapy which avoid premature certainty and value respectfulness and curiosity" (p.6).

The use of indigenous knowledge can contribute to the development of a critical practitioner identity as a psychologist. A social constructionist perspective may also encourage a stance as a critical practitioner, in that it allows trainees to use other theories in a pragmatic and flexible manner, rather than seeing the theories or formulations which flow from them as being true in some foundationalist sense (Dallos & Draper, 2000). Harper (2004) also supports the value of applying pragmatic criteria to professional intervention:

The value of a formulation of a client's difficulties and of professional interventions need to be judged not by some abstract notion of 'truth' but by more pragmatic criteria of whether an approach 'fits' for a client or is going to be useful (p.7).

The aim of Harper's model is "not to produce social constructionist

psychologists, but, rather, practitioners who, regardless of orientation and client group will work collaboratively, on what consumers define as their goals, with respect, openness and flexibility” (Harper, 2004, p.7). In avoiding the fostering of an overly pragmatic approach (Willig, 1997), it is important to discuss the ethical and political consequences of choices that the practitioner might make (Harper, 2004).

Narrator: In critical psychology’s efforts to promote emancipation and resist oppression, the application of praxis through Harper’s model can attain a balance between (a) academic and grounded input, (b) understanding and action, (c) processes and outcomes, and (d) differing and unequal voices. Praxis, as referred to in Harper’s model, involves the integration of, and constant engagement with, reflection, research and action (Austin & Prilleltensky, 2001). Perhaps in doing so, the future intentions of psychology might seem less radical than they originally appeared to be.

Narrator’s commentary on Act II: *In Act Two the dyadic tension between the medical model/modernist approach and the critical voice/postmodern approach plays out. The following complicating actions summarise Psychology’s attempt to take agency in repositioning itself.*

- ***Complicating Action***

The impetus for the development of psychology came from the rise of the medical model, during which time South Africa was characterised by intense class ordering. The Second World War instigated a time of exponential growth and rapid professionalism in the discipline. In 1948 a professional body for psychology was established in South Africa. Psychology’s position of scientific neutrality was challenged through the emergence of critical psychology in the early 1980s. Critical psychology succeeded in creating spaces for itself within higher education institutions through developing alternative theoretical tools, knowledge and practices. The coming of democracy to South Africa in 1994 had a profound effect on the discipline. A more inclusive body, the Psychology Society of South Africa (PsySSA) was founded and the

discipline was characterised by an eagerness to rejoin the Euro-American-dominated international mainstream. The 'turn to discourse' in European social psychology informed the more prominent position that psychology has negotiated for itself in South African academia. Present trends reflect a drive towards higher standards of professionalism through various forms of restructuring within the profession. The future of academic psychology in South Africa may bring a historical shift where critical ideas and practices can be mainstreamed for the first time and where social psychology might interact more with other disciplines.

- **Resolution**

Psychology has managed to move from an authoritative position of 'absolute scientific truths' to negotiating an alternative position of 'reflective practitioner', in which the focus is on the social construction of realities. This has been brought about by critical psychology as change agent. However, critical psychology merely represents one of many voices within psychology. Burr (1998) describes social constructionism as "a theoretical orientation, which to a greater or lesser degree underpins all of these newer approaches, which are currently offering radical and critical alternatives in psychology and social psychology, as well as in other disciplines in the social sciences" (p.1). The process of repositioning brings with it a new dyadic tension between the authorities of a so-called non-authoritarian, social constructionist/postmodernist position and the silencing of previously authoritarian, modernist voices in psychology. There is also a tension in South Africa between the need for indigenous knowledge systems and influences from the European and American traditions in psychology.

(Fade lights)

Curtain

End of Act II

Act III: Higher Education

Scene One

Scene

Teaching and learning in higher education in South Africa

Time

Past experiences

Abstract

In reaction to the traditional transmission view of teaching and learning, Dewey (1938), Rogers (1969), Habermas (1971), Mezirow (1981) and Young (1990) introduced an alternative approach, which involves core themes of change, experience, reflection, collaboration and constructivism. In applying reflection to health practices, reflection-before-action (Greenwood, 1998), reflection-in-action (Schön, 1987) and reflection-on-action (Boud, Keogh & Walker, 1985) is proposed. In addition, a systemic approach to learning considers the interaction between the environment and the individual in understanding the learning process, as introduced by Vygotsky's (cited in Brown & Palinscar, 1989) zone of proximal development, Bandura's (1977) social learning theory and Piaget's (cited in Tennant, 1988) stages of cognitive development. A teaching-learning framework provides a holistic view of the process of creating meaning and assumes that facilitating responsible, self-directed learning is a collaborative process. Knowledge is thus socially co-constructed in a collaborative community of critical inquiry and responsibility is shared (Garrison & Archer, 2000).

Legislation and other developments in South Africa since 1994 have contributed to the pressure on institutions of higher education to become instruments of economic empowerment and transformation with the aim of achieving equity. With the establishment of the National Qualifications Framework (NQF), the underlying philosophy of outcomes-based education (OBE) aims to develop learners into individuals who can apply knowledge to practical problems, work in teams, communicate well and use information technology effectively. The future of higher education involves continuous developments aiming at establishing and sustaining a community of inquiry, interpretation and collaborative co-construction of meaning. Positioning assessment practices as an integral part of learning and developing e-learning practices are at the forefront of future narratives on teaching and learning.

(Draw curtain, lights on)

The Narrator introduces the third actor, Higher Education, to the audience.

Narrator: *(Orientating the audience)*

Given the complexities and number of changes in the higher education system, the aim of Act Three is to elucidate the contexts in which these narratives unfold. The public narratives that concern us include theories of learning and their implications for higher education; the relationship between learning and knowledge construction; and the implications of legislation and other developments for higher education in South Africa. How did the nature of knowing unfold over time in the higher education context?

H/E:

The changing nature of knowing (and by implication teaching) can be divided into three distinct eras characterised by a specific ontological perspective: pre-modern, modern, and postmodern (Sexton, 1997). The pre-modern era emphasised dualism, idealism, and rationalism. The modern era stressed empiricism, logical positivism, scientific methodology, the identification of objective truths, and validity (Raskin, 2002). In the modern era scientific knowledge was assumed to be a mirror image of objective reality. Education, from a modernistic perspective, thus entailed a “transmission” view of teaching (i.e., the belief that teachers transmit knowledge to students) and the “absorbtionist” view of learning (i.e., the belief that students learn by absorbing new information) (Prawat, 1989). This model followed a traditional deficit approach and the instructional design approach to teaching in higher education, where both teachers and students played relatively passive roles (Albee, 1980; Jonassen, 1991; Smith & Brown, 1995). There was little need for students to develop critical thinking skills in a deficit model, since they were expected to simply reproduce the information that had been dispensed in the lecture.

Narrator:

How was the deficit model of teaching and learning in higher education challenged with the transition from a modern to a postmodern era?

H/E: Garrison and Archer (2000) believe that individuals and organisations have become fixated on the challenge of accessing and assessing information due to its dramatic proliferation in recent decades. However, information is merely raw material – only when interconnections are made among facts, ideas and experience is knowledge constructed (Garrison & Archer, 2000). The deficit model has been criticised by Duffy and Jonassen (cited in Vermunt, 1998) who state that

...learning is not a passive, knowledge-consuming and externally directed process, but an active, constructive, and self-directed process in which the learner builds up internal knowledge representations that form a personal interpretation of his or her learning experiences. These representations constantly change on the basis of the meanings people attach to their experiences (p.150).

Sexton (1997) labels the third era as postmodern constructivist, and depicts it as accentuating the creation rather than the discovery of personal and social realities and knowledge frameworks. The introduction of a constructivist, resource, or strengths model focuses on the social, inter-subjective nature of knowledge construction and serves as an alternative to the deficit model (Becvar & Becvar, 1996). Chiari and Nuzzo (1996) suggest that psychological constructivism concerns the ordering and organisation of a world constituted by the person's experience (epistemological constructivism), or that it hinges on distinctions in language that constitute the generation and validation of all reality (hermeneutic constructivism).

Narrator: The foundational ideas and concepts of Dewey, Rogers, Habermas, Mezirow and Young shaped educational thought and practice and their work has much relevance for higher education today. Perhaps Dewey can elucidate more on his theory of progressive education?

H/E: *(the John Dewey persona)*

Dewey (1938) discarded dualism in all forms and introduced a progressive education as a reaction to the authoritarian approach of traditional education. Being a proponent of pragmatism and progressive thought, Dewey emphasised the centrality of human experience in constructing knowledge with the underlying philosophy that education is a life-long process. In the learning process teacher and student share a collaborative relationship and “the activities in which all participate is the chief carrier of control” (Dewey, 1938, p.56). This implies that all individuals in the learning process share control. In order to create worthwhile educational experiences, Dewey (1938) suggests two intercepting principles. First, that the teacher’s role is to judge the direction of an experience to ensure continuous reconstruction. Second, that interaction is essential to manage the educational transaction between the individual’s internal conditions and the social world. Through the process of reflective thinking meaning is constructed.

Narrator:

Dewey’s educational philosophy has much relevance for higher education today as it promotes life-long learning. Garrison and Archer (2000) highlight the essential themes that are integral to Dewey’s philosophy: “Dewey’s ideas are essentially about experience and reflective thought with regard to having students collaboratively generate ideas and reconstruct experience, thereby confirming meaning for themselves” (p.23).

H/E: *(the Carl Rogers persona)*

Another theorist who made a significant contribution to progressive ideas, not only in psychology but also in higher education, is Carl Rogers. Similar to Rogers’ (1969) views of psychotherapy as being client-centred and essentially non-directive, his views of education were learner-centred and non-directive. Rogers (1969)

summarises the aim of education as follows:

The only man who is educated is the man who has earned how to learn; the man who has learned how to adapt and change; the man who has realized that no knowledge is secure, that only the process of seeking knowledge gives a basis for security (p.104).

Rogers emphasises the provision of freedom for creative learning in which teaching is replaced by facilitation. In creating a psychological climate of learning, Rogers believed that students would be encouraged to assume responsibility for constructing meaning.

Narrator: Rogers wrote little about the cognitive or intellectual aspects of learning in educating the whole person. Rather, his most valuable contribution to higher education is his concept of facilitating a community of learners through establishing mutually respectful and trusting relationships. Such a relationship emphasises self-directedness and promotes the notion of learning how to learn (Garrison & Archer, 2000).

H/E: *(the Jurgen Habermas persona)*
Although Jurgen Habermas (1971) is a philosopher and social scientist, his ideas on how knowledge is constructed and validated can be transferred to the higher education context. Jurgen Habermas (1971) has been called a critical constructivist because of his critical theory in which he is less concerned with accepted knowledge than with the process of knowledge creation. Habermas (cited in Garrison & Archer, 2000) provides an inclusive theory in which there are three knowledge constitutive interests (technical, practical and emancipatory) and corresponding methods of validating knowledge (positive, interpretive and critical). From this perspective, no single source or methodology is appropriate or

adequate to account for all forms of human knowledge; therefore education is not a prescribed end state, but is rather constructed through interactions between teacher and students (Garrison & Archer, 2000).

Narrator: Habermas (1974) argues for open communication (emancipation) in which rational consensus or meaning making can be reached. Ewert's (1991) review of Habermas's critical social science concludes that he has influenced educational thought and practice. Habermas's theory is tolerant of diversity and contemptuous of the certainty of ideology (Garrison & Archer, 2000).

H/E: *(Young persona, following in the footsteps of Habermas)*
Informed by the ideas of Habermas, Young (1990) developed a critical theory of education in response to the educational dilemma that he identified in which the teacher attempts to teach a prescribed curriculum that is supposedly (according to society) in the student's best interest. In developing their critical capacities, students are assisted to reconstruct parts of their life-world through "communicative, problem-solving learning" (Young, 1990, p.71).

Narrator: Young's critical theory of education is an expansion of Dewey's problem-solving method of pedagogy and is consistent with Habermas's critical judgement of ideas to create inter-subjective understanding. Could you now introduce the concept of reflection to the audience?

H/E: Following the critical ideas of Habermas, Mezirow (1981) positions self-directed learning (consistent with Habermas' emancipatory self-reflection) as a central goal and method of transformative learning for adults in higher education. Mezirow (1991) defines reflection as involving
the critique of assumptions about the content or process of

problem solving. The critique of premises or presuppositions pertains to problem posing as distinct from problem solving. Problem posing involves making a taken-for-granted situation problematic, raising questions regarding its validity (p.105).

Reflection is further divided into three categories of content, process and premise reflection. Mezirow (1991) defines content reflection as reflecting on what we perceive, think, feel or act upon, whereas process reflection refers to the manner in which we think. Premise reflection is regarded as a higher level of reflection and “involves us becoming aware of *why* we perceive, think, feel or act as we do” (Mezirow, 1991, p.108).

Narrator: Let us reflect on the application of reflection in the health sciences.

H/E: In applying reflection to health practices, Schön (1987) argues for an alternative approach to the logical positivist position in which practice is often taught as clearly defined procedures with artificial problems that are well-defined and have identifiable correct answers. Knowing-in-action, as an alternative approach, involves the process by which professionals display an unconscious routine of judgement, without deeply reflecting on the underlying criteria of decisions reached or procedures followed (Schön, 1983). However, reflection-in-action involves practitioners reflecting on their knowing-in-practice and reflecting upon past activities. Schön’s model is criticised by Greenwood (1998) who notes Schön’s failure to recognise the importance of reflection-before-action; and Boud, Keogh and Walker (1985) who emphasise preparation for experience as well as the re-evaluation of the experience. Kember et al. (2001) introduced the development of reflective teaching and learning in the health professions, proposing that “many students find the task of applying theory

taught in the classroom to the reality of professional practice extremely difficult until they develop the ability to reflect on the relationship between the two” (p.vii).

Narrator: Understanding how learning and knowledge construction takes place, we can use the behaviourist, cognitive and systemic approaches to learning as a guideline.

H/E: In addition to the foundational perspectives on higher education, a number of theories exist with regard to learning and the construction of knowledge. Garrison and Archer (2000) identify three general perspectives of learning theories. The first perspective, the behaviourist tradition, posits a traditional teacher-centred approach to learning in which the teacher has full responsibility for designing and orchestrating observable learning outcomes, and controls the behaviour of students. The second perspective has its roots in Gestalt psychology. Cognitive learning theories position the learner as an active processor of information and problem solving through a process of making cognitive connections. Lachman, Lachman and Butterfield (1979, p.99) describe cognitive psychology through the analogy of a computer whereby individuals are programmed to recode and remember information in a certain way, transform their internal knowledge states and make decisions accordingly, which then results in a behavioural output.

Criticising cognitive learning theory for its deterministic structuring of input for a prescribed output, the third perspective, the systemic approach to learning, considers the interaction between the environment and the individual in understanding the learning process (Garrison & Archer, 2000). Emphasising the social origins of knowledge and visualising a process in which a mature thinker engages in inner dialogue, Vygotsky (cited in Brown & Palinscar,

1989) developed the concept of a zone of proximal development. The zone of proximal development is described as “an interactive system that recognises and builds upon different perspectives and levels of understanding” (Garrison & Archer, 2000, p.47). In this sociocultural context, the teaching-learning transaction between collaborative communities of learners can widen the zone. Bandura’s (1977) social learning theory represents an integration of behaviourism and cognitivism. Bandura (1977) believes that the reciprocal interaction between behaviour and the environment may result in self-regulatory processes in which people use symbols as a means of reflective thought to guide their future actions and to deal with the environment. Understanding that learning develops through stages and that individuals play an active role in constructing knowledge, Piaget laid a foundation for understanding adult learning (Tennant, 1988).

Narrator: What is the implication of these concepts of learning and knowledge construction for South African higher education?

H/E: Before the 1980s South African higher education institutions were split along the line of race and language. The differences in the roles of institutions became evident as universities aimed to produce absolute scientific truths and the non-university sector aimed to apply this knowledge to practical problems (Bunting, 2002). Further divisions concerned the funding allocated to various higher education institutions, and the degree of autonomy enjoyed by some. For example, historically white, English-speaking universities achieved more freedom from state interference (Bunting, 2002). Racial barriers between neighbouring institutions resulted in duplication of learning programmes. The throughput rate of 13.3 per cent for a three-year degree curriculum (as opposed to the expected 33 per cent throughput) and the 17 per cent average dropout rate for all years of study, were attributed to

problems inherited from the Apartheid era (Department of Education 1994 -1998). Many institutions positioned themselves as producers of disinterested scientific knowledge and maintained unchanged curricula for decades, applying teaching methods that relied on high-achieving students from homogenous linguistic and cultural backgrounds (Gravett & Geysler, 2004).

Narrator: It seems as though many tensions existed amongst divisions in higher education in South Africa. Tensions between a deficit and a strengths model of learning and knowledge construction emerged in the face of divisions in higher education institutions along the lines of race, language and degree of autonomy. Furthermore, it seems that institutions with more power posed a threat to knowledge construction in maintaining an unchanged curriculum. I wonder how these meta-narratives are maintained or, alternatively, how they are challenged?

H/E: With the democratic government elected in 1994 (to follow in Scene Two), tensions amongst divisions in higher education would be dominated by transformation.

(Fade lights)

Curtain

Act III

Scene Two

(Draw curtain, lights on)

Scene

The Higher Education scene is transformed by changing the décor to a new brand image of an 'entrepreneurial institution'. Actor changes into modern robes.

Time

Present experiences

Narrator: With the newly elected democratic government taking power in 1994, new legislation was enacted in an effort to eradicate the imbalances of Apartheid and to transform higher education to achieve equity (Gravett & Geysler, 2004). How did this transformation unfold in the higher education context?

H/E: Developments at a global economic level resulted in a repositioning of higher education institutions as instruments for economic development to teach vocationally-oriented programmes across traditional subject boundaries. Participation in the new global economy involves producing more graduates, but also more of the right sort of graduates. The South African government aims to reduce the 49 per cent of the total student headcount enrolled in the humanities to 40 per cent, and increase the 25 per cent enrolled in science and the 26 per cent enrolled in commerce to 30 per cent in each (Ministry of Education, 2001). Further transformation involves educational institutions funding their own activities and developing brand images as entrepreneurial institutions.

Narrator: In an attempt to meet some of the challenges at both local and global levels, Higher Education creates a 'SAQA persona' and 'NQF persona'.

H/E: (SAQA persona and NQF persona)
The South African Qualifications Act of 1995 established the South African Qualifications Framework (NQF) in an attempt to meet some of the challenges existing at both local and global levels. Gravett and Geysler (2004) describe the NQF as
a structure on which all qualifications, regardless of their origin in 'formal' education or in the workplace or community-based training initiatives, can be registered by

locating them within three 'bands': a General Education and Training Band, a Further Education and Training Band, and a Higher Education and Training Band (p.7).

Narrator: What is the aim and underlying philosophy of the NQF?

H/E: (NQF persona)

The NQF aims to contribute towards the attainment of equity and efficiency in South Africa through standardising quality across levels and within bands; and through contributing to life-long learning, especially where millions of people in South Africa have been denied the right to formal study in childhood and early adulthood (Gravett & Geysler, 2004). An underlying philosophy of the NQF is the introduction of outcomes-based education (OBE) in which educators are required to focus on what learners should be able to do as opposed to what they should know. In South Africa's effort to compete in the drive to reinvent products typical of the new global economy, OBE aims to develop learners into individuals who can apply knowledge to practical problems, work in teams, communicate well and use information technology effectively. Through introducing criterion-referenced assessment, OBE contributes to assessment procedures that are more valid and transparent and assessors who are more accountable than in traditional assessment paradigms.

Narrator: Outcomes-based education sounds like a good philosophy, but I have heard that it has been criticised in academic literature and the press.

H/E: OBE has been criticised in the academic literature and the press because it requires a different approach to teaching from traditional 'content' approaches (Jansen & Christie, 2000). A major obstacle in making OBE work in South Africa is the lack of facilitation skills

among educators, coupled with a lack of support needed to develop these skills (Gravett & Geysler, 2004). The role of the NQF and OBE for higher education involves the facilitation of learning by setting tasks and providing guidance and support to students, as well as considering assessment as an integral part of curriculum design. This implies that assessment strategies and tasks have to be planned and developed at the same time as learning outcomes are developed (Jansen & Christie, 2000). Jansen (1998) objects to the philosophical views of OBE, insofar as it assumes an instrumentalist view of knowledge that trivialises curriculum content.

Narrator: In appeasing the critics of OBE, a less radical version of OBE has been proposed.

H/E: The scepticism with which OBE has been met relates specifically to the emphasis on outcomes to the supposed detriment of academic content. In defending a less radical version of OBE, Mason (1999) proposes that it might be helpful to first understand the concept of knowledge based on Ryle's (1971) distinction between "propositional knowledge, or knowledge *that* (associated with facts or content) and procedural knowledge, or knowledge *how* (associated with skills)" (p.141).

Knowledge can further be classified into a third type of knowledge: dispositional knowledge, or knowledge *to* (associated with attitudes, values or moral dispositions). Life skills education aims to teach values to learners. Mason (1999) argues that propositional, procedural and dispositional forms of knowledge are inextricably linked to each other and that OBE requires a careful balance among the three types of knowledge.

Narrator: In ensuring quality in higher education, yet another persona of

Higher Education, the HEQC is created.

H/E: (the HEQC persona)

The Higher Education Quality Committee (HEQC) was introduced by the higher education sector to assure the quality of its own activities. It is an important step in terms of taking responsibility for the achievement of equity in higher education. The South African government's White Paper on Higher Education of 1997 (cited in Gravett & Geysler, 2004) summarises the transformed higher education system as one that will

- provide equal access and equally fair chances of success to all students
- develop programmes leading to qualifications that will meet the country's employment needs in respect of highly skilled graduates
- promote critical and creative thinking, tolerance and a commitment to the common good through its teaching produce research of an international standard that, at the same time, will be cognisant of African contexts (p.6)

Narrator: A new higher education institution is born!

H/E: In addressing frustrations involved in sizing and shaping the higher education landscape in South Africa to achieve national goals, Minister Kader Asmal launched the National Plan for Higher Education (NPHE) in March 2001. Following the NPHE and with Cabinet's approval, the Minister of Education announced a number of mergers in May 2002 that resulted in the reduction of the number of higher education institutions from 36 to 24. Through the restructuring process, a new type of comprehensive institution emerged that would offer technikon-type programmes alongside a limited number of university-type programmes (Ministry of Education, 2001).

Narrator: How does the restructuring process within higher education impact on the process of elevating the status of orthotist/prosthetist training programmes in South Africa?

H/E: Technikon Pretoria merged with Technikon Northern Gauteng and Technikon North West to create a new higher education institution, Tshwane University of Technology. It is here that the B.Tech Medical Orthotics and Prosthetics course was offered in January 2003. The standards of the University of Technology are in line with international universities of technology and contribute towards improved international recognition.

Narrator: How do the theories of teaching and learning apply to the restructured higher education institution?

H/E: The outcomes-based philosophy of higher education in South Africa flows from the postmodern constructivist era (Mason, 1999). The knowledge co-construction process in higher education is an interactive process of personal meaning making and the social validation of this meaning (Garrison & Archer, 2000). Educating for meaning is a comprehensive experience and Garrison and Archer (2000) argue that “no single theory of learning can fully inform the teaching-learning process” (p.60). Garrison and Archer (2000) propose a teaching-learning framework appropriate for higher education that includes the commonalities of the foundational ideas and concepts of Dewey, Rogers, Habermas, Mezirow and Young.

H/E: *(the Integrated Teaching-Learning persona)*
A teaching-learning framework accepts that knowledge is influenced by experience and recognises the place for personal reflection in the process of constructing knowledge. This is based on the core themes of change, experience, reflection, collaboration

and constructivism, as advocated by Dewey's reconstruction of knowledge based upon experience, Rogers' view of change through facilitating individual freedom and self-awareness, and Habermas' beliefs that change is necessary if individuals are to be emancipated. Collaboration in the educational process provides an opportunity to socially construct meaning and provides the climate for students to take responsibility for their learning (Garrison & Archer, 2000). Garrison and Archer (2000) define constructivism as a process where individuals assume responsibility to construct their own knowledge based upon experience. They posit that education should create the climate and opportunity for communicative action and knowledge construction to take place.

Constructivist learning theoreticians accept that learning comprises the active construction of meaning, as derived from the studies of Vygotsky (cited in Brown & Palinscar, 1989) and Piaget (cited in Tennant, 1988). This is often referred to as individual or radical constructivism. The theories associated with critical thinking and self-directed learning are synergistically connected through the transactional perspective (see figure 3) in which Garrison and Archer provide an explanation of higher-order learning and a mechanism for implementing such learning. The conceptual framework for the transactional perspective is built upon a collaborative constructivist approach to creating meaning, and the need for collaboration to create and confirm knowledge (Garrison & Archer, 2000).

Within the transaction process between learners and facilitator, meaningful and worthwhile personal and public knowledge is constructed and confirmed in a critical community of learners. Garrison and Archer (2000) conclude that

the aim of education is to collaboratively develop the thinking and learning abilities of students in the pursuit of

worthwhile and meaningful knowledge. To achieve such outcomes, students must be encouraged to think critically and to be self-directed in their continuous search for personal meaning and public knowledge (p.14).

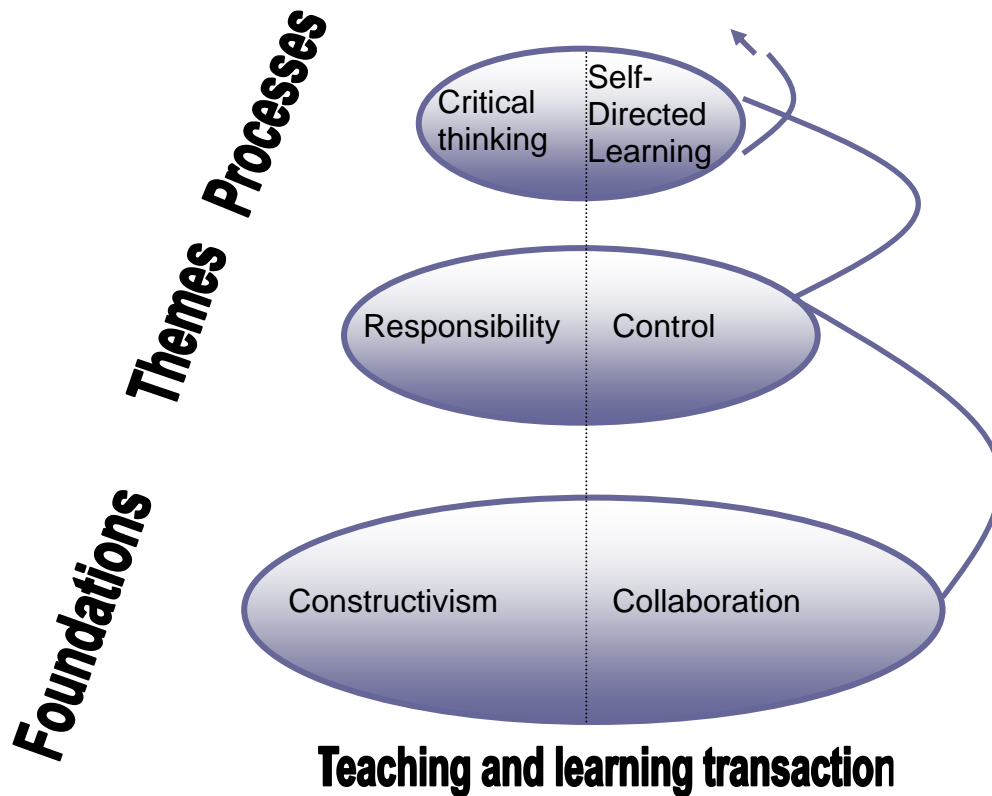


Figure 3 **Conceptual framework for the transactional perspective (Garrison & Archer, 2000, p.5)**

Narrator:

At this point you, the audience, may well ask me: what is the difference between constructivism, collaborative constructivism and social constructionism? From my understanding, the constructivist assumption is that knowledge is an interpretation of experience. This assumption implies that what an individual can know is both enabled and constrained by prior experiences and interpretations. The constructivist perspective on human understanding is

individualistic, implying that we each live in a world of our own making.

Collaborative constructivism integrates personal reconstruction of experience and social collaboration. Although the social construction of knowledge is congruent with the transactional perspective described by Garrison and Archer (2000), there is one major difference. Constructivists and collaborative constructivists view language as “a reliable and accurate link between the objective and subjective worlds” (Freedman & Combs, 1996, p.28), in contrast to social constructionists who postulate that “knowledge can be viewed as that which is represented in linguistic propositions, and therefore not something people possess somewhere in their heads, but rather something people do together” (Gergen, 1985, p.270). Higher Education would be able to tell you more about the role of collaboration in knowledge co-construction.

H/E: Collaboration in higher education (and in particular within clinical training in psychology) invites the social construction of knowledge to take place. Anderson (2000) describes the knowledge constructing process as follows:

Knowledge is fluid and communal, yet personalized. When we share our knowledge with one another, we cannot know what each brings to the sharing; determine how each will interact with the shared knowledge; nor predict what each will create with it. Whatever the outcome, it will be something different than either started with, something socially constructed (p.1).

In the collaborative learning process, facilitators position themselves as learners too, through respecting, inviting and valuing each voice and being flexible and responsive (Anderson, 2000). Collaboration

does not need to be enforced upon learners; it is a spontaneous process that emerges from the experience itself. Collaborative teaching and learning challenge participants and facilitators to reconstruct how they think about teaching and learning. When facilitators position themselves differently, in other words, as learners too, responsibility is shared. McNamee and Gergen (1999) refer to this shared responsibility as relational responsibility. Relational responsibility can be very rewarding, as Anderson (2000) concludes: “when responsibility is shared – as participants connect, collaborate, and construct with each other – the learning relationship and process are more mutually gratifying and rewarding” (p.5).

(Fade lights)

Curtain

Act III

Scene Three

(Draw curtain, lights on)

Scene

Higher Education dreams about its future

Time

Future intentions

Narrator: Bruner (1990) emphasises that knowledge is not a product, but involves a process of construction. In keeping up to date with developments in the global economy, higher education can never stagnate; on the contrary, new challenges continuously demand new plans and strategies.

H/E: This implies that we constantly need to revisit, rethink and evaluate

the criteria by which we practice teaching: “we need to distinguish clearly between tradition and high standards, and we should not cling to education habits that are often based entirely on tradition” (Gravett & Geysler, 2004, p.23).

Narrator: I share Gravett and Geysler’s (2004) belief that there is likely to be a vast difference between a lecture that emanates from a delivery view of education and one that aims at establishing and sustaining a community of inquiry, interpretation and collaborative co-construction of meaning. Social constructionism forms the basis of collaborative learning, but elements of cooperative learning may also be associated with typical African and South African socio-educational thought, which involves the idea of ubuntu (humanness) and ideas underlying the so-called African Renaissance (Bitzer, 1999; 2001). Higher Education faces a number of challenges in the future, which include the positioning of assessment practices, recognition of prior learning and the so-called second wave of e-learning (Taylor, 2002).

H/E: Repositioning assessment practices from an add-on role to an integral part of learning poses enormous challenges. Challenges facing higher education in the future include the need

- for lecturers to show greater accountability to their communities, learners and the government
- to cater for a diverse student body which brings different life experiences to their studies
- to assess relevant knowledge and generic skills in unfamiliar contexts to produce high-quality graduates who can apply their knowledge and skills in a changing world of work
- to assess the learners’ abilities to integrate knowledge and skills from a range of disciplines

- to ensure that students become life-long learners
- to shift from a content-based to an outcomes-based approach
- to involve a wide range of assessment methods in order to achieve the above (Luckett & Sutherland, 2000, p.99).

In order to be committed to issues of social justice and redress, higher education institutions will need to be responsive to policy imperatives and find a way to engage with the Recognition of Prior Learning (RPL):

If RPL and the challenges it brings to the university is not engaged, and all we do is produce discourses about RPL without developing pedagogy, then RPL will lose its transformative potential (Gravett & Geysler, 2004, p.137).

Another challenge for higher education is the so-called second-wave of e-learning (Taylor, 2002). E-learning assumes that the use of the World Wide Web for learning is not a question of 'if' anymore, but one of 'how should we effectively use the web for learning?' The use of cyberspace for teaching and learning can be applied in three possible ways. First, e-learning can be used to supplement conventional classroom instruction; second, it can be used as a substitute for classroom-based teaching (Saunders & Werner, 2002); and third, e-learning can have blended applications in which learning can employ multiple strategies, methods and delivery systems; and combine the best features of online learning with the best features of classroom instruction (Troha, 2002). In considering e-learning, the following questions should be posed in order to determine whether learners are ready for web-based learning (WBL):

Do they have the necessary skills and competencies to engage in interactive, multimedia-based learning

materials? How will their perceptions of the learning process change – will they believe that the learning facilitator is now more remote and therefore inaccessible, and how will this influence their motivational levels? (Gravett & Geysler, 2004, p.178).

Narrator: I believe that the B.Tech Medical Orthotics and Prosthetics programme lends itself very effectively towards the blended application of e-learning, because learners reside all over Africa and only meet once a month. Learners on B.Tech-level are more mature, have access to online computers and possess the necessary skills and competencies to engage in interactive, multimedia-based learning materials. E-learning can also contribute to continuous communication and collaboration between learners and facilitators. As facilitator, I would like to take up the challenge of designing a web-based platform to enhance the teaching and learning process in the Applied Psychology II module (see addendum).

Narrator's commentary on Act III: *In Act III the dyadic tension between the deficit model and the strengths model in teaching and learning played out. We witnessed the process in which our actor, Higher Education, integrated the personas of Dewey, Rogers, Habermas and Young into an Integrated Teaching-learning persona in an attempt to 'educate for meaning'.*

Further tension between past experiences of divisions in Higher Education and present experiences of transformation also played out. Higher Education in South Africa created the SAQA and NQF persona and adopted a new philosophy (OBE) in an effort to eradicate imbalances. The HEQC persona ensured that quality was maintained within the 'new higher education institution'.

- **Complicating Action**

From a modernist perspective, education entailed a transmission view of teaching in which learners had to absorb disinterested scientific knowledge and both teachers and students played relatively passive roles. Dewy, Rogers, Habermas, Mezirow and Young were proponents of the authoritative approach of traditional education and introduced progressive thoughts on higher education that included the core themes of change, experience, reflection, collaboration and constructivism. Garrison and Archer integrated these core themes of education into a teaching-learning framework that synergistically connects critical thinking and self-directed learning into a transactional perspective in which learners and facilitator collaborate in the creation and confirmation of knowledge. In the process, a community of critical inquiry is established whereby responsibility may be shared and that contributes to a deep approach to learning. In the collaborative learning process, facilitators repositioned themselves as learners and invite the social construction of knowledge.

Divisions in South African higher education along the lines of race, language and differences in the roles of institutions dominated until 1994, when the newly elected democratic government enacted new legislation in an effort to eradicate the imbalances of Apartheid and to transform higher education with the focus to achieve equity. The South African Qualifications Authority (SAQA) introduced the National Qualifications Framework (NQF) and outcomes-based education (OBE) in an effort to make higher education accountable. This also rendered institutions subject to market forces, and they were required to reposition themselves as institutions of economic empowerment. The introduction of the Higher Education Quality Committee (HEQC) signifies an important step in assuring quality in higher education and in terms of taking responsibility for the achievement of equity in higher education.

- **Resolution**

The restructuring process of South African higher education resulted in the emergence of a new type of comprehensive institution that offers technikon-type programmes alongside a limited number of university-type programmes to address global economy needs. The achievement of equity in higher education presents

many exciting opportunities in positioning assessment practices as an integral part of learning, and developing e-learning practices to complement classroom teaching and learning.

Collaboration in higher education invites the social construction of knowledge to take place and challenges participants and facilitators to reconstruct how they think about teaching and learning.

(Fade lights)

Curtain

End of Act III

Act IV: The Culmination and Meeting Point

Scene One

Scene

All three actors, Orthotics/Prosthetics, Psychology and Higher Education interact on the stage.

Time

Past experiences

Abstract

The construction of a curriculum for Applied Psychology II reflects the historical shift envisaged for psychology's future where ideas from social constructionism and critical psychology are integrated through praxis into a mainstream learning programme for orthotist/prosthetists.

(Draw curtain, lights on)

Narrator: The impetus for the Culmination came from my meeting with Orthotics/Prosthetics. I was approached by the course coordinators for B.Tech Medical Orthotics and Prosthetics in November 2002 with an invitation to become a facilitator for the

Applied Psychology II module.

Although I had some exposure to lecturing when designing and facilitating life skills workshops to students at Tshwane University of Technology, I needed special permission to be involved with the B.Tech Medical Orthotics and Prosthetics department, because the services rendered by the Directorate for Student Development and Support are categorised as support services and do not form part of the mainstream academic activities. Orthotics/Prosthetics, I am curious to know more about your prior exposure to psychology.

O/P: Orthotics and prosthetics students did a Psychology I course in the second year of the four-year diploma. Students' experiences of psychology during their studies have not been very positive. They felt that the subject was not presented in an applied way and was therefore not very meaningful. However, they believed that there is a need for psychological and helping skills in the orthotics and prosthetics profession (field notes, November 5, 2004).

Narrator: The story of Orthotics/Prosthetics' past experiences of psychology reminded me of my transition from the modern to the postmodern world of psychology, which was instigated by my first meeting with Social Constructionism. What would your expectations be of a psychology module, especially in the light of your previous experience?

O/P: Let me show you an outline of a proposed curriculum for Applied Psychology II, as it was presented for the new instructional B.Tech Medical Orthotics and Prosthetics programme in May 2001.

Table 2 Proposed curriculum for Applied Psychology II

Name of offering: Applied Psychology II	
Level: 4	
Prerequisite offerings: Psychology I	
1	Development theories
2	Trauma
3	Cancer
4	Diabetics
5	Amputations
6	Geriatrics
7	Pediatric client
8	Vascular diseases
9	Spinal injuries
10	Congenital conditions
11	Understand HIV
12	Paraplegic client
13	Quadriplegic client
14	Hemiplegic client
15	Understanding an addict

Narrator: My first impression of the curriculum is that it looks like a list of amputations and medical terminology of which I understand very little. No detailed curriculum exists for the Applied Psychology II module. Listening to your need to facilitate psychology from an applied perspective, I am wondering if it would be possible for me to change some of the curriculum content?

O/P: Yes, you can use the following guidelines to assist you in designing a detailed curriculum:

- You may change 20% of the core curriculum as you deem necessary.

- Psychology should be presented in an applied way and the content should be relevant to the profession of orthotics and prosthetics.
- You should equip the learners with basic helping skills.
- You will have 18 contact hours available and will meet once a month with the learners (the learning programme will be offered in block weeks).
- Although different facilitators will take responsibility for the presentation of Applied Psychology II and Pharmacology II respectively, the final mark for the programme will consist of a combined mark for psychology and pharmacology (field notes, November 5, 2002).

Narrator: “I am very excited to be a part of this process and immediately give Peter and James my commitment to the course” (field notes, November 5, 2002). I consulted with a colleague at the University of Pretoria to provide me with guidelines on how to compile a suitable curriculum for Applied Psychology II, as nothing currently exists. He suggested that I should decide on a specific philosophy in psychology, either a modernist or postmodern paradigm, that I would like to use as a platform on which to base the curriculum.

Psychology I: (*Modernist persona*)

It goes without saying that the Narrator should choose me as the underlying philosophy for the Applied Psychology II module! I am the protagonist that has influenced the medical meta-narrative within psychology, as well as health sciences. I can offer scientific knowledge and processes to treat orthotic/prosthetic patients effectively.

H/E I: (*Deficit persona*)

As an institution of higher education, I can transplant scientific information into the minds of receptive students. Knowledge is power!

Psychology II: (*Postmodern persona*)

I am not against the various modernist schools of psychology, only against their posture of authoritative truth. I propose a 'non-expert' approach that avoids premature certainty and values respectfulness and curiosity. I believe that the challenge in a postmodern educational practice is to value other and different accounts of knowledge. Social constructionism in a postmodern university offers knowledge as a process that is co-constructed in classrooms and not as ready made-up parcels.

H/E II: (*Strengths persona*)

I believe that learners and facilitators should be equal partners who collaborate in the co-construction of knowledge. My argument is this:

The interrelated critiques of rationalism, realism, and foundationalism show that the modern university includes a contest between different theories of rational scholarly agreement. The most distinctively postmodern role in this debate is not to take sides but to question whether theories of agreement are useful and even whether agreement itself is feasible or appropriate objective of higher education (Simpson, 2000, p.159).

Narrator:

I have been listening to all the arguments and believe that the tension between the disability narrative in orthotics/prosthetics and the deficit-teaching model can be limiting to learner's experiences within the psychology module. Social constructionism (postmodern approach) offers me an alternative that honours and privileges personal experience and knowledge. In integrating propositional, procedural and dispositional knowledge in my teaching philosophy, I believe that I can empower learners to take a critical stance

towards taken-for-granted-knowledge and invite orthotist/prosthetists to reflect on the value of professional interventions for a specific client by using pragmatic criteria of whether an approach fits for a client.

(Fade lights)

Curtain

Act IV

Scene Two (Monologue)

(Draw curtain, lights on)

Scene

Narrator shares her philosophy underlying the Applied Psychology II module

Time

Present experiences

Narrator: My passion for psychology and facilitation is the perfect origin story for the current philosophy underlying the Applied Psychology II module. I believe that my own enthusiasm and love for psychology rubs off on my learners and assists them to create their own personal meaning of the value of psychology in their lives – if I don't love psychology, why should I expect the learners to love it? Furthermore, I find the facilitation of skills extremely rewarding – at every opportunity, engaging with learners in the co-construction of knowledge energises and uplifts me. From these intuitive beliefs, I have since developed a larger set of principles and an underlying philosophy to help me make the most of my strengths and the least of my weaknesses.

- Privileging the orthotist/prosthetist
Michael White (1997) refers to “the culture of professional disciplines” in which “the ways of knowing the world that relate to

the more popular and more local discourses of 'lay' communities are marginalized, often categorized as quaint, folk and naïve, and frequently disqualified" (p.11). In the deficit model of teaching, disproportionate privilege is granted to expert knowledge and places me, as a facilitator, in an expert position. Although I believe that there are many good outcomes of the traditional approaches to training, the potential hegemonic exclusion and disqualification of alternatives to these traditions can be limiting to the orthotist/prosthetist-in-training.

The core of my philosophy is the assumption that orthotist/prosthetist trainees have valuable lived experiences, knowledge, skills, and desires that have invited them into this helping field. In their sincere desire to help others and in their experience of practising as orthotists and prosthetists, they probably have special skills in caring for others. I believe that exploring these skills and desire will bring forth and develop confidence in their abilities and experiences of personal agency in their work (Carlson & Erickson, 2001). In creating a context where trainees can learn to develop their practice whilst also enabling them to deconstruct notions of expert knowledge, I introduced the *reflective-practitioner* model (Clegg, 1998; Harper, 2004; Walsh & Scaife, 1998) in the Applied Psychology II module. In this model, orthotists and prosthetists are encouraged to reflect on their work from a number of perspectives, for example, from thinking about the influence of personal experience to interpreting their work in accordance with relevant theory or empirical work.

In developing knowledge of practice (Hoshmand & Polkinghorne, 1992), orthotists and prosthetists are invited to embrace uncertainty (Mason, 1993) through exercises where they can examine the effects of expert knowledge models on their professional life. This is necessary since they often find themselves in real life situations

that are more complicated than the expert solutions they are taught (Spellman & Harper, 1996). The use of indigenous knowledge can contribute to the development of a critical practitioner identity as an orthotist/prosthetist. Orthotists and prosthetists are thus invited to reflect on the value of professional interventions for a specific client by using pragmatic criteria of whether an approach fits for a client, or if it is going to be useful, and not by some abstract notion of truth. In honouring orthotists and prosthetists as experts of their lives, they can also see their patients as experts of their own lives.

- Equal partners

In this philosophy, I have negotiated a position for myself as facilitator and learner through respecting, inviting and valuing each voice and being flexible and responsive (Anderson, 2000). I believe that I have much to learn from orthotist/prosthetists about their profession. The informal seating arrangement (in a circle or groups) encourages interaction amongst learners and between the learners and the facilitator. Collaboration does not need to be enforced upon learners; it is a spontaneous process that emerges out of the experience itself. Collaborative teaching and learning challenge both participants and facilitator to reconstruct how they think about teaching and learning. When facilitators position themselves differently as learners, responsibility is shared.

- Co-constructing knowledge

In encouraging a decentring of the dominant professional accounts of knowledge, and in becoming more familiar with the very personal knowledges that come from the rich history of the orthotist/prosthetist's lived experiences, trainees are encouraged to become reflective practitioners. Participants utilise their previous knowledge constructions, beliefs and attitudes in the knowledge construction process. Learners and facilitator collaboratively co-

construct knowledge, not by judging it against some abstract notion of truth, but through a process of evaluating evidence from a variety of fields and resources and establishing conceptual links to tailor conclusions to the specific needs of an individual patient (Lusardi, Levangie & Fein, 2002). Anderson (2000) describes the knowledge-constructing process as fluid, communal and personalised. She believes that it is not possible to predict the outcome of the knowledge constructing process, as the product will be something that is socially constructed.

- Interdisciplinary perspective

Interdisciplinary education practices encourage orthotist/prosthetists to become collaborative members of the multidisciplinary health team. In addressing the complexity of problems facing health care, practitioners are invited to respect and value contributions from diverse allied health and medical professionals:

The complexity of problems facing health care in the 21st century, are problems which often do not have a single answer, but require a very broad orientation. Health care providers must also listen to and work with each other, recognizing their diverse backgrounds and the multitude of agendas, values and priorities that affect the choices they make (Warren, 1985, p.22).

My objective in constructing the Applied Psychology curriculum was not only to apply psychology to the orthotist/prosthetist profession, but also to facilitate an understanding of psychology in such a way that learners can apply their personal meaning of psychology in a wide variety of life experiences.

- Training/facilitation practices

In an attempt to honour the foundational beliefs and underlying philosophy of the Applied Psychology II module, I found the

training/facilitation practices proposed by Carlson and Erickson (2001) to be useful. Although my intention is not to train orthotists and prosthetists as psychologists or therapists, I believe that they can apply basic principles of helping in their daily relations with their patients. Carlson and Erickson (2001) define experience-privileging practices as a practice to “seek to grant privilege to and honour the personal experiences, desires, motivations, knowledge, and skills of new therapists” (p.207). Through the use of privileging questions, orthotist/prosthetists are encouraged to share experiences from their lives during group discussions in class or in the form of assignments that form part of the process of continuous assessment. Some privileging questions include: What experiences from your life do you think invited you into the field of orthotics and prosthetics? What ways of relating to others have you found to be most helpful? What skills of helping others have you developed in your life? How do you want others to experience themselves when they are in your presence?

The practice of re-membering, as introduced by Myerhoff (1982) and White (1997, 2000), is about helping persons find membership or to experience a return to membership with the significant relationships of their lives. Carlson and Erickson (2001) believe that “because the stories of our lives are lived through relationships, it is important for persons to re-member the relationships that support their preferred ways of being” (p.208). Remembering practices are facilitated during class discussions by posing questions to orthotist/prosthetists such as: Could you share with us a story from your life where you felt particularly cared for? What was this experience like for you? What was it about this experience of being cared for that was most memorable to you? What did this experience teach you about how to care for others? Can you recall someone with whom you had a special caring relationship or who you think you were able to help in a significant way? What was it about that relationship that allowed

caring to take place? From whom do you think these desires to help and care for others came?

Freedman and Combs (1996) aver that stories are not embraced until they have been performed before an audience. As orthotist/prosthetists have experiences in helping relationships that represent their preferred ways of being, they are invited to share these experiences with others; and as others witness these stories, they enter into their stories of themselves as practitioners and persons. Through the practice of communities who are dedicated to honouring and privileging each other's experiences, they also foster "communities of concern" (Carlson & Erickson, 2001, p.208). Participating in a life analysis project invites orthotist/prosthetists to remember some personal life experiences and to reflect on the ways in which their life experiences shaped their professional identity.

Myerhoff (1982) describes the practice of definitional ceremonies as "collective self-definitions specifically intended to proclaim an interpretation to an audience not otherwise available" (p.105). At the end of the academic year, Diplomas of Special Knowledge celebrate the lives of orthotist/prosthetists in a unique way.

A mini-graduation ceremony takes place on the stage in which Orthotics/Prosthetics receives a Diploma of Special Knowledge.

(Fade lights)

Curtain

Act IV

Scene Three

(Draw curtain, lights on)

Scene

Narrator dreams about the future of the Applied Psychology II module

Time

Future intentions

Narrator: Applied Psychology II will continuously develop and grow as social realities change. The invitation to learners and facilitators in the B.Tech Medical Orthotics and Prosthetics course to collaborate in the co-constructing of knowledge informs the direction of new developments. One such development is the inclusion of a personal reflective journal.

O/P: Learners in the B.Tech learning programme found the reflective journal that was introduced as part of the data collection for this study so meaningful, that they proposed that it form part of the formal curriculum for the Applied Psychology II module.

Narrator: Another development is a targeted selection interviewing strategy that I proposed to the Department of Orthotics and Prosthetics in an effort to create a set of standardised criteria to ensure equal access to all prospective B.Tech applicants. Furthermore, the orthotics/prosthetics course coordinators expressed a need to align the Psychology I curriculum for the graduate diploma with the Applied Psychology II curriculum for the B.Tech programme. This creates exciting new ventures for the future!

And so The Meeting Point between Orthotics/Prosthetics, Psychology and Higher Education comes to an end at the Culmination – or is it a new beginning? But a new beginning is another story!

Narrator's commentary on Act IV: *In Act IV tensions between the three actors, Psychology, Orthotics/Prosthetics and Higher Education, played out. Not only did the audience witness tensions amongst the actors, but also tensions within a character, such*

as Psychology's modernist versus postmodernist persona and Higher Education's deficit versus strengths persona.

The Narrator, who also played the role of facilitator for the Applied Psychology II module, listened to the arguments of all three actors but did not position herself as a mediator. She acknowledged the different positions of the actors and integrated ideas of social constructionism, critical psychology and a strengths model of facilitation into the philosophy underlying the Applied Psychology II module.

In Act IV, the Culmination symbolised the social construction of a new system in which the binary oppositions or tensions between modernism/postmodernism, the deficit model/strengths model, and disability/appreciation practices were reconceptualised:

The importance of dissolving these dichotomies, for social constructionism, lies in the possibility of human agency and the re-conceptualisation of the nature of the individual that they bring with them. If agency and structure are part of one inseparable system, then the effectiveness of human agency is just as real as the determining features of social structure (Burr, 1998, p.108).

- **Resolution**

The Narrator (facilitator) took agency in introducing new practices of selection, teaching and learning into the B.Tech learning programme. Furthermore, ideas from social constructionism and critical psychology were introduced into a psychology course for health professionals from an application of praxis perspective. This resulted in a shift in position from scientist-practitioner to reflective-practitioner. Orthotics/Prosthetics and Higher Education welcomed this fresh approach and in the process doorways were created for the future co-construction of knowledge.

(Fade narrator light)

Curtain

End of play

Synthesis

The first part of the following section provides a synthesis of the public narratives that unfolded on the stage. This is followed by an introduction to the narrative themes that emerged from the analysis of the public texts.

The implementation of an Applied Psychology II module signifies the social construction of a new story of teaching and learning in higher education. It is at this point where orthotics/prosthetics, psychology and higher education collaborate. Public narratives on orthotics/prosthetics, psychology and higher education are guided by the core themes of transformation and global reform thinking, initiated during the Second World War and the coming of democracy to South Africa in 1994, in which these three disciplines negotiated an alternative position for themselves. Through the approval and introduction of a new learning programme in B.Tech: Medical Orthotics and Prosthetics at Tshwane University of Technology, orthotist/prosthetists can qualify as Category I professionals and aim at repositioning themselves as key members in the rehabilitation team on a national and international level.

Psychology negotiated an alternative position through the integration of ideas from social constructionism and critical psychology into a mainstream learning programme for orthotists and prosthetists. Higher education institutions in South Africa negotiated a position as institutions of economic empowerment and introduced outcomes-based education (OBE) as an underlying philosophy of teaching and learning. In a community of critical inquiry, orthotist/prosthetists are honoured as experts of their own lives; learners and facilitator collaborate in the co-construction of knowledge and meaning; and a new story of teaching and learning evolves in higher education. However, it is important to acknowledge that other meeting points between the three actors also exist and that this play is merely one construction of such a meeting point.

Narrative Themes

In analysing the public narratives in the meeting point between the three actors, Orthotics/Prosthetics, Psychology and Higher Education, I assigned codes to text, and clustered codes into narrative themes. This was done using the Atlas.ti 5.0 scientific software programme. Through the process of organising narrative codes into families, the following narrative themes crystallised: teaching and learning, co-constructing knowledge, reflection-on-practice, disability and agency. The section that follows describes these themes.

- Teaching and learning

In the narrative of teaching and learning (figure 4), the tension between a deficit model and strengths model plays out. From a deficit perspective, orthotist/prosthetists were selected from the least educated strata such as tradesmen, and only brought into the rehabilitation team to fill in the last stage of rehabilitation. Deficit was also emphasised in the medical narrative in psychology with the focus on mental deficiencies. From a deficit perspective, higher education focussed on the transmission view of teaching and the absorptionist view of learning, in which teachers and learners both played relatively passive roles.

However, Orthotics/Prosthetics, Psychology and Higher Education have challenged the meta-narrative of deficit and in the process a counter-narrative emerged, with the emphasis on a strengths model. Themes of responsibility, critical thinking, continuous reconstruction of experience and life-long learning, which are rooted in an outcomes-based philosophy, dominate the strengths narrative.

In the course of an Applied Psychology II module, facilitation practices that value and appreciate learners' special knowledges and skills invite both learners and facilitator to become equal partners in the teaching-learning transaction and to collaborate in the co-construction of knowledge. The multidisciplinary approach in the B.Tech Medical Orthotics and Prosthetics learning programme invites facilitators from different disciplines

to collaborate in the social construction of knowledge. A counter-narrative of collaboration that emphasises the social construction of knowledge challenges the meta-narrative of learning from a constructivist approach with its emphasis on individualism.

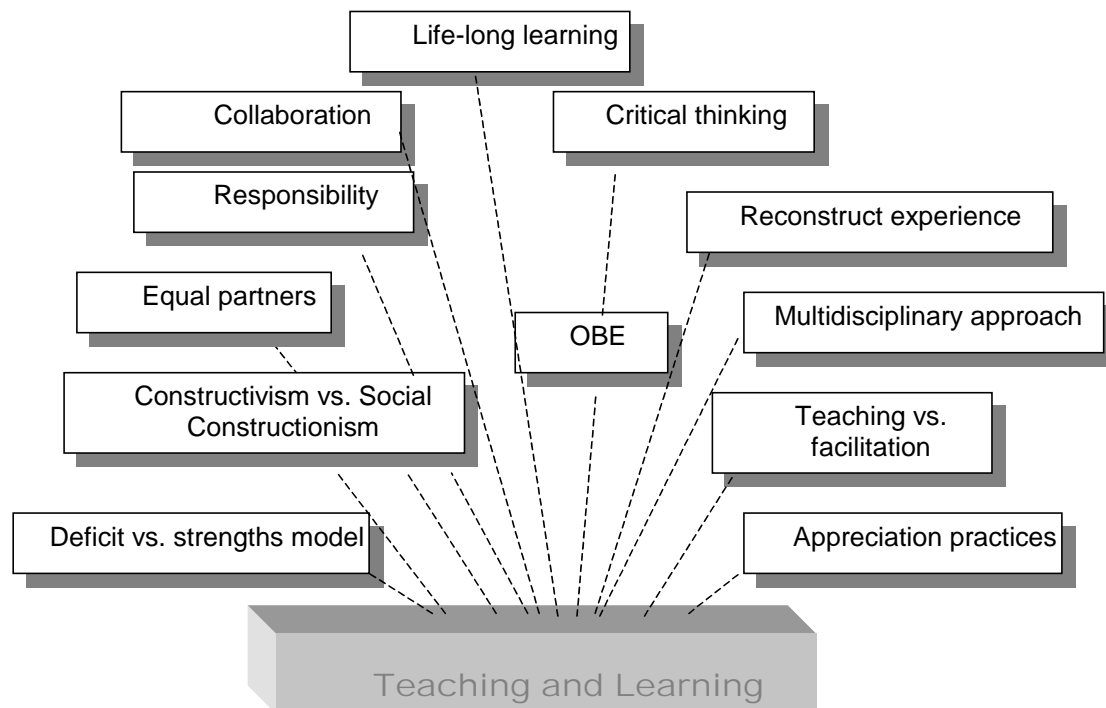


Figure 4 **Network view of teaching and learning**

- Co-constructing knowledge

Co-constructing knowledge is a theme that runs through the narratives of *The Meeting Point* (see figure 5). In the higher education narrative, we may distinguish between information as merely raw material and knowledge as the interconnection between facts, ideas and experience. Collaboration invites the three actors to participate in the co-construction of knowledge. In this process, the personal meaning of knowledge is valued, is as the learners' special knowledge (evident in Psychology's narrative). However, Higher Education advocates a careful balance between propositional, procedural and dispositional knowledge. The social construction of meaningful and worthwhile public

knowledge about facilitation practices for a psychology module for B.Tech Medical Orthotics and Prosthetics takes place in a critical community of inquiry.

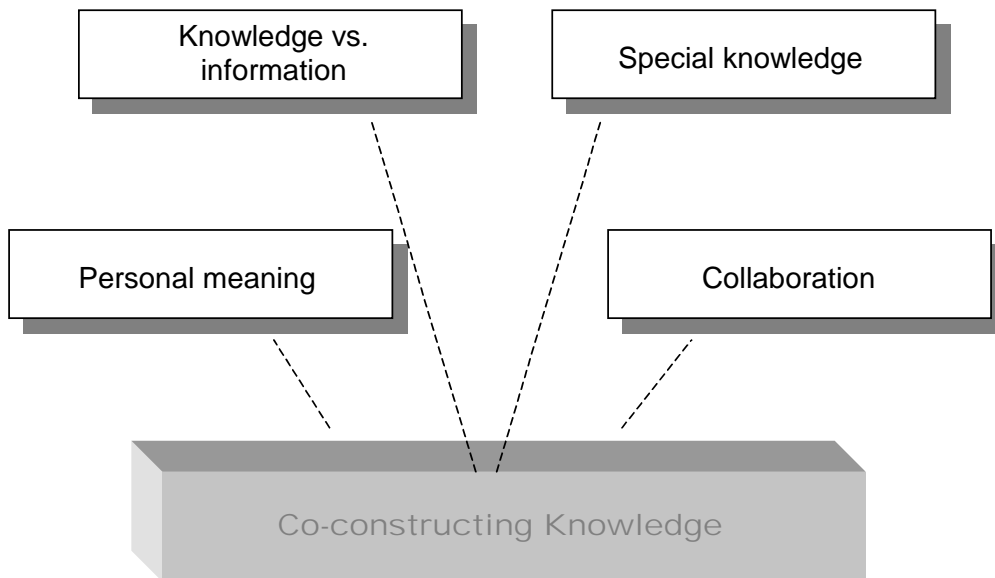


Figure 5 Network view of co-constructing knowledge

- Reflection-on-practice

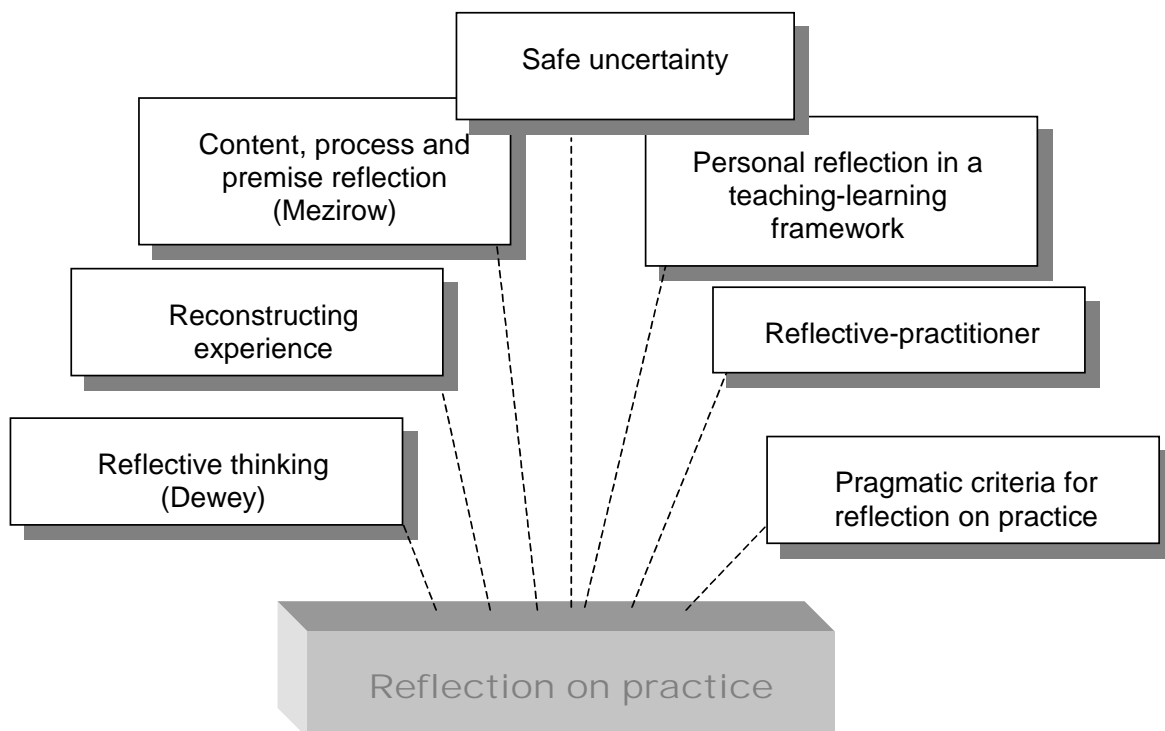


Figure 6 Network view of reflection-on-practice

Dewey (1938) introduced reflective thinking as a means to continuously reconstruct experience. Reflection is also evident in Mezirow's (1991) introduction of content, process and premise reflection. In applying reflection to health practices, reflection-before-action, reflection-in-action and reflection-on-action is proposed in the higher education narrative. Facilitators are also invited to reflect on their practices of teaching and learning. The narrative theme of reflection becomes a meta-narrative during the implementation of the Applied Psychology II module, in which a model of reflective-practitioner is integrated in the underlying teaching philosophy, as opposed to the scientist-practitioner model. From this model, practitioners are encouraged to take a position of safe uncertainty and to reflect on their practice by using pragmatic criteria of whether an approach will fit for a specific client. The introduction of reflective journal writing in the future intentions of the applied psychology module sustains the discourse of reflection-on-practice (see figure 6).

- Disability

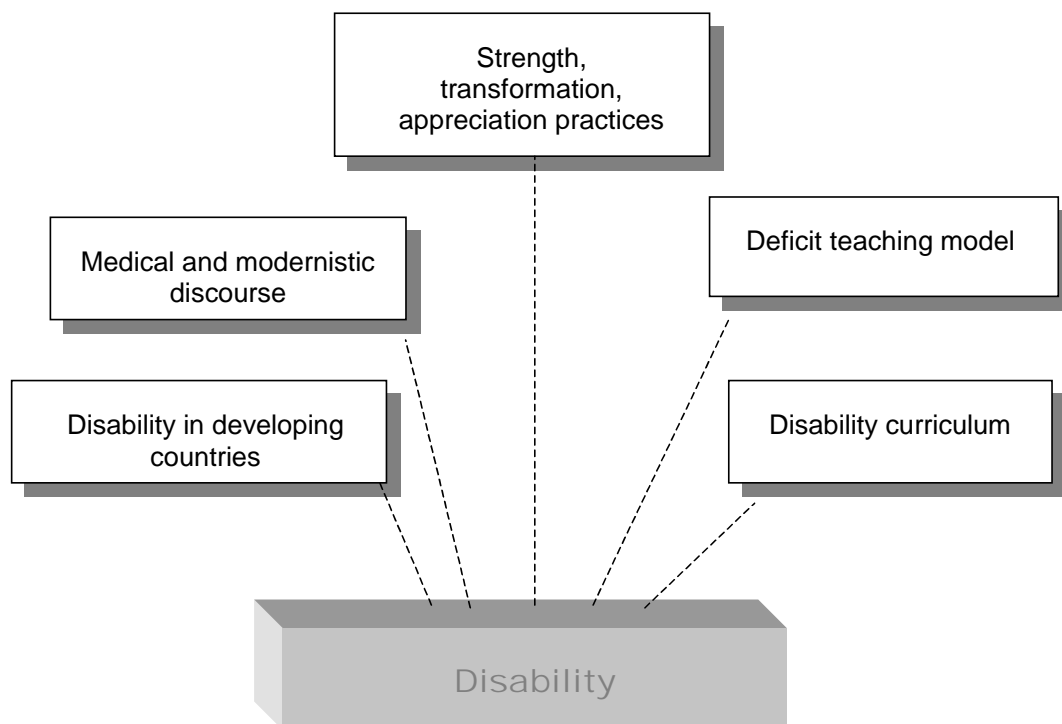


Figure 7 **Network view of disability**

Figure 7 illustrates the voice of disability that is first introduced in the narrative of orthotics/prosthetics. Here, the problems of disability in developing countries are

highlighted, as well as the need for trained professionals to address this need. However, the theme of disability is repeated in the medical and modernist meta-narrative in psychology in which patients are seen to suffer from mental disorders. Reference is even made to the 'rehabilitation efforts' by critical psychology to reveal the political unconscious of modernist psychological science and practice, thus implying an attempt by critical psychology to take a critical look at the denial of subjectivity found in positivism. In constructing a psychology module for the B.Tech Medical Orthotics and Prosthetics programme, we witness our actor's (Orthotics/Prosthetics) efforts to propose a curriculum with the emphasis on amputation, disability and illness. The deficit model of teaching further sustains the disability meta-narrative through emphasising deficits and passivity, in contrast to the counter-narratives of strengths, transformation and appreciation practices.

- Agency

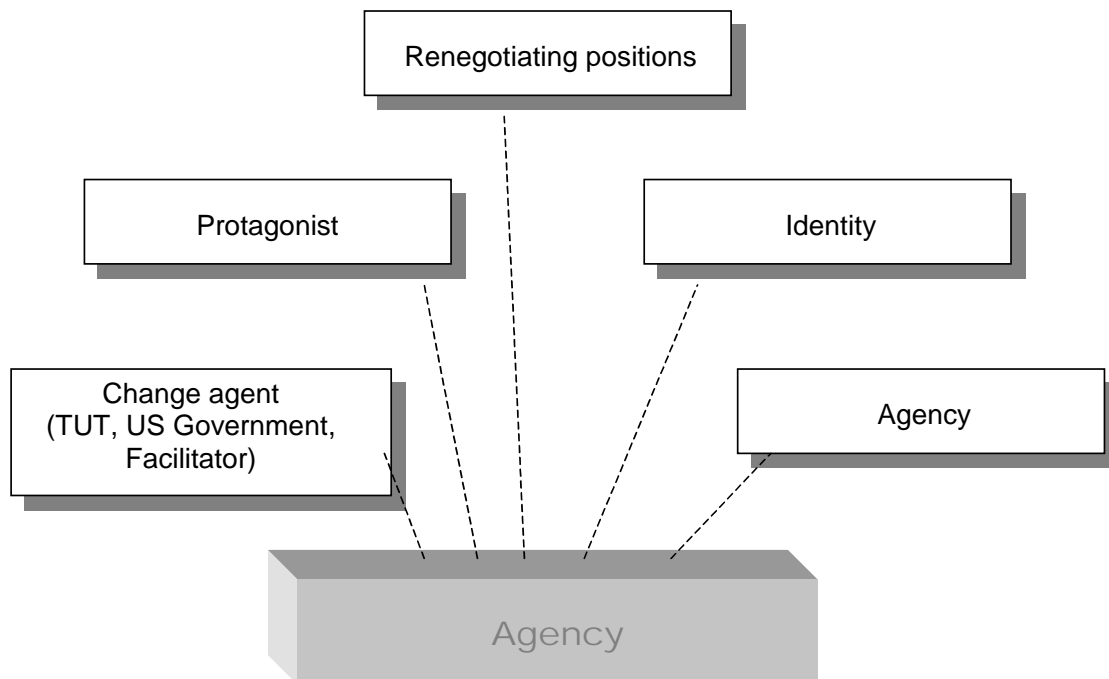


Figure 8 **Network view of agency**

The narrative of agency permeates the story plot of *The Meeting Point* (as illustrated in figure 8). Agency can be located according to two contrasting views: it is either a 'subject position' determined by dominant discourses and meta-narratives, or it

embodies the self-creating (if not self-inventing) actor. From the first perspective (a world-to-subject direction of fit; top-down), the actor's actions are given to the actor by social, historical and biological forces, subjecting the actor and determining its action potential. From the second perspective (a subject-to-world direction of fit; bottom-up), the actor creates itself; it is based on consciousness and free will, is capable of making decisions, and is actively engaged in both world- and self-making, particularly in narrative self-constructions (Bruner, 1990). Actors can use language and grammatical choices to position themselves and others in terms of more or less agency; and they may downplay or foreground characters' involvement in narrated events and sequences (Quigley, 2000).

However, both the top-down and bottom-up directions in the agency debate are problematic for social constructionism:

The top-down view leaves discourse as a side-effect of social structure, and it therefore cannot be the focus for social change. The bottom-up view, worse still, cannot accommodate any kind of social constructionism, since the individual is taken to be logically prior to the social (Burr, 1998, p.96).

Burr (1998) suggests that an alternative to the individual/society dichotomy is rather to think of them as inseparable components of a system. Thus, within the public narratives of *The Meeting Point*, the actors (Orthotics/Prosthetics, Psychology, Higher Education and the Narrator), the social practices in which they engage, the social structure within which they live and the meta-narratives which frame their thought and experience become aspects of a single phenomenon or ecosystem (Burr, 1998).

Within this ecosystem, the act of renegotiating alternative positions contributes to the agency of actors in the story plot. In contexts of self-positioning, the discursive resources or repertoires are not always given, but are rather constructed in a performative fashion. They can also generate counter-narratives (Bruner, 1990). Counter-narratives and constructions arise when people or groups use their capacity for rhetoric and argument to achieve a liberating, legitimating or positive social effect (Burr, 1998). Taking narratives to be situated and performed actions, positioning has a two-way orientation. On the one hand, it orients how characters are situated in

space and time in the story world, positioning the characters vis-à-vis one another as relational story-agents. On the other hand, it simultaneously affects how I, as narrator, design the story in order to define a social location for myself in the act of telling a narrative to you, the audience.

In *The Meeting Point* the agency of the narrator positions Orthotics/Prosthetics as first actor and protagonist in the story plot. However, Orthotics/Prosthetics actively engages in world- and self-making by taking up the challenge of constructing the first B.Tech course in southern Africa. Complicating actions, such as the ISPO's recognition of the need for training of Category I professionals in developing countries, USAID support, and the recognition of prior learning (world-to-subject direction) creates the action potential for Orthotics/Prosthetics to reposition itself as a key member in the rehabilitation team. The two newly registered orthotic and prosthetic Meisters (who are also the participants in this study) act as protagonists for Orthotics/Prosthetics in leading the future training of orthotist/prosthetists in southern Africa, in consultation with the rest of the multidisciplinary team of professional trainers.

Creating a counter-narrative of transformation, as opposed to the meta-narrative of division and a deficit model of teaching and learning, Higher Education actively engages in world- and self-making. With the establishment of SAQA and NQF and the adoption of an outcomes-based philosophy, Higher Education repositions itself as an institution of economic empowerment. The establishment of an integrated teaching-learning framework (as proposed by Garrison and Archer, 2000), challenges facilitator and learners to reconstruct how they think about teaching and learning and to become collaborative agents in the co-construction of knowledge.

With the introduction of postmodernism and critical psychology, Psychology moves from an authoritative position of absolute scientific truth to negotiating an alternative position of a critical stance towards taken-for-granted knowledge. Critical psychology, furthermore, takes agency in creating spaces for itself within institutions, such as higher education, through the development of alternative bodies of theoretical tools, knowledge and practices. Integrating ideas from social

constructionism and critical psychology into mainstream training programmes strengthens the new meta-narrative in psychology.

As narrator and facilitator of the Applied Psychology II module, I took agency in constructing my own philosophy of teaching and learning, which is informed by the public social and cultural discourses relating to ideas of social constructionism, critical psychology and a strengths model of facilitation. In renegotiating a non-expert position for myself as facilitator and inviting learners to collaborate in the co-constructing of knowledge, I actively position myself not only as a facilitator, but also as a learner. The introduction of new selection practices and facilitation practices, such as reflective journal writing and e-learning, are the results of my agency in shaping psychology's future identity in the health sciences.

Reflections

Reflecting on my experience of writing this chapter reminds me of the metaphor of building a puzzle. The story map served as a guideline to assembling each little puzzle piece relating to orthotics/prosthetics, psychology and higher education. The public narratives provide the frame of the puzzle in which the private narratives may unfold at yet another meeting point.

To Follow

In the next chapter, I privilege the voices of the private narratives of learners and facilitator, and share their stories of teaching and learning. The private narratives provide the remaining puzzle pieces with which to complete the picture.

PRIVATE STORIES AT THE MEETING POINT

This chapter provides story maps of the journals of two learners and one facilitator. Narrative themes and patterns emerging from the stories are summarised in a narrative core.

In the previous chapter, you were introduced to the meeting point between three public actors, namely Orthotics/Prosthetics, Psychology and Higher Education, during the course of a psychology module for B.Tech Medical Orthotics and Prosthetics. In this chapter, you are introduced to Peter, James and the facilitator (actors) who share private stories of their experiences of teaching and learning in the form of reflective journals (acts), in the course of the Applied Psychology II module (scene). Central to my agent-centred understanding of teaching and learning as performance, I am interested in exploring the collaborative process through which the construction and meaning making of knowledge took place.

This section intends to provide you, the reader, with the antecedent unfolding stories of the learners' and facilitator's experiences of teaching and learning; their current experiences of knowledge co-construction in the course of the Applied Psychology II module; and their future intentions as a case story or map (Richmond, 2002). After presenting the story maps, I introduce the narrative themes and patterns that emerged from the analysis of the reflective journals. The analyses of the story maps of participants who share a common life event (i.e., the learning experience in a psychology module for orthotic/prosthetic practitioners) can collectively offer multiple perspectives in understanding the frame, affect, conflict and enduring role strains that emerge from the

research text (Riessman, 1993). The narrative framework, furthermore, focuses on the categories of abstract, orientation, complicating action, resolution, evaluation and coda (Labov, 1972).

My interpretation of the story maps is informed by my own life story and the methodology map that I have chosen to follow in understanding and analysing the text. My interpretations are therefore not truth statements. As a reader, you may find yourself constructing different meanings. Your understanding, as well as the meaning that Peter and James ascribe to the story maps, contribute to a co-construction of multiple meanings.

My adoption of multiple roles in this text presents me with multiple challenges in this chapter. As a researcher, I must interpret data written by me about myself, in my role as facilitator. In an attempt to see, confront and discover myself in my practice, I have chosen to refer to myself in the third person, i.e. as 'the facilitator'. This dissociation in using the third person may open up new possibilities in challenging assumptions about myself and encourage alternative interpretations and learning about my professional practice.

The Setting

To accommodate orthotic and prosthetic practitioners in full-time practices, the B.Tech Medical Orthotics and Prosthetics learning programme is facilitated by means of monthly two-day lectures. During these regular meetings between facilitators and learners, the following study modules are covered: Orthotics and Prosthetics Theory IV, Business Practice I, Research Methods and Techniques, Applied Psychology and Pharmacology II. It was in this setting that I, as facilitator, met with Peter and James (the learners) in the course of the Applied Psychology II module. The psychology course map included the following learning outcomes:

At the end of the course, students should be able to:

- demonstrate understanding of a helping relationship
- apply basic communication skills of attending, listening and understanding in a helping relationship
- display an understanding of human development throughout the life cycle
- apply basic principles of social constructionism and externalising conversations to a helping relationship
- display an understanding of the effect of primary and secondary trauma
- demonstrate an understanding of the effect of loss on an intra- and interpersonal level
- display an understanding of personal relationships with substances
- display a personal understanding of HIV/AIDS

During the three-hour contact sessions, Peter and James were invited to collaborate in the discussion teaching. They both received a study guide in the form of a workbook in which they could make notes and reflect on case studies discussed during class. Continuous assessment was done in the form of various assignments, which carried a weight of 60 per cent of the final mark. The examination (an integrated oral assessment) constituted the remaining weight of 40 per cent. Examples of assignments include a helping skills project in which learners had to give evidence of situations where they applied helping skills such as listening, empathy or externalising conversations, with reference to a specific case study. A life analysis project in which learners had to analyse their own life by means of a developmental theorist of personal choice was used to assess their knowledge of life-span developmental psychology. After viewing the film, *The life of David Gale*, learners were invited to choose a character from the film to discuss the effect of loss and trauma, and to reflect on how the film and the assignment

impacted on their own personal views and relationships with death and secondary trauma.

Reflective journal writing was introduced as an integral part of the learning and teaching process, and also used as a means of data collection. The learners and the facilitator were required to make a journal entry on each learning outcome covered. Some open-ended questions served as a guideline to facilitate reflection-on-practice in the journals (see chapter 3, *Picking up Leaves*). Journal entries were not assessed, but complete journals, which covered all learning outcomes, contributed 10% of the total predicate mark. It is on the basis of these reflective journals that the private narratives of the learners and facilitator were explored.

This chapter follows Richmond's (2002) structure where the journal entries of Peter, James and the facilitator are presented in a story map of past experiences, present experiences and future intentions. Thereafter narrative themes emanating from the narrative analysis are identified. Each participant's narrative framework concludes with a core narrative utilising Labov's (1972) categories of abstract, orientation, complicating action, resolution, evaluation and coda. In concluding the chapter, a synthesis is provided of the narrative themes and patterns that emerged from the data analysis.

Peter: Story Map

Past experiences

Peter had known his fellow classmate for a number of years, but only met the facilitator at the commencement of the Applied Psychology II class. Since the B.Tech Medical Orthotics and Prosthetics course had not previously existed, it created the context for a new story to unfold. He wrote:

We have agreed that we all will give input into this new development since this subject does not exist until now.

Peter's involvement in the psychology module reminded him of the enthusiasm with which he had previously studied psychology.

When at home much later I reflected on a very special first lecture. I was filled with enthusiasm like in the days when I studied psychology at UP... Most of the literature was very familiar to me. I found myself recapping on some lost info I studied years ago. The reading up on the topic got some of the cobwebs cleaned out.

His previous training under a surgeon and his studies at university informed his understanding of psychology.

My training under a surgeon gave me clinically a different outlook on trauma. The studies in psychology at UP gave me a little more insight on the topic. I think that I cope better with the subject currently because of my previous studies.

As the Applied Psychology II module unfolded, Peter recalled a number of past experiences of which some were very painful. He realised that he was not the only person in the group with painful memories of past experiences. He wrote:

I told the group that I would not like to be anywhere but here right now. My past was too painful to be in again... While listening to the group as they responded on where they would like to be it caught me off guard on how stable their lives seem to have been. I found myself a little envious of them. I could also pick up that I was not the only one with some hurt in the past. From what James was saying I could easily pick up that he had some bad memories as well. The facilitator disguised her pain quite well. Although quite professional I could see her also showing body language of honesty on telling her story. I could pick up that she also had some pain in her past but seemed quite at ease with it.

Discussions about trauma invited Peter to share some of his own traumatic past experiences in the National Service with the group. As he recalled these experiences, he was reminded of his traumatic past.

I think with this session I had the drive to elaborate a little on my time in the National Service and things I did and saw. I observed from James that I might have struck a nerve with his feeling as well towards the army... I felt some hidden aggression towards the system about certain things that has happened in the past. Maybe we lost a bit of track during this session but it opened the floor to conversation between us.

Peter realised that his past experiences have had a significant impact on his life.

One other observation was a repeated one of realising again what traumatic history I had with how my life has evolved to today... I see that our childhood years still have very deep impact into all our lives. We all refer to some stage of childhood that have deeper meaning or some significance in our lives today.

Peter's experiences of loss and death in the past made him appreciate life so much more. He wrote:

I count myself lucky to have lost something special... The fact that I have faced death in the army made me appreciate life just so much better.

The class discussions about relationships with substances brought forth an account of past adolescent experiences and school reunions. He recalled:

I find it quite funny how we are manipulated as teens into joining cliques, gangs or groups and after leaving school totally redirect our lives to become successful. What throws me is what we do when we have reunions and old school mate gatherings. We immediately fall back into the same old cliques, gangs and groups we belonged to when last in school. Although we all have professional qualifications and so on we demonstrate exactly the same actions when we were

adolescents. It somehow demonstrates the effects that peer pressure and all those topics in discussion have had on us. We present adulthood physically but act like children mentally. Those who smoked or abused alcohol at school suddenly do it again without provocation.

He realised that he has already been practising some narrative therapy principles in his own practice.

It was clear to me that in my own practice and surroundings I am already practicing at large the narrative therapy model. Maybe not in such detail but still.

Present experiences

Peter began his present experience with great anticipation and explored his fellow group members from a distance and with scepticism.

It was with great anticipation that I met up with the small group that was to form the pilot study in Applied Psychology for the B.Tech Medical Orthotics & Prosthetics. On meeting with our facilitator and lecturer we explored one another at a distance... The first thought that crossed my mind on meeting with both of them was one of a little bit of scepticism regarding the enormous task that was in front of us.

The first session assisted him in establishing a better understanding of his group members and of the psychology course.

We established some understanding of interactive input during the first session of who we are and what we want to be and that it would be the model for the rest of the lectures ahead.

He compared the facilitator's qualifications and capabilities with his first impressions of her.

On reply from the facilitator many thoughts crossed my mind. I was thinking about her qualifications as I could see them across the room. I

was also thinking of her capability to handle this subject since our course is such a complicated one. Her response was very enthusiastic and she crossed me as being in the right profession. My first personal impression of her was one of a good listener.

During the first session Peter came to realise his own need to talk to someone about his profession, but also about personal issues.

During the lecture it became apparent to me that it seemed that James and I have found someone to talk to about issues related to our profession and personal issues... I had so much to give for this subject to be used for examples in developing this subject into something special that I did not become aware at first what need there existed for me to talk to someone as well.

Self-disclosure, performing life stories and witnessing the stories of others held significant meaning to Peter, and he wrote about this experience continuously.

During the session I felt that we as a group were forming something more than just merely a study group. It felt that we could share something with one another a little bit more on personal issues of a general nature without feeling uneasy. Somehow it was a good feeling.

He was aware of the honest way in which the facilitator disclosed her life story. This in turn, allowed him to share stories of his own experiences, resulting in a release of stress.

I have had a tough week and some work issues crept up that we discussed. During our release of stress I also came to realise the need to talk with others on work-related stress and issues.

He became aware of “our inability as professionals to deal effectively with stress”. The discussions about Peter’s past experiences in the National Service created a common interest and encouraged the sharing of stories: “I observed from James that I might have struck a nerve with his feelings as well towards the army”. Performing

his own life stories and witnessing the stories of others left Peter feeling content and recharged for the next session. He wrote:

I was feeling very positive during and after the session was over. On the way back to my office I could not help to feel charged for the next session.

Being a participant in the facilitator's PhD study left Peter with a sense of value in contributing to another person's personal development.

My mind was going back several times on the facilitator's comment on completing her PhD and using us as basis of her study. For me this is a huge compliment. If we can stimulate just one professional working with us it will equal tens of students qualifying. I was glad that although we were a study group there still was room to influence one another to higher level of performance and thinking.

Peter enjoys his present life experiences and would not like to exchange them for his past experiences.

I told the group that I would not like to be anywhere but here right now... I enjoy my life right now. I like to be around my children and wife.

Peter found the co-constructed meaning relating to helping skills and externalising conversation principles useful to apply in his future intentions in his practice and teaching to students: "*the lecture today gave me some helpful hints to use narrative therapy in my practice and teaching to students*". Reflecting on the construct of co-constructing knowledge challenged Peter to position himself differently as a lecturer in future:

The idea of co-construction of knowledge is starting to sink in with me. I find myself thinking aloud throughout the day on the way I lecture to students. I think this new method will allow my students to participate at a different level in lectures with me and I am quite challenged at the thought of it. I like challenges.

He was hesitant to share his life story with the facilitator in a life analysis assignment: “On receiving the assignment I thought it would be a huge task. I have an idea what school of psychology to use but seem a little hesitant to put my life on paper before strangers”. However, during session four he reflected on the meaningfulness that the assignment had for him.

The long assignment of the holidays was still fresh in my mind and the effect thereof on me I think was quite easy to see. I felt quite relieved after doing the assignment, not for the work that went into it but for the therapy value it had for me. It felt good afterwards to have completed the assignment.

Peter realised that every individual constructs his or her own meaning of knowledge and that everyone is entitled to their own opinion.

Today’s lecture made me aware again of all the different viewpoints of loss and bereavement. My point of opinion is only my own. The viewpoints of my wife, children, patient, and others are their own and they are entitled to it... My own outlook on life and the viewpoint on death have a different meaning for different people.

He also realised that what people believe are only contextual truths. He wrote:

I learned today how irrational we all are. Our perception of substance abuse is based on what we believe. What we believe is not always true... I could see that all of us although understanding trauma interprets it differently.

He thinks that others have much to learn about the orthotist/prosthetist profession, including the facilitator.

It struck me how little other professions know about our scope of practice... Very few people know what we practice and it is evident to me that she [the facilitator] still need to be enlightened on the whole scope of our profession.

Societies' construction of substance use scares Peter.

What amazes me however is how we as fellow colleagues, friends, family etc., sweet-talk these issues. No more judging of character, dislike in attitude and so on. Only a "see-past-it" attitude. It is scary. People are not scared anymore to show what they are doing. They do it openly and un-ashamedly with disrespect towards the law, friends and their own integrity.

Peter's attention was drawn towards the risk he has in his profession of contracting HIV/AIDS.

The one thing that did grab my attention is the risk I have in contracting this disease. As a practitioner I am at risk of being infected by means of carelessness. We as practitioners know the dangers but are careless towards safety precautions and protocol.

The discussion on loss and bereavement left Peter with questions regarding religion.

My observation was one of how do we know that the religion we are following is the right one. What are we to do when we come to understand too late that we have been on the wrong track ever since?

Peter believes that the meaning constructed from acquired knowledge is dependant on the responsibility that individuals take in creating meaning for themselves. He believes that in the process of helping a client, he is also changed as a person. He compared this with the metaphor of a gait analysis:

Psychology is like gait analysis. There are different moments in the gait cycle that have an impact on the overall walking pattern. If you make a small adjustment on toe off, you create a new problem with heel strike. The skilled practitioner will know what to adjust and what to leave alone. Life is very similar. One gets born with all the potential to have a good gait cycle in life. Through your lifespan it is necessary to adjust something here and there all with an end result affecting the final walking cycle.

How you will adjust your own moments of impact depends very much on acquired knowledge and what you do with it. Some people become mere strollers, walkers, and joggers while others become Olympic athletes running like the wind.

Some of our patients are unable to walk initially. With help from us they can progress to a shuffle. They go from no gait cycle to a completely new cycle. And it touches everyone who is in contact with them - most of all you.

Future intentions

Peter described his future by means of an analogy of a tree with big branches shadowing his family. He positioned himself as a protector:

On answering the group for my response on where and what I would like to be I reflected on being a tree with big branches shadowing my family. For me the example simplifies my outlook on life and what I stand for. A big tree withstands the elements of time, is a landmark for the area, a playing area for children, gives shelter against sun, wind and rain. I somehow didn't think that the group saw it in that light. It had more symbolic meaning to me than they understood.

This analogy reminded him of the orthotist/prosthetist's responsibility as practitioner in future: *"I think that by the end of the lecture it became quite evident that we as practitioners have an enormous responsibility towards patients and community".*

He realised what impact and role psychology has to play in his profession in future. Peter hopes that future B.Tech students will grasp the concept of social constructionism and gain a meaningful perception of rehabilitation from this point of view.

The co-construction of knowledge in narrative therapy I think will be a good reference for our profession that I hope the new students will

grasp. I constantly am thinking that the leap from previous training in psychology as a subject in the N Dip those practitioners will gain new insight into the world of rehab with this school of thought as viewpoint.

He would like to use the co-construction of knowledge as an invitation to new learners to collaborate with him: *“I think this new method will allow my students to participate at a different level in lectures with me and I am quite challenged at the thought of it”.*

He suggested that the life analysis project should be incorporated into future psychology lectures, due to the value it has had for him. He wrote:

I am looking at the value of doing such an assignment to be highly underrated. I will suggest that this assignment be incorporated into all psychology studies for students and practitioners alike.

Peter suggested a number of issues that could be followed up in future. These include ‘the lost generation’: *“I think my comments on the lost generation caught them a little off guard. Maybe this point needs to be explored further in future”*; issues relating to faith and death: *“I also get the feeling that both my two colleagues have issues with faith and themselves that need to be explored or confronted”*; the impact of HIV/AIDS on our future: *“I am also convinced that we do not realise yet the impact this disease will have on society... When the end result finally hit this country we will be ill prepared to deal with all its facets of manifestation”*; and dealing with trauma/disaster: *“we will have to be equipped enough to direct our patients through some difficult times in order to cope with demands regarding personal disaster”*.

He believes that he will be shaken if someone very close to him dies in the future.

Although I have an open mind about the issue of death I still think I will be shaken if that special person comes any closer to what I have experienced before.

The thought that his children might be exposed to substances in the near future scares him.

I am scared at all the new methods of criminals in finding ways to introduce substances to children. Even at my son's school is it present. I am scared of the consequences it may have on my family in future. I also am scared that those in our family currently on substance abuse will introduce it to my children because of the joke of it. How often have I seen at parties where adults give toddlers alcohol to drink to see how they will react to it. Big joke!

He is not sure what his future position and feelings will be on the topic of HIV/AIDS.

The lecture on HIV/AIDS has made me think. My answer is not defined to what I should be feeling. Time will only tell.

Peter believes that as an orthotist/prosthetist he can make a contribution in a helping field in future: *"in future we all will be therapists of some sort"*.

Narrative Themes

Peter's meta-narrative of the teaching and learning process can further be clustered into narrative themes. Stories of teaching and learning, co-constructing knowledge, community of concern, reflection-on-practice, life-analysis project, and agency emerged from the narrative analysis. Elucidation of the narrative themes includes visual representations of the grouping of codes into family trees (see chapter 3, *A story map to guide the way, step 3: Analysing*, for a full description of the analysis process).

- Teaching and learning

In Peter's story of teaching and learning he writes about a different approach towards teaching and learning (strengths model) in contrast to the traditional model (deficit model) that he has been accustomed to: *"I think that the level of student in this group is quite different to that from a normal classroom"*. Although he is initially sceptical of the teaching and learning challenge, his first impression of the facilitator encourages

him to be open and to participate as an active learner. Peter collaborates in the discussion teaching and the co-construction of knowledge. He also describes a new sense of responsibility as a learner and as a practitioner. The responsibility that Peter refers to is congruent with McNamee and Gergen's (1999) notion of relational responsibility. The teaching-learning transaction acts as a spur for life-long learning and Peter realises that the facilitator can even learn more from him about the profession of orthotics and prosthetics.

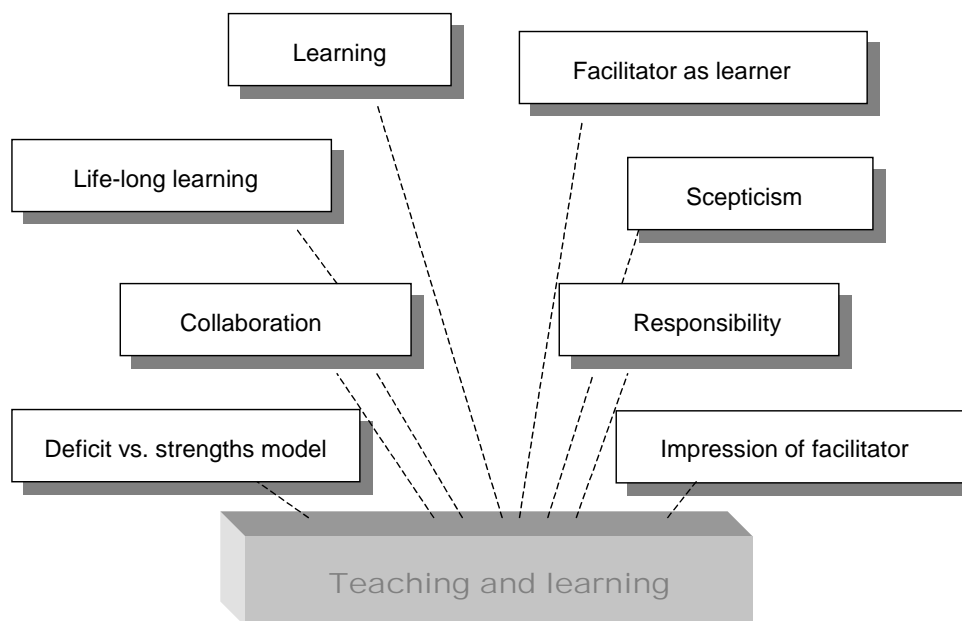


Figure 9 **Network view of teaching and learning (Peter)**

- Co-constructing knowledge

The story of collaborating in the co-construction of knowledge is introduced with the social construction of the first B.Tech Medical Orthotics and Prosthetics programme in southern Africa. Peter writes about the invitation to learners to participate in the discussion teaching and to give interactive inputs. During the process of collaboration, Peter continuously evaluates and reconstructs his existing knowledge regarding psychology and creates his own meaning of the co-constructed knowledge. He realises that contextual truths exist and that people construct different meanings of knowledge. Peter's personal narrative of specific knowledge systems and beliefs

(propositional, procedural and dispositional knowledge) concerning topics such as substance use, are challenged during the teaching and learning process. The process of co-constructing knowledge created an awareness of the purpose of knowledge, the skills it develops and how Peter can use it in practice.

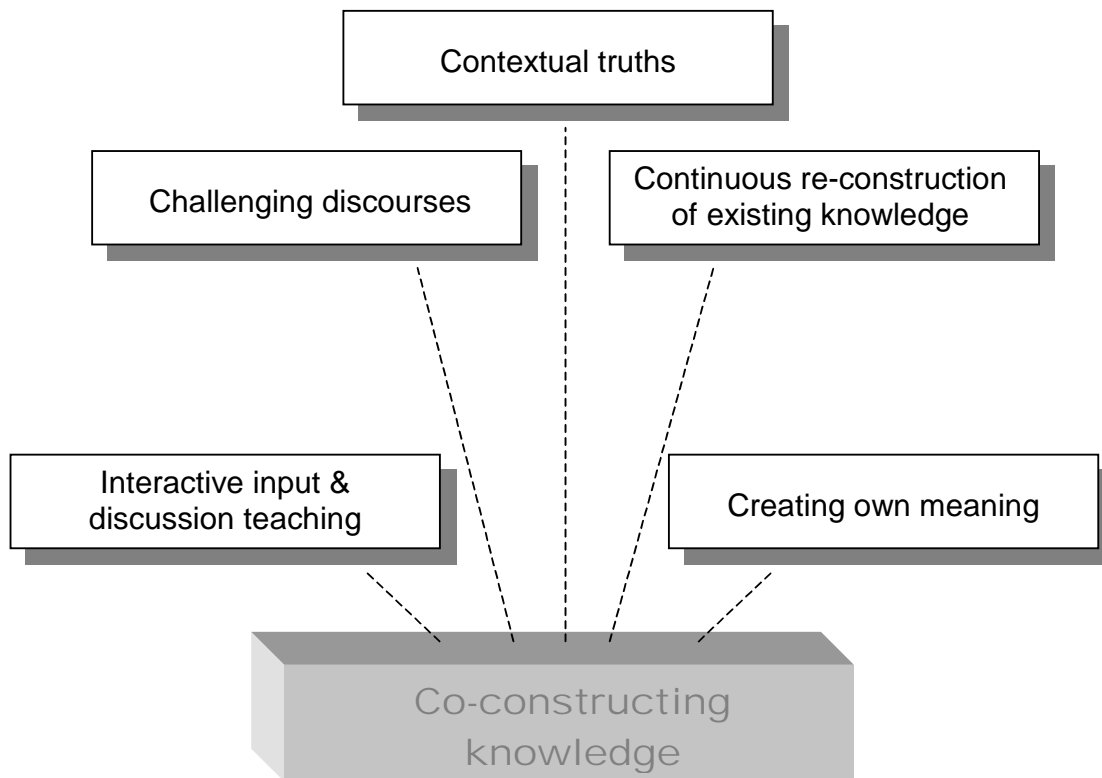


Figure 10 **Network view of co-constructing knowledge (Peter)**

- Community of concern

Peter writes about the inviting and supportive learning environment, which brings him to the realisation that he has a need to talk and to perform his life stories before a supportive audience. Sharing his life stories offers him an opportunity to release stress. Entering into dynamic dialogue allows Peter the opportunity to exchange ideas, thoughts, opinions and feelings in a learning environment that makes room for all voices (facilitator and learners). From the dynamic conversations, Peter is able to co-construct meanings and ways of understanding himself, his patients and the co-

constructed knowledge. For example, he realises that he and James share similar experiences of their previous engagement with the army. Peter's sense of belonging, contributes towards the establishment of a community of concern.

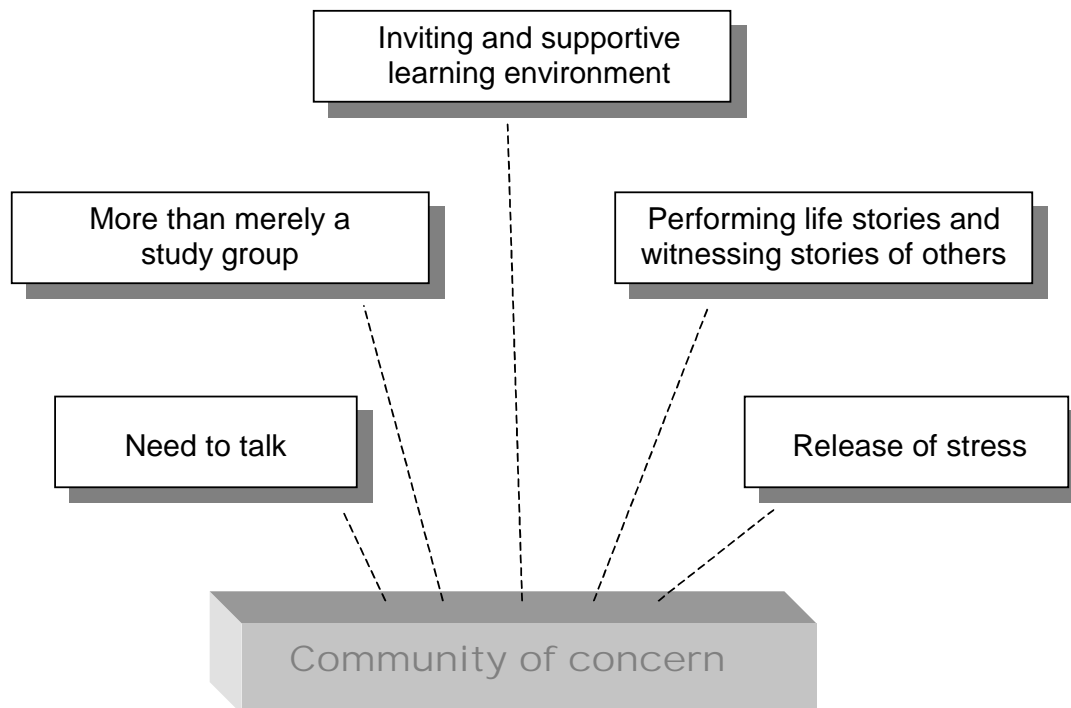


Figure 11 **Network view of community of concern (Peter)**

- Reflection-on-practice

Reflecting with oneself and others, and putting silent thoughts into spoken or written words, form an important part of learning in the Applied Psychology II module. Throughout the psychology course, Peter finds himself thinking aloud and reflecting on the class process and the value of the co-constructed knowledge. His story of reflection includes an awareness of the effectiveness of his current skills, the value of newly acquired skills and knowledge that he can apply in practice. He also expresses an awareness of where his dominant narratives come from and the impact that they

have on his relationship with others (application of content, process and premise reflection).

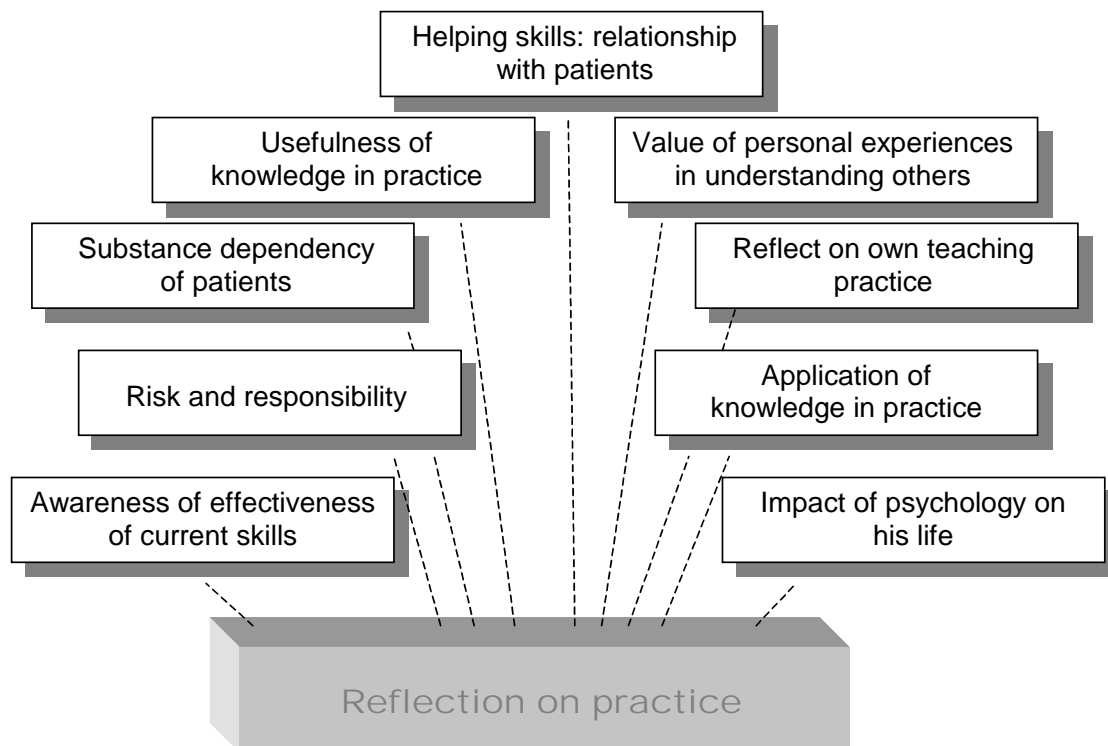


Figure 12 **Network view of reflection-on-practice (Peter)**

Peter ascribes value to the contribution of his own life experiences, such as death, bereavement and trauma, in terms of better understanding his patients. Reflecting on meta-narratives surrounding substance use (one of the learning outcomes of the Applied Psychology II module) encourages Peter to relate his new understanding not only to his practice, but also to his personal relationships. His reflection on his own teaching practice emerges spontaneously from the experience of participating in a collaborative learning process. The reflection process furthers an awareness of professional responsibility and encourages reflection as part of everyday practice in Peter's life.

- Life-analysis project

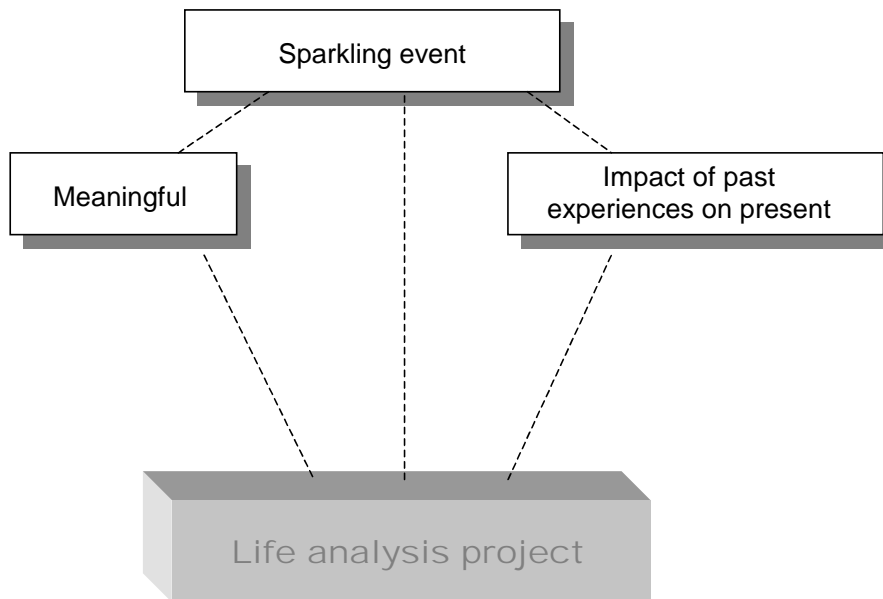


Figure 13 **Network view of the life-analysis project (Peter)**

Peter refers to the completion of a life-analysis project (a life-story narrative project introduced in teaching life-span developmental psychology) as a unique outcome in his life. Completing the project created an awareness of the impact of his past experiences on his current experiences, as well as an opportunity to re-author his life. Peter expresses a favourable attitude towards the assignment as an effective learning tool by which he was able to undertake an introspective analysis of his own development. Through the life-story narration, Peter could connect and construct his life experiences into a personally meaningful artefact.

- Agency

Agency in Peter's narrative refers to his perception of competency, or his ability to perform or take action.

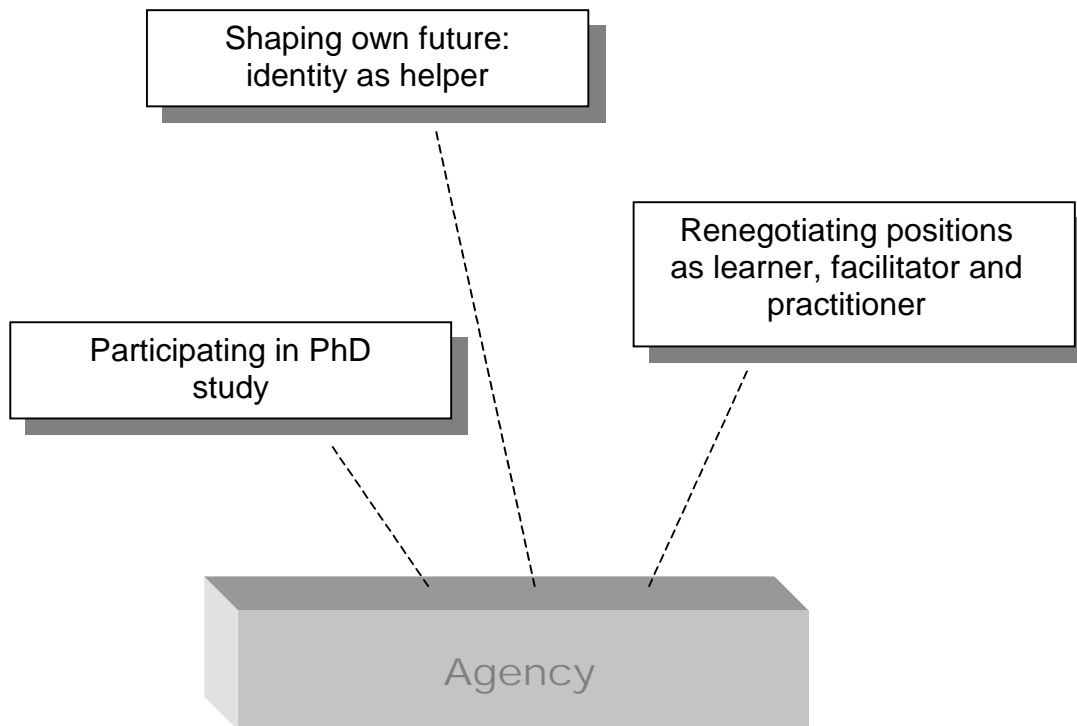


Figure 14 **Network view of agency (Peter)**

Participating in the facilitator's PhD study contributes towards Peter's sense of accomplishment and agency. He writes about his agentic negotiation in positioning himself as a collaborative learner, facilitator and research partner. Peter realises that he has the potential to collaborate in knowledge construction and meaning making. Through his engagement in conversational becoming, Peter constructs and reconstructs representations of self as helper, professional orthotist/prosthetist practitioner and protagonist.

Narrative Core

Abstract

Peter's narrative on teaching and learning is guided by his early life events and previous learning experiences. The enthusiasm with which he previously studied psychology, has been rekindled by his participation in the psychology module for the B.Tech Medical Orthotics and Prosthetics programme.

Orientation

The setting of Peter's narrative takes place during the course of an applied psychology module for B.Tech Medical Orthotics and Prosthetics. He writes about his experiences of teaching and learning in the process of co-constructing knowledge. James, his fellow classmate, and the facilitator are the other actors involved in the collaborative learning community.

Complicating actions

Peter's previous training informs his current understanding of psychology. The authority of public narratives regarding the power hierarchy of facilitators and institutions of knowledge production informs the positioning that he ascribes to the facilitator. Her qualifications and listening skills bestow a higher level on authority to her in comparison to him as a learner.

However, through the process of utilising the assumptions of social constructionism as part of the philosophy that underlies the learning experience, Peter is challenged to reconstruct how he thinks about teaching and learning. Collaborating in the co-construction of knowledge helps him take responsibility as a learner and practitioner, and reflection-on-practice encourages Peter to be active and purposeful in his learning and in determining his direction. Through engaging in dynamic dialogue with his classmate and facilitator in a community of concern, Peter is able to co-construct meanings and understandings of himself, his patients and the co-constructed knowledge. The life-analysis project creates a unique outcome in allowing Peter to connect and construct his life experiences into a personally meaningful artefact. The academic knowledge that Peter constructs pertaining to theories of human development is transferred and applied to his personal life story. In the process, these become meaningful knowledge constructions that he can refer back to in his interpersonal encounters with patients in practice. He realises that people construct their own meaning of knowledge and learns to respect differing opinions. He also comes to realise that beliefs are contextual truths and rejects the authority of public narratives

embedded in a deficit model of teaching and learning that argues for knowledge as a single scientific truth.

Resolution

Peter writes about his agentic negotiation in positioning himself as a collaborative learner and embraces the potential to invite prospective learners to collaborate with him, as a facilitator, in the knowledge construction process. He also positions himself as a protagonist in being one of the first learners in South Africa to successfully complete the B.Tech learning programme and to lead the future training of orthotist/prosthetists in developing countries.

Evaluation

The public narratives of teaching and learning embedded in a deficit model informed the way that Peter's narrative initially unfolded. His narrative started off with an authoritative positioning of the facilitator as someone with more knowledge and power and of himself, as a learner, as someone with lesser responsibility in the teaching-learning transaction. However, in the process of inviting learners to collaborate in knowledge construction, we witness a shift in Peter's story towards a position as an equal partner in a collaborative learning context, who shares responsibility with the facilitator. His narrative concludes with a balance between individual meaning making versus collaborative meaning construction with his acknowledgement of the existence of contextual truths.

Coda

Peter values the important part that psychology has to play in his future and believes that he can make a contribution to the helping field as an orthotist/prosthetist.

James: Story Map⁷

Past experiences

James described the narrative beginnings by writing that “*my journey begins as a small boy with lots of trauma in my life!*” He blamed trauma for missing out on childhood experiences: “*the trauma is to blame for the man I am today. Due to trauma I could not enjoy life as a youngster and do all the boy things*”.

In his attempt to catch up on lost time and change the past, he feels as though he has missed out on the present and on quality time with his family. He writes:

My wife and I have had a lot of quarrels, since in my thirties with the financial means to support my activities, I started to do all the boy things, like model cars, airplanes, fishing etc. This had a negative impact on our family time since I am using this time for playing and not to grow closer as a family... I always tried to change the past and in the process, missed out on the present.

James used aggression as a coping mechanism to deal with the pain and loss. He recollected traumatic and painful past experiences of which his wife and parents know little.

My parents and I had so many issues that were never discussed. My wife is not aware of all my skeletons.

Through his involvement in the orthotics/prosthetics profession since its early beginnings and his leadership in developing the B.Tech learning programme, James feels that he has been recognised as a protagonist in his profession. He wrote:

I am surely one of the few orthotist/prosthetists in the country who can speak from experience about the old and the new! I studied through the original internship training, did a bridging course with technikon students and then qualified as practitioner. I was a study leader for the

⁷ Note: direct quotes from James' journal is the researchers' translation and transcription of Afrikaans to English text

construction of the B.Tech programme and presented papers on this topic in Germany and San Salvador. I find it very meaningful and rewarding to know that I have done so much for the profession and to be recognised as a protagonist.

James' inability to open up and talk about his emotions and feelings created the context for the rest of his story as it unfolded during the course: *"I never knew how to open up ..."*

Present experiences

James started out with openness to new experiences and an eagerness to develop and grow as a person. He wrote:

The fact that I am 35 years old does not imply that I have developed optimally! I believe that one should be open to new experiences that life offers. Open in order to grow and develop! Experience everything and hold on to what is good! Without experience I (and others) cannot grow!

Although he has had many positive experiences in his life, he often feels incapable of helping himself. He would like to manage experiences with passion, just like the facilitator.

I wish I knew what helping means! There are so many positive aspects of my life, but I often feel depressed because I don't know how to help myself. I have certain principles by which I live and also expect from others to act with a positive attitude, respect and honesty. The facilitator manages situations with passion – I would like to follow her example in managing situations in my own life with such experience!

As his experiences of teaching and learning unfolded during the course of the year, James discovered unique outcomes that created doorways to alternative stories in

his life. The life-analysis project was a sparkling event or unique outcome that enabled James to re-author his life. His courage in inviting his parents and wife to witness his life story resulted in open communication, better understanding and a feeling of being “*on top of the world*”. James’ ability to express his emotions and feelings in writing allowed him to deconstruct a personal narrative of the inability to communicate or open up, and assisted him in performing new meaning. He wrote about this unique outcome:

The feeling of ‘on-top-of-the-world’ after completing the assignment was indescribable ... I feel much better after my wife and parents read my assignment, because I can’t express myself verbally that good, but writing about my experiences allows them to rethink things at their own time. My frankness in sharing my experiences opened the door for effective communication. I always wanted to build my life on a solid foundation of life experiences, without all these negative issues and the life analysis project gave me the key. Caption: As a result of this, my relationship with my parents has improved, especially from my side.

The class discussions gave James an opportunity to share stories of his experiences with the group and to witness the stories of others: “*the contact sessions with the facilitator invite open and dynamic dialogue!*”

The learning environment created the context for repressed memories of trauma to surface and allowed James to deal with trauma in a supportive and safe environment. He felt that his classmate and facilitator played an important role in helping him to deal with trauma in his life.

I think that I have repressed trauma so deep, that it only surfaces during class discussions. It is during these discussions when the pain and sadness surface and it leaves me burned-out and with fear that the house-of-cards will collapse. Peter and the facilitator play an important part in supporting me to deal with the trauma during class.

Sharing his stories about trauma led to another unique outcome in that James was able to eat watermelon for the first time in 18 years without being overwhelmed by

traumatic memories of the past: “*For the first time in 18 years I had watermelon this summer! Thanks!*” He was left with a feeling of wholeness regardless of his traumatic past experiences.

James learned that sharing painful or difficult experiences in his life with others helps to reduce overwhelming emotions and release stress. He wrote:

The helping skills gave me a foundation of developing my self-image and how to handle communication and stress! In the past pain and sadness of loss created aggression, but now, a year later, I am able to acknowledge that the sharing allowed the loss to subside and disappear!

Reflecting on the unique outcomes that unfolded through the “landscapes of action” (White, 1991, p.31), James gave meaning to these events and constructed representations of selfhood that could take ownership of the present, invite free expression of emotions and encourage self-acceptance.

I believe that I am busy to beat this monster through learning to share more of myself with my spouse. I never knew how to open up, but through the B.Tech course and self-development I have learned to come closer to the comfortable me by expressing my feelings! Thank you!

His wife became a witness to his life-changing knowledge and acted as an audience to performances of the new story. He wrote:

At the end of a year’s hard work, I can relax and my wife, in particular, says that I am a much more pleasant person to be with!

James also created a professional identity that allows him to understand, help and support others with confidence. His working relationship with Peter improved as a result of this.

I can work with a patient, understand, help and support with confidence and I am glad to be a part of the rehabilitation system. My relationship with Peter has improved as a result of open communication and for the

first time in our careers Peter and I complement each other by working towards a collaborative goal. In combining Peter's academic approach and my practical approach, we can facilitate a class from different perspectives and still reach the same end result – great!

Through his experiences in the course, James realised that everyone has a relationship with substances. He learned to take ownership of his relationship with smoking and not to blame peer pressure. Through this process James is reclaiming power from smoking. He wrote:

All of us have some knowledge about substance abuse either through personal experience or through contact with a patient... I can make a choice to overcome my problems. To hide behind peer pressure is no excuse for my smoking. I am the only person who can sort it out through the choices that I make.

He recognises the importance and value of helping skills, empathy and listening in the rehabilitation process.

Communication plays a vital role – sometimes you have to listen first before you do a fitting. The best prosthesis will not necessarily rehabilitate a person, unless the patient's emotional needs are addressed. As practitioner, I have to learn to be patient, to give the necessary guidance, to be empathic and even sympathetic at times and to place the patient's well-being always first.

James' attention was drawn towards the risk of contracting HIV/AIDS he takes in his profession. He feels that he should act in a responsible manner that is not detrimental to the patient's treatment.

I often treat a patient without considering his/her HIV status and in the process I can place myself at risk in contracting the disease. I have to remind myself to be more cautious, but not to the detriment of the patient's treatment.

The class discussion on loss and bereavement assisted him in becoming aware that he deals with loss through repression and denial: *“when I lose a friend, not necessarily through death, I often put off the friendship and avoid thinking about it again”*.

In the process of articulating the unique outcomes, James brought the stories of his experiences into the foreground of an emerging alternative story. He named this alternative story a *“success story”*.

It is so meaningful to me to be a part of such a success story...

In the success story, James privileged the facilitator’s significant membership in assisting him to reconnect with his alternative story.

Without your (the facilitator) contribution I could never have been part of such a success story. Your constructive contribution towards my self-actualisation and self-acceptance is fantastic! Once again thank you for being such a wonderful person and excellent lecturer!

The meaning that James ascribes to his *“success story”* cements the unique outcomes into a foundation for his future intentions. He now lives life to the full:

I now live life to the full and ensure that I make the best of every day before I lay my head down to rest at night.

Future intentions

James is now able to place the dominant problematic stories of his past in the background and access his alternative story as a resource in his future. He feels that his experiences in the psychology course have provided him with a sound foundation and a key for his future. He wrote:

I always wanted to build my life on a solid foundation of life experiences, without all these negative issues and the life analysis project gave me the key. It takes time, but I believe that the class contact gave me the key to deal with the trauma.

He believes that these resources will affect his future actions and shape his personal and professional identity. He also believes that he has personal agency in shaping his own future.

The class of psychology gave me the strength to stand up, make choices and to develop me in to the person I want to be for myself and for my family. I can work with a patient, understand, help and support with confidence and I am glad to be a part of the rehabilitation system.

James fears the day that suppressed emotions of pain and loss might surface to a conscious level and he thinks that he may be overwhelmed with grief if that happens.

I think perhaps one day all the pain and sadness might surface and then I fear that I will be overwhelmed with sadness and grief!

He believes that the B.Tech has created an equal playing field for the future of orthotic/prosthetic practitioners in South Africa.

I believe that the academic field has now been elevated to an equal playing field through the status of the B.Tech degree and better qualified professionals who set an example for higher professional standards.

Reflecting on his experiences in the B.Tech year, James used the analogy of puzzle pieces fitting together into a clear and positive picture of his future. He saw this puzzle as a thickening of his success story.

I wonder sometimes whether my future will yield light at the end of the tunnel. If I have to answer myself ... Yes! Why do I answer yes? Life is not always fair – you and the environment in which you function are often challenged! However, as time pass by I see, for the first time, how all the pieces fit together. The B.Tech, the lecturers, and in particular the conversations during the psychology classes have made a constructive contribution to build a successful puzzle in my life, as well as an important corner-stone for a wonderful career in Medical Orthotics and Prosthetics!

James concluded his notes with excitement about his future: “... *I am looking forward to tomorrow!*”

Narrative Themes

James’ meta-narrative can further be clustered into narrative themes. Stories of teaching and learning, co-constructing knowledge, community of concern, reflection-on-practice, life-analysis project and agency emerged from the narrative analysis. Elucidation of the narrative themes includes visual representations of the grouping of codes into family trees.

- Teaching and learning

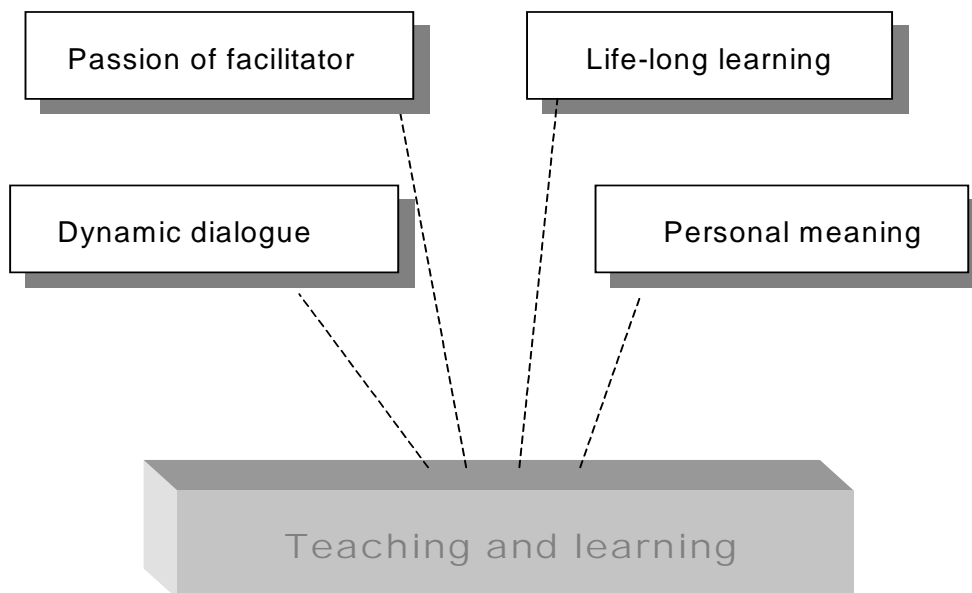


Figure 15 **Network view of teaching and learning (James)**

James' story of teaching and learning starts with his openness to new experiences and an eagerness to develop himself. His experience might be indicative of his view of progress as a life-long process, and not as linear and infinite as suggested in the modernistic public educational literature (Edwards & Usher, 2001). He believes that progress is a basic human condition for self-actualisation. The facilitator's passion for psychology inspires him to approach his own learning with passion.

In a collaborative learning community, James is invited to engage in dynamic dialogue. Although he finds it difficult to express himself, he collaborates in the teaching and learning challenge, which results in the creation of life-changing knowledge.

- Co-constructing knowledge

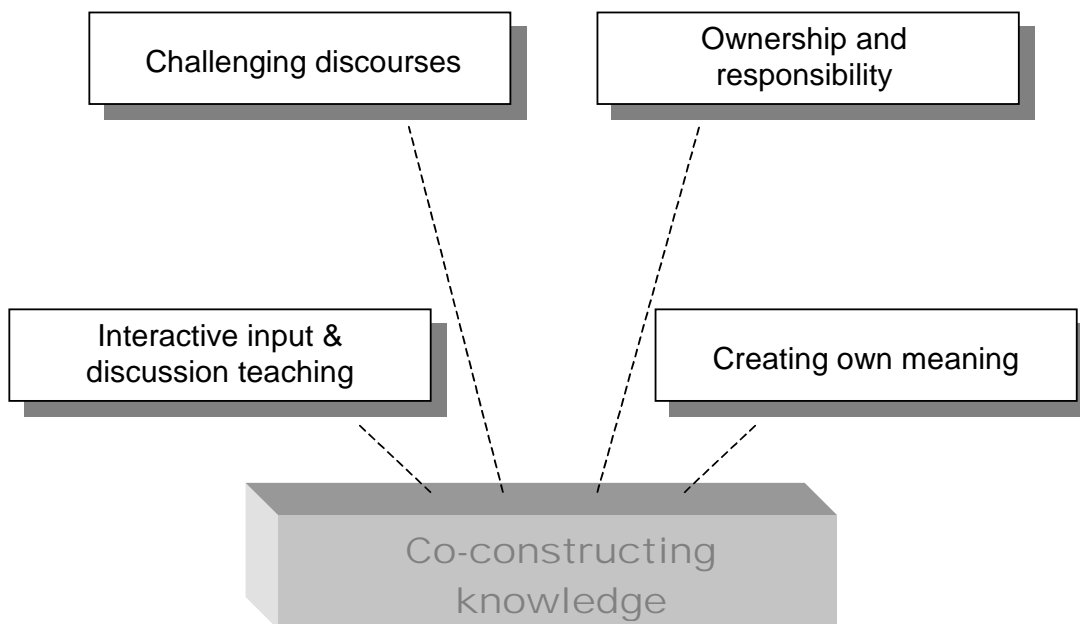


Figure 16 **Network view of co-constructing knowledge (James)**

In James' story of co-constructing knowledge, it becomes evident that both his knowledge of psychology and self-knowledge are products of communal construction. It is through social dialogue, interchange and interaction that James' dominant

narratives surrounding topics such as substance use, trauma, death and bereavement, developmental psychology, helping skills and HIV are challenged. Of particular interest in James' story is the personal meaning that he attributes to the co-constructed knowledge. Through his continuing self-dialogue, as well as the discussion teaching during class, James is able to apply the co-constructed meanings of knowledge not only to his practice as orthotist/prosthetist, but also to his personal life. This results in a liberated understanding of his relationship with trauma, substance and ability to communicate.

Furthermore, James relates ownership and responsibility as a learner and as a person to the personal meaning that he attributes to the co-constructed knowledge. In the process of co-constructing knowledge, James is able to resurrect his subjugated knowledge, which enables him to come to new realisations about himself and his relationships. White and Epston (1990) define subjugated knowledge as the process in which certain knowledges of persons are subjugated to the dominant discourse that denies them validity. In James' narrative his special skills in helping others have been subjugated to the meta-narrative of an inability to communicate effectively or open up. However, the life-changing knowledge that was co-constructed in a collaborative and supportive learning experience allowed him to discover his special helping skills and to bring them forth.

- Community of concern

James writes about the inviting and supportive learning environment in which he could connect with his classmate and the facilitator. In this community of concern, James has room to find a way to voice his emotions and thoughts, which results in a deconstruction of the meta-narrative of 'an inability to communicate or open up'. From the dynamic conversations, James is able to co-construct meanings and understandings of himself, his patients and of the co-constructed knowledge. James

ascribes special membership to Peter and the facilitator, who act as an audience to the performance of a new story of teaching and learning in his life.

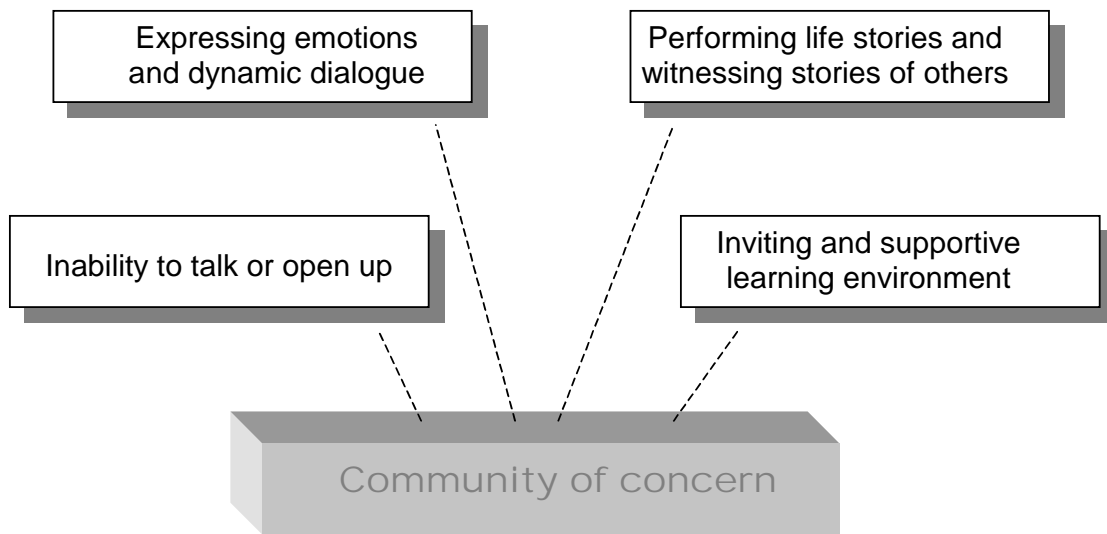


Figure 17 **Network view of community of concern (James)**

- Reflection-on-practice

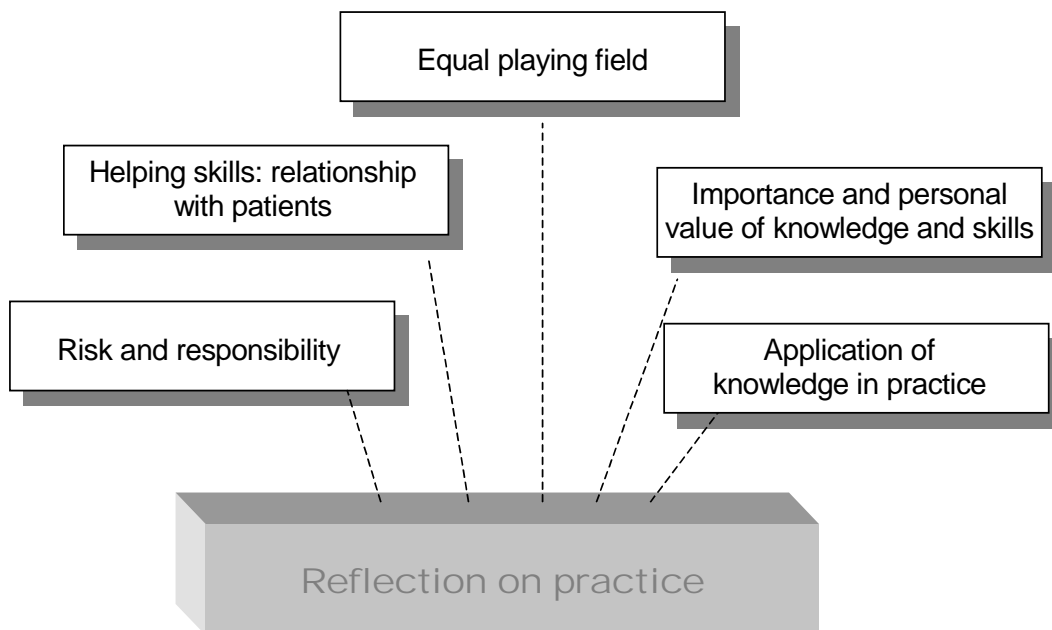


Figure 18 **Network view of reflection-on-practice (James)**

Reflection forms an important part of James' learning process. Putting his silent thoughts into written words in the reflective journal spontaneously results in James' desire to go further and write reflections-on-his-reflections. James reflects on his responsibility as a practitioner to be patient and responsible when he interacts with his patients. Furthermore, his story of reflection includes an awareness of the importance and value of knowledge and skills that he can apply in both his professional and personal life. In his reflections-on-practice, James acknowledges the contribution that the B.Tech learning programme has made in the creation of an equal playing field for orthotists and prosthetists, both nationally and internationally. The reflection process furthers an awareness of professional responsibility and encourages reflection as part of everyday practice in James' life.

- Life-analysis project

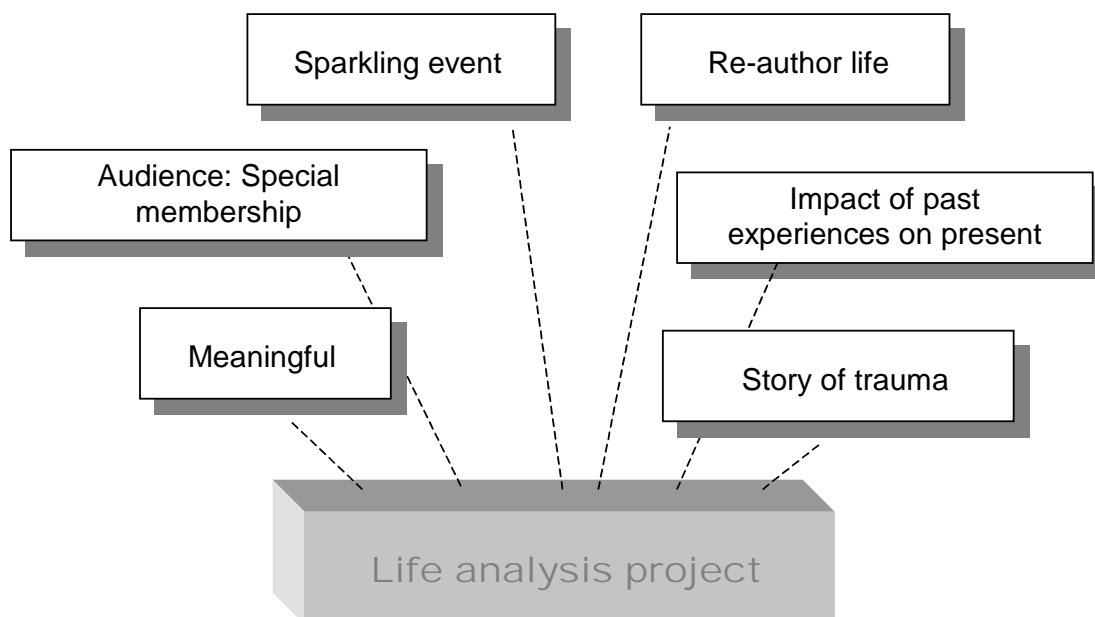


Figure 19 **Network view of the life-analysis project (James)**

The life-analysis project in James' story (a life-story narrative project introduced in teaching life-span developmental psychology) acts as an unique outcome (an

exceptional event that is inconsistent with a problem-saturated story), which creates a doorway to the creation of a new preferred story. Through the life-story narration as a learning tool, James is able to access his capability to express his emotions and feelings through writing, which cultivates a seed of newness in his personal and professional life.

In the process of re-authoring his life, James reclaims his life from trauma and finds his voice as a writer. He invites his wife and parents to witness the performance of this alternative story, resulting in the creation of new meanings, understandings and knowledge of his own life-span development. Through the life-story narration James connects and reconstructs his life experiences into meaningful, life-changing knowledge.

- Agency

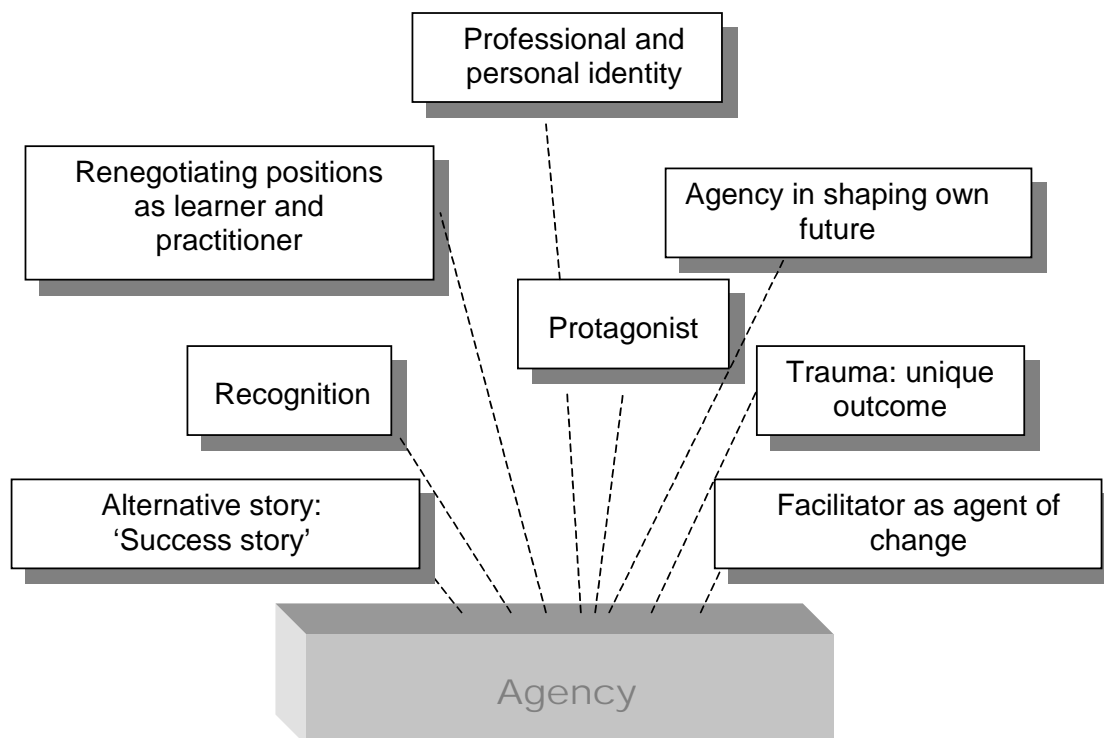


Figure 20 **Network view of agency (James)**

James' narrative of agency becomes a way in which he creates multiple possibilities and varied ways of being and acting in the world. He transforms his professional identity through acting as protagonist in presenting papers at international conferences relating to the co-construction of a B.Tech learning programme in South Africa. The recognition that he receives from the orthotics/prosthetics professional board contributes towards his agentive potential.

James writes about his agentive negotiation in positioning himself as a collaborative learner and as a confident practitioner. Reflecting on the unique outcomes that unfold from the collaborative knowledge construction process, James is able to take ownership of the present and to construct positive representations of self. James acknowledges the facilitator's contribution as an agent of change in his life. He is able to place the dominant problematic stories of his past in the background and access his alternative story as a resource in shaping his future.

Narrative Core

Abstract

The story of James' past experiences describes his attempts to catch up on lost time. He felt that his past trauma resulted in his missing out on the present. His inability to open up and talk about his emotions and feelings creates the context for the rest of his story as it unfolds in his experience during the course.

Orientation

The setting of James' narrative takes place during the course of an applied psychology module for B.Tech Medical Orthotics and Prosthetics. He writes about his experiences of teaching and learning in the process of co-constructing knowledge. Peter, his fellow classmate, and the facilitator are the other actors involved in the collaborative learning community.

Complicating actions

In James' narrative the personal meta-narrative of an inability to communicate effectively or to open up, together with his previous experience of trauma, subjugates his knowledge of helping skills and psychology. James' disabling narrative is embedded in a deficit and medical model in which his deficits and passivity are emphasised. It is with the authority of these public narratives of disability and deficits that James' voice is silenced. James thus enters into the learning context of the applied psychology module with the experience of being locked into a system of lesser rights and obligations in comparison to the facilitator.

However, his openness towards new learning experiences creates doorways to unique outcomes that shape his current and future actions. The collaborative and supportive learning context challenges the authority of deficits and disability, thus moving the narrative of his learning experience from deficit to strength. Facilitation practices informed by the public literature on collaborative learning communities (Anderson, 2000) and the honouring and privileging of personal experience and knowledge (Carlson & Erickson, 2001), invite James to engage in dynamic dialogue and discussion teaching. The academic knowledge that is co-constructed in the learning process, in particular knowledge relating to trauma, enables James to utilise the life-changing knowledge in reclaiming his life from trauma. Furthermore, the life-analysis project as a learning tool instigates the construction of meaningful knowledge about human development that James can apply to the re-authoring of his own life story. It also allows him access to repertoires of knowledge and skills that he can refer back to in his encounters with patients and interpersonal relationships.

James' wife, Peter and the facilitator act as an audience to performances of an alternative story that he names "the success story". In the process of becoming a life-long learner, James embraces professional responsibility and reflection as part of everyday practice. The personal meaning that James ascribes to the co-constructed knowledge in the psychology module is a product of communal construction.

Resolution

The meaning that James ascribes to his success story cements the unique outcomes into a foundation that provides him with a key to his future.

Evaluation

The authority of public narratives of disability, as well as James' previous traumatic life experiences, informed the way that James' narrative initially unfolded. His narrative started off with themes of a life robbed by trauma and an inability to communicate effectively, thus silencing his voice in expressing his emotions, thoughts and ideas, and positioning him as a passive learner in the learning context. However, genuine concern and interest in one another's well being was expressed in the learning community. Through this as well as facilitation practices that value and privilege personal experience and knowledge, James is encouraged to rediscover his subjugated knowledge. The life-analysis project helped James to find his voice and to re-author his personal narrative, moving from deficit to strength. The collaborative learning community invited and encouraged James to take responsibility for and to be the architect of his own learning and development as a practitioner and person.

Coda

James is able to live life to the full and is excited about his future.

The Facilitator: Story Map

Past experiences

The facilitator wrote about the narrative beginnings of constructing a psychology course for B.Tech Orthotics and Prosthetics in her field notes (field notes, November 5, 2002; October 21, 2004).

She described the meta-narratives and assumptions about psychology that operate in the learners' lives before participating in the Applied Psychology II module. Despite

these meta-narratives, the learners still believe that there is a need for psychological skills in their profession.

Students in the Diploma course have Psychology I in the 2nd year of the 3-year diploma. Peter and James' recollection of their own experience of Psychology during their studies is not very positive. They felt that the subject was not presented in an applied way and was therefore not very meaningful. However, they are of the opinion that there is a need for psychological skills in the profession of Orthotics and Prosthetics.

Her conversations with the course coordinators for B.Tech Medical Orthotics and Prosthetics, as well as a colleague at the Psychology Department at another university, guided the unfolding story of constructing and designing a curriculum for Applied Psychology II. She wrote:

They [course coordinators] issue me with an outline of a proposed curriculum for Applied Psychology II for the B.Tech course... The curriculum is more of an outline, than a detailed curriculum, and not written in an outcomes-based format.

I am very excited to be a part of this process and immediately give Peter and James my commitment to the course.

(Field note, 15 November, 2002)

I consult with a colleague in psychology at UP to assist me in guidelines of how to compile a suitable curriculum for Applied Psychology II, as nothing currently exists. He suggests that I should decide on a specific philosophy in psychology, either from a modernistic or postmodern paradigm that I would like to use as a platform to base the curriculum on.

In the process of designing a module in which the assumptions of social constructionism are utilised as part of the philosophy that underlies the learning experience, the facilitator recalled her experiences of designing a life skills curriculum for Tshwane University of Technology.

(Field notes, 2 – 31 December, 2002)

I design a curriculum for Applied Psychology II, from an outcomes-based perspective. I choose outcomes that relates to helping skills and refer back to my experience of designing a life skills curriculum for TUT. I decided to base the curriculum on a social constructionist philosophy, due to the fact that I find this field very interesting and would like to share the new knowledge that I have gained on this new era in psychology with others (transferring of skills and knowledge).

She came to realise that she knew very little about the profession of orthotics and prosthetics, and that she might learn much from collaborating in structuring a new curriculum for the course.

My first impression of the curriculum is that it looks like a list of amputations and medical terminology that I understand very little of!

As the facilitation process of the Applied Psychology II module unfolded, the facilitator recalled memories of past experiences that relate to the topics under discussion.

Discussing development was like a walk down memory lane... The discussion reminded me of how I allow the child in me to be more free and vivid when I am on holiday and when the adult in me takes more control in other situations.

The facilitator reflected on the process in which her past experiences shaped her dominant narratives about substance users, as she remembered a family member who had a relationship with alcohol. She became aware of the impact that these dominant narratives about substance use had on her current relationship with her clients in therapy.

This reminded me of an uncle in my family who had a relationship with alcohol. I was always afraid of him when we went to visit and I always assumed that he was under the influence... Even in conversations with my clients in therapy, I am often critical of their true intentions.

She shared her experiences of her final oral examination for MA Counselling Psychology with the learners while discussing an integrated assessment approach for the B.Tech Medical Orthotics and Prosthetics final examination.

Peter and James had concerns regarding their final examination for the B.Tech Medical Orthotics and Prosthetics course... I shared my experience of the MA Counselling Psychology final oral examination with Peter and James and proposed a similar approach in which they should present a case study. The panel of examiners should be representatives of the different modules in the course. Their oral presentation should focus on the application of the different modules on the particular case study.

Present experiences

The facilitator starts her journey with an exploration of boundaries and establishing rapport with the learners. In this process she attempts to negotiate a non-expert position for herself and privilege the learner's lived experiences and skills.

My first meeting with Peter and James was a meeting that symbolised the beginning of an exciting journey of discovery and knowledge creation. The journey started off with an exploration of boundaries... trying to establish who is really the "expert" or is all of us experts on the topic or neither of us? We got to know each other a little bit better. We all shared a common love for the outdoors and nature – James loves fishing, Peter loves camping, I love gardening and camping.

She comes to the realisation that helping is part of her own life story, as well as those of the learners. She is struck by the learner's positive outlook on life.

Peter and James had all the textbook answers on helping, but we came to the realisation that helping others is part of their life stories (and maybe a part of my own life story too). They both reflected on how the time and dedication that they put into their occupations also "infiltrate" in their personal lives and relationships. I was struck by their

positive outlook on life – being able to see potential even in a patient dying from cancer (a case study which was discussed).

The facilitator becomes aware of “*my own stressful experiences of standing in a helping profession*” and of the impact of secondary trauma:

With the discussion of secondary trauma, we all were faced with the unavoidable truth and reality that we as health professional workers cannot escape the impact of secondary trauma when dealing with clients who are exposed to trauma!

The facilitator writes continuously about the learning environment that invites the sharing and witnessing of stories to take place.

At a point during the discussion I felt as though I (the facilitator), or the topic of ‘helping’, or maybe both, opened the door for Peter and James to blow steam off about stressful aspects of their occupation and job environment...

This opened the door for a whole conversation about the selection criteria for the course and the role of politics and equity in selecting candidates for admission to the N.Dip and B.Tech Orthotics and Prosthetics. Although this conversation is not directly related to the ‘curriculum’ that had to be discussed, I sensed a need from their side to voice their concerns and thoughts...

She reflects on the therapeutic value of this process.

While I am busy writing this journal, I am becoming aware of the fact that the process of knowledge creation is not only a cognitive experience, but also a therapeutic process. Maybe it has to do with my own language, where I refer to “sessions” and not classes. The subject of psychology allows us to open the doors of our souls. We witness vulnerable, special and very personal parts of others, and through the process we also learn from each other!

The facilitation process makes her aware of her own positioning as a facilitator who can learn from the learners, and of her responsibility as a psychologist.

I also realised that orthotists and prosthetists have much more personal contact with patients, than I was aware of... Peter and James shared their knowledge about HIV/AIDS with me from the pharmacology class that was presented to them. I learned a lot from their stories... It also made me aware of a responsibility that goes beyond teaching or facilitating – the responsibility as psychologist to follow-up on an individual level on their traumatic experiences and of my ethical responsibility to do individual debriefing, if necessary.

She comes to the realisation that she is part of the process and group:

I am becoming more and more aware of my very personal involvement in the facilitation of this course. I am not only the facilitator any more. I am part of the process and group. I witness and experience the sharing of personal stories. I am very aware of my role as therapist and psychologist. This process involves much more than the mere mark for an assignment or the memorising of facts...

and acknowledges the commonalities she shares with the group.

We all share a common love for the outdoors and nature... We shared one common experience: how our children challenge our meaning of death.

The process of performing and witnessing life stories encourages the remembering and re-telling of experiences.

This is where everything begins – with our life histories and us. With the introduction of every new outcome, we revisit our own lives and recall memories, some happy, others painful...

In the unfolding process of co-constructing knowledge, reflection leads to deep learning and new meaning is performed.

The reaction within me was a feeling of “aha” and joy! I realised that something is really happening in this process of knowledge creation.

The level of reflection that took place within them astonished me. How they both applied “knowledge” on such a personal level in their lives, and their spontaneous reaction to share these experiences with their spouses. They gave a new meaning, a very personal meaning to lifespan development. This is what you call application of knowledge!! The theory and knowledge was not mere facts any more, but got faces and identities.

The facilitator finds it difficult to facilitate from a social constructionist perspective.

Facilitating from a Social Constructionist perspective is not an easy task. I am constantly faced with my own dominant discourses. It feels as though I have to adopt a new ‘religion’ and I am not sure if I am ready to do this!

However, in the process of challenging dominant narratives, alternative stories emerge.

The ‘medical discourse’ was challenged:

James gave a very good example of the “first generation” of orthotists and prosthetists – the discourse that only professionals wear white jackets, and how they tried to change that discourse.

Alternative story:

We identified ourselves as the “first generation” of creating a social reality of Applied Psychology II for B.Tech Orthotics/Prosthetics – this was a very exciting realisation! But we were also aware of the fact that realities and knowledge can change over time...

The ‘bereavement discourse’ was challenged:

Elizabeth Kubler-Ross’ stages of bereavement were also discussed... The discourse of what society expects a grieving person to go through became evident, which is so different from our own experiences.

Alternative story:

We concluded that every person experiences this cycle in a unique way and that no specific time limit can be attributed to a ‘normal grieving’

period. James mentioned from personal experience with death, how he only experienced stage 1, 2 and 5 of the loss cycle, not 3 and 4.

The 'substance use discourse' was challenged:

What caught my attention were the labels that we attach to people and how easily we categorise them... Another dominant story in my life regarding substance use relates to my belief that some people have an 'addictive personality' and just can't say no to peer pressure. I also thought that people use drugs due to a traumatic history, they need drugs to make them feel better or cope better with life- even to avoid facing some kind of hurt or pain.

Alternative story:

I realised (even in preparation of today's class) during our conversation that some people who use substances are very informed, much better than I will ever be! ... I now know that taking drugs can be an experience that people have chosen to take to have fun, enjoyment and a sense of adventure... The political games of power in the legitimisation of drugs never became so evident before today's discussion. I wonder how different the world would have been if more drugs were legalised...

The 'HIV/AIDS discourse' was challenged:

Peter and James' stories highlighted some dominant discourses, myths and even prejudices surrounding HIV/AIDS. They mentioned how a priest in Morocco condemned the use of condoms, but indirectly promoted premarital sex. James shared his experience of working at a clinic where a lot of patients are HIV positive. He almost always wears surgical gloves when working with black patients, but not necessarily when working with white patients... Dr. Shaw told them that the highest reporting numbers of HIV/AIDS are under white teenage girls and black men ranging from 17 – 23. They told me about their army days (during

the apartheid era) when they saw black men and white girls / ladies together in nightclubs in Soweto.

Alternative story:

The sharing of the story of his experience made him aware of his stereotypical behaviour... This experience challenged their discourse that white people think that they are a superior race... I never envisaged that the three of us (all white) would have such interesting discussions relating to racial issues and HIV/AIDS!

The discourse of 'traditional examination practices' was challenged:

Peter and James had concerns regarding their final examination for the B.Tech Medical Orthotics and Prosthetics course. Apparently, their departmental head believes that an examination on postgraduate level is not 'proper' if it is not at least 2-3 hours long.

Alternative story:

I shared my experience of the MA Counselling Psychology final oral examination with Peter and James and proposed a similar approach in which they should present a case study. The panel of examiners should be representatives of the different modules in the course. Their oral presentation should focus on the application of the different modules on the particular case study. If applied in this way, time is not that important! Peter and James liked my proposal and decided to negotiate this with their departmental head.

The facilitator concludes: "*knowing that a multitude of 'truths' exists leaves me at ease with standing by some of my values and beliefs whilst negotiating new alternative stories regarding substance use*".

During the process of inviting collaboration into the learning experience and valuing specific skills and knowledge, the facilitator utilises her own knowledge and skills regarding psychometrics and selection practices to assist the course coordinators in designing a selection model for orthotics and prosthetics.

(Field notes, 8 October, 2003):

Peter asks for my advice on selection criteria and strategies for the B.Tech O&P intake for 2004. I suggest targeted selection interviewing and propose a tailor made customisation of the targeted selection model. I explain that interviewing can be very effective and credible if the same criteria are applicable to all interviewees / applicants. We discuss appropriate competencies for the profession and I draw up a draft document for Peter's inputs.

(Field notes, 23 October, 2003):

Peter asks me to explain the targeted selection model to the interview panel. I give a presentation and they seem to be very satisfied with the proposed model and identified competencies.

A consultant from the HIV/AIDS consultancy centre is also invited to collaborate in the co-constructing and presenting of the HIV/AIDS module.

We decided that Applied Psychology II module's approach to HIV/AIDS should be from a psychosocial perspective, and not only from a medical perspective. I proposed that they should contract a consultant from the HIV/AIDS Consultancy Centre on campus to present this outcome to the next B.Tech group. She is a social worker and deals with patients who have a relationship with HIV/AIDS on a daily basis.

In conclusion of the academic year, members of the community (other counsellors and an orthopaedic surgeon) are invited as outsider-witnesses to act as an audience of the performance of a new story.

(Field notes, 11 July, 2003)

I have asked Peter and James to do a presentation to the counsellors involved in career counselling at TUT about Orthotics and Prosthetics. Their presentation is very informative and their approach is refreshing – they focussed on the profession as seen from the patient's eyes (psychological approach). One of my colleagues made a comment

after the presentation that she can see that I am involved in their training...

(Field notes, 1 November, 2003)

The final oral examination takes place. Peter and James are well prepared and give outstanding case study presentations. Comments from an orthopaedic surgeon on the panel: “they are doing groundbreaking work in the O&P profession and should present their innovations and findings at an international conference!”

During the last contact session the facilitator and learners reflect on their experiences of the psychology module. The impact and value of the facilitation process becomes evident.

Today was our last session. We reflected on the whole Applied Psychology II course. James felt that he has grown on a personal level in this subject. He is able to apply helping skills effectively and he is of the opinion that his patient's are benefiting from this. On a personal level, Psychology gave him a lot more confidence in himself and contributed to a new understanding in his relationship with his wife and parents. Peter declares that Psychology is not just another subject to him – it has become a way of life! In particular, Peter and James enjoyed the postmodern approach in psychology, the ‘applied’ value of the course and the helping skills.

Reflecting on her own experiences, the facilitator is reminded of her passion for facilitation and psychology.

I am sad to say goodbye to Peter and James, but I know that this is not the end of my journey with them. This year has made such an impact on my life and just reminded me again of how much I love facilitation and psychology!

Future intentions

The facilitator is inspired to continue on her journey of knowledge construction and development in the meeting point between psychology and orthotics/prosthetics by completing her PhD.

This first session inspired me to such an extent that I decided to continue my own personal journey of knowledge creation and discovery, by enrolling for a PhD in Psychology... I am looking forward to my personal journey ahead in analysing our journals and writing the story of our experiences in my thesis.

Her journey with Peter and James continues as they ask her to facilitate Psychology on graduate level for the N.Dip Orthotics and Prosthetics in future.

They (course coordinators) would also like for me to present Psychology I to the N.Dip students, in order to align their curriculum to the B.Tech Psychology curriculum.

The process of co-constructing knowledge in the Applied Psychology II module also continues as the course coordinators propose that the reflective journal entries be included in the future facilitation of the module.

Although the reflective journal was only for research purposes and data collection, they propose that the Applied Psychology II curriculum (2004) should include the reflective journal entries.

Narrative Themes

The facilitator's meta-narrative can further be clustered into narrative themes. Stories, similar to those of Peter and James, of teaching and learning, co-constructing knowledge, community of concern, reflection-on-practice, life-analysis project and agency emerged from the narrative analysis. An elucidation follows of the narrative themes, by means of visual representations of the grouping of codes into family trees.

- Teaching and learning

In the facilitator's story of teaching and learning she writes about the tensions between a deficit and strengths model that play an important part in her underlying philosophy, from which she constructed the Applied Psychology II curriculum. The authority of her previous learning experience of psychology facilitated from a modernistic and deficit approach, and the movement of her personal narrative after being introduced to ideas from outcomes-based education, social constructionism and critical psychology, informs her current experiences and construction of the psychology curriculum. The public literature on a strengths model of teaching and learning (Carlson & Erickson, 2001) and ideas of integrating social constructionism and critical psychology into mainstream training practices (Harper, 2004; Anderson, 2000) are positioned as authoritative in informing the underlying philosophy of her teaching and learning approach. The facilitator's intention is to create a collaborative learning community that invites the learners to experience a different relationship with her from the familiar hierarchical and dualistic teacher-student relationship and learning processes that they have been accustomed to in their past experiences of teaching and learning.

During the process of teaching and learning the facilitator invites learners to engage in discussion teaching, to collaborate in the knowledge construction process and to re-member and rekindle their special skills and knowledge that have invited them into the helping field of orthotics/prosthetics. Through this process she succeeds in facilitating relationships and processes where the learners can identify, access and develop their own unique competencies and strengths. Collaborating in the co-constructing of knowledge invites the facilitator to become a part of the learning community and to position herself not only as a facilitator, but also as a learner.

Facilitating from a social constructionist philosophy challenges the facilitator to face her own dominant narratives relating to teaching and learning practices, as well as her previous knowledge constructions with regard to the specified learning outcomes. She writes about her awareness of a new sense of responsibility towards the learners, congruent with the notion of relational responsibility (McNamee & Gergen, 1999).

Through the process of teaching and learning, the facilitator discovers new teaching practices of appreciation, collaboration and knowledge construction that she takes with her on her own journey as life-long learner.

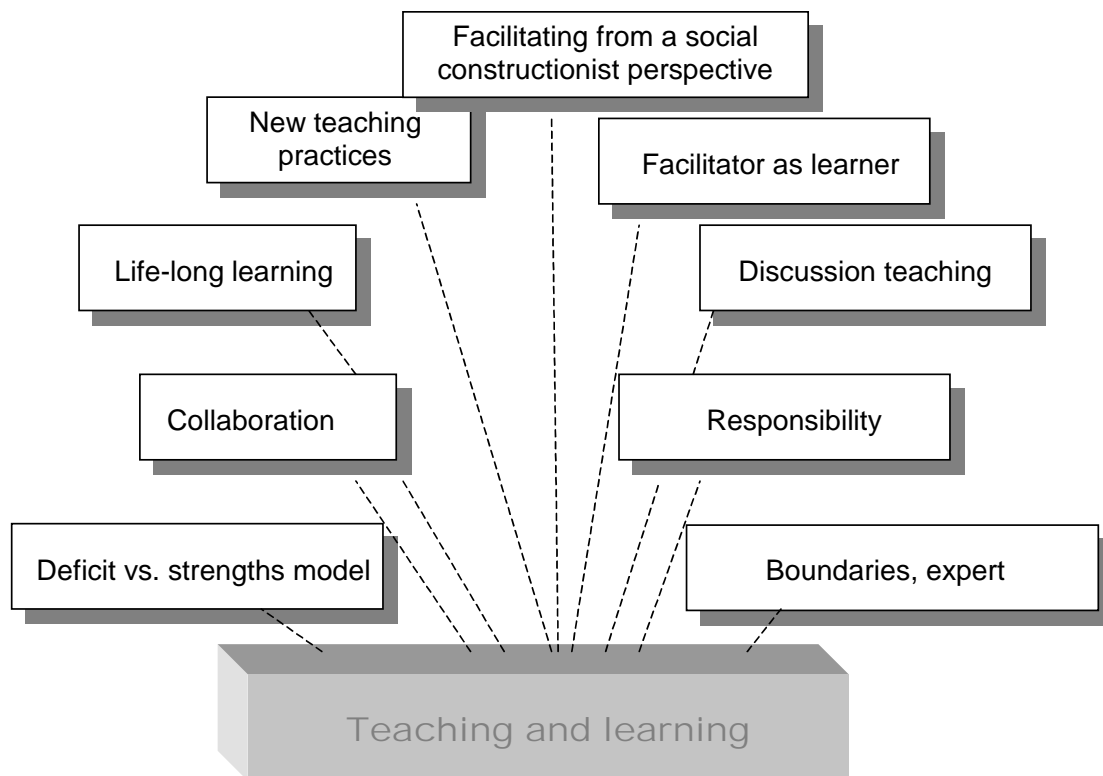


Figure 21 **Network view of teaching and learning (Facilitator)**

- Co-constructing knowledge

The facilitator's story of co-constructing knowledge begins with the first conversation she has with the learners, in which both learners and the facilitator are forthright about their need to collaborate in the knowledge construction of the psychology module for B.Tech Medical Orthotics and Prosthetics. Without denying or ignoring her wealth of ideas and previous knowledge constructions, the facilitator allows knowledge to be generated and co-constructed in dialogue. From this perspective, knowledge is put forth in dialogue, interacted with, interpreted by and co-constructed between learners

and facilitator in a collaborative learning community. The private narrative of social and collaborative construction of knowledge thus has authority over the public narrative of a hierarchical power relationship in knowledge production. The facilitator writes about the process in which her previous knowledge constructions are challenged as she continuously reconstructs her experiences. She is astounded by the learners' ability to integrate formal knowledge (also referred to as declarative knowledge) with practical (procedural) knowledge and to reflect on and evaluate their own actions.

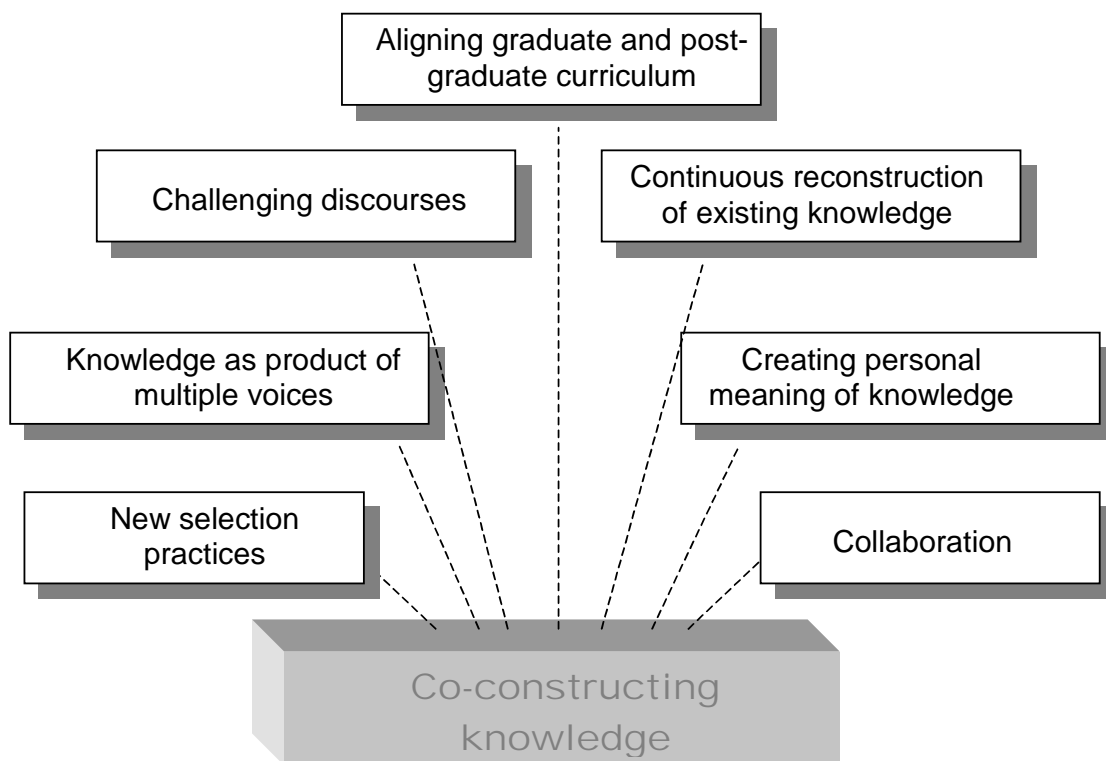


Figure 22 **Network view of co-constructing knowledge (Facilitator)**

The facilitator writes about collaborative learning experiences in the B.Tech learning programme that reciprocally inform the unfolding of alternative practices outside the organised learning context, such as transferring procedures from one discipline

(psychology's mechanisms for selection) to another (selecting candidates for orthotic/prosthetic training). From her involvement in facilitating the applied psychology module for the B.Tech-learning programme, the facilitator was invited to also get involved in the construction and facilitation of the graduate psychology module. It is through this process that the private narratives of an alternative learning experience in the Applied Psychology II module open doorways to inform public opinions. In turn, these have authority over future possibilities of knowledge constructions, not only in the postgraduate learning programme, but also in the graduate learning programme.

- Community of concern

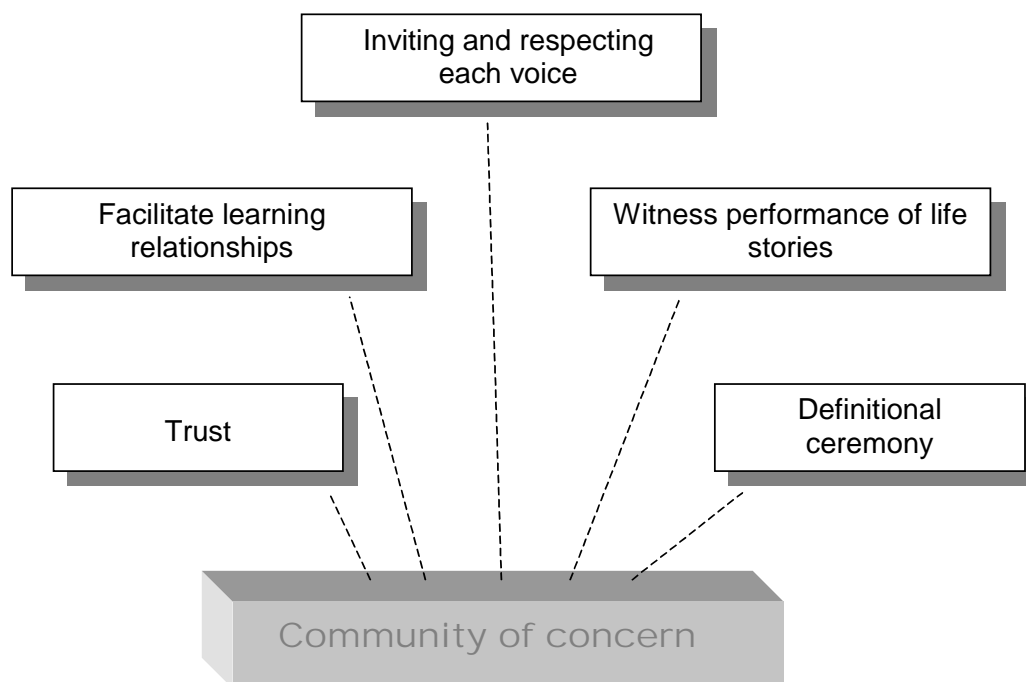


Figure 23 **Network view of community of concern (Facilitator)**

In the process of facilitating learning relationships, the facilitator writes about her approach in inviting, valuing and respecting each voice. She becomes aware of the trust that spontaneously emerges in a community in which learners and facilitator

have genuine concern and interest in one another's well being. The learners ascribe special membership to the facilitator in becoming a witness to the performance of their life stories.

The community of concern is celebrated in a special way at the conclusion of the academic year, when the facilitator and learners celebrate and honour the collaborative actions and revered knowledge constructions in a definitional ceremony. At this ceremony Peter and James receive certificates of special knowledge that serve as collective self-definitions intended to proclaim an interpretation to an audience that is not otherwise available, such as their spouses, family, friends and patients (see appendix C). White and Epston (1990) argue that "such awards often signal the person's arrival at a new status in the community, one that brings with it new responsibilities and privileges" (p.191).

- Reflection-on-practice

In an attempt to keep track of the teaching and learning process, the facilitator initially introduced reflective journal writing as field text of accounts of experiences. However, as the collaborative process unfolded, reflection became an integrated part of teaching and learning. Reflective journal writing created an opportunity for learners to reflect on their learning experiences, as well as on their practice. It also served as a basis for contributions to group discussions and as a way to share new ideas or issues. The facilitator also participated in the practice of reflective journal writing, which created an opportunity for her to reflect on her own teaching practice and experiences. In her own story of reflection, the facilitator writes about the dynamic conversations during class that brings her to the realisation that helping is a central theme in the life stories of both the learners and herself. It reminds her of her own risk of secondary trauma and of her responsibility as a psychologist and facilitator.

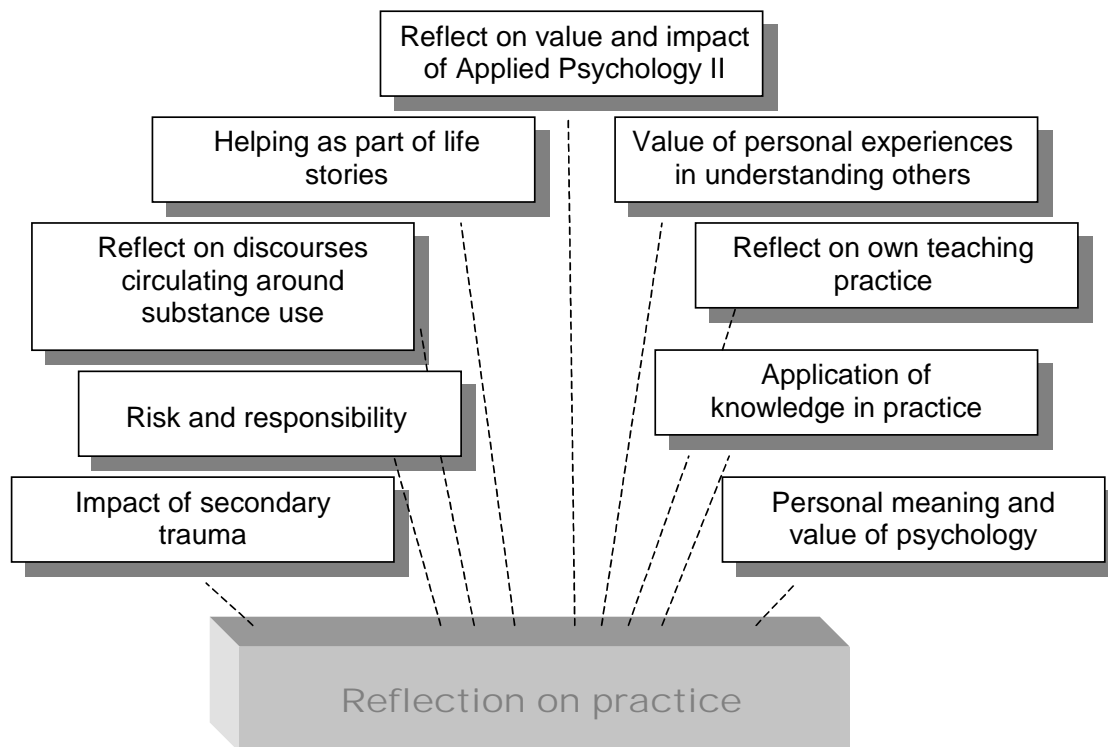


Figure 24 **Network view of reflection-on-practice (Facilitator)**

The facilitator's reflections are a product of what is put forth in dialogue, the interactions with the collaborative learning community, and the interpretations that arise here. They also include the facilitator's internal dialogue with herself. Her reflection focuses partly on content, such as meta-narratives of substance use and bereavement, specific case studies that are introduced by the learners, and the value of personal experiences in understanding others. In addition, the facilitator reflects on her own teaching practice and the process that unfolds during teaching and learning (Mezirow, 1991). She writes about the value of reflection in stimulating the creation of meanings and understandings of knowledge. Requesting learners to reflect on the value and impact of the Applied Psychology II module provides the facilitator with an opportunity to improve her facilitation style and to adjust the module content to best serve the needs of her learners. The reflections of both Peter and James confirm the practical value of the Applied Psychology II module: "*Peter declares that psychology is not just another subject to him – it is a way of life!*" The reflection process

encourages the facilitator and the participants in the learning context to apply reflection as part of their everyday practice.

- Life-analysis project

In the facilitator's story of the life-analysis project she describes her experience as "extraordinary". The life-story narrative project introduced in facilitating life-span developmental psychology acts as an unique outcome, not only in the personal meaning that the learners ascribe to it, but also as an effective tool that stimulates deep learning, spontaneous reflection and knowledge construction. The facilitator writes about an "aha" feeling when she realises that "*something is really happening in this process of knowledge creation*".

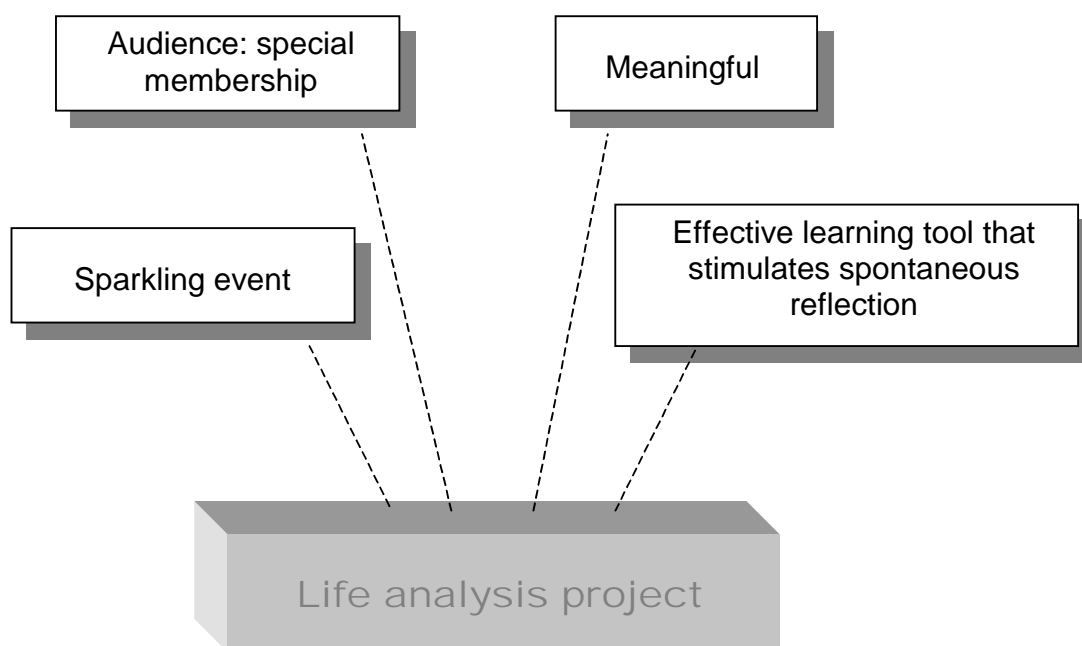


Figure 25 **Network view of the life-analysis project (Facilitator)**

The benefits of learning through life-story narration relate to each learner's capacity to connect and construct ideas, concepts, and experiences into personally meaningful relationships. The facilitator is surprised when both learners spontaneously ascribed

special membership to their spouses to act as audience and witness the performance of their life-stories. The collaborative learning community is thus expanded to also include the special members of the learners' lives, namely, their spouses. The recruitment of a wider audience contributes to the consolidation of new meanings, but also invites a revision of the pre-existing meanings that James and Peter ascribed to their lives. Furthermore, participating in the life-analysis project creates a conscious awareness of Peter's and James' participation in the constitution of their lives. In addition, it leads to a profound sense of personal responsibility, as well as a sense of possessing the capacity to intervene in the shaping of their lives and relationships.

- Agency

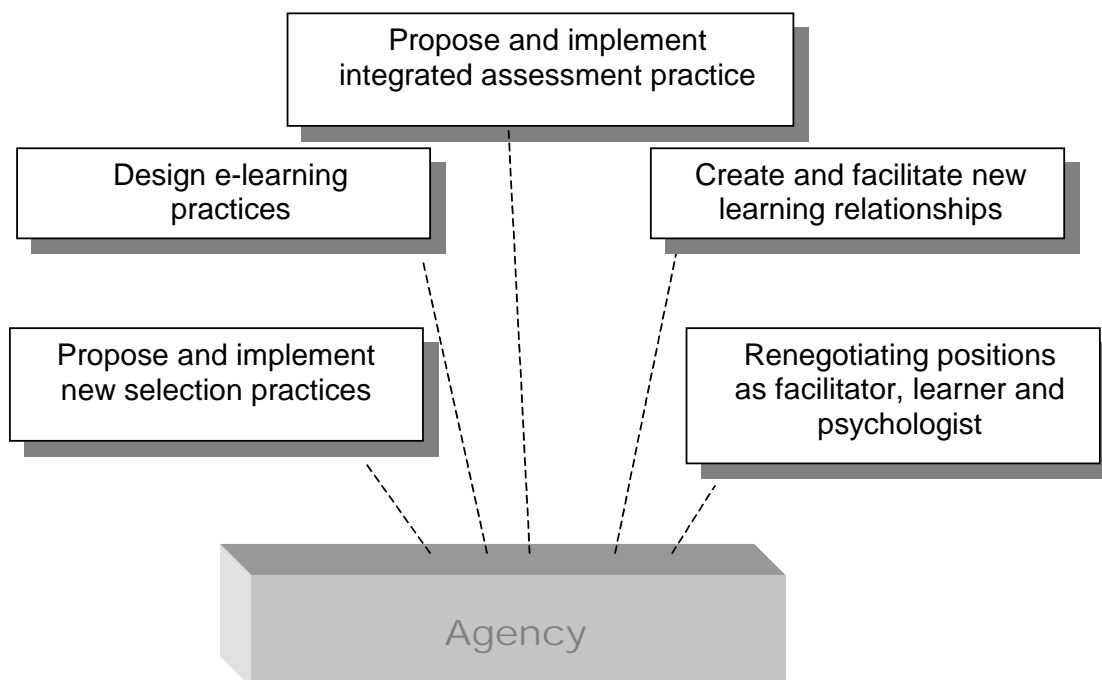


Figure 26 **Network view of agency (Facilitator)**

In the facilitator's story of agency her battle to find a balance between her position as facilitator and as a therapist/psychologist becomes evident. She writes about her experience of the organised learning context moving towards a therapeutic context in which learners share very personal life experiences. Her battle to make sense of this process is informed by the authority of traditional, modernistic public narratives in psychology that expect people to have unified and fixed selves and to behave in a certain way according to the roles that are ascribed to them. In the referred to here, the role of facilitator and the role of therapist are relevant. Furthermore, the authority of these public narratives leaves her with an ethical dilemma of whether a facilitator is permitted to become a therapist to the same group of learners.

However, as the narrative of her learning experience unfolds, the facilitator writes about her agentic power in negotiating a multiplicity of selves as a product of her social encounters and relationships in the learning context. This is informed by the authority of postmodernist public narratives (Burr, 1998). It is this agentic power that creates the opportunity for the facilitator to position herself as facilitator, learner, therapist and researcher within the learning context. This process creates an opportunity for the facilitator to invent herself and yet maintain her sense of authenticity and integrity. However, agency itself lies not only in the degree of agentic ascribed to the facilitator, but also in the reception and perception process, in other words, in the generativity of the learning conversations.

Narrative Core

Abstract

The facilitator's past experiences of teaching and learning, informed by traditional, modernistic public narratives, and the process of discovering alternative practices embedded in a postmodernist public counter narrative, inform the narrative beginnings of constructing an applied psychology module. The facilitator writes about her experiences in a collaborative learning community as the facilitation process unfolds.

Orientation

The setting of the facilitator's narrative takes place in the course of an applied psychology module for B.Tech Medical Orthotics and Prosthetics. In this story, she writes about her experiences of teaching and learning. Peter and James (the learners) are the other actors involved in this narrative.

Complicating actions

The facilitator is confronted with the learners' past experiences of teaching and learning in her initial encounters with constructing the psychology module for B.Tech Medical Orthotics and Prosthetics. In these experiences, public narratives embedded in a deficit model and the transference of disinterested scientific knowledge had authority over the learning experience. The learners' experiences remind her of the authority of modernist public narratives in her own training in psychology. She then engages in conversations with colleagues who represent a counter voice (the postmodern public voice), readings of the public literature embedded in a strengths model of teaching and learning (Carlson & Erickson, 2001) and ideas of integrating social constructionism and critical psychology into mainstream training practices (Harper, 2004; Anderson, 2000). These voices inform her construction of an applied psychology module with an underlying philosophy of social constructionism and ideas from critical psychology.

As the facilitation process unfolds, the facilitator creates and facilitates collaborative learning relationships and processes. Through these, learners can experience a different relationship with her from the familiar hierarchical and dualistic teacher-student relationship and learning processes to which they were accustomed in their previous experiences of teaching and learning. Facilitating from a social constructionist philosophy challenges the facilitator to face the authority of public modernist facilitation practices and knowledge constructions and to negotiate a position not only as a facilitator, but also as a learner who is part of the process and group. The process of positioning moves from a dichotomy of facilitator/therapist to a negotiation of multiplicity of selves as facilitator, learner, therapist and researcher. The latter becomes authoritative in taking agentive power. Without denying or

ignoring her wealth of ideas and previous knowledge constructions, the facilitator allows knowledge to be generated and co-constructed in dialogue. She is reminded of her relational responsibility towards the learners in a community of concern. The reflection process encourages the facilitator to reflect on her own teaching practice, but also allows her to improve her facilitation of the psychology module through the feedback she receives from the learners. For example, she acknowledges the important part that the life-analysis project plays as an effective learning tool in facilitating life-span developmental psychology.

Resolution

In her conversational becoming, the facilitator shifts between identities of self as facilitator, learner, psychologist and agent of change. Whilst maintaining her sense of authenticity and integrity, the facilitator performs and invents different representations of selfhood. The authority of public narratives from a postmodern and strengths perspective informs her private narrative of collaborative teaching and learning practices.

Evaluation

The authority of traditional, modernist facilitation practices in psychology, and the embeddedness of the learners' past experiences in a scientist-practitioner model, informed the way that the facilitator's private narrative initially unfolded. As facilitator, she battled to find a balance between authoritative modernist public narratives that argue for unified fixed selves and postmodern counter-narratives that advocate the construction of a multiplicity of selves within the teaching and learning context. We witness a movement in her private narrative towards privileging learners' strengths and social constructions of knowledge in a collaborative learning community. Reflection practices in the learning context encouraged the facilitator to reflect on her own teaching and learning process. This was informed by the authority public narratives from both modernist and postmodern perspectives, her previous knowledge constructions and her current reconstructions. The social construction of knowledge in a collaborative learning community reflects the authority of a reflective-practitioner training model. This model promotes the application of knowledge

through praxis. Private teaching and learning experiences supported the authority to co-construct a newfound knowledge on collaborative training practices in the health professions.

Coda

The facilitator writes about the impact that the teaching and learning experience has made on her life. It is reminiscent of her love for facilitation, learning and psychology. She feels honoured to have special membership in the learner's lives and to collaborate in the construction of meaningful learning experiences.

Synthesis

The stories of Peter, James and the facilitator provide patterns of teaching and learning experiences that unfold in the process of co-construction knowledge in the course of the Applied Psychology II module. According to Marshall and Rossman (1995), no single story provides a full understanding of the journey and experiences at the meeting point, but each provides "pieces for a 'mosaic' or total picture of a concept" (p.88). Repeated patterns and storylines collaborate in exploring the shared experiences of learners and facilitator. The story map, in turn, can present a meaningful cross-case comparison (Richmond, 2002).

The reciprocal authority of public narratives influences the narrative themes and patterns that crystallised from the analysis of participant's private narratives. In the initial unfolding of the participants' narratives of teaching and learning, the narration of participants was dominated by public narratives embedded in a deficit model. The hierarchical power inherent in the deficit perspective is evident in Peter's positioning of the facilitator as someone with more power and knowledge, and of himself as a learner with lesser responsibility in the teaching-learning transaction. James' disabling narrative, which is embedded in the deficit and medical models, locks him into a system of lesser rights and obligations and positions him as someone who

needs healing and as a passive learner. In the face of these dominant deficit narratives, the facilitator is faced with the challenge of constructing a psychology module that has applied value in the orthotic/prosthetic profession. She manages to balance the authority of public modernist versus postmodern approaches in psychology through constructing a psychology module that respects and values previous knowledge constructions, but challenges the authoritative position from which they speak. The psychology module and facilitation practice is based on the underlying philosophy of social constructionism and ideas from critical psychology.

Peter acknowledges this different approach towards teaching and learning (strengths model) in contrast to the traditional approach (a deficit model) to which he was accustomed. James' openness towards new learning experiences creates doorways and opportunities to engage in discussion teaching and to become part of a collaborative learning community in which learners can identify, access and develop their own unique competencies and strengths. Engaging in dynamic dialogue allows both learners and facilitator to crisscross ideas, thoughts, opinions and feelings in a learning environment that allows room for all voices (facilitator and learners). In this collaborative process, knowledge is put forth in dialogue, interacted with, interpreted and co-constructed.

The authority of a public counter-narrative of strength and collaboration thickens the unfolding of participants' private narratives about an alternative learning experience. We witness a shift in both the learners' and the facilitator's stories towards relational responsibility (McNamee & Gergen, 1999) in which the responsibility for learning and knowledge construction is shared. Facilitating from a social constructionist perspective challenges the facilitator to face the authority of previous knowledge constructions and to reconstruct her teaching and learning experiences. Peter and James reflect on and discover an awareness of the impact of public meta-narratives on the construction of their private life narratives.

Peter becomes aware of the interrelationship between collective and individual meaning that is derived from the co-constructed knowledge. James utilises the life-changing knowledge that is co-constructed in dynamic dialogue to reclaim his life

from trauma, and discovers his subjugated knowledge pertaining to helping skills. The authority of private narratives of learning experiences contributes towards the facilitator's construction of a newfound knowledge on collaborative training practices in the health professions.

The life-story narrative project, introduced as a means to facilitate life-span developmental psychology, becomes an effective learning tool that stimulates deep learning, spontaneous reflection and knowledge construction. Furthermore, it creates doorways to unique outcomes and alternative stories in Peter's and James' lives. Through the life-story narration as a learning tool, James is able to access his capability to express his emotions and feelings through writing, which cultivates a seed of newness in his personal and professional life. In the process of re-authoring his life, James reclaims his life from trauma and finds his voice as a writer. Peter expresses a favourable attitude towards the assignment as an effective learning tool by which he was able to undertake an introspective analysis of his own development. A new understanding of developmental psychology is socially constructed through this process of collaborative and internal dialogue.

Within the authority of public narratives, the learners and facilitator agentively negotiate different positions within the learning context. Peter negotiates a position as a collaborative learner and would like to invite prospective learners to collaborate with him, as facilitator, in the knowledge construction process. James takes agency in moving from a deficit position to negotiating an alternative position in which he becomes an architect of his own learning and development as a practitioner and person. The facilitator negotiates multiple positions as facilitator, learner, therapist and researcher as opposed to the authority of a modernist public view that advocates a unified fixed self. Both Peter and James indirectly negotiate positions as protagonists in becoming the first learners in South Africa to complete the B.Tech learning programme and to lead the future training of orthotic/prosthetic practitioners.

The teaching and learning process creates a conscious awareness in Peter, James and the facilitator that they possess the capacity to intervene in the shaping of their lives and relationships. This leads to a profound sense of personal responsibility. It

is evident from the analyses of the reflective journals that Peter, James and the facilitator are changed and transformed during the process of teaching and learning, but not necessarily in ways that can be attributed to “the illusion of causality” (Clandinin & Connelly, 1990, p.6) or ways that are readily apparent to the observer. Belenky, Clinchy, Goldberg and Tarule (1986) state that there appears to be a link between the development of an individual’s voice as an essential component in the development of their sense of self. The narratives of the learners and facilitator reflect their process of self-discovery.

Both Peter and James ascribe special membership to their spouses and the facilitator to act as audience for the performance of their special knowledge claims. Bruner (1986) emphasises the transformative power of performances and enactments of life stories: “it is in this sense that texts must be performed to be experienced, and what is constitutive is in the production” (p.7). The certificates of special knowledge that Peter and James receive in a definitional ceremony at the conclusion of the academic year serve as collective self-definitions intended to proclaim an interpretation to an audience that is not otherwise available. The definitional ceremony, furthermore, celebrates and honours the collaborative actions and revered knowledge constructions of learners. White (1997) argues that definitional ceremonies are contexts that potentially contribute to the generation of thick descriptions of persons’ lives. The awards that Peter and James receive signal their arrival at a new status in the orthotic/prosthetic community; one that brings with it new responsibilities and privileges (White & Epston, 1990).

Reflection

Analysing the private narratives of Peter, James and my own journal was an enriching experience. The process allowed the practice of outsider witnessing to continue and invited you, as reader, to act as an audience to the performance of a new story. However, as researcher and audience, you and I need to be mindful of the difference between the events as lived and the events as told. As a researcher, I need to acknowledge that the stories of Peter, James and the facilitator were judged

by my own interpretations, which in turn are framed by the lens of social constructionism. I came to realise that my personal involvement in the facilitation of the psychology module and process both helped and occasionally hindered me in re-telling the story of experiences at the meeting point between psychology and orthotics/prosthetics. I was in the opportune position to give an insider perspective on the stories of experiences of teaching and learning. However, my personal involvement in the teaching and learning process hindered me at times by making it difficult to step back and give an impartial account of the learners' and my own stories of experiences. I constantly had to be reminiscent and responsible for giving voice to the participant's account of their experiences according to my own interpretations. My identity as a storyteller remains the same although the story may change.

To Follow

In the final chapter, the connection between private and public narratives is explored in the process of puzzling the pieces together. Before saying good-bye, I reflect on the meta-narratives that inform the evaluation of qualitative research.

LOOKING BACK AND SAYING GOODBYE

The meeting point where public and private narratives came together in the course of a psychology module for B.Tech Medical Orthotics and Prosthetics serves as the starting point for reflection. It also offers an opportunity to discover unique outcomes in our understanding of a collaborative learning community. In this chapter I reflect on current experiences during the research process, as well as possible doorways to future stories that can be told about teaching and learning in the health professions. Furthermore, I look at how the findings answered the research question that I posed in the beginning of this study. Lastly, I will explore the value that this research narrative might have for learners, facilitators and health professionals who accept the invitation to engage in the social construction of meaningful conversations about this topic.

The research narrative started with the invitation to you, the reader, to join me on a journey to the meeting point between psychology and orthotics/prosthetics. In the process of accepting the invitation, you were introduced to my travel companion, Social Constructionism. I also introduced you to other friends of mine, Megan, Power and Knowledge, who played an important part in my understanding of myself and of the world around me. We found our way through the forest of events and stories by using a story map to guide us to the meeting point. At the meeting point, you were introduced to public narratives of Orthotics/prosthetics, Psychology and Higher Education. Peter, James

and the facilitator shared the stories of their private experiences in the course of a psychology module for B.Tech Medical Orthotics and Prosthetics. The story map emanating from the research narrative assisted me in the narrative analysis of the participants' reflective journals.

We have reached the final chapter of the research narrative, in which I may reflect on the experience that has taken place at the meeting point between public and private narratives about teaching and learning, at the culmination of a psychology module for B.Tech Medical Orthotics and Prosthetics. In this reflection I provide an integration of the narrative themes and patterns presented in the public narratives (literature and theory) and private narratives (results and findings) presented in chapters 4 and 5 respectively. Taking a critical stance towards taken-for-granted knowledge allows me to challenge some of the meta-narratives that I have constructed in the research process. It also presents me with the opportunity to reflect on my position as researcher, facilitator and narrator.

Looking Back

In what follows, I look back at the way in which public and private narratives came together in the process of co-constructing knowledge. The narrative themes and patterns weaved between public and private narratives. These themes allow us to reflect on the authority of the public narratives on teaching and learning practices circulating in higher education, orthotics/prosthetics and psychology, and on the way in which participants' private narratives of their learning experience unfolded. What follows is my understanding and interpretation of the possible similarities and differences between public and private texts and the reciprocal authority that these narratives had over each other.

Theme of Teaching and Learning

The narrative threads weaving between public and private narratives, consisted of various themes and/or repeating patterns. The first theme, which was repeated in

both the public and private narratives, is that of teaching and learning. In the public narrative of teaching and learning, the tension between a deficit model and a strengths model played out as the actors (Orthotics/Prosthetics, Psychology and Higher Education) met on the stage. From a deficit perspective, education entailed a transmission view of teaching and an absorptionist view of learning. This encouraged rote learning where learners were simply expected to reproduce information that had been dispensed in a lecture (Prawat, 1989). Students therefore did not need to develop critical thinking skills, and both teacher and students took on relatively passive roles. Peter and James recalled past experiences of an undergraduate psychology curriculum where disinterested scientific knowledge, that had limited applied value to their profession, was taught using rote learning methods.

However, in the public literature we witnessed a process in which the deficit model was challenged and a counter-narrative emerged, with the emphasis on strength (Becvar & Becvar, 1996). Themes of responsibility, critical thinking, continuous reconstruction of experience and life-long learning, which were rooted in an outcomes-based philosophy, dominated the strengths narrative of teaching and learning (Garrison & Archer, 2000). In the teaching-learning transaction between learners and facilitator, Garrison and Archer (2000) propose a conceptual framework that is based on a collaborative constructivist approach. This approach is built upon the creation of meaning and the need for collaboration to create and confirm knowledge.

During the course of the Applied Psychology II module, the facilitator wrote about the tension between a deficit-driven, modernist approaches in psychology that see people as objects about whom we can discover truths (scientist-practitioner model) versus the postmodern turn that challenges the posture of authoritative truth and celebrates the multiplicity of equally valid perspectives (reflective-practitioner model). She opposed the authority of modernist public stances in psychology through privileging the literature on social constructionism, critical psychology and a strengths model of facilitation, which in turn, informed her construction of the psychology module. The facilitator's teaching philosophy embraced privileging and re-membering practices, the establishment of communities of concern and the use of definitional ceremonies. These are all rooted in

the underlying philosophy of social constructionism and in ideas from critical psychology. The result was an Applied Psychology II module where the positioning of learners and facilitator was open, collaborative and democratic. Within this unique learning experience the facilitator valued and appreciated learners' special knowledges and skills and invited them to become equal partners in the teaching-learning transaction, and to collaborate in the co-construction of knowledge.

It was specifically in the private narratives explored in the course of the Applied Psychology classes that both learners and facilitator reflected on how they were challenged to think differently about teaching and learning. Peter's narrative started off with an authoritative positioning of the facilitator in a higher hierarchical position of power and knowledge, as opposed to himself as a learner with lesser power and responsibility in the teaching-learning transaction. However, his narrative moved from a traditional approach (deficit model) towards a different approach of teaching and learning (strengths model): "*I think that the level of student in this group is quite different to that from a normal classroom*". Furthermore, his experience related to the small collaborative learning community that invited him to participate in discussion teaching and in the co-construction of knowledge.

In James' narrative he wrote about a collaborative and supportive learning context that challenged the authority of meta-narratives of deficits and disability in his life; that invited him to engage in dynamic dialogue during the discussion teaching; and that allowed him to move the narrative of his learning experience from deficit to strength.

The facilitator wrote about the challenge of facilitating from a social constructionist perspective, including having to face the authority of modernist public facilitation practices and knowledge constructions. Her narrative transformed through her negotiation of a different position as a learner in the group and not only a facilitator.

All of the participants became aware of a new sense of responsibility that they shared in the collaborative learning community, which is congruent with the notion of relational responsibility (McNamee & Gergen, 1999). Anderson (2000) posits that

relational responsibility can be very rewarding and mutually gratifying as participants connect, collaborate and construct with each other. During the process of teaching and learning the facilitator succeeded in facilitating relationships and processes where the learners could identify, access and develop their own unique competencies and strengths. Thus, a counter-narrative of collaboration emerged. This counter-narrative emphasised the social construction of knowledge in contrast to the authority of public meta-narratives of learning from a constructivist approach with their emphasis on individualism.

Theme of Co-Constructing Knowledge

A second narrative theme, namely, co-constructing knowledge, crystallised from the analysis of public and private texts. In the higher education narrative, a distinction was noted between information as merely raw material and knowledge as the interconnection made among facts, ideas and experience. Mandl, Gruber and Renkl (1996) note that in traditional forms of university instruction, which are often based on a modernistic approach, learners acquire inert knowledge that cannot be transferred into the complex problems of working life; learners accept this information as absolute scientific truth, without questioning the applicability of the knowledge in different real life contexts. The challenge to higher education was therefore to develop instructional practices that would integrate domain-specific knowledge with personal, transferable and generic academic skills. In addition, Mason (1999) advocates a careful balance between propositional, procedural and dispositional knowledge in an outcomes-based education philosophy.

In the facilitator's private narratives, she reflected on her attempt to keep a balance between allowing knowledge to be generated and co-constructed in dialogue, without ignoring or denying her wealth of ideas and previous knowledge constructions. The public narrative of the social construction of knowledge that privileges a multiplicity of perspectives (Anderson, 2000) and judges the value of knowledge by pragmatic criteria (Harper, 2004) thus had authority in informing the facilitator's approach towards facilitating knowledge constructions in the learning context.

Peter's private narratives brought him the insight that contextual truths exist and that people construct different meanings of knowledge. His conclusion illustrated a balance, rather than a dichotomy, between individual meaning making and collaborative meaning construction. What was unique in James' narrative of knowledge construction was the move from formal or declarative knowledge (knowledge that is associated with facts or content) to procedural or practical knowledge that enabled him to develop skills to not only help his patients, but also himself. The life-changing knowledge that was co-constructed in dialogue resulted in a liberated understanding of his relationship with trauma, substances and his ability to express his emotions or feelings. James utilised this self-regulative knowledge (dispositional knowledge) to monitor and evaluate his own actions, and this encouraged him to re-discover his subjugated knowledge (Ryle, 1971; Tynjälä, 1999). Anderson (2000) confirms the fluid, communal and personalised process of co-constructing knowledge that enabled Peter and James to resurrect their subjugated knowledge and to come to new realisations about themselves and their relationships.

Embedding and integrating assessment procedures in the learning process itself promotes the social construction of knowledge and fosters meta-cognitive skills (Biggs, 1996; Boud, 1990). This was evident in the life-story narrative project introduced while facilitating life-span developmental psychology in the Applied Psychology II module. Not only did the life-story narrative project serve as an effective tool that stimulated deep learning, spontaneous reflection and knowledge construction, but the learners also ascribed personal meaning to the project in that it created a conscious awareness that they possessed the capacity to intervene in the shaping of their lives and relationships. In this process the meaning that was ascribed to knowledge transcended the parameters of 'the subject of psychology' or 'the discipline of orthotics/prosthetics' to the very personal landscape of the learners' lives. During the process of co-constructing knowledge, the participants became aware of the purpose of knowledge, the skills it developed and how orthotist/prosthetists can use it in practice.

Furthermore, the process of co-constructing knowledge challenged the learners and facilitator to confront their dominant personal narratives that had evolved within the

frame of meta-narratives of society, and to take a critical stance towards taken-for-granted knowledge. Peter and James became aware of the limitations of a medical meta-narrative and how it prescribed an authoritative position as orthotic/prosthetic practitioners in their personal encounters with their patients. The changing nature of knowledge became evident in discussions on topics of bereavement and the loss cycle, substance use, HIV/AIDS and others.

The process of collaborative knowledge construction in the organised B.Tech learning programme reciprocally informed the instigation of transferring procedures from one discipline or learning context to another. It also opened doorways to inform public opinions, thus resulting in a cyclical process of establishing alternative practices. In addition to the adoption of alternative practices in the B.Tech Medical Orthotics and Prosthetics learning programme, such as an integrated assessment approach, the collaborative process of knowledge construction also facilitated the transference of procedures such as psychology's mechanisms for selection. These practices were adapted for the selection of candidates for orthotic/prosthetic training. The private narratives of an alternative and unique learning experience in the Applied Psychology II module created possibilities to inform future knowledge constructions in an undergraduate learning programme for orthotics/prosthetics.

Theme of Reflection-on-Practice

The third narrative theme is reflection-on-practice, through which learners reflect on their own and with others and put silent thoughts into spoken or written words. The public and private narratives of this theme collectively contributed towards an understanding of the value of reflection in the training of health practitioners. Mezirow's (1991) descriptions of transformative learning and Schön's (1983, 1987) account of reflection-in-action reiterate the importance of reflective thinking as a basis for a practitioner's learning and development. Tynjälä (1999) adds that "the key to professional development is making explicit that which has earlier been tacit and implicit, and thus opening it to critical reflection and transformation" (p.361).

Introducing journal writing as an educational tool in the Applied Psychology II module proved to be especially effective in encouraging reflection-on-practice. Peter found himself “*thinking aloud*” and reflecting on the class process and the value of the co-constructed knowledge throughout the duration of the psychology module. James found that putting his silent thoughts into written words in the reflective journal spontaneously produced a desire to take the exercise further and write reflections-on-his-reflections.

Both Peter and James’ stories of reflection included an awareness of the importance and value of knowledge and skills that they can apply in their professional and personal lives. Participating in reflective journal writing encouraged the facilitator to reflect on her own teaching practice and on the process that unfolded during teaching and learning. The feedback she received from the learners provided the facilitator with an opportunity to improve her facilitation style and to adjust the course content to best serve the needs of the learners. The reflections of both learners and facilitator became products of what was put forth in dialogue, engaged with and interpreted by the collaborative learning community. The reflections also included the participants’ internal dialogue.

Thus, in agreement with Kember et al. (2001), journal writing seems to be especially effective in developing reflective teaching and learning in the health professions. Tynjälä (1999) describes this as a knowledge-transforming model in which the writer’s thoughts are still developing during the process of writing itself. The reflection process encouraged the facilitator and the participants to apply reflection as part of their every day practice. Given the above, it seems that reflective journal writing has the potential to become a powerful mechanism for co-constructing knowledge.

Theme of Disability

Disability, as a fourth narrative theme, was mostly evident in the unfolding of the public narratives. The problem of disability in developing countries, as well as the need for trained orthotic and prosthetic practitioners to address this need, was first introduced in the public narrative of orthotics/prosthetics. Foucault (1980) refers to the power of language through which the public meta-narrative of disability is reproduced and communicated. Oliver (1994) argues that

the very language of welfare provision serves to deny disabled people the right to be treated as fully competent, autonomous individuals, as active citizens. Care in the community, caring for people, providing services through care managers and care workers all structure the welfare discourse in particular ways and imply a particular view of disabled people (p.7).

Historically, orthotic/prosthetic practitioners were accorded lesser rights and were initially recruited from the least educated section of the population to be trained as artisans. In the unfolding of the public narrative, however, the disabling meta-narrative was opposed through the profession's efforts to elevate training opportunities to international standards. The establishment of a B.Tech learning programme in South Africa contributed to this.

Furthermore, the medical meta-narrative emphasised the hierarchies of power relationships between those who offer treatment and have expert medical knowledge (such as doctors and orthotists/prosthetists) and the less knowledgeable patients who receive their care. This theme was repeated in the modernistic/scientific discourse in psychology in which psychologists were seen to have a greater claim to truth (as scientists) than their clients (laypersons). Following postmodern theorists, Denney (1992) suggests that part of the solution to the disability problem is deconstruction: "the deconstruction of official discourse could provide the beginnings of a process that penetrates dominant and discriminatory conventions" (p.135). In constructing a psychology module for the B.Tech Medical Orthotics and Prosthetics programme, we

witnessed the authority of the actor's (Orthotics/Prosthetics) efforts to propose a curriculum with the emphasis on amputation, disability and illness.

The deficit model of teaching further sustained the disability meta-narrative through emphasising deficits and passivity. However, at the meeting point between public and private narratives, at the construction of a psychology module for B.Tech Medical Orthotics and Prosthetics, we witnessed the opposing of an authoritative disabling meta-narrative through a counter-narrative and teaching philosophy that promotes strengths, transformation and appreciation practices. The narrative theme of disability was positioned as authoritative in the way that James' narrative initially unfolded in the learning context. James' previous experience of a life robbed by trauma informed his experience that he was not able to help himself because his knowledge and skills were insufficient. This in turn silenced his voice in the learning context. James' disabling narrative was challenged through facilitation practices that privileged personal experience and knowledge and invited him to engage in dynamic dialogue with himself and others.

Theme of Community of Concern

The fifth narrative theme, community of concern, crystallised from the analysis of the learners' reflective journals and the facilitator's experiences in a collaborative learning community. Through a process of inviting, valuing and respecting each voice, trust emerged spontaneously in a community where the learners and facilitator showed genuine concern and interest in one another's well being. The small size of the learning community contributed to the establishment of intimate, trusting relationships. Peter, James and the facilitator wrote about the performance and witnessing of life stories that took place during the process of teaching and learning. The transformative power of the participants' performances and enactments of their life stories is congruent with Bruner's (1986) argument that "texts must be performed to be experienced, and what is constitutive is in the production" (p.7). The performance

of life stories was encouraged through the questions that the facilitator posed to the learners during discussion teaching, as well as through the questions as guidelines for journal entries. The community of concern was enlarged when both Peter and James invited their spouses to act as an audience for the performance of their special knowledge claims. This occurred during the life-analysis project that acted as a unique outcome for both.

At the conclusion of the academic year, Peter and James received certificates of special knowledge in a definitional ceremony. Meyerhoff (1982) first introduced the concept of a definitional ceremony and believes that it provides collective self-definitions that proclaim an interpretation to an audience that is not otherwise available. White (1997) argues that definitional ceremonies are contexts that potentially contribute to the generation of thick descriptions of persons' lives. The awards of special knowledge that Peter and James received contributed towards the celebration of new meanings in co-constructed knowledge, and signalled the arrival at a new status in the orthotic and prosthetic community (White & Epston, 1990).

The private narratives of a community of concern held authority over traditional hierarchical training approaches in which facilitators or educators often have a formal, impersonal relationship with learners. Furthermore, the facilitator's positioning as a postmodern narrative psychologist cultivated a caring learning climate. It can also be argued that the facilitator's positioning as a psychologist-as-facilitator introduced authoritative power that maintained the meta-narrative expectation that learners should share personal life stories. In a different learning context, where the facilitator is not a psychologist and the learning content does not relate to psychology, a different learning experience might be expected.

Theme of Agency

Last, but certainly not least, is the narrative theme of agency that was evident in the analysis of public and private texts. Throughout the representation of how public and private narratives came together in the unfolding co-constructing process, it can be argued that the prime motivation in social interaction was to gain a voice. Burr (1998)

interprets the individual's motivation to acquire a voice as "the source of the variety of representations or discourses of selfhood that are currently available" (p.121). However, Potter and Wetherell (1987) recognise that linguistic practices are linked to particular forms of society and social practice in which people have to negotiate a viable position for themselves. The focus is thus on "how agency/choice-type talk generates the subjective experience of 'having' agency or choice" (Burr, 1998, p.137). It should, however, be noted that from a social constructionist perspective, agency positions the individual and society as inseparable components of an ecosystem rather than as an individual/society dichotomy.

In the play of the Meeting Point the actors (Orthotics/Prosthetics, Higher Education and Psychology) were situated vis-à-vis one another as relational story-agents in space and time in the story world. I defined a social location for myself, as narrator, in the act of telling a narrative to you, the audience, in the play. In the story plot I ascribed identity to the science of orthotics/prosthetics, psychology and higher education in an attempt to allow them more voice to speak for themselves. However, it is important to acknowledge that this is still only my representation, which is framed by my cultural and social history.

In the public narratives, the narrator positioned Orthotics/Prosthetics as first actor and protagonist. The prevailing international meta-narrative, such as the ISPO's recognition of the need for training of Category I professionals in developing countries and Tshwane University of Technology's implementation of a B.Tech in Medical Orthotics and Prosthetics, created the action potential for practitioners to engage in world- and self-making by repositioning themselves as key members in the rehabilitation team. The authority of public narratives and the accreditation of a postgraduate learning programme in B.Tech Medical Orthotics and Prosthetics set the stage for Peter and James to become the first qualified Category I professionals in South Africa (protagonists), enabling them to lead the future training of orthotists and prosthetists.

In his private narrative, James acknowledged the role of the B.Tech in creating equal opportunities for the future of orthotic/prosthetic practitioners in developing countries. Peter wrote about the valuable contribution that he could make in a helping profession in

future. Reflecting on the way that the public and private narratives came together in the unfolding story of repositioning orthotic/prosthetic practitioners as key members in the rehabilitation team, it is interesting to note what authority first-world standards have as the yardstick for South African performance in the profession. Indigenous knowledge constructions and orthotic/prosthetics practices in South Africa, are still, to some extent, subjugated by international meta-narratives of standards.

In the public narrative, we witnessed the dramatic tensions within a character, for example, Higher Education's deficit versus strength persona. This tension intensified with divisions in higher education along the lines of race, language and differences in the roles of institutions. The story plot twisted when the newly elected democratic government in South Africa enacted new legislation in an effort to eradicate the imbalances of apartheid and to transform higher education with a focus on achieving equity. An integrated teaching-learning framework offered a counter-narrative of educating for meaning (Garrison & Archer, 2000). The philosophy of outcomes-based education encouraged teachers to reposition themselves as facilitators who invite their learners to collaborate in the co-construction of knowledge and to share responsibility for learning (Mason, 1999).

The authority of a move towards outcomes-based education and collaborative learning practices in the public literature informed the facilitator's negotiation of her position, not only as a non-expert, but also as a learner who is of the learning community. Furthermore, the facilitator's narrative of positioning in the teaching and learning context reflects her battle to find a balance between authoritative modernist public narratives that advocate unified fixed selves and postmodern narratives that embrace constructions of multiple selves. Peter and James were themselves involved in the teaching environment as lecturers and course coordinators before they entered the B.Tech learning programme. This influenced the way that their respective stories unfolded. It can be argued that their previous involvement (as lecturers) gave them authority and agentive power to collaborate more easily in the knowledge construction process.

The dramatic tension within characters was also evident in the public narrative of psychology. The antagonist, critical psychology, challenged psychology's modernist position of scientific neutrality (protagonist). In the process of renegotiating the outsider position of critical psychology within the institution of academic psychology, Harper (2004) suggests introducing ideas from social constructionist and critical psychology into a generic mainstream training context for clinical psychology (Terre Blanche, 2004). One could argue that through the institutionalisation of critical psychology, an ideological positioning was adopted that gave it much more power in determining and informing conversations about critical psychology. In her private narrative, the facilitator wrote about the ideological positioning that she had adopted. This position was informed by the authority of critical psychology and social constructionism. Through it she encouraged learners to take a critical stance towards their taken-for-granted knowledge, and challenged them to renegotiate the scientist-practitioner position to one of reflective-practitioner.

In the Culmination (Act IV), the three actors, Orthotics/Prosthetics, Psychology and Higher Education, interacted on the stage in trying to persuade the narrator to consider their point of view when constructing the Applied Psychology II curriculum. A resolution was achieved when the three actors, in consultation with the narrator, co-constructed a psychology module in which the binary oppositions or tensions in modernism versus postmodernism, a deficit versus strengths model, and disability versus appreciation practices were reconstructed:

The importance of dissolving these dichotomies, for social constructionism, lies in the possibility of human agency and the re-conceptualisation of the nature of the individual that they bring with them. If agency and structure are part of one inseparable system, then the effectiveness of human agency is just as real as the determining features of social structure (Burr, 1995, p.108).

In his private narrative, Peter wrote about his agentic negotiation in positioning himself differently as a learner, lecturer and practitioner by inviting others to collaborate with him in the co-construction of meaning and knowledge. So too, the facilitator renegotiated a multiplicity of positions not only as a facilitator, but also as a

learner, psychologist and researcher. The teaching and learning process made the participants aware of their capacity to collaborate in knowledge constructions and to intervene in the shaping of their lives and relationships. This was particularly evident in James' narrative of agency, through which he reconnected with revered knowledge and constructed positive representations of self. In reflecting critically on the agency debate, it can be argued that the authoritative ideological positioning of critical psychology and social constructionism in the facilitation practice created the action potential for participants to take agency in collaborating in the knowledge construction process. However, when agency is not seen as a top-down/bottom-up dichotomy, but as inseparable components in an ecosystem, the question moves away from who or what took agency and influenced whom towards the process and potential of agency to create unique opportunities for collaborative knowledge constructions.

Limitations and Critical Reflection

Looking back over the narrative thread and repeating story patterns in the public and private narratives, I have learned that there are many similarities that I did not initially anticipate. The use of codes that are not mutually exclusive resulted in an intertwining of narrative themes. The way in which public and private narratives came together and positioned themselves as authoritative in the unfolding stories of participants offered rich descriptions and understandings of the process of knowledge construction. However, I am also faced with a few unanswered questions. Surely there are many public narratives about higher education, psychology and orthotics/prosthetics out there. Who decides that certain narratives should be privileged? Why does the discipline of orthotics/prosthetics choose to use first-world standards as the yardstick for South African performance? What in the international culture and body of knowledge within psychology and orthotics/prosthetics is better than in the indigenous culture of South Africa? These questions lead me to more questions relating to my authoritative power as a researcher and facilitator. Have I really been successful in negotiating a non-expert position for myself as a facilitator? In the process of constructing a psychology

curriculum with an underlying philosophy of social constructionism, which voices have I allowed to be heard and which not?

Although I do not have all the answers to these questions, I believe that I have attempted to answer some of them by reflecting on the way that the public and private narratives came together in the unfolding research narrative, as discussed in the previous section. In the facilitator-learner relationship I experienced the privilege of becoming part of the group and sharing some commonalities with the group. However, in Peter's journal he referred to the facilitator's qualifications and capabilities as a lecturer/psychologist, which placed me in an expert position. James acknowledged the facilitator's contributions and expert skills in understanding himself better. I have come to realise that a power relationship will always exist between a facilitator and learners; however, I have the power to choose how to exert this power, either from a hierarchical or a collaborative position. During the facilitation of the Applied Psychology II module, I challenged orthotist/prosthetists to move from a scientist-practitioner position to a reflective-practitioner position. However, learners were left to decide for themselves where and how they would ultimately like to position themselves. During this process, Peter realised that meanings and beliefs were socially constructed and contextual. He learned that he could respect differing opinions without having to sacrifice his own beliefs and opinions. James discovered the power within himself to claim personal agency in the process of shaping his future.

The choice of privileging certain public narratives relating to higher education, orthotics/prosthetics and psychology was informed by the social and cultural history in which the stories are embedded, and by my own subjective interpretations. I recognise that within these cultures and through the lens of my own ideology, some narratives were storied and others not. In retelling certain marginalised public and private stories relating to higher education, orthotics/prosthetics and psychology, I believe that certain experiences can be rediscovered, relived and can lead to new constructions and deconstructions. My own journey in challenging my personal dominant narratives about psychology informed my choice of giving a voice to critical

psychology as a meta-discipline and umbrella term to describe my transition from modernism to postmodernism and in particular, social constructionism.

Looking critically at the research methodology that I have chosen to guide me through the forest of events and stories, I have come to realise that no single method of narrative analysis exists. By using Richmond's (2002) story map I was able to organise and structure the stories of experiences and compare different story plots. However, forcing stories into the categories of past experiences, present experiences and future intentions fragmented the story line at times. Although there is a certain temporality to stories, there will always be intersecting points between the past, present and future. The enduring appeal of using Labov's (1972) model of natural narrative in this study is largely because its origins are situated in the everyday discursive practices of real speakers in real social contexts. It enabled me to draw rigorous comparisons between literary narratives on the one hand and the social stories told in everyday interaction on the other. It should be noted that a fully formed narrative would realise all six categories of Labov's (1972) model, although many narratives may lack one or more components.

Although I have taken the conclusions based on my interpretations of this research study back to Peter and James with the expectation of gaining additional insight into the analysis and interpretation of the results, I found that they were not able to offer any additional meanings. However, their confirmation of my interpretation adds value to the validation and plausibility of the interpretations and conclusions.

These are just some of the narratives and repeating story patterns that I have explored in the meeting point between public and private narratives relating to teaching and learning experiences in the applied psychology module for B.Tech Medical Orthotics and Prosthetics. I would like to invite you, the reader, to continue on your own journey to discover more narrative patterns that I have not mentioned and to allow them equal space in this research narrative.

Performing New Meaning

It is my hope that this research narrative will contribute to the attempt to bridge the gap between public and private stories that are told about the teaching and learning experiences in a psychology course for health professionals. In narrative therapy, the performance of new meaning refers to the process by which persons refuse to submit to the effects of the problem in their lives, thus rendering the problem less effective. When a person's relationship with the problem is revised, new meaning around unique outcomes can be performed (White & Epston, 1990). The narrative space that has been co-constructed here can offer orthotists/prosthetists, psychologists and facilitators a doorway to an alternative understanding of teaching and learning practices at the meeting point between psychology and orthotics/prosthetics. This may reduce the effect of problems such as rote learning and deficit models of teaching and learning. It is my hope that orthotists/prosthetists, psychologists and facilitators will take the opportunity to engage in explorations of taking-it-back practices in their lives and work.

I encourage orthotists/prosthetists and psychologists to take the unique outcomes that have been derived from this research study back to their practices. One such unique outcome involves privileging practitioner's indigenous knowledge and giving a voice to their experiences in a national and international context. Another unique outcome is that working in collaboration with learners and research participants brings facilitators closer to understanding the complexities of their practice and invites them to re-negotiate alternative positions for themselves within the teaching and learning environment. Other unique outcomes include challenging learners and practitioners in the health professions to move from a scientist-practitioner to a reflective-practitioner position; to collaborate in the co-construction of knowledge; and to evaluate the meaning they ascribe to co-constructed knowledge through the lens of praxis.

I invite prospective orthotists/prosthetists to explore and bring forth the valued lived experiences, knowledge, skills and desires that invited them into this helping field, and to honour them as experts of their own lives. I believe that in this process,

orthotists and prosthetists may negotiate an alternative position for themselves in the helping relationship with their patients, and also honour their patients as the experts of their own lives.

Doorways to Future Stories

Peter, James and I are the first generation to accept the invitation to co-construct stories about our experiences during a psychology module for B.Tech Medical Orthotics and Prosthetics. Many prospective practitioners will follow after us on the journey of the B.Tech Medical Orthotics and Prosthetics course. This research narrative does not allow us to make assumptions about the meanings that other individuals may attach to their experiences. Inviting orthotists/prosthetists, facilitators, learners and researchers to continue on this journey of discovery can open doorways to alternative stories and rich descriptions future tellings of teaching and learning in the health professions.

The new selection, examination and facilitation practices that have emerged from this research narrative open many doorways to exciting research journeys. For example, the creation of an e-learning environment in orthotics and prosthetics is in its beginning phase. Learners and facilitators are invited to collaborate in the co-construction of this new wave of knowledge and facilitation practice in cyberspace.

Saying Goodbye

Looking back over my own research journey leaves me with a sense of accomplishment. Not only have I found a different kind of knowledge and performed new meaning to my experiences, but I have also been changed as a traveller. Megan, Social Constructionism, Peter, James, Power and Knowledge have collaborated in the re-authoring and retelling of my alternative research story. Through this process I have allowed my own voice to become stronger and I am encouraged to claim my own signature as a researcher, psychologist and facilitator.

The re-remembering conversations that I have engaged in have brought me to the centre of my passion: facilitation.

Although this story may have an ending, the stories about this story may never end. I find myself thinking about you, the reader. I am curious to know how the private and public narratives speak to your preferred ways of being in your work and life in general. I am wondering what stories you will re-tell in your conversations with others and which experiences from reading this research narrative you will privilege.

REFERENCES

REFERENCES

Albee, G.W. (1980). A competency model to replace the deficit model. In M.S. Gibbs, J.R. Lachenmeyer, & J. Sigal (Eds.), *Community psychology: Theoretical and empirical approaches* (pp.213-238). New York: Gardner.

Altheide, D.L. & Johnson, J.M. (1998). Criteria for assessing interpretive validity in qualitative research. In N.K. Denzin & Y.S. Connelly, *Collecting and interpreting qualitative materials* (pp.283 - 312). London: Sage.

Anderson, H. (2000). Supervision as a collaborative learning community. *Supervision Bulletin, American Association for Marriage and Family on Therapy*. Retrieved September 9, 2004 from:
<http://www.musictherapyworld.de/modules/mmmagazine/showarticle.php?articletoshow=25>

Anderson, H. & Goolishian, H. (1988). Human systems as linguistic systems: Preliminary and evolving ideas about the implications for clinical theory. *Family Process*, **27**(4), 371-393.

Anderson, T. (1992). Reflections on reflecting with families. In S. McNamee & K.J. Gergen (Eds.), *Therapy as Social Construction* (pp.54–68). London: Sage.

Austin, S. & Prilleltensky, I. (2001). Diverse origins, common aims: The challenge of critical psychology. *Radical Psychology*, 2(2) [Online]. Retrieved September 9, 2004 from: <http://www.radpsynet.org/journal/vol2-2/austin-prilleltensky.html>

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, New York: Prentice-Hall.

Banister, P., Burman, E., Parker, I., Taylor, M. & Tindall, C. (1994). *Qualitative methods in psychology: A research guide*. Buckingham: Open University Press.

REFERENCES

Bartunek, J.M. & Louis, M.R. (1996). *Insider/outsider team research*. Thousand Oaks, CA: Sage.

Becvar, D.S. & Becvar, R.J. (1996). *Family therapy: A systemic integration (3rd ed.)*. Needham Heights, MA: Allyn & Bacon.

Belenky, M.F., Clinchy, B., Goldberg, N. & Tarule, J. (1986). *Women's ways of knowing: The development of self, voice, and mind*. New York: Basic Books.

Bennet, N. & Dunne, E. (1992). *Managing classroom groups*. Hemel Hempstead: Simon & Schuster.

Berger, P.L & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. Garden City, New York: Anchor Books.

Biggs, J. (1996). Enhancing teaching through constructive alignment. *Higher Education*, **32**, 347-364.

Biko, S. (1989). *I write what I like: Selected writings*. London: Heineman.

Bitzer, E.M. (1999). Pitfalls and bridges: Co-operative and collaborative learning in higher education. *South African Journal of Higher Education*, **13**(1), 11-16.

Bitzer, E.M. (2001). Understanding co-operative learning: A case study in tracing relationships to social constructivism and South African socio-educational thought. *South African Journal of Higher Education*, **15**(2), 98-104.

Boud, D. (1990). Assessment and the promotion of academic values. *Studies in Higher Education*, **15**, 101-110.

Boud, D., Keogh, R. & Walker, D. (1985). *Reflection: Turning experience into learning*. Kogan Page, London.

REFERENCES

- Brearly, L. (2000). Exploring the creative voice in an academic context. *The Qualitative Report*, 5(3 & 4). [On-line]. Retrieved March 12, 2004 from: <http://www.nova.edu/ssss/QR/QR5-3/brearly.html>
- Breuer, F. & Roth, W. (2003, May). Subjectivity and reflexivity in the social sciences: Epistemic windows and methodical consequences. *Forum: Qualitative Social Research* [On-line Journal], 4(2). Retrieved April, 8 2004 from: <http://www.qualitative-research.net/fqs-texte/2-03/2-03intro-3-e.htm>
- Brown, A.L. & Palinscar, A.S. (1989). Guided, cooperative learning and individual knowledge acquisition. In L.B. Resnick (Ed.), *Knowing, learning and instruction* (pp.393-452). Hillsdale, New York: Lawrence Erlbaum.
- Bruffee, K.A. (1986). Social construction, language and the authority of knowledge: A bibliographical essay. *College English*, 48(8), 773-790.
- Bruner, E. (1986). Experience and its expressions. In Bruner, E. & Turner, V. (eds), *The anthropology of experience* (pp.219–241). Chicago: University of Illinois Press.
- Bruner, J.S. (1990). *Acts of Meaning*. Cambridge, MA: Harvard University Press.
- Bunting, I. (2002). The higher education landscape under apartheid. In Cloete, N., Fehnel, R., Maassens, P., Moja, T., Perold, H. & Gibbon, T. (Eds), *Transformation in higher education: Global pressures and local realities in South Africa*. Lansdowne: Juta, 85-66.
- Burger, H. & Marincek, C. (1994). Upper limb prosthetic use in Slovenia. *Prosthetics Orthotics International*, 18, 25-33.
- Burke, K. (1945). *Grammar of motives*. New York: Prentice-Hall.

REFERENCES

Burke, K. (1969). *Rhetoric of motives*. Berkeley, CA: University of California Press.

Burke, K. (1973). *The philosophy of literary form*. Berkeley, CA: University of California Press.

Burr, V. (1997). Social Constructionism and Psychology. *The New Psychologist*, OUPS, Milton Keynes.

Burr, V. (1998). *An Introduction to Social Constructionism*. New York: Routledge.

Byrne, M.M. (2001). Evaluating the findings of qualitative research. *AORN Journal* [Online]. Retrieved April 8, 2004 from:
http://www.findarticles.com/cf_dls/m0FSL/3_73/72272010/print.jhtml

Canning, C. (1991). What teachers say about reflection. *Educational Leadership*, March, 18 – 21.

Carlson, T.D. & Erickson, M.J. (2001). Honoring and privileging personal experience and knowledge: ideas for a narrative therapy approach to the training and supervision of new therapists. *Contemporary Family Therapy*, **23**(2), 199-220.

Chadderton, H.C. (1978). Protheses, pain and sequelae of amputation, as seen by the amputee. *Prosthetics Orthotics International*, **2**, 12-14.

Chenail, R.J. & Maione, P. (1997). Sense-making in clinical qualitative research. *The Qualitative Report*, **3**(1) [Online]. Retrieved June 23, 2003 from:
<http://www.nova.edu/ssss/QR/QR3-1/sense.html>

Chiari, G. & Nuzzo, M.L. (1996). Psychological constructivisms: A meta-theoretical differentiation. *Journal of Constructivist Psychology*, **9**, 163-184.

REFERENCES

- Clandinin, D. J. & Connelly, F.M. (1998). Personal experience methods. In N.K. Denzin & Y.S. Connelly, *Collecting and interpreting qualitative materials* (pp.150 – 178). London: Sage Publications.
- Clandinin, D.J. & Connelly, F.M. (1990). Stories of experience and narrative inquiry. *Educational Researcher*, **19**(5), 2-14.
- Clandinin, D.J. & Connelly, F.M. (2000a). Narrative inquiry: Experience and story in qualitative research. Retrieved April 5, 2004 from:
http://media.wiley.com/product_data/excerpt/36/07879434/0787943436.pdf
- Clandinin, D.J. & Connelly, F.M. (2000b). *Narrative inquiry*. San Francisco: Jossey-Bass.
- Clegg, J. (1998). *Critical issues in clinical practice*. London: Sage.
- Committee on Artificial Limbs. (1947). *National Research Council: Terminal research reports on artificial limbs (covering the period from April 1, 1945 through June 30, 1947)*. Washington, DC: National Research Council.
- Dacre, K. & Mackey, S. (1999). Self-interpreting animals: action research and the reflective drama journal. *Research in Drama Education*, **4**(1), 51 – 71.
- Dallos, R. & Draper, R. (2000). *An introduction to family therapy: Systemic theory and practice*. Buckingham: Open University Press.
- Davies, B & Harré, R. (1990). Positioning: the discursive production of selves. *Journal for the Theory of Social Behaviour*, **20**(1), 43-63.
- Dawes, A.R.L. (1986). The notion of relevant psychology with particular reference to Africanist pragmatic initiatives. *Psychology in Society*, **5**, 28-48.

REFERENCES

Dei, G. (1996, March). Race and difference: The politics of denial and affirmation. Paper presented at Wilfrid Laurier University, Waterloo, Canada.

Denney, D. (1992). *Racism and anti-racism in probation*. London: Routledge.

Denzin, N.K. (1989a). *Interpretive interactionism*. Newbury Park, CA: Sage.

Denzin, N.K. (1989b). *The research act* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.

Denzin, N.K. & Lincoln, Y.S. (1998). *Collecting and interpreting qualitative materials*. London: Sage Publications.

Department of Education. (1994-1998). *Student statistics tables, South African Post-secondary Information System*. Pretoria: Department of Education.

Derrida, J. (1978). *Writing and difference* (A. Bass, Trans.). Chicago: University of Chicago Press.

Desmond, D. & MacLachlan, M. (2002). Psychological issues in prosthetic and orthotic practice: a 25 year review of psychology in *Prosthetics and Orthotics International*. *Prosthetics Orthotics International*, **26**, 182-188.

Dewey, J. (1938). *Experience and education* (7th printing, 1967). New York: Collier.

Durrheim, K. & Mokeki, S. (1997). Race and relevance: A content analysis of the South African Journal of Psychology. *South African Journal of Psychology*, **27**(4), 206-213.

Edley, N. (2001). Unravelling Social Constructionism. *Theory & Psychology*, **11** (3), 433-441.

Edwards, P. (1967). *The encyclopedia of philosophy*. New York: Macmillan.

REFERENCES

- Edwards, R. & Usher, R. (2001). Lifelong learning: A postmodern condition of education? *Adult Education Quarterly*, 51(4), 273-287.
- Ellis, C. & Bochner, A.P. (1992). Telling and performing personal stories: The constraints of choice in abortion. In C. Ellis and M. Flaherty (Eds.), *Investigating subjectivity: Research on lived experience* (pp. 79 – 101). Newbury Park, CA: Sage.
- Emden, C. (1998). Conducting a narrative analysis. *Collegian*, 5(3), 34-37.
- Ewert, G.D. (1991). Habermas and education: A comprehensive overview of the influence of Habermas in educational literature. *Review of Educational Research*, 61, 345-378.
- Fielding, N.G. & Fielding, J.L. (1986). *Linking data*. Beverly Hills, CA: Sage.
- Fishman, S. (1977). Education in prosthetic and orthotics. *Prothetics Orthotics International*, 1, 52-55.
- Fishman, S. (2001). The professionalization of orthotics and prosthetics. *O&P Business News*, 10, 24-30.
- Flick, U. (1998). *An introduction to qualitative research: Theory, method and applications*. London: Sage.
- Foster, D. (1993). On racism. In L. Nicholas (Ed.), *Psychology and oppression: Critiques and proposals* (pp.58-71). Johannesburg: Skotaville.
- Foucault, M. (1979). Governmentality. *Ideology & Consciousness*, 6, 5-21.
- Foucault, M. (1980). *Power/knowledge: Selected interviews and other writings*. New York: Pantheon Books.

REFERENCES

- Foucault, M. (1982). The Subject and Power. In H.L. Dreyfus & P. Rabinow (Eds). *Michel Foucault beyond structuralism and hermeneutics* (pp.208-260). New York: Harvester Wheatsheaf.
- Freedman, J. & Combs, G. (1996). *Narrative Therapy: The Social Construction of Preferred Realities*. New York: W.W. Norton & Company.
- Furst, L. & Humphrey, M. (1983). Coping with the loss of a leg. *Prosthetics Orthotics International*, **7**, 152-156.
- Gallagher, P. & MacLachlan, M. (2000). Positive meaning in amputation and thoughts about the amputated limb. *Prosthetics Orthotics International*, **24**, 196-204.
- Garrison, D.R. & Archer, W. (2000). *A transactional perspective on teaching and learning: a framework for adult and higher education*. Amsterdam: Pergamon.
- Georgia Institute of Technology. (2003). *What is Prosthetics and Orthotics?* Retrieved August, 26, 2004, from Georgia Tech MSPO Web site: http://www.ap.gatech.edu/mspo/whatisp_o.htm
- Georgia Institute of Technology. (2003). *History of Prosthetics and Orthotics*. Retrieved August 26, 2004, from Georgia Tech MSPO Web site: <http://www.ap.gatech.edu/mspo/history.htm>
- Gergen, K.J. (1985). The social constructionist movement in modern psychology. *American Psychologist*, **40**, 266-275.
- Gergen, K. (1992). The postmodern adventure. *Family Therapy Networker*, Nov./Dec., 52 & 56-57.
- Gergen, M. (2001). *Feminist reconstructions in psychology: Narrative, gender, and performance*. London: Sage.

REFERENCES

- Geuss, R. (1981). *The idea of a critical theory: Habermas & the Frankfurt School*. New York: Cambridge University Press.
- Giovannoli, R. (2004). *The narrative method of inquiry* [On-line]. Retrieved on February 4, 2004 from: www.sonic.net/~rgiovan/essay.z.PDF
- Gravett, S. & Geysler, H. (2004). *Teaching and learning in higher education*. Hatfield, Pretoria: Van Schaik Publishers.
- Greenwood, J. (1998). The role of reflection in single and double loop learning. *Journal of Advanced Learning*, **27**(5), 1048-53.
- Guba, E.G. & Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In N.K. Denzin & Y.S. Lincoln (Eds.). *Handbook of qualitative research* (pp.105 – 117). Thousand Oaks: Sage.
- Habermas, J. (1971). *Knowledge and human interests* (J.J. Shapiro, Trans.). Boston: Beacon Press. (Original work published in 1968.)
- Habermas, J. (1974). *Theory and practice* (translation J. Viertel). Heinemann, London.
- Hagberg, K. & Branemark, R. (2001). Consequences of non-vascular trans-femoral amputation: a survey of quality of life, prosthetics use and problems. *Prosthetics Orthotics International*, **25**, 186-194.
- Hare-Mustin, R. (1994). Discourses in the mirrored room: A postmodern analysis of therapy. *Family Process*, **33**, 19-35.
- Hargoon, I. (2003). Tracking community psychology: The Phelophepa experience. *PsyTalk*, **2**, 5.

REFERENCES

- Harper, D.J.. (2004). Introducing social constructionist and critical psychology into clinical psychology training. In D. Paré & G. Lerner (eds). *Collaborative practice in psychology and therapy*. New York: Haworth Press. Retrieved on September 9, 2004 from <http://www.uel.ac.uk/cnr/documents/Harper2.doc>
- Hatton, N. & Smith, D. (1995). Reflection in teacher education: towards definition and implementation. *Teaching & Teacher Education*, **11**(1), 33 – 49.
- Hammersley, M. (1992). *What's wrong with ethnography? Methodological explorations*. London: Routledge.
- Henriques, J., Hollway, W., Urwin, C., Venn, C., & Walkerdine, V. (1984). *Changing the subject: Psychology, social regulation and subjectivity*. New York: Methuen & Co.
- Hook, D. (2001). Discourse, knowledge, materiality, history; Foucault and discourse analysis. *Theory & Psychology*, **11** (4), 521-547. London: Sage.
- Hook, D. (Ed.). (2004). *Introduction to critical psychology*. Cape Town: UCT Press.
- Hoskins, M.L. (2000). Living research: The experience of researching self, other, and discourse. *Journal of Constructivist Psychology*, **13**, 47 – 66.
- Hoshmand, L.T. & Polkinghorne, D.E. (1992). Redefining the science-practice relationship and professional training. *American Psychologist*, **47**, 55-66.
- Hovorka, C.F., D.G. Shurr & D.S. Bozik (2002). The concept of an entry-level interdisciplinary graduate degree preparing orthotists for the new millennium part 2: Master of Orthotic Science. *Journal of Prosthetics and Orthotics*, **14** (2), 59-69.
- Hughes, J. (1998). *ISPO Education Philosophy*. Paper presented at the ISPO An Asian Prosthetics and Orthotics Workshop'98 in Japan Final Report. Retrieved August 26, 2004, from <http://www.dinf.ne.jp/doc/english/asia/conf/bok002/bok00205.htm>

REFERENCES

Hunter, G.A. (1985). Limb amputation and re-amputation in association with chronic pain syndrome. *Prosthetics Orthotics International*, **9**, 92-94.

Hunter, G.A. (1992). Psychological factors leading to amputation in adults. *Prosthetics Orthotics International*, **16**, 196-199.

Hunter, J. & Middleton, F.R.I. (1984). Cold injury amputees – a psychosocial problem. *Prosthetics Orthotics International*, **8**, 143-146.

International Society of Prosthetics and Orthotics (ISPO). (1998). Report of ISPO Workshop on up-grading in prosthetics and orthotics for technicians from developing countries trained on short courses, Glasgow, Scotland 1925 July, 1987. Copenhagen: ISPO.

Janesick, V.J. (1998). The dance of qualitative research design. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp.209-219). Thousand Oaks, CA: Sage.

Jansen, J.D. (1998). Curriculum reform in South Africa: a critical analysis of outcomes-based education. *Cambridge Journal of Education*, **28**, 321-331.

Jansen, J. & Christie, P. (Eds). (2000). *Changing curriculum: Studies on Outcomes-based Education in South Africa*. Kenwyn: Juta.

Jonassen, D.H. (1991). Objectivism versus constructivism: Do we need a new philosophical paradigm? *Educational Technology Research and Development*, **39**(3), 5014.

Kecskemeti, M. & Epston, D. (1995). A proposal for an interview format and practices of appreciation that value teachers' and students' knowledges in schools [On-line]. Retrieved February 26, 2004 from:
<http://www.narrativeapproaches.com/narrative%20papers%folder/teacher.htm>

REFERENCES

- Kelly, K. (1999). From encounter to text: collecting qualitative data for interpretive research. In M. Terre Blanche & K. Durrheim. (Eds.), *Research in practice: Applied methods for the social sciences* (pp.379 – 397). Cape Town: University of Cape Town Press.
- Kelly, P., Hickey, C. & Tinning, R. (2000). Educational truth telling in a more reflexive modernity. *British Journal of Sociology of Education*, **21**(1), 111-123.
- Kember, D., Jones, A., Loke, A.Y., McKay, J., Sinclair, K., Tse, H., Webb, C., Wong, F.K.Y., Wong, M.W.L., & Yeung, E. (2001). *Reflective teaching & learning in the Health Professions: Action research in professional education*. London: Blackwell Science Ltd.
- Kerlinger, F.N. (1986). *Foundations of behavioural research* (3rd ed.). Fort Worth: Harcourt Brace.
- Koeleman, C.J. (1995, June). Re-curriculation workshop: Medical Orthotics and Prosthetics. (Available from Tshwane University of Technology, Department of Sport and Physical Rehabilitation Sciences).
- Kolb, D.A., Rubin, I.M. & McIntyre, J.M. (1974). *Organisational Psychology: An experiential approach*. Englewood Cliffs, N.J.: Prentice-Hall.
- Krefting, L. (1991). Rigor in qualitative research: The assessment of trustworthiness. *The American Journal of Occupational Therapy*, **45**(3), 214-222.
- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. Thousand Oaks: Sage.
- Labov, W. (1972). *Language in the inner city*. Philadelphia: University of Pennsylvania Press.

REFERENCES

- Lachman, R., Lachman, J. & Butterfield, E. (1979). *Cognitive psychology and information processing: An introduction*. Hillsdale, New York: Lawrence Erlbaum.
- Lieblich, A., Tuval-Mashiach, R., & Zilber, T. (1998). *Narrative research: reading, analysis, and interpretation* (Vol. 47). Thousand Oaks, California: Sage Publications.
- Lord, M. & Foulston, J. (1991). Clinical trial of a computer-aided system for orthopaedic shoe upper design. *Prosthetics Orthotics International*, **15**, 11-17.
- Louw, J. (2002). Psychology, history and society. *South African Journal of Psychology*, **32**(1), 1-8.
- Louw, J. & Foster, D. (1991). Historical perspective: Psychology and group relations in South Africa. In D. Foster & J. Louw-Potgieter (Eds.), *Social Psychology in South Africa* (pp.57-90). Johannesburg: Lexicon.
- Luckett, K. & Sutherland, L. (2000). Assessment practises that improve teaching and learning. In S. Makoni (Ed.), *Improving teaching and learning in higher education: A handbook for South Africa*. Johannesburg: Witwatersrand University Press, 98-130.
- Lui, J.H. & Lui, S.H. (1997). Modernism, postmodernism, and neo-Confucian thinking: A critical history of paradigm shifts and values in academic psychology, *New ideas in psychology*, **15**(2), 159 – 178.
- Lusardi, M.M., P.K. Levangie & B.D. Fein. (2002). A problem-based learning approach to facilitate evidence-based practice in entry-level health professional education. *Journal of Prosthetics and Orthotics*, **14**(2), 40-50.
- Macleod, C. (2002). Deconstructive Discourse Analysis: Extending the Methodological Conversation. *South African Journal of Psychology*, **32**(1), 17-25.

REFERENCES

- Magabane, T. (2002, September). Submission for accreditation of new learning programme. Pretoria: Council on Higher Education, Higher Education Quality Committee.
- Mandl, H., Gruber, H. & Renkl, A. (1996). Communities of practice towards expertise: Social foundation of university instruction. In P.B. Baltes & U.M. Staudinger, *Interactive minds. Life-span perspectives on the social foundation of cognition* (pp.394-412). Cambridge: Cambridge University Press.
- Manganyi, N.C. (1991). *Treachery and innocence: Psychology and racial difference*. Johannesburg: Ravan Press.
- Marshall, C. & Rossman, G.B. (1995). *Designing qualitative research (2nd ed)*. Thousand Oaks, CA: Sage Publications, Inc.
- Martin-Baro, I. (1994). *Writings for a liberation psychology*. Cambridge, MA: Harvard University Press.
- Mason, B. (1993). Towards positions of safe uncertainty. *Human Systems: The Journal of Systemic Consultation & Management*, **4**, 189-200.
- Mason, M. (1999). Outcomes-based education in South African curricular reform: A response to Jonathan Jansen. *Cambridge Journal of Education*, **29**(1), 137–143.
- McNamee, S. & Gergen, K.J. (1999). *Relational responsibility: Sources for sustainable dialogue*. Thousand Oaks, CA: Sage Publications.
- Medical Orthotics and Prosthetics Advisory Committee meeting. (1998, September 22). (Available from Tshwane University of Technology, Department of Sport and Physical Rehabilitation Sciences).

REFERENCES

Medical Orthotics and Prosthetics Advisory Committee meeting. (1999, April 23). (Available from Tshwane University of Technology, Department of Sport and Physical Rehabilitation Sciences).

Medical Orthotics and Prosthetics Advisory Committee meeting. (2000, September 14). (Available from Tshwane University of Technology, Department of Sport and Physical Rehabilitation Sciences).

Medical Orthotics and Prosthetics Advisory Committee meeting. (2001, October 26). (Available from Tshwane University of Technology, Department of Sport and Physical Rehabilitation Sciences).

Mezirow, J. (1981). A critical theory of adult learning and education. *Adult Education*, **32**, 3-24.

Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.

Milan, L.L. (1998). Community based rehabilitation (CBR) programme in the developing countries (WHO). Paper presented at the ISPO Asian Prosthetics and Orthotics Workshop '98 in Japan. Retrieved August 26, 2004, from <http://www.dinf.ne.jp/doc/english/asia/conf/bok002/bok00209.htm>

Millstein, S.G., Heger, H. & Hunter, G.A. (1986). Prosthetic use in adult upper limb amputees: a comparison of the body powered and electrically powered prostheses. *Prosthetics Orthotics International*, **10**, 27-34.

Ministry of Education. (2001). *National Plan for Higher Education (NPHE)*. Pretoria: Department of Education.

Mishler, E. (1986). The analysis of interview-narratives. In T. Sarbin (Ed.), *Narrative psychology: The stories nature of human conduct* (pp.233-255). New York, NY: Praeger.

REFERENCES

- Morgan, A. (2000). *What is narrative therapy? An easy-to-read introduction*. Adelaide: Dulwich Centre Publications.
- Morgan, G. (1996). An afterword: Is there anything more to be said about metaphor? In D. Grant & C. Oswick (Eds.), *Metaphor and organisations* (pp.227 – 240). London, England: Sage Publications.
- Myerhoff, B. (1982). Life history among the elderly: Performance, visibility and remembering. In J. Ruby (Ed.), *A crack in the mirror: Reflexive perspectives in anthropology* (pp.133-153). Philadelphia: University of Pennsylvania Press.
- Narang, I.C. & Jape, V.S. (1982). Retrospective study of 14,400 civilian disabled (new) treated over 25 years at an Artificial Limb Centre. *Prosthetics Orthotics International*, **6**, 10-16.
- Nell, V. (1990). One world, one psychology: “Relevance” and ethnopsychology. *South African Journal of Psychology*, **20**(3), 129-140.
- Neuman, W.L. (2000). *Social research methods. Qualitative and quantitative approaches* (4th ed.). Boston: Allyn & Bacon.
- Nooney, G. (2002a). Narrative space: Descriptions. Retrieved February 26, 2004 from: <http://www.narrativespace.com/descriptions.html>
- Nooney, G. (2002b). Narrative space: Terminology. Retrieved February 26, 2004 from: <http://www.narrativespace.com/termsdefined.html>
- Oandp.com Development Team. (1990). The Orthotics and Prosthetics profession [Electronic version]. *Journal of Prosthetics & Orthotics*, **2**(3), 175-176.
- Oates, A. (2003, November). *The role of orthotists and prosthetists in shaping the future in rehabilitation nationally and internationally*. Paper presented at the selection

REFERENCES

of orthotists and prosthetists for the B.Tech Medical Orthotics and Prosthetics course, Tshwane University of Technology, Pretoria.

Oliver, M. (1994). Politics and language: Understanding the disability discourse. Paper prepared for inclusion in the MA in Disability Studies Programme: Department of Psychotherapy, University of Sheffield.

Oriah Mountain Dreamer. (1999). *The invitation*. London: Thorsons.

Parker, I. (1990). Discourse: definitions and contradictions, *Philosophical Psychology*, 3 (2), 189-204.

Parker, I. (1999a). Critical psychology: critical links. *Annual Review of Critical Psychology*, 1, 3-20.

Parker, I. (1999b). Critical reflexive humanism and critical constructionist psychology. In D.J. Nightingale & J. Cromby (Eds.), *Social constructionist psychology. A critical analysis of theory and practice* (pp.23 – 36). Buckingham: Open University Press.

Parker, I. (1994). Qualitative research. In P. Banister, E. Burman, I. Parker & C. Tindall (Eds.), *Qualitative methods in psychology: A research guide* (pp.1-16). Buckingham: Open University Press.

Paul, S.W. (1977). Spinal problems in myelomeninogecle-orthotic principles. *Prosthetics Orthotics International*, 1, 30-38.

Potgieter, C. & De la Rey, C. (1997). Gender and race: Whereto psychology in South Africa? *Feminism & Psychology*, 7(1), 138-142.

Potter, J. & Wetherell, M. (1987). *Discourse and social psychology: Beyond attitudes and behaviour*. London: Sage.

REFERENCES

Prawat, R.S. (1989). Teaching for understanding: Three key attributes. *Teaching & Teacher Education*, *5*(4), 315-328.

Priest, H., Roberts, P. & Woods, L. (2002). An overview of three different approaches to the interpretation of qualitative data. Part 1: theoretical issues. *Nurse Researcher*, *10*(1), 30-38.

Prinsloo, N.M. (1996, March). *Rules for registration of Medical Orthotists and Prosthetists*. Pretoria: South African Medical and Dental Council, Professional Board for Medical Orthotists and Prosthetists.

Punch, K. (1998). *Introduction to social research. Quantitative and qualitative approaches*. London: Sage.

Pupulin, E. (July, 2001). *Knud Jansen Lecture*. Paper presented at the ISPO Congress, Glasgow.

Quigley, J. (2000). *The grammar of autobiography: A developmental account*. Mahwah: Lawrence Erlbaum.

Rabinow, P. & Sullivan, W.M. (1987). *Interpretive social science: A second look*. Berkeley: University of California Press.

Raskin, J.D. (2002). Constructivism in psychology: Personal construct psychology, radical constructivism, and social constructionism. In J.D. Raskin & S.K. Bridges (Eds.), *Studies in meaning: Exploring constructivist psychology* (pp.1-25). New York: Pace University Press.

Ratele, K. & Duncan, N. (Eds.). (2003). *Social psychology: identities and relationships*. Cape town: UCT Press.

Richardson, L. (1991). Postmodern social theory. *Sociological Theory*, *9*, 173 –179.

REFERENCES

Richardson, L. (1994). Writing: A method of inquiry. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp.516 – 529). Thousand Oaks, CA: Sage.

Richmond, H. J. (2002). Learners' lives: A narrative analysis. *The Qualitative Report*, 7(3) [On-line]. Retrieved March, 12 2004 from: <http://www.nova.edu/ssss/QR/QR7-3/richmond.html>

Riessman, C.K. (1993). *Narrative analysis* (Vol. 30). Newbury Park, CA: Sage Publications.

Riley-Doucet, C. & Wilson, S. (1997). A three-step method of self-reflection using reflective journal writing. *Journal of Advanced Nursing*, 25, 964 – 968.

Rodriguez, A. (2002). Redefining our understanding of narrative. *The Qualitative Report*, 7(1) [On-line]. Retrieved March, 12 2004 from <http://www.nova.edu/ssss/QR/QR7-1/rodriguez.html>

Rogers, C.R. (1969). *Freedom to learn*. Columbus, Ohio: Charles E. Merrill.

Rothe, J.P. (1994). *Qualitative research: A practical guide*. Ontario, Canada: RCI Publications and PDE Publications.

Ryle, G. (1971). *Collected papers*. London: Hutchinson.

Sarbin, T.R. (1986). The narrative as a root metaphor in psychology. In T.R. Sarbin (Ed.), *Narrative psychology: The storied nature of human conduct*. New York: Praeger.

Sarton, M. (1982). *Mary Sarton: A self-portrait*. New York: W.W. Norton.

Saunders, P. & Werner, K. (2002). Finding the right blend for effective learning [Online]. Retrieved November, 20 2004 from: <http://www.wmich.edu/teachlearn/new/blended.htm>

REFERENCES

Schön, D.A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.

Schön, D.A. (1987). *Educating the reflective practitioner*. San Francisco: Jossey-Bass.

Setoguchi, Y. (1991). The management of the limb deficient child and its family. *Prosthetics Orthotics International*, **15**, 78-81.

Sexton, T.L. (1997). Constructivist thinking within the history of ideas: The challenge of a new paradigm. In T.L. Sexton & B.L. Griffin (Eds.), *Constructivist thinking in counselling practice, research, and training* (pp.3-18). New York: Teachers College Press.

Shotter, J. (1993). *Conversational realities*. London: Sage Publications.

Showler, J. (2000). Case study of classroom practice: A “quiet form of research”. *The Qualitative Report*, 5(3 & 4) [Online]. Retrieved April, 5 2004 from: <http://www.nova.edu/ssss/QR/QR5-3/showler.html>

Simpson, E. (2000). Knowledge in the postmodern university. *Educational Theory*, **50**(2), 157-170.

Smith, B. & Brown, S. (1995). *Research teaching and learning in higher education*. London: SEDA.

Soper, K. (1991). Postmodernism, subjectivity and the question of value. *New Left Review*, **186**, 120-128.

Souza, T.J. (2003). Collaboration in and of research and teaching [Online]. Retrieved December 12, 2003 from: <http://scholar.lib.vt.edu/ejournal/JTE/v10n2/zvga.html>

REFERENCES

Spalding, E. & Wilson, A. (2002). Demystifying reflection: a study of pedagogical strategies that encourage reflective journal writing. *Teachers College Record*, **104**(7), 1393 –1421.

Sparkes, A.C. (1998). Validity in Qualitative Inquiry and the Problem of Criteria: Implications for Sport Psychology. *The Sport Psychologist*, **12**, 363-386.

Spellman, D. & Harper, D.J. (1996). Failure, mistakes, regret and other subjugated stories in family therapy. *Journal of Family Therapy*, **18**, 205-214.

Steier, F. (1995). From universing to conversing: An ecological constructionist approach to learning and multiple description. In L.P. Steffe & J. Gale (Eds.), *Constructivism in education* (pp.67 – 84). New Jersey: Lawrence Erlbaum.

Stephens, K. (1999a, Summer). Strathclyde's National Centre: At the leading edge. *O&P Business World*, **2**(3), 30-34.

Stephens, K. (1999b, Spring). O&P in Germany: Tradition, technology, education – combining for excellence. *O&P Business World*, **2**(2), 24-34.

Stiles, W.B. (1993). Quality Control in Qualitative Research. *Clinical Psychology Review*, **13**, 595-618.

South African Qualifications Authority (SAQA). (2002, August). Form 2. Submission format for institutional accreditation and funding approval of learning programmes: B.Tech Medical Orthotics and Prosthetics. (Available from Tshwane University of Technology, Department of Sport and Physical Rehabilitation Sciences).

Sullivan, E.V. (1984). *A critical psychology: Interpretation of the personal world*. New York: Plenum Press.

REFERENCES

Sutton-Smith, B. (1986). Children's fiction making. In T. Sarbin (Ed.), *Narrative Psychology* (pp.67 – 90). Westport, CT: Praeger.

Taylor, T.R. (1994). A review of three approaches to cognitive assessment, and a proposed integrated approach based on a unifying theoretical framework. *South African Journal of Psychology*, **24**(4), 184-193.

Taylor, C.R. (2002). E-learning: The second wave. Retrieved November 20, 2004 from: <http://www.learningcircuits.com/2002/oct2002/taylor.htm>

Teo, T. (1998). Prolegomenon to a contemporary psychology of liberation. *Theory and Psychology*, **8**, 527-547.

Tennant, M. (1988). *Psychology and adult learning*. London: Routledge.

Tenni, C., Smyth, A. & Boucher, C. (2003). The researcher as autobiographer: Analysing data written about oneself. *The Qualitative Report*, **8**(1) [Online]. Retrieved March, 12 2004 from: <http://www.nova.edu/ssss/QR/QR8-1/tenni.html>

Terre Blanche, M. (2004). Critical psychology in South Africa: Looking back and looking forwards. Retrieved September 7, 2004 from: <http://www.criticalmethods.org/collab/critpsy.htm>

Terre Blanche, M. & Durrheim, K. (2002). *Research in practice*. Cape Town: University of Cape Town Press.

Thomas Muhr Scientific Software Development. (1997). *Atlast.ti: The knowledge workbench. Short user's manual*. Berlin: Scientific Software Development.

Tolman, C.W. & Maiers, W. (Eds.) (1991). *Critical psychology: Contributions to an historical science of the subject*. New York: Cambridge University Press.

REFERENCES

- Trochim, W.M.K. (2002). Qualitative validity [On-line]. Retrieved December 31, 2003 from: <http://trochim.human.cornell.edu/kb/qualval.htm>
- Troha, F.J. (2002). Bulletproof instructional design: A model for blended learning. *USDLA Journal*, 16(5) [On-line]. Retrieved November 20, 2004 from: http://www.usdla.org/html/journal/MAY01_Issue/article03.html
- Tshwane University of Technology, Department of Sport and Physical Rehabilitation Sciences. Business Plan: Programme B.Tech Medical Orthotics and Prosthetics. (2002, July). (Available from Tshwane University of Technology, Department of Sport and Physical Rehabilitation Sciences).
- Tynjälä, P. (1999). Towards expert knowledge? A comparison between constructivist and a traditional learning environment in the university. *International Journal of Educational Research*, **31**, 357-442.
- Vermunt, J.D. (1998). The regulation of constructive learning processes. *British Journal of Educational Psychology*, **68**, 149-171.
- Wagner, C. (2003). *Placing psychology: A critical exploration of research methodology curricula in the social sciences*. Unpublished doctoral thesis, University of Pretoria, Pretoria.
- Wainwright, D. (1997). Can sociological research be qualitative, critical *and* valid? *The Qualitative Report*, **3**(2) [On-line]. Retrieved June, 23 2003 from: <http://www.nova.edu/ssss/QR/QR3-2/wain.html>
- Walsh, S. & Scaife, J. (1998). Mechanisms for addressing personal and professional development in clinical training. *Clinical Psychology Forum*, **115**, 21-24.
- Warren, J. (1985). Thoughts on listening to a conference on medical education for the 21st century. *The Advisor*, 22-23.

REFERENCES

- White, M. (1991). Deconstruction and therapy. *Dulwich Centre Newsletter*, No.3. Reprinted in Epston, D. & White, M. (1992), *Experience, Contradiction, Narrative & Imagination*. Adelaide: Dulwich Centre Publications.
- White, M. (1997). *Narratives of therapists' lives*. Adelaide: Dulwich Centre Publications.
- White, M. (2000). *Reflections on narrative practice: Essays and interviews*. Adelaide, South Australia: Dulwich Centre Publications.
- White, M. & Epston, D. (1990). *Narrative Means to Therapeutic Ends*. New York: W.W. Norton & Company.
- Wilkinson, S. (1997). Prioritising the political: Feminist psychology. In T. Ibanez and L. Iniguez (Eds.). *Critical social psychology* (pp.178-194). Thousand Oaks, CA: Sage Publications.
- Willig, C. (1997). Making a difference: Can discourse analysis inform psychological interventions? Paper presented at Annual Conference of the British Psychological Society, Heriot-Watt University, Edinburgh, 3-6 April.
- Willig, C. (2001). *Introducing qualitative research in psychology: Adventures in theory and method*. Buckingham: Open University Press.
- Wilson, A.B. (1992). History of amputation surgery and prosthetics. In J.H. Bowker & J.W. Michael, *Atlas of limb prosthetics surgical, prosthetic, and rehabilitation principles* (2nd Ed) (pp.3-13). St. Louis: Mosby.
- Winter, G. (2000). A comparative discussion of the notion of 'validity' in qualitative and quantitative research. *The Qualitative Report*, 4(3 & 4) [On-line]. Retrieved June, 23 2003 from: <http://www.nova.edu/ssss/QR/QR4-3/winter.html>

REFERENCES

Wood, M.R., Hunter, G.A. & Millstein, S.G. (1987). The value of revision surgery after initial amputation of an upper or lower limb. *Prosthetics Orthotics International*, **11**, 17-20.

Young, R.E. (1990). *A critical theory of education: Habermas and our children's future*. New York: Teachers College Press.

APPENDICES

APPENDIX A:
RESPONDENT INFORMATION LEAFLET

APPENDICES

Each respondent must receive, read and understand this document before the start of the study

TITLE OF PROJECT

Co-constructing knowledge in a psychology course for health professionals: A narrative analysis

INTRODUCTION

You are invited to volunteer for a research project. This information leaflet is to help you to decide if you would like to participate. Before you agree to take part in this study you should fully understand what is involved. If you have any questions, which are not fully explained in this leaflet, do not hesitate to ask the researcher. You should not agree to take part unless you are completely happy about all the procedures involved.

WHAT IS THE PURPOSE OF THIS RESEARCH?

You have been identified as a student in the B.Tech Medical Orthotics and Prosthetics course at Tshwane University of Technology (formerly known as Technikon Pretoria) and the investigator would like you to consider taking part in this project exploring stories of your personal experiences of teaching and learning, which inform the process of co-construction of knowledge. The aim is to identify the processes that contribute to “meaning creation” in the meeting point between Psychology and Orthotics and Prosthetics.

WHAT IS EXPECTED OF ME DURING THIS RESEARCH?

If you decide to take part you will be one of approximately two participants. The project entails the following:

- Learners and facilitator will keep a *reflective journal* of the process of knowledge co-construction throughout the presentation of the Applied Psychology II module. The journals will include stories of personal experiences of your involvement in the process of knowledge co-

APPENDICES

construction. You will reflect on the process of co-construction of knowledge after the presentation of each learning outcome.

- You will be asked to *reflect* on your learning experiences and on what you have learned after completion of each *formative evaluation*.
- You will be asked to collaborate in the analysis of the data, in order to create a co-constructed meaning.

HAS THE PROJECT RECEIVED ETHICAL APPROVAL?

This investigation was submitted to the Research Ethics Committee of the Faculty of Humanities at the University of Pretoria, and written approval has been granted. The study has been structured in accordance with the required ethical procedures, which deals with the recommendation guiding research involving human subjects. A copy of which may be obtained from the investigator should you wish to review it.

WHAT ARE MY RIGHTS AS A PARTICIPANT IN THIS PROJECT?

Your participation in this project is entirely voluntary and you can refuse to participate or stop at any time without stating any reason. Your withdrawal will not affect your access to other academic services or support services. The investigator retains the right to withdraw you from the study if it is considered to be in your best interest.

MAY ANY OF THE PROCEDURES RESULT IN DISCOMFORT OR INCONVENIENCE?

I believe that participation in writing the story of your experiences in the reflective journal will not in any way inconvenience you and assure you that it will not alter the nature of your participation in the B.Tech Orthotics and Prosthetics course in any way.

APPENDICES

SOURCE OF ADDITIONAL INFORMATION

If at any stage you feel that you need more information regarding the project and its purpose, please do not hesitate to contact me, Ilzé Grobler, (012) 382 5076 or 082 301 2305 or my supervisors, Dr. G.J. van Schalkwyk, (012) 420 2921, E-mail: gjvs@umac.mo and Dr. C. Wagner, (012) 420 2319.

CONFIDENTIALITY

All information obtained during the course of this investigation is strictly confidential. Data that may be reported in scientific journals will not include any information that identifies you or your family as participants in this investigation.

Any information uncovered regarding yourself as a result of your participation in this project will be held in strict confidence. You will be informed of any finding of importance to your participation in this investigation but this information will not be disclosed to any third party in addition to the ones mentioned above without your written permission.

Researcher: Ilzé Grobler, (012) 382 5076

Supervisor: Dr. G.J. van Schalkwyk, (012) 420 2921 (e-mail: gjvs@umac.mo)

Co-supervisor: Dr. C. Wagner, (012) 420 2319

APPENDIX B:
STORY MAPS

APPENDICES

Story Map: Peter

<p>Past experiences</p>	<p>Peter has met the facilitator recently, whilst he has known James for a couple of years. He has known James to be a nature lover at heart.</p> <p>The B.Tech Medical Orthotics and Prosthetics course and contents did not exist in the past.</p> <p>Peter's involvement in the psychology module reminded him of the enthusiasm with which he had studied psychology at UP. He found the literature on developmental psychology to be familiar and recapped on some info he studied years ago.</p> <p>Peter's memories of his past were very painful. He realised that he was not the only person in the group with painful memories of past experiences. Peter envies the seemingly stable past experiences of his fellow group members. He became aware of the facilitator's painful past experiences and how she is at ease with these experiences in her present.</p> <p>He realises that he has already been practising some narrative therapy principles in his own practice.</p> <p>Peter's previous training under a surgeon gives him a different outlook on trauma. His previous studies in psychology at UP added to his current insight on the topic of trauma.</p>
--------------------------------	---

APPENDICES

	<p>Discussions about trauma invited Peter to share some of his own traumatic past experiences in the army with the group. As he recalls these times, he is reminded of his traumatic past experiences. Peter realises that his past experiences has had a significant impact on his life.</p> <p>Peter's experiences of loss and death in the past make him appreciate life so much more. The class discussions about relationships with substances bring forth an account of past adolescent experiences and school reunions.</p> <p>The learning outcome on HIV/AIDS made Peter reflect on a previous session presented by Dr. Shaw⁸ who introduced the facts about HIV/AIDS.</p>
<p>Present experiences</p>	<p>Peter begins his present experience with great anticipation and explores his fellow group members at a distance and with skepticism. The first session assists him in establishing a better understanding of his group members and of the psychology course.</p> <p>He compares the facilitator's qualifications and capabilities with his first impressions of her as facilitator.</p> <p>During the first session Peter comes to realise his own need to talk to someone about his profession, but also about personal issues. He becomes aware of the inability of orthotist/prosthetist professionals to deal effectively with stress. Peter has had a tough week and the class discussion invites him to share these experiences, resulting</p>

⁸ Pseudonym for purpose of confidentiality

APPENDICES

	<p>in a release of stress.</p> <p>He enjoys his present life experiences and would not like to exchange it for his past experiences. He is aware of the honest way in which the facilitator tells her story.</p> <p>Sharing and telling personal stories allows the group to form something more than just a mere study group.</p> <p>Peter finds the co-constructed meaning relating to narrative therapy principles useful to apply in his future intentions in his practice and teaching to students.</p> <p>Being a participant in the facilitator's PhD study leaves Peter with a sense of value in contributing to another person's personal development.</p> <p>Reflecting on the construct of 'co-constructed knowledge' challenges Peter to position himself differently as a lecturer in future.</p> <p>He is hesitant to share his life story with the facilitator in the life-analysis assignment. However, during session four he reflects on the therapeutic value this assignment has for him.</p> <p>Peter realises that every individual constructs their own meaning of knowledge and that everyone is entitled to their own opinion. He also realises that what people believe are only contextual truths.</p> <p>He thinks that others have much to learn about the orthotist/prosthetist profession, including the facilitator.</p>
--	--

APPENDICES

	<p>The discussions about the learner's past experiences in the army creates a common interest and invites the sharing of stories. Performing his own life stories and witnessing the stories of others leaves Peter with a feeling of contentment and recharged for the next session.</p> <p>Societies' construction of substance use scares Peter.</p> <p>Peter's attention is drawn towards the risk he has in his profession of contracting HIV/AIDS.</p> <p>The discussion on loss and bereavement leaves Peter with questions regarding religion.</p> <p>Peter believes that the meaning constructed from acquired knowledge is dependant on the responsibility that individuals take in creating meaning for themselves. He believes that in the process of helping a client, he is also changed as a person and compares it with the metaphor of a gait analyses.</p>
<p>Future intentions</p>	<p>Peter describes his future by means of an analogy of a tree with big branches shadowing his family and positions himself as a 'protector'. This analogy reminds him of the responsibility they have as practitioners in future.</p> <p>He realises what impact and role psychology has to play in his profession in future.</p> <p>Peter hopes that future B.Tech students will grasp the concept of social constructionism and gain a meaningful</p>

APPENDICES

	<p>perception of rehabilitation from this point of view.</p> <p>He would like to use the co-construction of knowledge as an invitation to new learners to participate on a different level with him.</p> <p>He suggests that the life-analysis project should be incorporated into future psychology lectures, due to the therapeutic value it has had for him.</p> <p>Peter suggests that a number of issues can be followed up in future, namely 'the lost generation', issues relating to faith and death, the impact of HIV/AIDS on our future, and dealing with trauma/disaster.</p> <p>He believes that he will be shaken if someone very close to him might die in the future.</p> <p>The thought that his children might be exposed to substances in the near future scares him.</p> <p>He is not sure what his future position and feelings will be on the topic of HIV/AIDS.</p> <p>Peter believes that as an orthotist/prosthetist he can make a contribution in a helping field in future.</p>
--	--

APPENDICES

Story Map: James

<p>Past experiences</p>	<p>James has a recollection of traumatic and painful past experiences of which his wife and parents know little.</p> <p>In his past, he used aggression as a coping mechanism to deal with the pain and loss.</p> <p>James feels as though he has missed out on some childhood experiences due to trauma. In his attempt to catch up on lost time and trying to change the past, he feels as though he has missed out on the present and on quality time with his family.</p> <p>He never knew how to ‘open up’ and talk about his emotions and feelings.</p> <p>Through his involvement in the orthotics/prosthetics profession since early beginnings and his leadership in developing the B.Tech course, James feels that he has been recognised as a protagonist in his profession.</p>
<p>Present experiences</p>	<p>Although he has many positive experiences in his life, he often feels incapable of helping himself. He would like to manage experiences with passion, just like the facilitator.</p> <p>James believes that he should be open to new experiences and challenges in order to develop as a person.</p> <p>The life-analysis project enables James to re-author his life in a different way and his courage to invite his parents and wife to witness his life story results in open communication, better understanding and a feeling of “on top of the world”.</p>

APPENDICES

	<p>James' capability as a writer of expressing his emotions and feelings allows him to deconstruct the dominant narrative of the inability to communicate/ open up.</p> <p>The class discussions invite repressed memories of trauma to surface and allow James to deal with trauma in a supportive and safe environment. He feels that his classmate and facilitator play an important role in helping him to deal with trauma in his life. He can eat watermelon without being overwhelmed by traumatic memories of the past.</p> <p>James learns that sharing painful or difficult experiences in his life with others results in the subsiding of overwhelming emotions and the releasing of stress.</p> <p>Through the facilitation process of psychology James is able to construct a personal identity that can take ownership of the present, invites free expression of emotions and self-acceptance. His wife is a witness of this change in his life.</p> <p>James also creates a professional identity that allows him to understand, help and support others with confidence. His working relationship with Peter improves as a result of this.</p> <p>James still feels like a 'whole person' regardless of his traumatic past experiences.</p> <p>He deals with loss through repression and denial.</p> <p>He comes to the realisation that everyone has a relationship with substances. He learns to take ownership of his relationship with smoking and not to blame peer pressure.</p>
--	--

APPENDICES

	<p>Through this process James is reclaiming the power from smoking.</p> <p>He recognises the importance and value of helping skills, empathy and listening in the rehabilitation process.</p> <p>James' attention is drawn towards the risk he has in his profession of contracting HIV/AIDS. He feels that he should act in a responsible manner that is not detrimental to the patient's treatment.</p> <p>The class discussions invite the sharing and witnessing of stories.</p> <p>James is proud to be part of a "success story" and feels that his efforts to finally implement the B.Tech course were worth it.</p> <p>James is living life to the full!</p>
<p>Future intentions</p>	<p>His experiences in the psychology course and his newly acquired skills provide him with the key to a future that is built on a good foundation.</p> <p>He thinks that when suppressed emotions of pain and loss surface to a conscious level, he will be overwhelmed with grief.</p> <p>His participation in the psychology module allows him to develop into the person that he would like to be.</p> <p>Reflecting on his experiences in the B.Tech year, James describes it by using the analogy of puzzle pieces fitting together into a clear and positive picture of his future.</p>

APPENDICES

	<p>He believes that the experiences in the B.Tech, and in particular the psychology module, set the foundation for further development of a positive personal and professional identity.</p> <p>James is of the opinion that the B.Tech has created an equal playing field for the future of orthotic/prosthetic practitioners in South Africa.</p> <p>James is excited about his future!</p>
--	---

Story Map: Facilitator

<p>Past experiences</p>	<p>The facilitator writes about the narrative beginnings of constructing a psychology course for B.Tech Orthotics and Prosthetics in her field notes.</p> <p>She became aware of the learners' past experiences of psychology and the need to facilitate psychology in an applied way.</p> <p>She is struck by how little she knows about the profession of orthotics and prosthetics.</p> <p>She consults a colleague at the Psychology Department at another university to give her guidelines in constructing a new curriculum for the B.Tech course.</p> <p>Discussion on life span development was like a “walk down memory lane” for the facilitator. It reminded her of the times she positions herself as a ‘child’ and the times she positions herself as an ‘adult’.</p> <p>The facilitator remembers a family member who had a relationship with alcohol. As she recalls these times she becomes aware of the influence of her dominant stories about substance users and the impact of these stories on her relationship with her clients in therapy.</p> <p>Discussions regarding the final examination for the B.Tech orthotics/prosthetics course, bring forth an account of the facilitator's own experiences of her final oral examination for MA Counselling Psychology.</p>
--------------------------------	--

APPENDICES

<p>Present experiences</p>	<p>The facilitator starts her journey with an exploration of boundaries and establishing rapport with the learners.</p> <p>She comes to the realisation that helping is part of her own life story, as well as those of the learners.</p> <p>She is struck by the learner's positive outlook on life.</p> <p>She writes continuously about the learning environment that invites the sharing and witnessing of stories. She is struck by the therapeutic value of this process. This process makes her aware of her own positioning as a learner and facilitator and of her responsibility as a psychologist. The facilitator comes to the realisation that she is part of the process and group.</p> <p>The performing and witnessing of life stories invites remembering and retelling of experiences.</p> <p>She becomes aware of her own stressful experiences of being in a helping profession and the impact of secondary trauma.</p> <p>In the unfolding process of co-constructing knowledge, the facilitator also learns and becomes inspired to continue with her own journey of knowledge creation and discovery.</p> <p>The facilitator utilises her own knowledge and skills regarding psychometrics and selection practices to assist the course coordinators in designing a selection model for orthotics and prosthetics.</p> <p>She is astonished by the learners' level of reflection.</p>
-----------------------------------	--

APPENDICES

	<p>The facilitator and the learners identify themselves as the 'first generation' which is creating a social reality for B.Tech orthotics and prosthetics.</p> <p>The facilitator and the learners perform new meaning of the co-constructed knowledge.</p> <p>She comes to the realisation that she has a few things in common with the group.</p> <p>The facilitator and learners become aware of how their own discourses differ from society's discourses about grieving.</p> <p>The facilitator's dominant stories regarding substance use are challenged.</p> <p>She finds it challenging to facilitate from a social constructionist perspective.</p> <p>She did not envisage an all-white group discussing racial issues so openly.</p> <p>The facilitator invites the learners, as well as a consultant from the HIV/AIDS consultancy centre, to co-construct the content for the HIV/AIDS learning outcome.</p> <p>She proposes continuous assessment as part of the outcomes-based philosophy.</p> <p>Colleagues (counsellors) of the facilitator become outsider witnesses of the impact of the psychology module on the</p>
--	--

APPENDICES

	<p>learner's perspective of the orthotist/prosthetist profession.</p> <p>Discourses regarding examination practices on postgraduate level are challenged.</p> <p>The facilitator utilises the last contact session with the learners to reflect on their experiences of the psychology module. She is struck by the value of their experiences.</p> <p>The facilitator is reminded of her own passion for facilitation and psychology.</p>
<p>Future intentions</p>	<p>The facilitator will continue on her journey of knowledge creation and development in the meeting point between psychology and orthotics/prosthetics by completing her PhD.</p> <p>The course coordinators ask her to also facilitate psychology on graduate level for the N.Dip Orthotics and Prosthetics in future.</p> <p>Reflective journal entries will be included in future facilitation of the Applied Psychology II module.</p>

APPENDIX C:
CERTIFICATE OF SPECIAL KNOWLEDGE

DIPLOMA OF SPECIAL KNOWLEDGE



*This diploma is bestowed in recognition of _____
achievement and so that those who were unable to witness
his/her success of claiming his/her own special knowledge
in psychology and orthotics / prosthetics may develop some
understanding of the changes they are noticing in his/her
ability to care for others.*

Signed: _____

Ilzé Grobler

APPENDIX D:
EXTRACT FROM THE ATLAS.TI ANALYSIS
(Facilitator's journal)

APPENDICES

HU: Facilitator journal analysis

File: [C:\Documents and Settings\Ilze\My Documents\Backup PHD\Ilze thesis\P...\Facilitator journal analysis.hpr5]

Edited by: Super

Date/Time: 12/08/05 10:13:25 PM

List of all objects

HUs

===

Facilitator journal analysis

Primary Docs

=====

P 1: Facilitator Journal.doc

Quotations

=====

- 1:1 My first meeting with Peter an.. (2:2)
- 1:2 The journey started off with a.. (4:4)
- 1:3 Peter and James had all the te.. (6:6)
- 1:4 At a point during the discussi.. (12:12)
- 1:5 I also realized that orthotist.. (12:12)
- 1:6 This first session inspired me.. (14:14)
- 1:7 James recalled a specific case.. (25:25)
- 1:8 This made me realize that we c.. (27:27)
- 1:9 James gave a very good example.. (31:33)
- 1:10 I realized that they felt that.. (35:35)
- 1:11 Today was such an extraordinar.. (38:38)
- 1:12 We started off by discussing t.. (38:38)
- 1:13 The reaction within me was a f.. (40:40)
- 1:14 It gave me as facilitator an o.. (42:42)
- 1:15 It also made me aware of a res.. (42:42)
- 1:16 Through the process of knowled.. (44:44)
- 1:17 The theory and knowledge was n.. (44:44)
- 1:18 With the discussion of seconda.. (44:44)
- 1:19 The assignment on today's topi.. (48:48)
- 1:20 I am becoming more and more aw.. (50:50)
- 1:21 We discussed the effect of los.. (57:57)
- 1:22 Elisabeth Kubler-Ross' stages .. (59:59)
- 1:23 Peter and James' experiences d.. (61:61)
- 1:24 voice (61:61)
- 1:25 While I am busy writing this j.. (63:63)

APPENDICES

- 1:26 We started today's discussion .. (67:67)
- 1:28 Personal dominant stories abou.. (69:70)
- 1:29 Alternative stories about subs.. (72:77)
- 1:30 On the other hand, it reminds .. (80:80)
- 1:31 Facilitating from a Social Con.. (82:82)
- 1:32 During our previous session, w.. (85:85)
- 1:33 I never envisaged that the thr.. (89:89)
- 1:34 We decided that Applied Psycho.. (91:91)
- 1:35 They want to collaborate in th.. (100:100)
- 1:36 Peter and James' recollection .. (102:102)
- 1:37 The curriculum is more of an o.. (104:104)
- 1:38 I consult with a colleague in .. (115:115)
- 1:39 I decided to base the curricul.. (120:120)
- 1:40 I design a curriculum for Appl.. (120:120)
- 1:41 I propose continuous assessmen.. (124:124)
- 1:42 One of my colleagues made a co.. (128:128)
- 1:43 Peter asks for my advice on se.. (132:132)
- 1:44 Peter and James had concerns r.. (140:140)
- 1:45 He is able to apply helping sk.. (144:146)
- 1:46 In particular, Peter and James.. (148:148)
- 1:47 The final oral examination tak.. (152:152)
- 1:48 Peter and James ask me to assi.. (156:156)
- 1:49 This year has made such an imp.. (160:160)
- 1:50 the responsibility as psycholo.. (42:42)
- 1:51 Peter and James expressed the .. (46:46)

Codes

=====

- {0-0}
- Agency {4-0}
- Co-constructing knowledge {8-0}
- Co-constructing knowledge; collaboration {1-0}
- Constructivism vs Social Constructionism {7-0}
- Deficit model vs strength model {5-0}
- Deficit model vs strength model; Agency {6-0}
- Facilitator as learner {3-0}
- Learning {4-0}
- Learning; boundaries; expert {1-0}
- Learning; discussion teaching {1-0}
- Life-long learning {1-0}
- Practical application of knowledge; Reflection on practice {2-0}
- Reflection on practice {7-0}
- Responsibility {2-0}
- Sharing of experiences; collaboration {4-0}
- Sparkling event {1-0}
- Substance use: alternative stories {1-0}
- Substance use: dominant stories {1-0}

APPENDICES

Therapeutic value {1-0}
Trauma {3-0}
Voice {1-0}
Witnessing of performance of life stories {1-0}

Code Families

=====

Ability to express emotions; communication (2)
Agency (2)
Community of concern (1)
Knowledge co-construction (4)
Life-analysis project (2)
Re-negotiating positions (1)
Reflection on practice (3)
Teaching and learning (7)
Trauma (1)