USING THE HERRMANN WHOLE BRAIN® MODEL FOR MENTORING ACADEMIC STAFF

by

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DECLARATION

I, Heather Goode, declare that this dissertation titled **Using the Herrmann Whole Brain® Model for Mentoring Academic Staff** is my own work and has not been submitted for any degree at any university before and that all sources quoted have been acknowledged by means of complete references.

Signed: _____ Date: _____

THANKS AND DEDICATION

My thanks are due to the following:

- My God who has strengthened and sustained me.
- My family, especially my parents, David and Hazel, my brother Alan and his wife Alae, and my daughters, Cerian and Alison, who have supported and motivated me. Thank you to Alan and Alae for assisting with the spiral images found in Chapter 3.
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In memory of my father, David, who was an ardent supporter of my education and professional development and modelled lifelong learning for me.

This dissertation is dedicated to those who still walk the journey of Professional Development, are always learning and are passionate about developing others.

ABSTRACT

My research provides an account of evaluating my mentoring practice using an Action Research design complemented by a mixed methods approach and the Hermann Whole Brain® Model (Herrmann, 1995). I explored how I can transform my mentoring practice using the principles of Whole Brain® thinking and how I can contribute to enriching the professional development of academic staff. My research has proceeded from an innovative idea and existing practice as an asset-based approach (Du Toit, 2009).

By utilising an Action Research design my research articulates the construction of my understanding of mentoring of other academic staff in their professional practice. I followed a constructivist approach as used by Piaget (1952, 1970) that is considered an appropriate epistemological underpinning of Action Research. My research design shows thinking style flexibility as an action researcher in that I have drawn on each quadrant of the Whole Brain® Theory as developed by Herrmann (1995). This enabled me to construct meaning with my peer mentees through the assessing of practice-based evidence, engagement and reflection. As my goal in mentoring is to assist in developing independent reflexive practitioners, I have chosen to use the constructs *contribute to* and *catalyse* to express my awareness that responsibility for professional development remains with the individual and that a mentor is not the only source of professional development in the context of a Private Higher Education Institution.

I have found that my peer mentees have differing thinking style preferences and varying professional experiences that required of me to engage with each in distinct ways to support the development of their professional practices. I position Whole Brain® Mentoring as a practice of mentoring that utilises multiple strategies for professional learning, both formal and non-formal, to engage the thinking preferences and disinclinations of mentees to catalyse the professional development of both the mentor and mentees. Many of my peer mentees perceive themselves as mentors, both of students and, in some cases, of other academic staff (our peers) as well. There is evidence that I utilise multiple strategies to facilitate professional learning and contribute to the professional development of peer mentees and that they have contributed to mine. My research provides evidence that I have become a more reflective practitioner, able to transform my Whole Brain® Mentoring Practice.

Key Words

Action Research, Asset-based Approach, Constructivist, Mentoring, Peer Mentoring, Professional Development, Professional Learning, Reflexive Practice, Thinking Style Preferences, Whole Brain® Model.

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CHAPTER 1: INTRODUCTION AND EXPLORATORY ORIENTATION

1.1. Introduction

As academic staff we seek to promote learning within others and influence others within a Higher Education context in transformative ways. Discourse in this context often revolves round lecturers and students. However, this fails to account for transformative influence on fellow academics or peers and how we seek to influence teaching and learning opportunities to improve our own practice and the professional practice of others. In a country like South Africa competent academic professionals are scarce[1] (Materu, 2007). Within an industry like Private Higher Education (PHE) academic staff members are expected to provide high quality learning opportunities and facilitate student learning in a professional way. This makes the professional development of academic staff a priority. Professional development of newly appointed staff members is often the responsibility of more experienced staff and when I realised academic staff members were asking me to work with peers or deliberately influence the practice of others, both formally and informally, I sought to explore this changing role – from being a lecturer to becoming a mentor. My research seeks to provide an account of reflecting on my peer mentoring practice, being accountable for my influence on others and the value provided by the Herrmann Whole Brain® Model (Herrmann, 1995) in my mentoring practice. The constructivist approach I followed as first used by Piaget (1952, 1970) emphasises the importance of the participants' views and illuminates the meaning personally held about participant views (Creswell, 2007). This enabled me to construct meaning with my peer mentees through writing, engagement and reflection.

1.2. An Innovative Research Idea

My research proceeded from an innovative idea, rather than just a research problem as is to be found in traditional research. From an Action Research (Creswell, 2007; Donato, 2003; Koshy, 2010; Nieuwenhuis, 2007a; McNiff, 2002) process perspective, I account for the theory, embedded values and gathering of evidence as an integral part of self-regulated

[1] See also Department of Home Affairs, Immigration Critical Skills list Available: http://www.dha.gov.za/images/immigration_critical_skills.pdf; accessed 13 November 2014. Government Gazette 23 May 2-14, No 37678 Department of Higher Education and training, NOTICE 380 OF 2014: National Scarce Skills List: Top 10 Occupations in Demand. Pretoria, South Africa http://www.labour.gov.za/DOL/downloads/documents/useful-documents/skills-development-act/Scarce%20skills%20pamphlet_pamphlet.pdf

professional learning. My research design is inductive. I explore how I can catalyse further professional development in academic staff through a mentoring practice using Whole Brain® strategies. The dual outcome permitted through the Action Research process is that there is a benefit to the researcher of apprehending and solving real-life problems as well as generating new knowledge (Muir, 2007). Du Toit (2009) describes Action Research as a process for professional learning. The literature (Colvin & Ashman, 2010; Ayinde-Adebove, 2011; Coetzee-Van Rooy, 2002; Darwin & Palmer, 2009; Kafai, Desai, Peppler, Chiu & Moya, 2008; Hargreaves, 2010: and Steinert, 2008) does not report on the role of the mentor as facilitator of professional development in Higher Education which I consider a gap in the literature as the work of the authors referred to seems to be incomplete. More often than not the roles of expert, guide and role model are elaborated on – which suggests a limited perspective on mentoring.

My research attempts to contribute to the literature on professional development and mentoring by including thinking preferences as an integral part of supporting academic staff in terms of their professional development. Most research on peer mentoring explores the role academic staff members have of mentoring students, or the role of student peers in tutoring or mentoring. My Action Research into Whole Brain® mentoring therefore repositions peer mentoring as a professional practice. By researching my mentoring practice, I envisaged to contribute to the debate of what constitutes good educational practice in mentoring and academic staff development by making my own professional learning explicit and testing the validity of my knowledge claims by making these public (McNiff, 2008). In pursuing a professional approach to the scholarship of teaching and learning and scholarship of mentoring, I monitored my mentoring and development practice by means of the strategies for self-regulated professional learning. These strategies that are to be found in the constructs *self-regulated learning* (Killen, 2010; Schunk, 2012) or *meta-learning* (Biggs, 2003; Biggs, 1985; Watkins, Carnell, Lodge, Wagner & Whalley, 2001) contributed to my co-creating a professional and accountable mentoring relationship as a member of a community of practice (Blackwell & Blackmore, 2003), in this case a large community of academic staff. The focus is more on meeting the mentee's (professional learner's) needs in the best way possible, given the time and resource constraints. This allowed me to evaluate the values embodied in my practice, my ontology and epistemology, and the practices evident at a Private Higher Education Institution (PHEI).

1.3. Whole Brain® Approach to Mentoring

This research investigates the use of an Action Research process integrated with a Whole Brain® approach and thus provides an opportunity for me to evaluate my practice as I mentor academic staff in a specific private Higher Education setting. The research focus is considered case study research. In pursuing a professional approach to the scholarship of teaching and learning and scholarship of mentoring I evaluated my mentoring and development practice so that I acquired the competencies to be a reflective practitioner while contributing to developing professional academic staff as independent practitioners.

An excellent lecturer and mentor draws on learning theories for adults to explain his or her practice and provide appropriate opportunities for professional or student learning. While an array of learning style theories exist as discussed in the Coffield Report (Coffield, Moseley, Hall & Ecclestone, 2004), not all of them are appropriate in the context of academic staff development, particularly mentoring. However, through experience and studying the literature the Whole Brain® Model has been found to be holistic, valid and user-friendly (Bunderson, 1985; Coffield, *et al*, 2004). The Herrmann Whole Brain® Approach was initially developed by Ned Herrmann (1995) and its applications research has since been developed by his daughter Ann Herrmann-Nehdi, using the Herrmann Brain Dominance Instrument™ (HBDI) designed by Herrmann (Herrmann-Nehdi, 2010) in different contexts.

Since Higher Education embodies the principle that all lecturers should provide expanded learning opportunities (Hattingh & Killen, 2004) which appeal to various thinking styles and develop learning disinclinations as recognition that not all students can learn in the same way at the same time. Utilising a model that promotes learning style flexibility (De Boer, Du Toit, Sceepers & Bothma, 2013) encourages professional development in academic staff. By applying on the Whole Brain® Model as developed by Herrmann (1995, 1996), I was able to assess whether I can utilise thinking style flexibility both as a mentor and as an action researcher. This model is relevant to evaluating my mentoring practice as the starting point is treating the peer mentor and peer mentee as a whole person The Whole Brain® Model promotes professional development by encouraging the development of thinking style flexibility (Coffield *et al*, 2004), which is the focus of my research. I have used the Whole Brain® Model to promote reflecting on whether my mentoring practice develops the professional learning of mentees. As this model and related learning theory (as discussed in chapter 2) encourages the participants to apply learning to practice and to learn from practice by constructing new meaning, it supports the process of mentoring that leads to improved practice both in the mentor and in the mentee. The Whole Brain® approach indicates that each

individual is a unique learner (Herrmann 1995, 1996) which aligns with a mentoring approach of designing opportunities for professional learning that take into account the uniqueness of each mentee and mentor and his/her particular challenges, context and goals. Consequently, using the Whole Brain® Model (as illustrated in Chapter 2) and the thinking style profiles of the mentees as reflected through their HBDI™ profiles, my mentoring practice can be evaluated to see whether I adapted to different thinking styles found in the model of Herrmann (1996) as described in my own and my peer mentees' HBDI™ profiles.

Mentoring, due to its intentions, should promote professional development in mentees by linking existing knowledge to application, improving contextual practice and constructing meaning from this professional learning process. Through the process of Action Research and reflection on my mentoring practice, I interpreted relevant literature on mentoring and the Herrmann Whole Brain® learning theory, observed how I apply theory and principles and explored how I can improve my practice – part of the process of meaning making. This seeks to contribute to professional development by contributing to the wider debate regarding academic staff and their professional development.

1.4. Aim of the Study and Research Questions

The aim of my research is to use the principles of Action Research to investigate and monitor the improvement of my mentoring practice; to explore the efficacy of the Whole Brain® approach to mentoring as a means of promoting professional development in myself and peer mentees in order to improve the quality of teaching and learning and establish a scholarly community of practice.

Using an Action Research approach I formulated the principal research question as follows:

1. How can I transform my Mentoring Practice by using the principles of Whole Brain® learning?

In order to clarify and explore the main research question, I formulated the following subordinate questions:

1.1. What is Whole Brain® Mentoring?

1.2. How can I contribute to enriching the professional development of academic staff members with a view to transforming their teaching practice through Whole Brain® mentoring?

1.3. How do I catalyse further professional development in the academic staff members I mentor?

These questions set the scope of the research to explore literature, related constructs and research data. The specific questions served as a point of departure for the research design, research methods and appropriate instruments for collecting relevant data. These questions have been formulated in the first person as Action Research focuses on improving the practice of the practitioner researcher (McNiff, 2008; Whitehead, 1989). As my mentoring goal is to assist in developing independent reflexive practitioners, I have chosen to use the constructs *contribute to* and *catalyse* to express my awareness that responsibility for professional development remains with the individual and that a mentor is not the only source of professional development in the context of a Private Higher Educational institution. The word *catalyse* is defined as "*to cause or accelerate an action or process*" (Oxford Dictionaries, 2013) and within this construct I include the construct of *influence* as "*the capacity to have an effect on the character, development, or behaviour of someone*" (Oxford Dictionaries, 2013).

1.5. Context and Position of the Researcher

I manage an academic unit that offers several programmes in the context of a large private Higher Education institution. One of the mandates given to me is to facilitate the academic development of academic staff I work with, including staff members in other departments, depending on the project or work at hand.

At the initiation of my research the institution I work in was relatively small; at that time the institution consisted of approximately 100 academic staff members (full time equivalent) and dealt with about 3 000 students. This institution has been challenged with rapid growth in student numbers, a changing educational environment and diverse needs of students. Due to various factors, in the first year of this study, several of the academic staff members I work with had been with the institution less than three years and only about 25% had formal education qualifications. In addition three of the twelve academic staff members were in their first year of lecturing. The staff members come from a variety of disciplines and most have responsibilities relating to more than one module. Many of them are subject matter experts while some are still studying towards post-graduate degrees (master's or doctorates) in their fields of specialisation. The institution has relatively full course/lecturing loads to minimise costs and maximise revenue streams as is common in Private Higher Education. In a Private Higher Education context a high level of professional conduct is required due to the perception by sponsors and students of *paying for quality*. Academic staff at the PHEI that serves as exemplar in this study consists of a mixture of full-time and contracted staff. This means that while these staff members acknowledge the need for professional development, they tend not to take part in formal academic staff development activities due to multiple time constraints.

The growth in demand for access opportunities by students and the increasing under-preparedness of students for Higher Education has resulted in the need for professional staff development. This context of time constraints and the pressure for quality suggests that academic staff development at this institution needs to move beyond formal activities and also utilise non-formal opportunities as academic staff also became peer mentors to assist newly appointed staff to meet the needs of the students and contribute to high quality learning experiences.

1.6. Rationale and Motivating Axiology

In the Encyclopaedia of International Higher Education Altbach (1991) writes:

> *The academic profession is at the heart of the University. Without a well-qualified, committed and adequately compensated professoriate, no academic institution can be fully successful. ... The defining characteristic of the academic profession is teaching. From the beginning, professors have taught. ... Traditional lectures can be supplemented by seminar discussions and tutorials. Teaching includes advising an advanced student about a dissertation or working with postdoctoral fellows in a laboratory. Teaching also takes place by means of publication of journal articles and books. Knowledge dissemination in a variety of formats is part of the teaching process and is central to the role of the academic profession*.

While the role of academic staff has been expanded to include other roles, such as research and community service (Killen, 2010; South Africa, 2000) the complexity and types of academic staff have increased and a range of institutions has developed to include public universities, private universities, teaching institutions and research institutions. In Private Higher Education Institutions the central role of facilitating learning for students is retained as a priority. For me, enhancing such facilitation of learning for students embodies both enhancing the provision of learning opportunities and the development of related academic staff competencies. Since being promoted in my academic career, my education practice has shifted from the mere education of students to the professional development of academic staff and colleagues. In my reflection on this transition I realised that my classroom was no longer restricted to more formally planned learning opportunities but also included non-formal, situational and unstructured opportunities with students and with other academic staff members. My own professional practice and response to another's practice emerged as

significant in the development of other academic staff through peer feedback, deliberate staff development workshops, informal feedback, problem-solving within a community of practice and professional conversations. As I reflected on these changes in my practice and took ownership of the responsibility of developing my professional practice in new ways, I began to feel that the best descriptions of my professional practice in these new areas were in the concept of mentoring. Blunt and Conolly (2006) comment that literarture describes mentoring as one of the most important ways scholars are inducted into Higher Education.

My research was inspired by my commitment to professionalism and continued professional learning. As there is a dire need for staff development in my unit almost any input is regarded as valuable; therefore the approach has largely been *ad hoc* and perceived as need-driven. In pursuing a professional reflexive approach to the scholarship of teaching and learning, I needed to evaluate my mentoring and development practice so that I would be an accountable, critical and transformative mentor. From a professional perspective it seems valid to suggest that there was a need to explore my perceptions regarding my mentoring practice, develop my mentoring practice and specifically explore evidence to investigate whether my practice achieved mutual professional development and supported mentees in transforming their professional practice.

If I, as a peer mentor, want to influence others, I need to be able to give an account of my practice with those I work with and mentor as a consciously committed activity, as discussed by McNiff (2008) and McNiff and Whitehead (2009). *Accountability* is defined as follows by Hüfner:

> *The justification of activities; it means the responsibility to demonstrate the achievement of certain ends by employing the most efficient means. In other words 'accountability' has to do with efficiency and effectiveness, with performance assessment, with truthfulness concerning information about activities designed to reach specific targets* (Hüfner in Altbach, 1991).

My research was, in part, generated by my desire to be accountable for my mentoring practice and influence.

By using the Whole Brain® model (Herrmann, 1995) and documenting my practice, I provide evidence of my influence on others and an explanation of how peer mentoring can be used to

facilitate professional learning and specifically within the context of academic staff development. Lindeman states the following:

> *The resource of highest value in adult education is the learner's experience. If education is life, then life is also education. Too much of learning consists of vicarious substitution of someone else's experience and knowledge. Psychology is teaching us, however, that we learn what we do, and that therefore all genuine education will keep doing and thinking together. ...Experience is the adult learner's living textbook* (Lindeman, 1926).

However, as experience is contextual and professional practice includes the skill of applying learning from experience and theory in new contexts, experience alone seems insufficient. Maxwell, an author and speaker on leadership, is often quoted as saying "*experience is not the best teacher; evaluated experience is the best teacher*."

A lecturer's influence on a student or colleague can be positive, negative or some combination of both. This influence can be momentary or long-lasting. As I desired my educational mentoring practice to be transformational, enabling and developmental for those I work with and mentor, I felt I needed to explore and assess whether it was transformational, enabling, and developmental and needed to determine where there were areas for innovation with a view to developing my practice. McNiff (2008), in a paper exploring her influence, says that "*for I see a researcher's capacity to explain the quality of their practice as grounded in their capacity to explain the processes by which they have arrived at that quality*". For me, part of being a professional with an education practice is being able to explain my practice with reference to the appropriate theory and constructs; demonstrate understanding and transformational learning; and provide evidence of transformative practice. By researching my practice, I expected to contribute to the debate of what constitutes transformative educational practice in mentoring and how mentoring contributes to academic staff development. As a peer mentor I endeavour to be a transforming example of professional practice.

1.7 Mentoring

In this section I provide a brief introduction to mentoring, which will be elaborated on further in the next chapters. Mentoring can be defined in different ways. Implicit in most definitions of mentoring is the view that it involves acting as a guide, advisor, coach and sometimes

counsellor to a mentee (Kafai *et al*, 2008). Greyling and Du Toit (2008) describe mentoring from a constructivist perspective as "*developing employees' potential and optimal functioning: it is also about raising their (mentees) awareness of how they construct their work related realities".* More often than not the role of a mentor is seen as providing guidance, direction, support, or expertise to academic staff in a variety of contexts. However, I would like to add other dimensions, such as facilitating, and in the context of my study specifically whole brain facilitating, which would promote self-directed professional learning. The literature does not report on the role of the mentor as facilitator.

Most concepts of mentoring tend to take into account the mentee's knowledge, circumstances and developmental goals while the mentor supports the mentee as he or she responds to specific challenges or goals*,* as suggested by several authors (Kafai *et al*, 2008). This approach to mentoring does not replace self-regulation or the mentee retaining responsibility for learning but seeks to support and facilitate professional development. Blunt and Conolly (2006) point out that mentoring is an under-utilised strategy in Higher Education for facilitating transformation and development of capacity. Mentoring can adapt to a variety of changing circumstances, contexts or to individual needs. It is this flexibility and often immediate, specific support and development that require mentoring to utilise formal and non-formal approaches. Mentoring facilitates learning from a whole person perspective, taking into account how emotional, personal and professional aspects can affect a mentee's responses to situations. This suggests that an approach to thinking flexibility as embodied in the Whole Brain® Model (Herrmann, 1996) is a useful learning theory to develop mentoring practice. The literature on mentoring is silent about an innovative idea such as Whole Brain® mentoring − hence my focus on this aspect. The literature on mentoring seldom sufficiently explores perspectives from mentors, as their voice is often missing in research into mentoring.

1.8 Conclusion

In pursuing an Action Research process, I reflected on and evaluated my practice in order to improve my professional mentoring practice and learn more explicitly. Part of the value contributed by my research project is the articulation of theory from which I develop my practice, application of this theory within a specific context and transformation in my practice.

My research has provided an opportunity for me to evaluate my practice as I mentor academic staff in Private Higher Education. I endeavoured to contribute to the literature on professional

development, peer mentoring and using thinking preferences to support academic staff professional development. I make my own professional learning explicit and explore the validity of my knowledge claims by making these public as McNiff (2008) suggests. This has allowed me to articulate the values embodied in my practice, my ontology and epistemology, and the practices evident at a private Higher Education provider.

My research is significant because it contributes the perspective of a mentor, which is often underreported in the literature.

CHAPTER 2: THEORY AND CONCEPTUAL FRAMEWORK

2.1. Introduction

To explore and clarify what a Whole Brain® Mentoring practice is, I reviewed relevant literature. This was a reflexive approach, as by reading and engaging with relevant literature I engaged with new ideas, evaluated my approaches and theorising (Creswell, 2007; Harrison, Lawson & Wortley, 2005) and started articulating the reflection on my practice (Harrison, Lawson & Wortley, 2005). Some relevant concepts and theories are those pertaining to adult learning, professional development, formal and non-formal professional learning, self-regulated professional learning, professional collaborative learning, meta-learning, learning style theories, mentoring and peer mentoring.

As my research is qualitative in a constructivist paradigm that allows the views, values, beliefs, feelings, assumptions and ideologies of participants to be explored (Creswell, 2007), I included the construction of meaning as relevant in this dissertation. The expression *constructivist epistemology* was first used by Jean Piaget (1952; 1970) as a theory of cognitive development, developed by Vygotsky in 1962 as a socio-cultural theory (Schunk, 2012) and has been applied by many researchers such as Kafai *et al* (2008); Blunt and Conolly (2006); Greyling and Du Toit (2008); and Parker-Katz and Bay (2008).

A constructivist approach assumes the idea that learning and meaning are constructed by an individual in response to learning opportunities. Constructivism assumes that individuals are active learners and develop knowledge (or understanding) for themselves with a key aspect being the interaction of individuals and their situations in a process of acquisition and refinement of knowledge and competence (Schunk, 2012). This is considered an appropriate epistemological underpinning of Action Research. A significant characteristic is that cognitive processes (such as thinking and learning) are located in social and physical contexts (Schunk, 2012) which is why participants' perceptions and the specific context are explored. This approach is characterised by participants making sense and meaning as they take action within a context (Parker-Katz & Bay, 2008). As such insights are valuable only if they lead to further action and innovation (Harrison, Lawson & Wortley, 2005), these constructs are used to articulate research and explore findings (See Chapter 4).

2.2. Applicable Constructs

2.2.1. Learning Theories for Adults

- *Learning*

Authors like Killen (2010) explore various definitions of learning and describe it as a process of exploring knowledge and experience, making connections and organising information that results in changes in understanding. Changes in understanding are a direct result of learners' experiences and their reflection on those experiences and these changes in understanding enable learners to change their behaviour. Perhaps one of the more useful definitions of learning for professional development is that by Crow and Crow (cited in Knowles, Holton & Swanson, 2005):

> *Learning involves change. It is concerned with the acquisition of habits, knowledge and attitudes. It enables the individual to make both personal and social adjustments. Since the concept of change is inherent in the concept of learning, any change in behaviour implies that learning is taking place or has taken place. Learning that occurs during the process of change can be referred to as the learning process.*

Schunk (2012) supports this when he defines learning as "*an enduring change in behaviour, or in the capacity to behave in a given fashion which results from practice or other forms of experience*".

From these definitions and my own experience, I define learning as including changes in understanding or behaviour that become transformational if these changes endure over time through the acquisition and organising of knowledge and experience to result in meaning. Schunk (2012) points out that learning is inferential; we cannot observe it directly but infer that learning has occurred through its effects and changes. I agree and believe that learning can be discreet, cumulative and that resulting behavioural changes are observable or can be articulated as evidence of learning and transformation.

However, in a professional environment and in mentoring learning is not always formal. So, I first have to clarify the concepts f*ormal* and *non-formal learning* so that this construction is clearly applied in this research.

- *Formal learning*

  Formal learning is organised and structured, and has learning objectives. From the learner's standpoint it is always intentional: i.e. the learner's explicit objective is to gain knowledge, skills and/or competences (OECD, 2010)**.** Typical examples are learning

that takes place in the initial education and training system or workplace training arranged by the employer. This is often regarded as formal education and/or training or, more accurately, education and/or training in a formal setting. This definition implies consent of the learner.

- *Informal learning*

  Informal learning is never organised, has no set objective in terms of learning outcomes and is not intentional from the learner's standpoint. It is often referred to as learning by experience or just as experience (OECD, 2010)**.** Informal learning is sometimes simply defined as any learning that is not formal learning (Epic, 2010) and therefore would exclude where learning is planned or managed by a learning professional or learning institution. The core idea is that simply existing will consistently expose the individual to learning situations, at work, at home or during leisure time.

- *Non-formal learning**:***

  Non-formal learning is learning that is not provided by an education or training institution and typically does not lead to certification (Jyväskylä University of Applied Sciences, Teacher Education College, 2007). It is, however, structured in terms of learning objectives, learning time or learning support. Non-formal learning is intentional from the learner's perspective.

- *Self-regulated learning*

  Self-regulated learning occurs when learners use strategies that enable them to act autonomously, take initiative and tend to take responsibility for their learning (Killen, 2010). Such strategies can include goal setting, deliberating about learning strategies, asking for input and research.

- *Meta-learning*

  Meta-learning is used by Biggs (1985) to describe the state of "being aware of and taking control of one's own learning". Biggs (1985) describes effective learning as learning that requires that learners exert control over their own cognitive resources, which requires a kind of metacognition, here called meta-learning. This means we can define meta-learning as an awareness and understanding of the phenomenon of learning itself as well as the content of learning. This concept includes the learner's perception of the learning context, which includes knowing what the expectations and the demands of a given task are (Killen, 2010). Meta-learning uses experience to change approaches to the learning; for example, through reflection, so that the learner improves learning from additional experiences. Meta-learning skills are often a requirement for independent learning (Epic, 2010).

- *Peer-Assisted learning*

  Peer-assisted learning refers to instructional approaches in which peers serve as active agents in the learning process such as peer tutoring, reciprocal teaching and cooperative learning (Schunk, 2012). In a professional context, it can also be extended to mentoring.

Professional learning is therefore learning that relates to the profession being practised, in this case educational practice. Burton in Knowles, Holton & Swanson (2005) feel that learning is a transformation in an individual due to the interaction of that individual and his or her environment, which fills a need and builds capacity to improve his or her competencies within his or her environment. This seems more appropriate in a professional development context where the focus is on being able to function as a professional academic staff member. There are times when an individual may not see a problem emerging, assign the appropriate significance to information or consider what questions can contribute insight. Alternatively, similarly to what Marsh (2011a) describes as a misconception in engineering professional development, there can be the view that "knowledge, experience and wisdom are tradable commodities, which can be bought, sold, transferred or instantly acquired, for a price". This view is problematic as similar information or experiences may have different meanings in different contexts. These incomplete perspectives are clearly problematic when knowledge and experience need to be applied in specific contexts or to prevent problems. In this professional development context working with a more experienced 'other' who can question, enable critical reflection and assist in the application of knowledge and experience to prevent problems is valuable.

Professional knowledge includes a set of "*scarce and critical skills, key knowledge and experience, intrinsic or learned behavioural competencies, intuition and insights, heuristics and rules of thumb, contacts and professional networks, ideas and opinions, core capabilities and natural talents, specialist techniques and methodologies, and any other form of knowledge capital that defines and differentiates*" a professional (Marsh, 2011b). This includes the application and understanding of relevant theory and related practice.

Within the context of professional development, it is often assumed that some sort of learning must occur. In various approaches *learning* is described as a *product*, *process*, or *function*. Knowles, Holton and Swanson (2005) use a multidisciplinary theoretical foundation of adult learning, including psychology, systems and economic theory and therefore define adult learning as "*the process of adults gaining knowledge and expertise*". The planning of adult learning therefore includes four phases:

- Need; determining what learning is needed so as to achieve goals.
- Creating a strategy and resources to achieve the learning goals.
- Implementing the learning strategy and using the learning resources.
- Evaluating the attainment of the learning goal and the process of reaching it.

This assumes that learning is always formal and planned, therefore my construction is that learning can be informal and unplanned but intentional which means the steps in the planning can be explicit or not articulated.

Given the scope of practice required by academic staff, principles of adult learning such as thinking style flexibility and its relevance for the adult learner and for the purpose of learning should play an important part in a mentoring approach. Andragogy builds on many common ideas and theories held in pedagogy with an emphasis on relevance for the learner to apply this learning content to their contexts. Andragogy is thus described as a set of core adult learning principles that apply to all learning situations (Knowles, Holton & Swanson, 2005), which include the following

- The learner's need/purpose to learn (why, what, how).
- Self-perception of the learner's role (as independent and self-directed).
- Prior experience of the learner (resource, theory).
- Readiness to learn.
- Orientation to learning (problem-centred, contextual).
- Motivation to learn.

These suggest a learning process within formal learning opportunities and may not fully take into account multiple learning strategies and aspects of learning from reflection.

This is similar to Lieb (1991) who comments on the characteristics of adults as learners that need to be taken into account in designing learning opportunities. He states that adults have accumulated a foundation of life experiences and knowledge that may include work-related activities, family responsibilities and previous education. They need to connect learning to this knowledge/experience base. Lieb (1991) is explicit in elaborating that adults want learning to be relevant. Adults, particularly in a professional development context, learn better when they see a reason for learning something. Learning that is applicable to their work or other responsibilities is perceived as valuable. This is similar to the principles expressed in problem-based learning (Killen, 2010) where learning is activated through problem-solving.

A key idea is that approaches to adult learning work best when they are adapted to fit the uniqueness of the learners and the learning situation or context. This takes into account that adult learners will commence with a learning opportunity not as empty vessels, but with prior knowledge and experiences and their own resources. Adult learners learn differently from young learners in the same learning experience and grow uniquely in response to such an experience, depending on how it links to prior knowledge, theory and interpretation or reflection on prior experiences. Knowles, Holton and Swanson (2005) describe several implications for professional learning from adult learning theory:

- The needs and interests of the adult learner are applicable starting points for designing appropriate tasks from which adults can learn by performing tasks.
- Linkages for organising adult learning are real-life situations and problem-solving, not disciplines.
- A key aspect of adult education is the analysis of experience, i.e. reflection.
- The role of the facilitator is to engage in a process of mutual inquiry with adults rather than to transmit knowledge.
- Adult education should take into consideration differences in style, time, place and pace of learning.

Therefore, in a professional development setting, I consider Lindeman's (1926) conception of adult education as relevant to mentoring. In mentoring, professional learning is

> *a process by which the adult learns to become aware of and evaluate his experience. To do this he cannot begin by studying 'subjects' in the hope that someday this information will be useful. On the contrary, he begins by giving attention to situations in which he (she) finds himself, to problems which include obstacles to his self-fulfilment. Facts and information form the differentiated spheres of knowledge are used, not for the purpose of accumulation, but because of need in solving problems* (Lindeman, 1926).

This conception of professional learning invites the roles of mentoring, guiding and problem-solving in professional development. It is linked to the concept of *reflective practice* as used by Schön in Ferraro (2000), where a practitioner reflects on his or her experiences to apply knowledge to practice, while being mentored by a more skilled 'other' as conceived by Vygotsky (cited in Blunt & Conolly, 2006). I have incorporated these ideas into academic professional development where reflective practice is linked to a learner's conceptual framework and real-life context to construct meaning. Ferraro (2000) links reflective practice to Action Research in utilising continuous feedback within a specific context to solve a specific

problem, although she limits the use to curriculum development and teacher practice. In the context of mentoring the construct *curriculum* can be seen as the *course* or process the mentoring journey takes (which might include a planned programme or sequence of developmental opportunities) while the teacher represents the mentor.

From this point of departure I position mentoring as a suitable process for the learning by adults, where the goals or purposes are professional development and problem-solving. This mentoring process means that the approach to professional learning is brought about by the situations of the mentee rather than academic disciplines, and is constructed through the mentees' needs and interests. Theory is brought into the situation, is applied when needed within the context and builds from further reflective experiences of the mentee (Lindeman, 1926).

2.2.2. Thinking and Learning Styles

As discussed in the Coffield Report (Coffield *et al*, 2004) an array of learning style theories has developed from the construction of learning and types of learning. The Herrmann Whole Brain® Approach was initially developed by Herrmann (1995, 1996) and the applications and research have since been developed by his daughter Ann Herrmann-Nehdi using the HBDI™ (Herrmann-Nehdi, 2009). While the construct *learning style* is often used when referring to the work of Herrmann (Herrmann, 1995; 1996) the constructs *thinking style* and *thinking preference* are used (De Boer, Du Toit, Sceepers & Bothma, 2013).

The following figure illustrates the metaphoric four quadrant model that Herrmann created (Herrmann, 1995). The four quadrants of the model represent the different ways of thinking of the brain. Each quarter has very distinct cognitive clusters (De Boer, Bothma & Du Toit, 2011). Preference for the A quadrant (left cerebral mode) means that a person favours activities and tasks that involve logical, analytical and fact-based information. A preference for the B quadrant (processes of the left limbic mode) implies a linear approach to activities and the execution of tasks. Individuals with a B quadrant preference favour organised, sequential, planned and detailed information. They are conservative in their actions and like to keep things as they are. A preference for the C quadrant (processes of the right limbic mode) indicates favouring information, activities and tasks that are interpersonal, feeling-based and that involves emotive thinking. A preference for the D quadrant (processes of the right cerebral mode) is characterised by a holistic and conceptual approach to thinking.

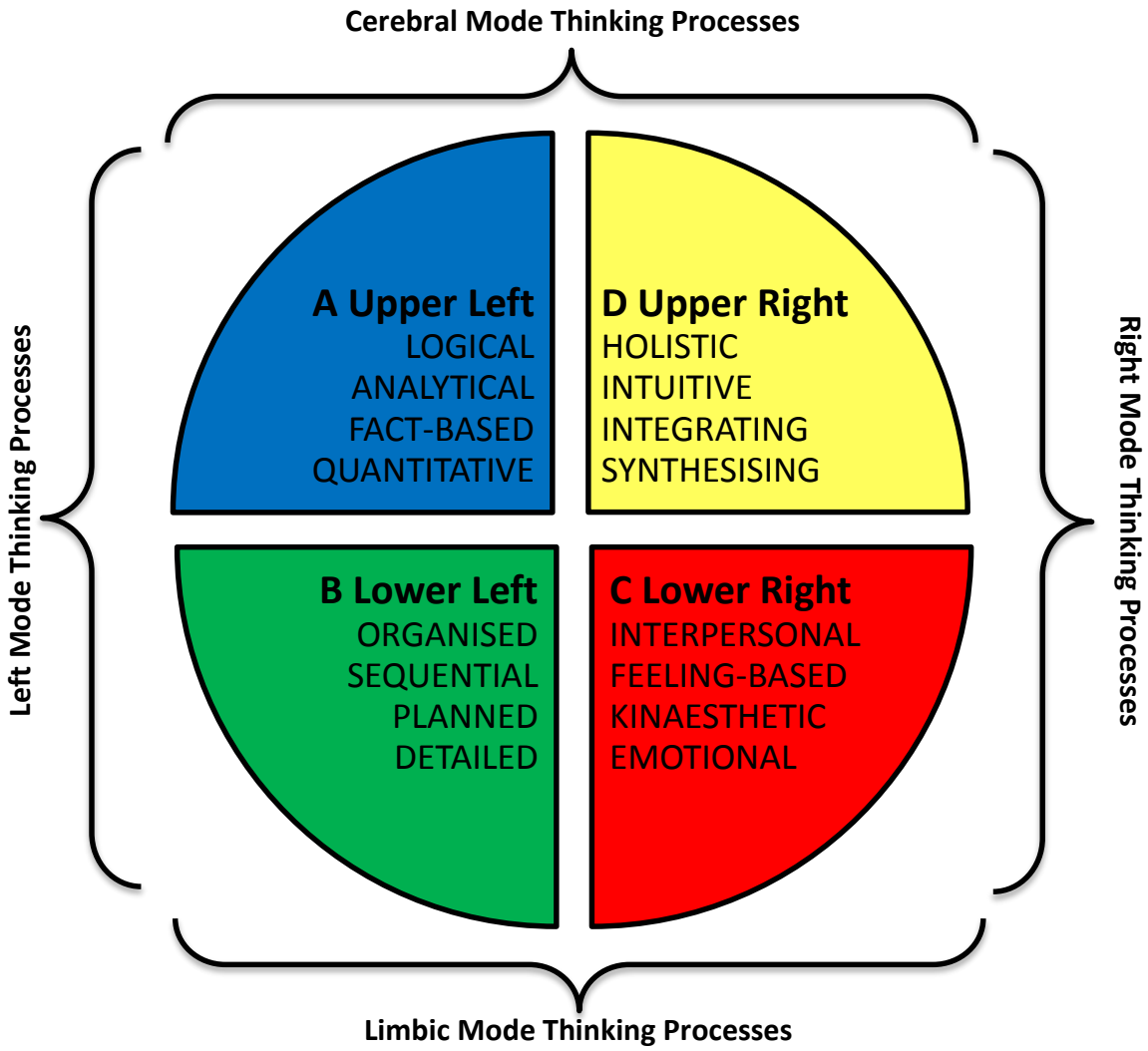

Figure 2.1: Herrmann Whole Brain® Model (Herrmann, 1995; 1996)

The preferences in the different quadrants can function together in context specific ways and make up a Whole Brain® profile in which one or more parts become naturally dominant (See Chapter 4 for examples of a HBDI™ profile). A person may be disinclined to utilise activities or ways of thinking of a less preferred quadrant, which I later refer to as *thinking disinclinations*. This may be due to the fact the person is either unfamiliar with the thinking approaches, uncomfortable with utilising these aspects or is unaware of how to apply them to existing contexts.

The Coffield Report on learning styles concludes that Herrmann's Whole Brain® Model and the HBDI™ is one of six recommended models in education and training (Coffield *et al,* 2004). The Herrmann Whole Brain® approach (Herrmann, 1995) provides evidence that using multiple thinking styles promotes developing students' (or mentees') full potential and deeper learning. Learning opportunities that implement all the modes of the Whole Brain® Model ensure that all the participants' preferred thinking styles are accommodated and that

competence in non-dominant quadrants is developed. De Boer, Steyn and Du Toit (2001) are of the opinion that an application of this model in facilitating learning requires that educators become aware of their own thinking and learning preferences and the implications of these for their practice. In the same way mentors should become aware of their thinking preferences and the implications of these for their mentoring practice as mentors' thinking preferences will inevitably inform the way in which they mentor. Within a higher education context the work of May and May (2009) reports on thinking skills research, like that provided through the Herrmann Whole Brain® Model and the Herrmann Brain Dominance Instrument™ (HBDI). Based on their work (May and May, 2009), mentors are encouraged to address the complexity of the professional learning process of mentees, the uniqueness of each mentee and to emphasise that mentees as learners can address their challenges and find ways of overcoming challenges they might find in terms of their professional learning.

Herrmann (1995) and Herrmann-Nehdi (2009) suggest that all people can develop the less dominant quadrants to improve learning and effective communication with others. Since Higher Education embodies the principle that all lecturers should provide expanded learning opportunities that Hattingh and Killen (2004) emphasise as a principle in the school context, it is acknowledged that not all mentees (as learners) can learn things in the same way at the same time. Utilising a model that promotes learning style flexibility encourages professional development in academic staff. In a mentoring practice this means that the Herrmann Whole Brain® Model (1995) can be used to align the uniqueness of the learning preferences of a mentee with the learning context and objectives of professional learning. The mentor can also guide the mentee to reflect on his or her experiences in order to learn − the value of evaluated experience. Gravett and Geyser (2004) comment that if teaching builds on learners' existing knowledge and links to a relevant application of this knowledge within their contexts, it will result in deeper learning. In the same way facilitative mentoring that builds on mentees' existing knowledge and is linked this to application and higher-order thinking may result in a deeper understanding of Higher Education practice.

By drawing on the Whole Brain® Theory as developed by Herrmann (1995) I was able to assess to what extent I could utilise learning style flexibility, both as a mentor and as an action researcher. This model is an appropriate tool that I could use to evaluate my mentoring practice. The evaluation of my mentoring practice allowed me to determine whether I as a mentor engaged with the mentees at the starting point and treated them as a whole person; and it was a tool to determine to what extent I saw myself develop as a whole person. In addition, as this model promotes individual and group reflection by supporting a process of developing learning style flexibility using reported thinking and learning preferences (Coffield

et al., 2004), it promoted reflecting on whether my mentoring practice contributed to developing the professional learning of mentees. Moreover, as there is encouragement of quadrant or learning style flexibility, adaptation of other styles and development the model supports the process of mentoring that leads to improved practice in both the mentor and the mentee. The Whole Brain® approach indicates that each individual is a unique learner, which is aligned with a mentoring approach of designing learning opportunities that take into account the uniqueness of each mentee and his/her particular challenges, context and goals. Consequently, using the Whole Brain® Model (as illustrated in Figure 2.2 below) and the assessments of the mentees, my mentoring practice could be evaluated to see whether all thinking styles were utilised to promote learning style flexibility in academic staff.

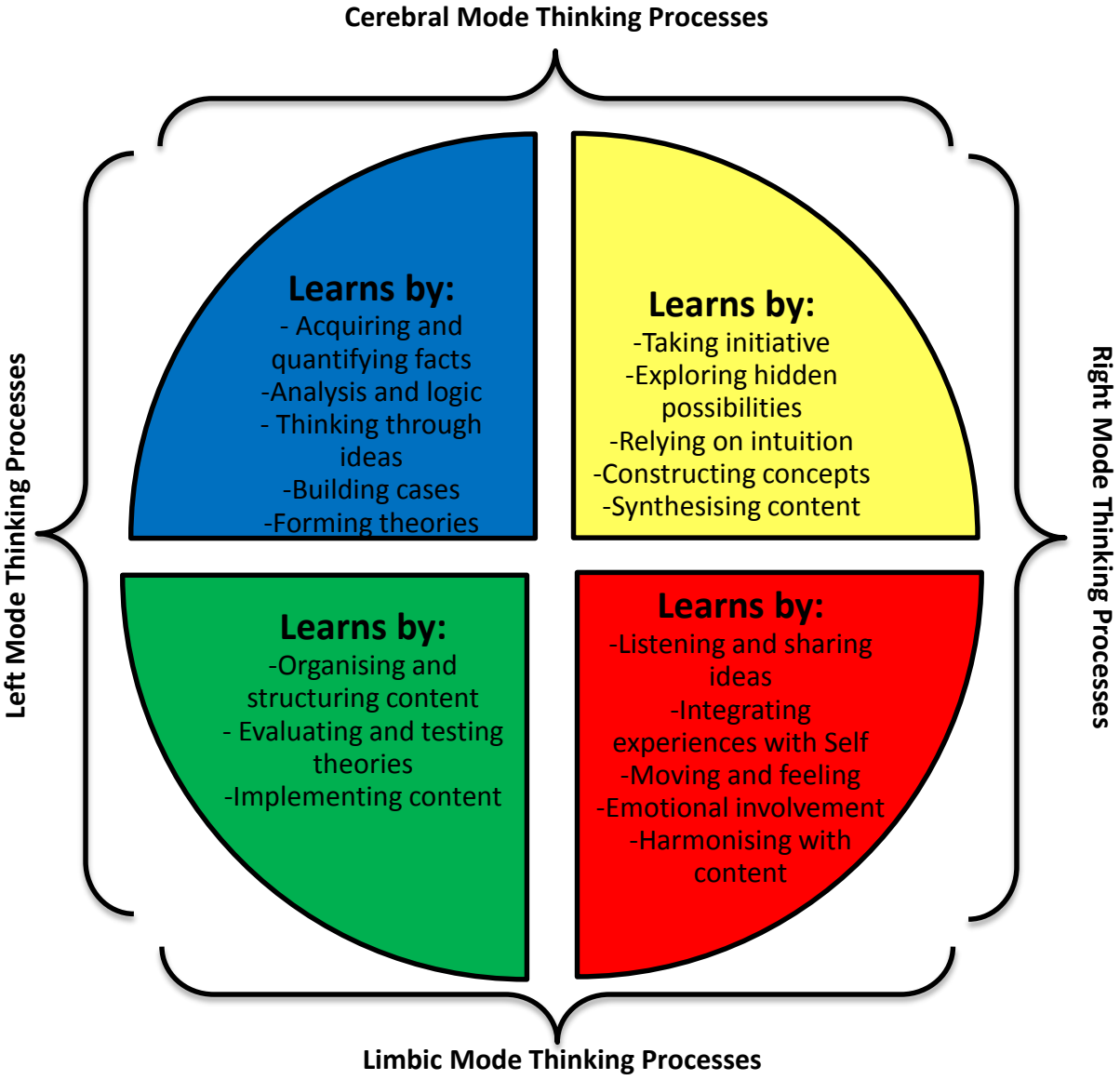

Figure 2.2: Whole Brain® Learning Considerations (Herrmann-Nehdi, 2009; Herrmann International, 2009)

If we take this model of the Whole Brain® Learning Theory developed by Herrmann (1995) and Herrmann-Nehdi (2010) and adapt it to the mentoring relationship with a focus on learning opportunities for professional development, professional learning facilitated by a mentor can be linked to the various quadrants and thinking preferences. As can be seen in Figure 2.3 motivation and sharing personal experiences would link to the learning preferences of quadrant C while setting professional development goals, evaluating practice and giving feedback link strongly to quadrant B.

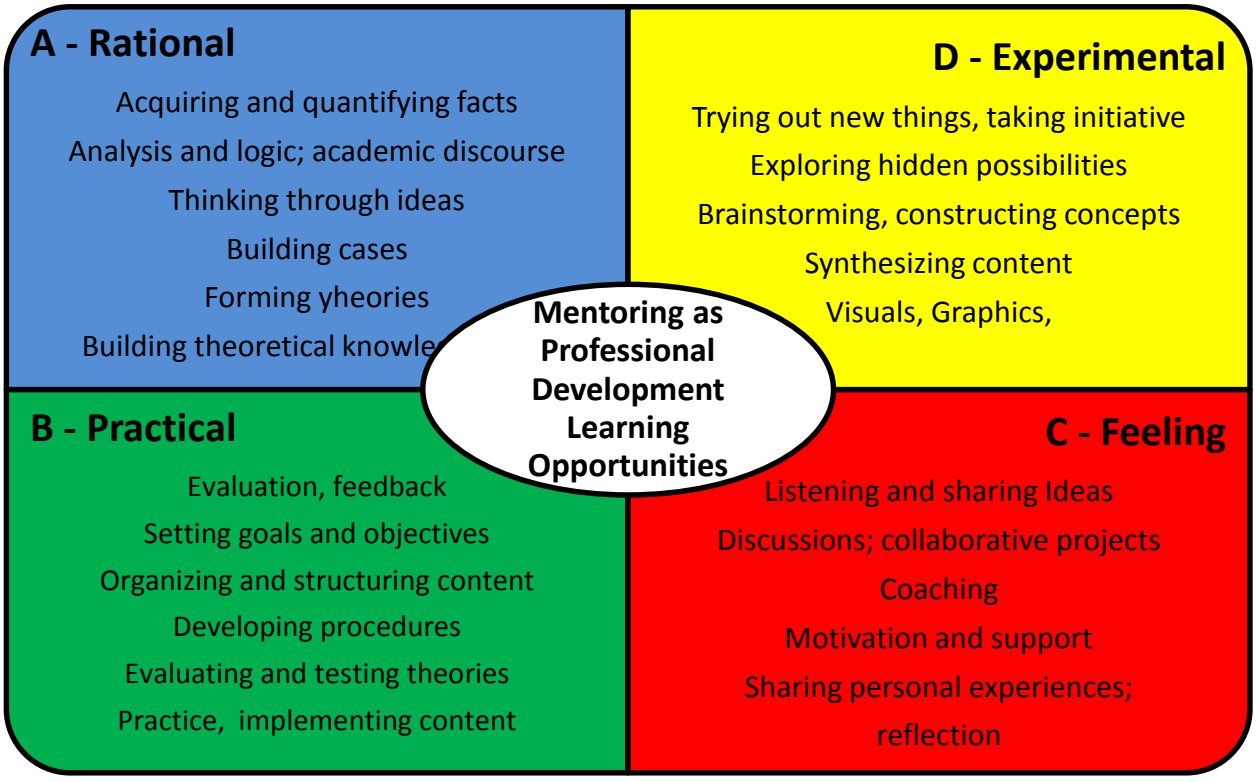

Figure 2.3: Whole Brain Mentoring Activities for Professional Development

Individuals can complete the Herrmann Brain Dominance Instrument™ (HBDI) as a questionnaire and receive a profile which illustrates and explains the way an individual prefers to think, learn, communicate and make decisions (Herrmann International, 2009). In this Action Research I used my profile and the profiles of my peer mentees as baseline data. Each profile is made up of qualitative and quantitative data, represented in graphic, tabular and text format.

There are several types of profile; each profile consists of four numbers as a four digit code referring to the four quadrants in the sequence A, B, C and D. In this code 1 corresponds to a strong preference (a score of 67 or above on the HBDI™); 2 corresponds to an intermediate

preference or thinking that is comfortable and available as needed (a score of 34 - 66) and 3 indicates a low preference or a lack of interest or an avoidance (if the score is extremely low − a score of 33 or below) (Herrmann International, 2000).

From studies in the Herrmann International Database, there are generally four reported profile groups:

- Single dominant profiles – about 5% of the population
- Double dominant profiles – about 58% of the population
- Triple dominant profiles – about 34% of the population
- Quadruple dominant profiles – about 3% of the population

(Herrmann International, 2000).

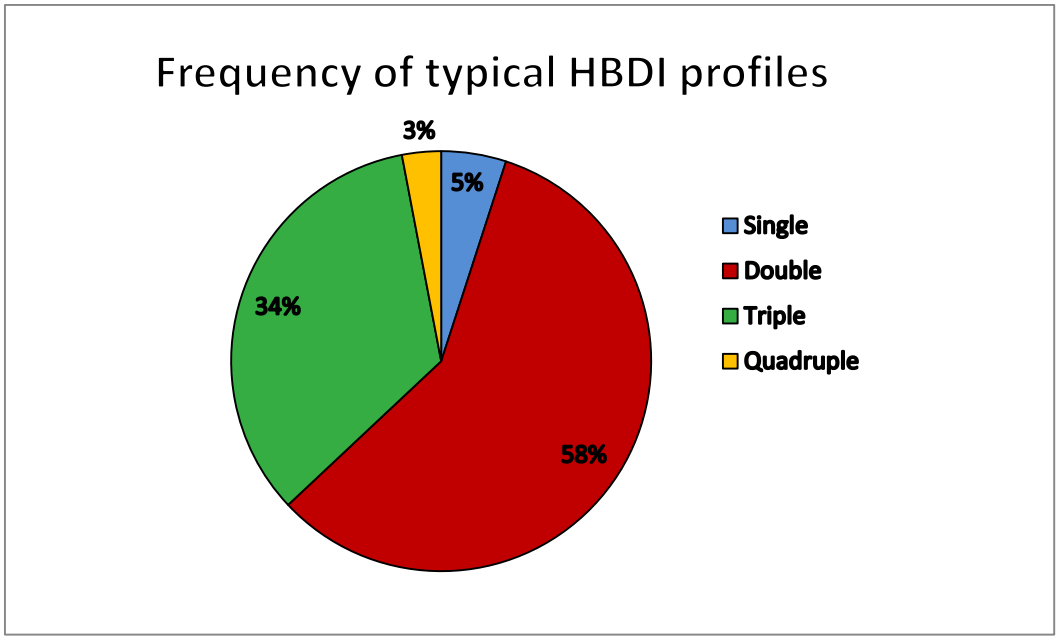

Figure 2.4: Frequency of Typical HBDI™ Profiles (Herrmann International, 2000)

- *Single dominant profiles*

This profile has only one primary code, e.g. 1232, 2133, 3213 or 2221. This represents an explicit preference that can occur across all four quadrants (Herrmann International, 2000). This type of profile tends to represent a person with relatively little internal conflict whose perceptions and decision making tend to be predictable, coherent and comfortable internally. However, this person struggles to fit in with others who see the world differently, unless he or she works in an environment where people of like profiles are predominant or differences are acknowledged and appreciated (Herrmann International, 2000).

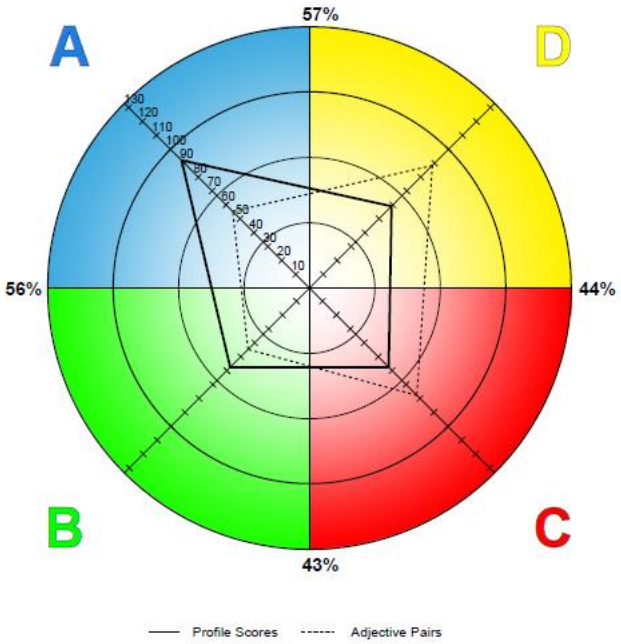

Figure 2.5: Example of single dominant profile 1222 (Herrmann International, 2011)

- *Double dominant profiles*

Double dominant profiles can be dominant either across the left or right, or across upper or lower, or diagonally dominant. Where a profile is double dominant across left or right hemispheres, the two dominant quadrants tend to reinforce each other, resulting in clearly defined preferences (Herrmann International, 2000). A challenge for individuals with these types of profile is that they tend to struggle to relate to or understand their opposite modes.

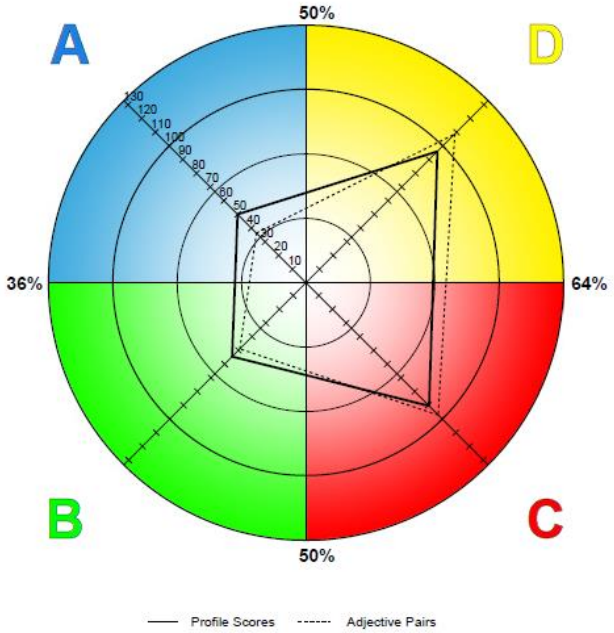

Figure 2.6: Example of double right dominant profile 2211 (Herrmann International, 2011)

Where a profile is double dominant across upper or lower hemispheres the two dominant quadrants tend to unite distinct thinking preferences in a synergistic interaction (Herrmann International, 2000). These individuals can experience a sense of two distinct mental perspectives and have an opportunity to learn when to apply particular thinking processes appropriately to different situations.

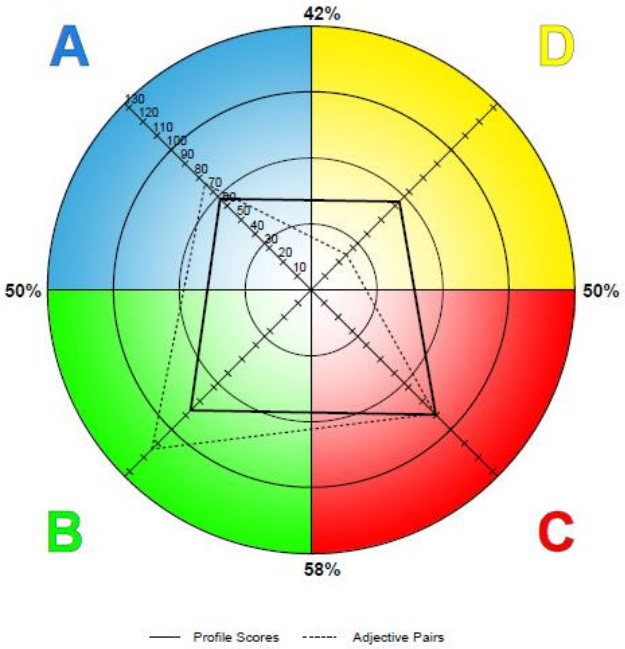

Figure 2.7: Example of double lower dominant profile 2112 (Herrmann International, 2011)

Where a profile is diagonally double dominant, it reveals an inherent internal conflict of preferences that can be paralysing or that facilitate evaluating different perspectives in decision making processes (Herrmann International, 2000).

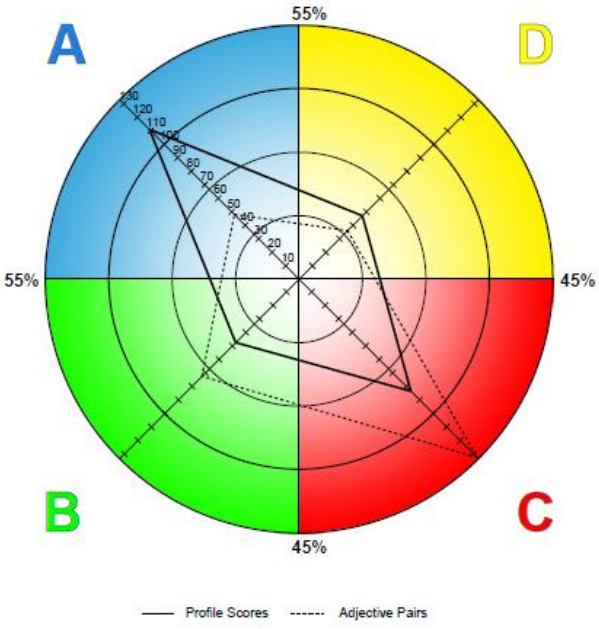

Figure 2.8: Example of diagonal double dominant profile 1212 (Herrmann International, 2011)

- *Triple dominant profiles*

  Triple dominant profiles tend to reveal an individual with thinking flexibility who can move through the three dominant modes to evaluate multiple perspectives before making a decision (Herrmann International, 2000). This can be an advantage, as these profiles often share at least one preference with those they interact with. However, a triple dominance can result in taking time to make decisions in order to evaluate the various options from different perspectives.

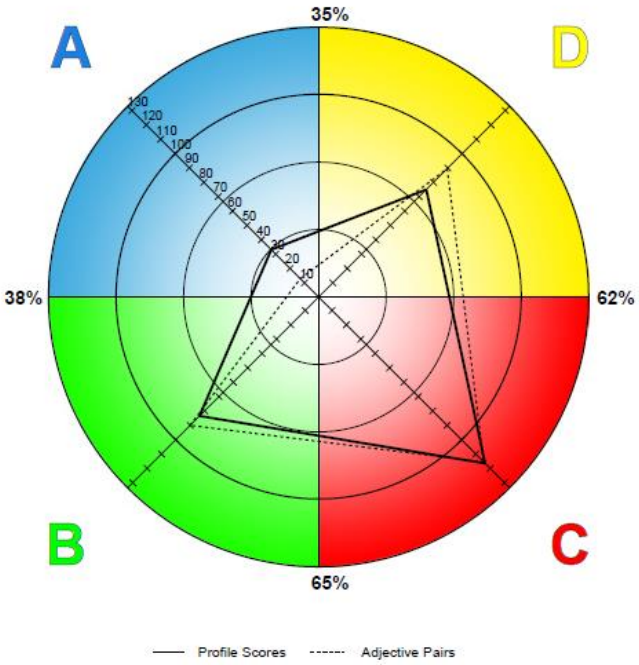

Figure 2.9: Example of triple dominant profile 3111 (Herrmann International, 2011)

- *Quadruple dominant profiles*

The quadruple dominant profile reveals an individual with primary preferences in each of the four quadrants and is often referred to as *whole brained* (Herrmann International, 2000). These profiles are rare, occurring only in 3% of the tested base and offer a highly integrated, varied thinking process. Herrmann (1995) points out that individuals with these profiles often make excellent CEOs as they are able to relate to all types of individual with different learning preferences. These individuals have the potential to function well in group situations, yet have the challenges associated with quadruple dominance in that they tend to prefer variety, and at their weakest can lose focus due to internal conflicts if there is no quadrant that develops as a lead quadrant.

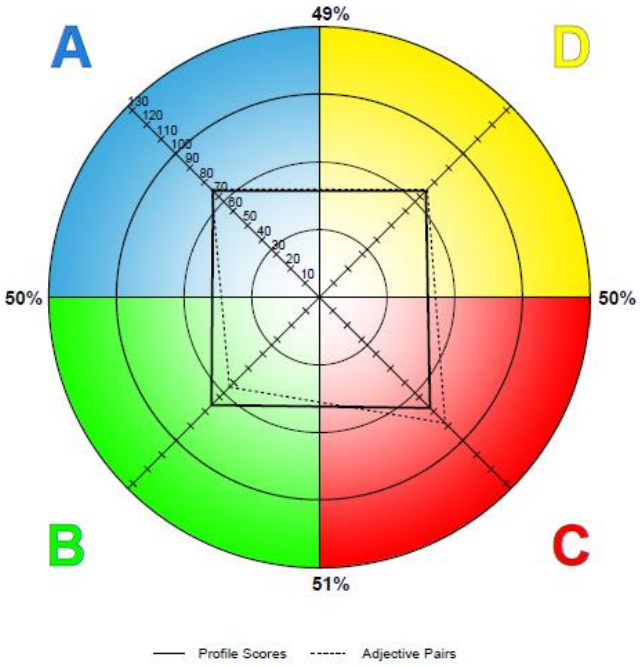

Figure 2.10: Example of quadruple dominant profile 1111 (Herrmann International, 2011)

HBDI™ Profiles include reference to Adjective pairs. The Adjective Pairs result reports something about how responders react when under pressure (Herrmann International, 2011). This may or may not be consistent with general behaviour as this is self-reported.

2.3. Professional Development

In its broadest sense professional development refers to the development of a person within his or her professional role (Villegas-Reimers, 2003). Professional development is often defined as a continuing process of activities that enhance professional competency and understanding (Imel, 1990), to which I would add a continuing independent execution of tasks (solving of real-life problems), acquiring relevant competencies and quality meaning making – with the purpose of career advancement. Professional development can be intentional from both the organisational and staff member's viewpoint by utilising formal learning to obtain qualifications, prove knowledge or enhance competency. Professional development can be intentional, utilising non-formal learning, such as through workshops, observations, mentoring, reflections, conferences and work-based learning opportunities situated in practice (Steinert, 2008; Villegas-Reimers, 2003). Professional development can also be unintentional, utilising experiences and feedback on professional learning in an unstructured unplanned way.

In an academic context Quinn (2012) describes Professional Development as "*a range of formal, non-formal and informal activities aimed at contributing towards academic staff's capacities as scholarly educators*". Professionalism is often viewed in the context of appropriate behaviour, quality assurance, efficiency or effectiveness. Quinn (2012) reflects that professionalism is a contested concept and refers to an alternative view where "*the professional is seen as an agent who is empowered to define her own conditions of work, who has agency to construct her own meaning and identity*".

Many views on the roles of educators, including lecturers, are culturally and socially embedded. According to the Department of Education (DoE) of South Africa, there are seven roles of an educator (South Africa, 2000):

- Learning mediator
- Interpreter and designer of learning programmes and materials
- Leader, administrator and manager
- Scholar, researcher and lifelong learner
- Community, citizenship and pastoral role
- Assessor
- Learning area/subject discipline/phase specialist

This suggests a broader perspective on the whole person in a scholarly and professional community of practice within a learning organisation such as a university.

Within an academic context, in a professional practice a practitioner should include accountability for impact on learners, and endeavour to develop the capacity to improve learners' experiences and results. In this kind of professional practice the value of professional development is not only the transformation of an educator's practice, beliefs and theory, but that this development can result in improvement of student learning. In the context of this research, I relate this construction of professional practice to the mentor as educator and the mentee as student learner. Villegas-Reimers (2003) cites a number of studies that report that the more professional knowledge an educator has, the higher the levels of student achievement. In a constructivist paradigm a professional practitioner constructs his or her own meaning, based on his or her study of scholarly work, reflexive experience in practice and scholarly discourse (De Boer, Du Toit, Sceepers & Bothma, 2013).

However, if a professional must apply theory in a specific context, it seems appropriate to clarify professional development and view it in a particular context. This acknowledges the awareness that professional development may appear and be different in different contexts.

Ideally this means that a professional development should include strategies for self-regulated professional learning. If self-regulated learning occurs when learners use strategies that enable them to act autonomously, take initiative and take responsibility for their learning (Killen, 2010) the self-regulated professional learner applies these learning strategies for professional development within a specific context. Villegas-Reimers (2003) comments that the most effective form of professional development is that which is based in the context of practice and linked to the daily activities of educators and learners, and therefore agrees with other authors such as Schunk (2012) that the most successful developmental opportunities are on-the-job activities, such as the executing of action learning and the development of portfolios. Most strategies for self-regulated professional learning include some form of reflective practice. Mullen (cited in Schunk, 2012) describes mentoring as an important self-regulated professional learning process that accentuates goal-directed activity over time.

From this it is appropriate that I anchor my Whole Brain® Mentoring practice within a specific context and focus on the daily activities of academic staff members and the tasks that they have to execute – real-life problems to be solved. Therefore, when I explore professional development, like Villegas-Reimers (2003) I need to examine both the formal and informal, the intentional and unintentional processes by which professional development occurs and the context of the professional development that influences the application of theory in practice and the consequent meaning making by a lecturer as a professional. I utilise a self-regulated professional learning approach to my mentoring practice through Action Research and include scholarly reflection as a key component in each cycle, and instil the same competence in my mentees.

When linking professional development to practice, Coles (1996) writes that professional development "*is concerned with growth, which requires nurturing within a conducive environment. It is an interactive process whereby professionals learn to practice as they learn about practice, not so as to adopt current practice unthinkingly, but to appreciate it critically. It must be practice focused. It also needs guidance and support, not just from someone older and wiser, but from fellow learners. Finally, it involves transformation, sometimes painful, at other times exhilarating, but essentially involving newer insights into one's self and one's engagement with good practice*". This broadens professional development to include peer-assisted professional learning, mentoring and scholarly reflection.

Boughey and McKenna (cited in Quinn, 2012) propose an understanding of teaching and learning as socially embedded and therefore describe learning as "*students constructing knowledge, and teachers and students are seen as co-constructors of knowledge* …" In this

research I regard mentors and mentees as co-constructors of knowledge during their relationship. Villegas-Reimers (2003) describes the construction of professional development as collaborative in that it is most effective when there are meaningful interactions with colleagues, peers and other community members. This seems an applicable description of learning in a more professional collegial space, and therefore it can also be applied to professional learning within a peer mentoring relationship. From this a reflective practitioner can construct three types of knowledge, as described by Cochran-Smith and Lytle (cited in Villegas-Reimers, 2003; Awaya, McEwan, Heyler, Linsky, Lum & Wakukawa, 2003):

- Knowledge-for-practice – which assumes that academic staff members generate formal knowledge and theory for themselves and others to use in order to improve practice.
- Knowledge-in-practice – this is the knowledge embedded in practice, or application of knowledge within practice.
- Knowledge-of-practice – this is the knowledge gained through reflection and theory construction.

Since professional development seems to benefit the career prospects of an individual, it is often viewed as the responsibility of the professional (Imel, 1990) – a self-regulated professional learning process. However, in so far as professional development can transform the quality of practice, it can also be seen as an institutional or manager's responsibility who can initiate or require a process of professional development. Villegas-Reimers (2003), in discussing teacher professional development, comments that to achieve the improvement of education, educators become both subjects and objects of change, which means that educator professional development not only professionalises the profession but enables educators to act as change agents to improve education. Du Toit (2012) argues that the common construct *agent of change* should rather be replaced by *agent of transformation* which is very apt in the context of my mentorship that advocates transformative leadership and practice.

In a professional development plan or process, key aspects include developing a professional development plan, locating resources and receiving feedback (Imel, 1990). In each of these a mentor can add value; for example, in locating resources, a mentor can facilitate the identification of professional resources and means to create opportunities, or refer the mentee to existing opportunities, such as an induction programme to develop in identified areas. In locating resources mentors can introduce a mentee to resources and be a resource for development. In receiving feedback a peer mentor can be a source of evaluation and feedback as well as a critical reflective partner in responding to feedback.

A key competency in professional development is the concept of *reflective practice*, which means conceiving a lecturer as a reflective practitioner where he or she demonstrates an ability to integrate experiences and decision making with understanding, meaning making, adapting practice to context and to substantiate actions taken, adaption, decisions or outcomes. In South Africa the *Norms and Standards for Educators* (South Africa, 2000) indicates that educators in general – lecturers included – need to be willing and able to reflect on practice. Villegas-Reimers (2003) describes a reflective practitioner as someone who enters the profession with a certain knowledge base and who will construct new knowledge and meaning based on that prior knowledge, new learning and experiences. To apply aspects of being a reflective teacher, in a Higher Educational context, a reflective practitioner must have personal knowledge, professional knowledge, planning skills and competence in assessing learning (Schunk, 2012) – which I consider as examples only as any Higher Education practice is multidimensional. Lecturers who reflect on their practice identify deficiencies and transform these, and identify sufficiencies or assets and articulate these while exploring the reasons for these sufficiencies or successful aspects. Marsh (2011b) writes that "*Knowledge is often simply misconstrued as Information … Knowledge is, after all, essentially information in context*". This introduces the aspect that since the application of professional practice should adapt to various contexts and learners, a reflective practitioner will apply knowledge to differing contexts. This development of on-going reflexive practice has its origins within self-regulated learning and constructivism (De Boer, Du Toit, Sceepers & Bothma, 2013).

For the purposes of my research, within a constructivist paradigm, like Villegas-Reimers (2003), I treat academic staff members as active learners who are engaged in educational activities and professional development activities, including observation and critical reflection, which allow each professional to be transformed by practice and professional development. I prefer the view that professionalism in practice is a teleological construct, in that it is change or development towards specific goals where a professional constructs knowledge and meaning through sharing ideas with other professionals, and apply and test theory in practice in a reflective approach. This reflexive construction can build transformation in practice that can lead to improved quality in practice, space for knowledge production through critical reflection and development of improved professional judgement when solving problems or considering new situations.

Action research is used in many professional learning contexts, both formally and informally. McNiff (2002) explains that action enquiries begin with the question, *"How do I improve my*

work?" This, like Villegas-Reimers (2003), embodies the assumption that professionals already possess some level of professional knowledge, and are capable of learning for themselves. In this approach to professional learning, McNiff (2002) is of the opinion that

> *what they need in their professional learning is an appropriate form of support to help them celebrate what they already know, and also generate new knowledge. New knowledge can most effectively be generated through dialogue with others who are equally interested in the process of learning. The dialogue is always a dialogue of equals. No one tells another what to do in action enquiries; we all share and value one another's learning*.

This type of Action Research process, as described by McNiff (2002), leads to professional development and improvement in practice through the articulation of a research problem and related explorations to solve the problem and gather evidence.

Imel (1990) contends that an important aspect of professional development is feedback and refers to research where educators identified "*receiving feedback in a nonthreatening environment*" as key to evaluating levels of performance and progress. This supports McNiff (2002) who propagates the notion of constructing a professional learning community of practice within a university community as a learning organisation (De Boer, Du Toit, Sceepers & Bothma, 2013).

Several authors (Ferraro, 2000; Huling, 2001; Scherman & Du Toit, 2014) refer to mentoring peers or novices as a form of professional development and a form of reflective practice. The exploration of a mentor's experiences in learning lessons and applying learning to new contexts (i.e. the mentee's practice) is a form of reflective practice. Ferraro (2000) describes a benefit of reflective practice for educators (lecturers) as a deeper understanding of their own teaching style and greater effectiveness as educator. Other benefits she notes include the validation of ideals, reflective challenges of tradition, the recognition of education as artistry, and respect for diversity in applying theory to classroom practice.

2.4. Mentoring and Peer Mentoring

The concept of 'mentoring' has been introduced in the *Odyssey* by the Greek poet Homer (Awaya *et al*, 2003; Woodd, 1997; Monaghan, 1992) where Mentor was appointed to oversee Odysseus's household and the instruction and direction of Odysseus's son, Telemachus. This

early description of a relationship and responsibility evolved into mentoring being defined in different ways. Darwin and Palmer, writing in a higher education context, define mentoring as a process of influencing and fostering the intellectual development of students and career aspirations of staff. Within most concepts of mentoring there is a description of the role of a *mentor* and *mentee* (the latter sometimes referred to as *protégé*). The mentor is regarded as the more experienced, more knowledgeable who facilitates the learning process of a mentee, often within a specific context or profession. Implicit in most definitions of mentoring is the view that it involves acting as a guide, advisor, coach and sometimes counsellor to a mentee (Kafai, *et al*, 2008; Ayinde-Adebove, 2011). Greyling and Du Toit (2008) describe mentoring as "*developing employees' potential and optimal functioning*" and as raising their (mentees') awareness of how they construct their work-related realities. Within a critical reflective approach, the mentoring relationship context provides a learner (mentee) role that includes reflection-on-action (Kafai *et al*, 2008). This is similar to what Lindeman (1926) describes in adult education as being "*a process through which learners become aware of significant experience*". Mentors encourage the recognition of the significance of experiences and observations that lead to evaluation and reflection in practice. This links to Vygotsky's theories (cited in Schunk, 2012; Blunt & Conolly, 2006) where interactions with a more capable *other* person in the environment can stimulate development and foster cognitive growth – I prefer using the construct *holistic growth*. Mentors can provide guidance, direction, support or expertise to academic staff members in a variety of contexts. In their paper Colvin and Ashman (2010) found that being a *connecting link*, *peer leader, learning-coach, advocate* and *trusted friend* are predominant roles enacted by mentors.

Mentoring has been styled as a journey which involves the construction of a relationship in several contexts, including education (Awaya *et al*, 2003). Mentoring is often regarded as a learning process by authors such as Ayinde-Adebove (2011). Du Toit (2012) describes constructivist mentoring that now includes reflection and uses Action Research as a process for sustaining knowledge production. Following from Rowe's (2007) discussion of leadership as a process, similarly in regarding mentoring as a learning process, I construct mentoring as a learning process that has the following characteristics:

- Mentoring occurs over a period of time.
- Mentoring involves influencing others.
- Mentoring occurs within interpersonal interactions.
- Mentoring aspires to be transformative in changing professional practice.
- Mentoring often includes problem-solving or achievement of goals.

Research on mentoring shows that it is being explored as a potential mode of professional development, as process for improving practice, as a strategy to improve educator retention and as a tool to improve mentee performance in Higher Education (Parker-Katz & Bay, 2008; Greyling & Du Toit, 2008; Kafai *et al*, 2008; Blunt & Conolly, 2006). For many academic staff members the notion of mentoring is often embodied in their perceptions of their own role in influencing student learning. This seems to exclude the construct of peer mentoring that many academic staff members are unaware of. This is also reflected in the Roles of the Educator (South Africa, 2000). Mentoring is practised at various levels of education in Higher Education; it ideally becomes a developmental reciprocal relationship where a more experienced mentor facilitates the learning or reflection of less-experienced mentees to develop their achievement and self-efficacy (Schunk, 2012). This is seen in the research of Awaya *et al*, (2003) who in the context of Teacher professional development, refer to a 'relationship by choice'.

These aspects can be addressed during a mentoring process in discussions with mentees. In a constructivist approach it is increasingly argued that the responsibility of professional learning should reside with the professional (Von Glasersfeld, 1989; Schunk, 2012). By agreeing with mentees about their goals and objectives in terms of their professional development, the links to existing knowledge, relevancy and practice can be utilised as a starting point. This is consistent with Blunt and Conolly (2006) who point out that an emphasis on the needs of the mentee is necessary. Where the mentor is a co-learner and facilitator, this intuitively brings the notion of shared responsibility with the learning process. This approach also permits the mentees to contribute to their learning and professional development. This means that within academic staff development mentoring can provide a customisation with clear goals and agreement regarding the measurement of improvements in professional practice. Parker-Katz and Bay (2008) state that in teacher professional development mentoring is viewed and presented as a process that has the potential to have an impact on the teaching profession in significant and positive ways. This is extended to the Higher Education context by authors such as Du Toit (2008); Blunt and Conolly (2006), and Scherman and Du Toit (2014).

The literature does not report on the role of the mentor as facilitator, especially from the perspective of the mentor. Some mentoring models refer to balancing three key elements (Daloz, cited in Steinert, 2008): support, challenge and a vision of the individual's future career. Most concepts of mentoring tend to take into account the mentee's knowledge, circumstances and developmental goals while the mentor assists the mentee to respond to specific challenges or goals. Mentoring can adapt to a variety of changing circumstances, contexts or

to individual needs. It is this flexibility and often immediate specific support and development that require mentoring to utilise formal and non-formal approaches. Mentoring evolves from a whole person perspective, taking into account how emotional, personal and professional issues can affect responses to situations. This suggests that an approach to mental flexibility as embodied in the Whole Brain® Model (Herrmann, 1996) is a useful tool to develop mentoring practice. The literature on mentoring is silent about an innovative idea such as Whole Brain® mentoring; hence my focus on this aspect.

Mentoring can be a process of intentional knowledge transfer. Marsh (2011a) describes this process as "*where an individual, or group of individuals, with a significantly developed knowledge base, agrees to share their substantial treasure chest of personally developed, learned and acquired intellectual property with another individual, or group of individuals, for the direct benefit of the recipient/s, as well as the organisation*". These conceptual approaches to mentoring as a process reveal the view that knowledge is transformative (Jackson, cited in Parker-Katz & Bay, 2008), and socially and contextually constructed (Lave & Wenger, 1991; Wenger cited in in Parker-Katz & Bay, 2008; Schunk, 2012). Embedded in these kind of views is the notion that knowledge must be applied and adapted to contexts. Marsh (2011b) further comments that "*intentional knowledge transfer should include both a practical and an emotional journey in order to ensure long-term sustainability through effective memory retention, and therefore a substantial effort should be made at the outset of any intentional knowledge transfer intervention, to establish a relationship with transparent and mutually agreed knowledge goals*". This reveals an appropriate application of the Whole Brain® Model (i.e. using both facts, emotions, practical application) within a mentoring relationship.

In discussing faculty development Steinert (2008) refers to a description of how faculty development activities move from individual (independent) to group learning and from non-formal approaches to more formal ones. In the model she developed, Steinert places *mentorship* in the centre of both spectrums to show that "*any strategy for self-improvement can benefit from the support and challenge that an effector mentor can provide*" (Steinert, 2008). Since the term *mentorship* is more often than not used to refer to the relationship rather than the process of mentoring, I have substituted *mentoring* and will refer more to the active process rather than the relationship, as the mentoring relationship is only one facet of mentoring. Given the clarification of the terms *non-formal* and *informal*, I have relabelled the vertical continuum *formal* to *non-formal* learning (i.e. replacing the term *informal*).

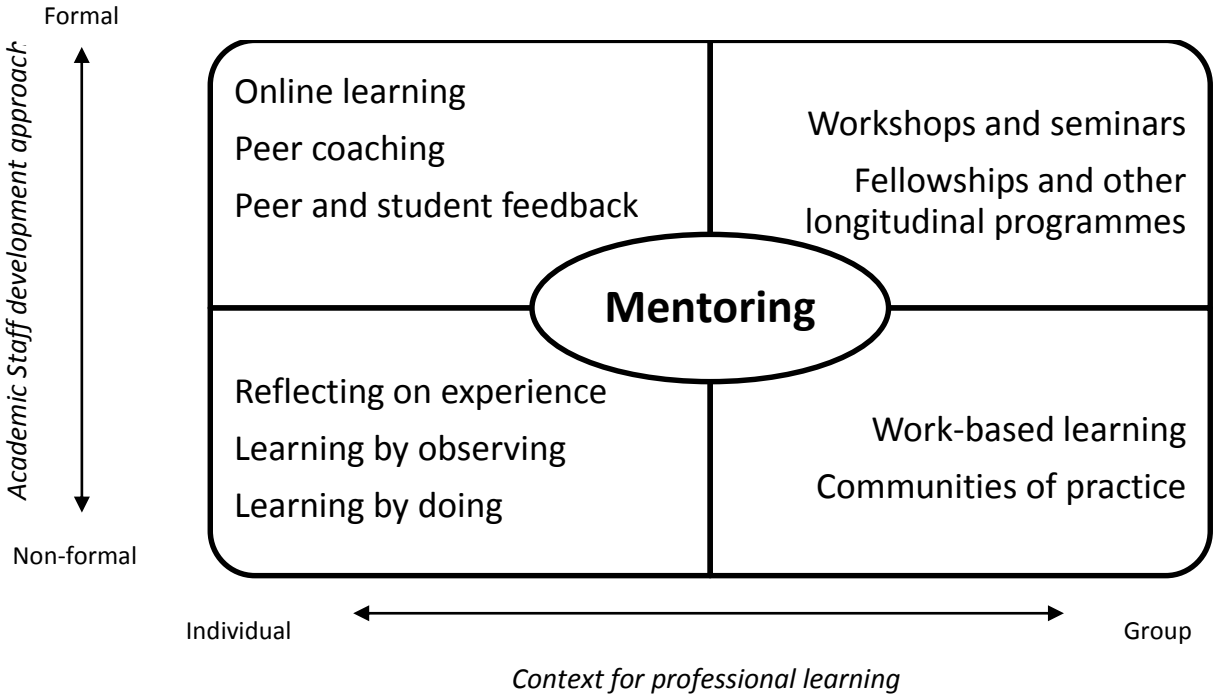

Figure 2.11: Mentoring as Academic Staff Development (adapted from Steinert, 2008)

The mentoring process and relationship can be formal or non-formal. Blunt and Conolly (2006) regard this duality of non-formal and formal models of mentoring in Higher Education as not necessarily mutually exclusive. The mentor can be formally requested to assist in the professional development of another when a need is perceived by another. If the mentee perceives a need, he or she can approach a prospective mentor or peer skilled in an area of development. Alternatively the peer mentor can perceive an area of development in a peer mentee that needs addressing when working towards problem-solving, evaluating professional practice or working together to achieve a common objective. Non-formal practices of mentoring tend to develop on their own between the mentee and mentor (Ayinde-Adebove, 2011) rather than by formal appointment or planning. More often than not effective mentoring tends to utilise both formal learning opportunities and non-formal learning opportunities.

Such a mentoring relationship and the professional learning that results from this interaction can be regarded as transformational only if there are changes in the thinking, beliefs and hence the practice of the mentees and mentor. In a constructivist paradigm professional practice is developed in response to previous experience, prior knowledge, prior (professional) learning, personality, thinking styles, experiences, from studying relevant literature, participating in scholarly discourses and construction of meaning and theory or practice

(Schunk, 2012; Creswell, 2007; Villegas-Reimers, 2003). In my research approach I construct professional development as any activity or learning that improves the professional practice of an academic staff member. The effect of any professional development can only be regarded as valuable if it leads to an improvement in the quality of teaching and learning. This change in professional practice can be considered transformational if it endures over time.

In mentoring the mentor deals with the person of the mentee and the mentee's practice from within a relationship. Blunt and Conolly (2006) point out that mentors need to be able to work with diverse mentees (i.e. different to the mentor) while facilitating their (the mentees') construction of values and knowledge.The mentor is both a co-learner and a facilitator of the professional learning process. Lindeman provides a compelling picture of a committed and action-orientated form of education:

> [It] *is not formal, not conventional, not designed merely for the purpose of cultivating skills, but ... something which relates [people] definitely to their community ... It has for one of its purposes the improvement of methods of social action ... We are people who want change but we want it to be rational, understood* (Lindeman 1951).

Mentoring can provide the scaffolding for such action-orientated education and the building of relationships that bring transformation. In discussing the mentoring of novices in the teaching profession Parker-Katz and Bay (2008) write the following:

> *In promoting mentoring, we recognize teachers' places in constructing meaning and knowledge and then acting upon those meanings. In mentoring work, we see a shift in the location of the knowledge base from the ''outsider'' or expert perspective to the ''emic'' or ''insider'' perspective. The mentor is viewed as the participant whose experiences, observations, and interpretations are deemed highly valuable in understanding the relationship between teaching and learning and helping others see it as well*.

Harrison, Lawson and Wortley (2005), in discussing facilitating the professional learning of new teachers, agree that mentoring is a useful structure to enable a new teacher to progress from dependency towards autonomy and develop further the links to critical reflection. This can be applied within a university context where academic staff develop as educators and similarly need to construct their own meaning and utilise critical reflection.

Implicit in many notions of mentoring is a hierarchical relationship where the mentor is the source of knowledge and learning and advises the mentee. For example, Kafai *et al*, (2008) state that the knowledge and experience differential between a mentor and a mentee is seen as a defining trait of a mentoring relationship. Colvin and Ashman (2010), in discussing the hierarchical ordering nature of the relationship between mentor and mentee, describe the perception that "*help, power, and resources tend to flow in one direction, creating the possibility for misunderstanding or misuse of such power and resources and leading to challenges and resistance*".

However, mentoring can be conceptualised as a mediated learning type where there is shared control between the mentor and mentee, or as self-directed professional learning within which the mentee directs the learning. More recently there has been a shift to describe mentoring as a more relational and reciprocal process (Darwin & Palmer, 2009; Kafai, *et al*, 2008; Scherman & Du Toit, 2014) where both the mentor and the mentee learn and facilitate each other's learning. This develops the understanding that a mentoring relationship is mutually beneficial to both the mentee and the mentor. This evokes the concept of co-learning and a partnership in knowledge construction. Parker-Katz and Bay (2008) describe how mentors engage with how their mentees moved into seeing themselves as partners, or *educational companions* with the mentor as well as with students' families and other professionals. This suggests that in a mentoring process of professional development *mentees* become *peers* within relationships and specific contexts. In this type of professional learning partnership Rowe (2007) comments that mentoring requires the establishment of a trusting relationship and can seldom be forced on either.

In such a peer approach the peer mentor would facilitate access to opportunities for professional learning and reflection on practice and experiences, but would not be the only source of learning or knowledge. This means that at times the peer mentor could also participate in professional learning activities and refer the peer mentee to sources, experts and other resources, at times learning with the peer mentee to resolve challenges faced by both. The peer mentor can take a role-model approach as an example of continuing professional development or even as co-learner. Therefore the peer mentor cannot be described as the only *source* of learning or knowledge construction, but as an influence on the peer mentee. Meaning is constructed by both the peer mentor and the mentee.

In describing the relational possibilities in mentoring, I describe these pictorially in the following common approaches:

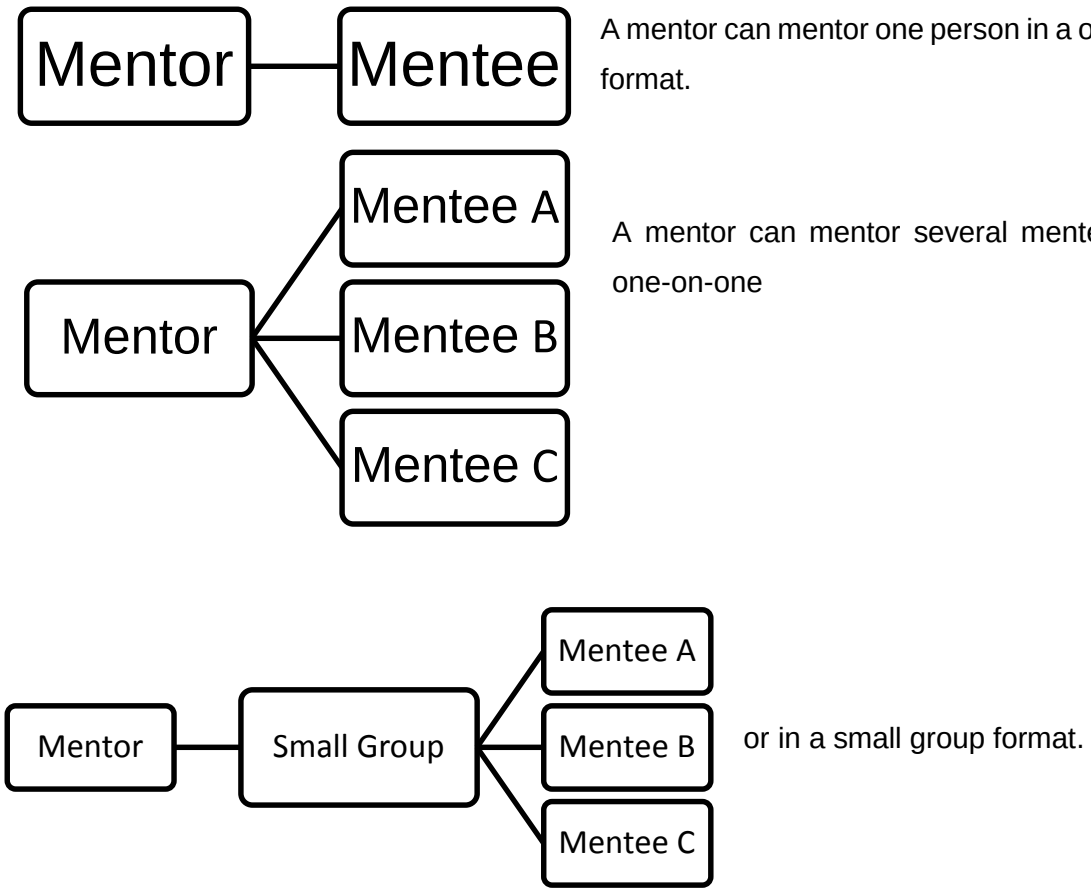

Figure 2.12 (a, b, c): formats of mentoring relationships

Buell (2004) maintains that mentoring relationships can develop under a cloning model, nurturing model, friendship model or apprenticeship model. The cloning model is about the mentor trying to produce a duplicate copy of themselves. The nurturing model refers to a parental figure who is responsible for creating a safe learning environment in which mentees can learn and try things for themselves. The apprenticeship model focuses less on the personal or social aspects of the relationship; the focal point is the professional competence of the apprentice or mentee under the guild system where a novice works with a more experienced *master* to build competencies. Blunt and Conolly (2006) comment that the assumptions that mentors need to be of a certain gender, age or better qualified are limiting. The friendship model is more about peer relationships rather than being involved in a hierarchical relationship. As peers have such an impact on one another, over the years there have been many attempts to harness and utilise this influence more formally (Colvin & Ashman, 2010), both in the classroom and in professional development. This last model of a more peer-based relationship, which allows a learning process for both parties, is the focus of my research. As one party tends to assume responsibility for facilitating professional learning, I will for clarity refer to that person as the peer mentor and the other party that participates in

the mentoring or professional learning relationship as the peer mentee. Part of this model is the concept of mutual influence as collaboration furthers professional development and learning. A key feature is colleagues working in the mode of *critical friend.* In this approach the support of work in progress by peers is encouraged and developing critical thinking toward becoming an independent reflective professional practitioner are key aspects.

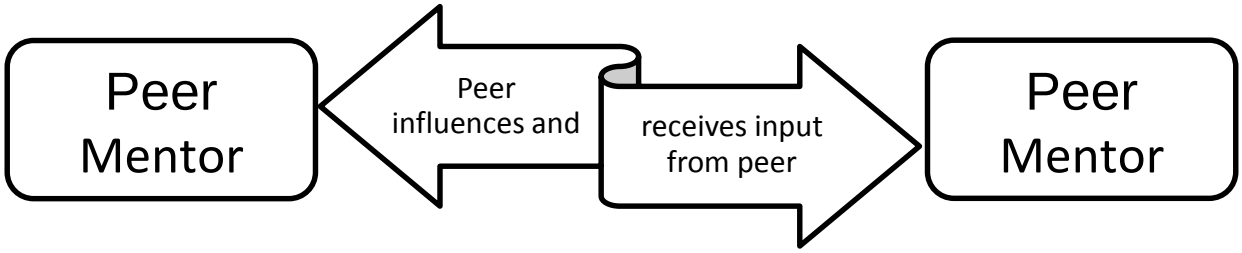

Figure 2.13: Format of peer mentoring relationships

This relationship as depicted above means that the peer mentor needs to deal with the peer mentee as a role model of good facilitation practice and as a co-learner. Different students and staff members have different thinking styles. The term *thinking styles* (in some cases *learning styles*) refers to the view that different people learn in different ways (Pashler, McDaniel & Rohrer, 2008). Although some members of staff may have a dominant thinking approach that informs their approach to professional learning, most need to learn and construct new meaning by means of several approaches.

The benefits of mentoring are often referred to as three facets: the benefit to the peer mentee, the peer mentor and the institution. The mentor may gain increased motivation, feel more engaged through the challenge of developing a mentee, develop new insights from engaging with a mentee, develop further leadership, interpersonal and communication competencies (as proposed by authors such as Ayinde-Adebove, 2011; Colvin & Ashman, 2010; Moorhead & Griffin, 2004; Schunk, 2012; Scherman & Du Toit, 2014). Gerber & Nyanjom (2009) in examining the role of mentors in higher education suggest that one way mentors can develop their mentoring abilities is through reflective practice. The mentee tends to benefit as the mentoring process is often designed or facilitated towards mentee needs, at the mentee's own learning pace. Mentoring helps the mentee develop and advance through his or her career, explore higher engagement through a reflective discourse and challenges posed by the mentor. Both mentor and mentee develop interpersonal and communication competencies, improve self-confidence through the support and reassurance of a peer as proposed by authors such as Ayinde-Adebove (2011) and Scherman & du Toit (2014). Schunk (2012) notes

that, ideally, mentoring incorporates mutual learning and engagement between the mentor and mentee.

Some research on peer mentoring explores the role of student peers in tutoring or mentoring (Colvin & Ashman, 2010; Kafai *et al*, 2008); my research adds to the field of peer mentoring. However, there are some useful aspects in my research. For example, Colvin and Ashman (2010) in their research on student peer mentoring in Higher Education, when they asked participants (peer mentors and peer mentees) about the experience of mentoring/being mentored found that gender made a difference in responses. Colvin and Ashman indicate that women see relationship benefits and men see academic benefits. While this may be a gendered remark, it also fits within the context of the Whole Brain® Model as different participants see benefits as more closely linked to their thinking style preferences, e.g. relationship benefits are aligned more closely to quadrant C and academic benefits to quadrant B. As the aim of a mentoring relationship is to support the development of the peer mentee in becoming independent and professionally proficient, in time the peer mentees or learners become less dependent on external answers to the challenges they face – similar to the research project described by Donato (2003) and work done by Harrison, Lawson and Wortley (2005).

The benefits to a Higher Education Institution from improvements to practice from its academic staff seem intuitive, such as the reduction in costs from fewer errors, enhanced learning relationships, greater student throughput, more effective and consistent application of knowledge within the institutional context, more effective integration of new academic staff, the retention of high quality academic staff members, increased mastery of competencies, development of succession planning and the effect that good practice can be a stabilising factor in times of change. These benefits can evolve from both the mentor and mentee having the opportunity to develop professionally and being more productive together than either could be individually, as proposed by authors such as Ayinde-Adebove (2011) and Scherman and Du Toit (2014).

The perception of the value of mentoring is described in literature. For example, Ayinde-Adebove (2011) comments that "*it is challenging to be successful without a mentor and it takes too much time without a mentor*". Kaye and Jordan-Evans (2005) comment that often successful people say one of the most important keys to their success is having a mentor. Scherman and Du Toit (2014) are of the opinion that "*mentoring in higher education is a vital component of the professional development of young academics*".

Obstacles to transformative mentoring can include mismatches between a mentor and mentee, a lack of time to engage in a learning relationship, a need to manage expectations of both parties, poor communication competencies, poor reflexive competencies, manipulation of power relationships, unclear objectives and a lack of application of learning, as referred to by authors such as Ayinde-Adebove (2011).

Lave and Wenger (cited in Parker-Katz & Bay, 2008) describe situational learning where participants are "*talking about and talking within a practice*", which enables them to make sense and meaning as they take action and argue that learning *to talk* is part of legitimate participation within the professional community. This perspective is similar to Cochran-Smith and Lytle (cited in Parker-Katz & Bay, 2008) who propose a conception of teacher knowledge as *knowledge of practice*. They argue that integral to teacher construction of new knowledge is that teachers collaboratively learn in groups ''*where participants struggle along with others to construct meaningful local knowledge*''. In a Higher Educational context this is also relevant as academic staff members adapt newly created knowledge to context and participate within faculty communities in a process of making (new) meaning.

Like Haigh (2005) I have begun to reflect on my conversations as a constant part of my professional practice in my academic staff development role. Some of the conversations in my practice are purposive; others are simply relationship-building and serendipitous, which Tannen (Tannen, 1990; also cited in Haigh, 2005) calls *rapport-talk*. As pointed out by Patrick (Patrick, 2002 cited in Haigh, 2005) conversations are often non-hierarchical, spontaneous and embody an exchange of ideas and information, and there is structure that participants unconsciously follow such as turn taking.

These conversations often follows preferences evidenced within the HBDI™. For example, a mentee with a quadrant B thinking style preference would like the conversation to have a purpose, follow a path and be more structured in terms of direction. A mentee with a quadrant C thinking style preference might like to engage with how participants are and how they feel about what is under discussion before moving on to problem-solving. When discussing problem-solving with a mentee keeping their thinking preference in mind, the following quadrant-related approaches can emerge (Herrmann International Asia, 2012):

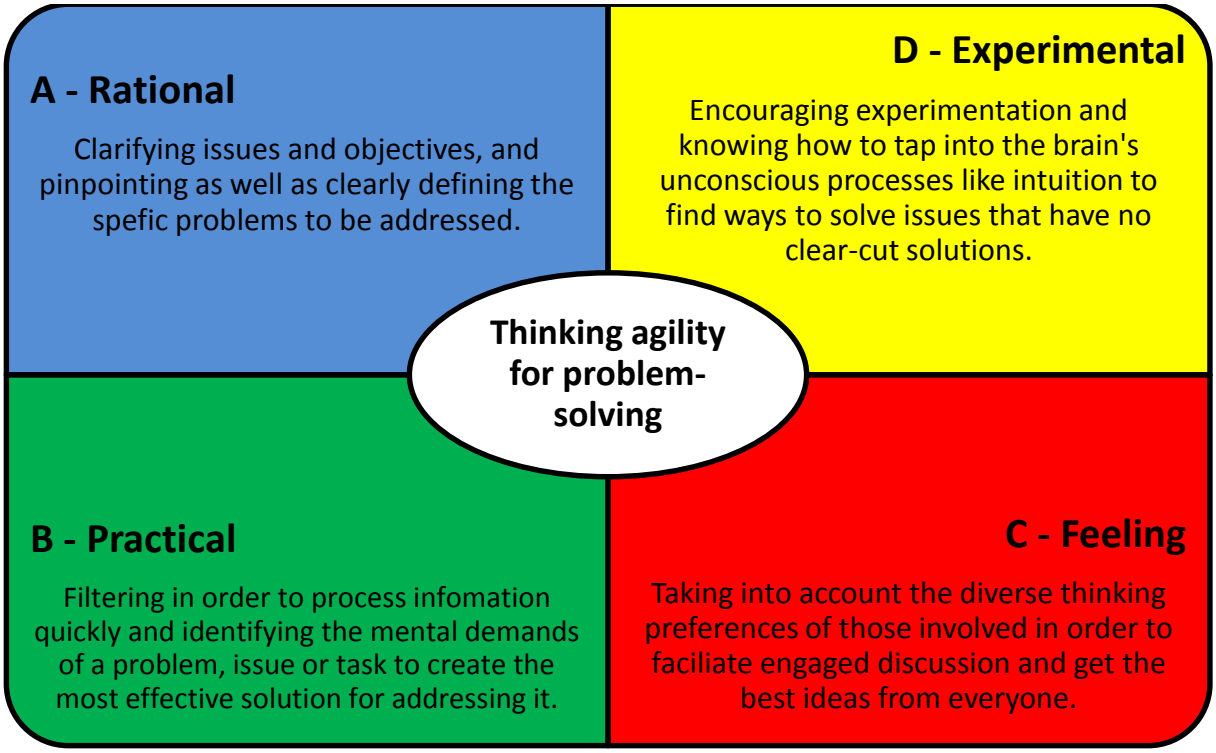

Figure 2.14: Whole brain thinking agility in problem-solving (Herrmann International Asia, 2012)

In my mentoring practice a conversation will often involve problem identification, information sharing, relationship building, etc. From Figure 2.7 it is clear that a complete solution will need to explore all the issues raised in each quadrant. So in a mentoring conversation a peer mentor can contribute the questions and preferences of a quadrant not addressed by a peer mentee. In my practice, therefore, I often deliberately start a conversation, formally or informally, with a staff member to explore what is happening in their practice. The high return rate from *touching base* with staff members has led me to do this more deliberately and more consistently. When I am troubled about something I start conversations with managers, advisors or experts.

2.5. Conclusions

In this Chapter, I explored relevant concepts and theories to clarify what a Whole Brain® Mentoring practice is through reviewing relevant literature. This was part of a reflexive approach, as by reading and engaging with relevant literature I engaged with new ideas,

evaluated my approaches and theorising (Creswell, 2007; Harrison, Lawson & Wortley, 2005) and started articulating the reflection on my practice (Harrison, Lawson & Wortley, 2005). From this articulation and construction of professional knowledge, I proceed with Action Research into my Practice.

CHAPTER 3: RESEARCH DESIGN AND METHODS

3.1. Introduction

This chapter explores the research design and methods used in the course of my research. It describes the research process, sample, data collection and data analysis.

3.2. Research Design

The overarching research design falls within the tradition of Action Research as a qualitative design. Qualitative research paradigms are concerned with a description of events and the interpretation of meaning (Schunk, 2012). As clarified by Creswell (2007), qualitative research in an educational context is "*research in which the researcher relies on the views of the participants, asks broad generalised questions, collects data largely consisting of words and describes and analyzes these words for themes*". This means that the research is conducted within "*a real-life situation and not in an experimental situation*" (Nieuwenhuis, 2007). These approaches emphasise the participants' views and the meaning held by participants, which aligns well with a constructivist approach. This qualitative approach calls for the research to report participants' personal values and assumptions; and to collaborate actively with participants where applicable (Creswell, 2007). This is relevant as he notes that research improves practice; critical reflection through research also allows learning to be transferred from one context to another.

Various methods of data collection were followed in the design. Action Research is a process of conducting research that is practitioner-based with rigour and understanding with the aim of improving practice undertaken where the emerging evidence and outcomes tend to contribute to the practitioner's continuous professional development (Koshy, 2010; McNiff, 2002; Whitehead, 2010). Action Research can be distinguished from other research approaches through how the research questions are phrased and the resulting inquiry integrating action within a practice (Whitehead, 1989). This means Action Research is research in which the researcher takes an involved role as a participant in planning and implementing change with a view to transforming. Action Research is often described as contextualised, localised and aimed at developing or monitoring changes to practice, converting tacit knowledge to explicit knowledge that can be clearly communicated to other

stakeholders (Donato, 2003). When a collaborative approach is followed, the participants contribute to knowledge creation, constructing meaning, learning and when relevant, social or relational change. Muir (2007) describes this as collaborative engagement, where there is active personalised participation in all steps of the process – researcher and researched as co-researchers as opposed to passive depersonalised participation in only some steps of the process as is to be found in traditional research. This means the researcher is not presented as remote expert and the researched as the subjects/objects of the study.

Action Research was first formalised by Kurt Lewin in 1946 (Creswell, 2007) and it involves identifying a problematic issue, imagining a possible solution, trying it out, evaluating it and changing practice in the light of the evaluation (McNiff, 2002; Muir, 2007; Dickens & Watkins, 1999). This implies that Action Research does not normally focus on events but follows cycles of reflection, action and evaluation. Action Research is therefore more often than not context specific, often participatory and knowledge is created through action and reflection. Action Research requires an understanding of the context as well as understanding of a problem (traditionally) or intervention (Nieuwenhuis, 2007). Therefore an Action Research project seeks to create knowledge, proposes and implements change and improves practice and performance (Stringer cited in Donato, 2003). Action Research provides a process where research can be conducted through intervention and intervention through research (Ebersöhn, Eloff & Ferreira, 2007). Often the participants in the research become partners in carrying out the research or reviewing the account of the research. Action research was developed mainly by academics in higher education, who regarded it as a useful way of working in professional education (McNiff, 2002), and has spread to many fields, including nursing, management, information technology and related social fields. Therfore authors like Coghlan and Brannick (2005) describe Action Research as "*an approach to research which aims at both taking action and creating knowledge or theory about that action*". Action Research can be used as a theoretical lens and/or as a research design as indicated by De Jager and Du Toit (n.d). McNiff (2002) describes the application of Action Research as widely used in professional contexts such as appraisal, management, mentoring and self-assessment. Most Action Research therefore occurs in social or educational contexts and is therefore at least participatory or collaborative. However, this is distinguished from co-operative inquiry design in that not all involved are active as co-researchers, designing and managing the research process or project, as well as participating in the research (Raelin, 1999; Reason, 1999). The incorporation of researchers and participants within their context does incorporate some bias, but values the participants' contexts, personal epistemology and *theories-in-use* (Raelin, 1999). Dickens and Watkins (1999) point out that Action researchers generate *"context-bound values-based knowledge and solutions from their public inquiries*". It

therefore requires the articulation of epistemology and how the interaction between theory and practice is managed. McNiff and Whitehead (2009) describe Action Research as *focuses on values-based assessment*. In this dissertation I chose to artciulate this in the literature review (Chapter 2), research design (Chapter 3), and in the research findings and meta-reflection (Chapter 5). This type of Action Research can be refered to as *self-inquiry* as seen in the work of authors like McNiff (2002); De Boer, Du Toit, Sceepers & Bothma (2013); and Whitehead (2011).

Like Raelin (1999) and Dickens and Watkins (1999) I acknowledge that no unified theory of Action Research has been widely accepted due to the breadth of research and research disciplines within this research design. Coghlan and Brannick (2005) suggest that several broad characteristics define Action Research in many fields: this is research in action rather than research about action, a collaborative partnership, concurrent with action and a sequence of events and an approach to problem-solving. Several authors agree that Action Research can be described as comprising an interactive cycle of planning, implementing and reflecting (Coghlan & Brannick, 2005; Dickens & Watkins, 1999; Ebersöhn, Eloff & Ferreira, 2007; Koshy, 2010; McNiff, 2002; Raelin, 1999; Whitehead, 2011). Muir (2007) describes a basic model in which learning within Action Research is represented as a cycle where the ideas we hold about the way in which the world works inform and are informed by our experiences of the world.

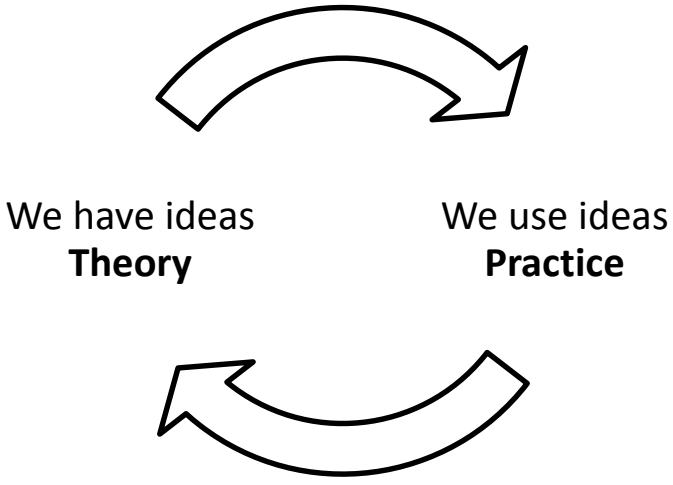

Figure 3.1: The Learning Cycle, (Muir, 2007)

From this perspective effective learning is sustained though repetition of a recurring cycle that involves action and reflection. This means the dominant epistemology is grounded in approaches that include *knowing through doing* and application of relevant theory. Research

findings are often reported in a way that informs future practice (Ebersöhn, Eloff & Ferreira, 2007). The focus of improving practice therefore includes improving practice through action and improving the understanding of practice by practitioners through a reflective component (Dickens & Watkins, 1999). However, Raelin (1999) and Whitehead (2011) acknowledge that Action researchers include theoretical understandings. Therefore research design, practice and findings are reviewed in the context of theoretical understandings and knowledge construction.

In considering Action Research, Whitehead (2010) points out that in planning to do action research there are at least three assumptions:

- The first is that one asks a question of the kind, *How do I improve what I am doing?"* in one's professional practice.
- The second is that one already embodies educational knowledge in what one is doing that is worth making public as a contribution to knowledge through research into one's question.
- The third is that one's educational knowledge will deepen, extend and transform as one researches one's practice and generates one's living educational theory.

This methodology of Action Research means that the researcher has to evaluate what he/she is doing, why he/she is doing it and whether what he or she is doing is really working. This methodology has largely been applied as a deficit approach. For example, in Whitehead's model of Living Educational Theory (Whitehead, 2010; 2011) the problem-solving cycle of action research starts with the proposed questions, ideas and actions of:

1) What do I want to improve? What is my concern? Why am I concerned?

The Action Research process is often depicted as a spiral originating from a cyclic process; as in the basic cycle suggested above, there are often several iterations of this cycle. These iterative cycles build the concept that there is a progressive and cumulative building of knowledge as time progresses rather than reported *snap shots* in time (Muir, 2007). Action research is adaptive (McNiff, 2002), which allows research to be adapted on the research path and is therefore a less predictable research design.

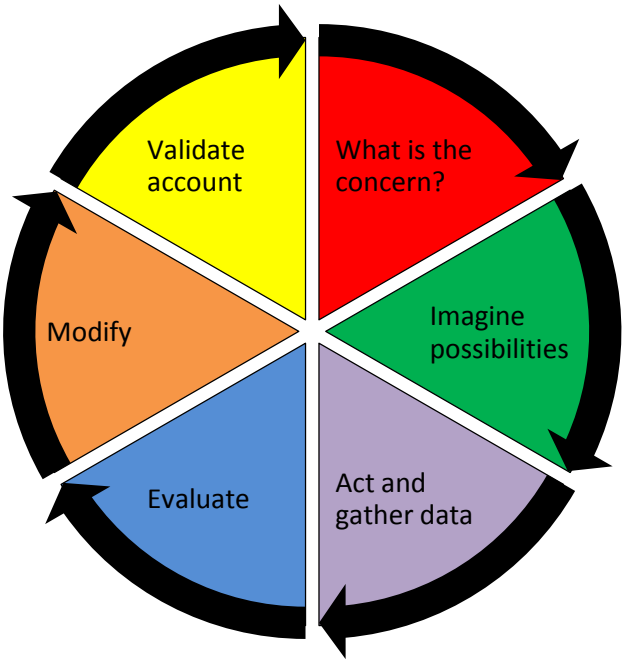

Figure 3.2: Action Research Cycle – How can I improve what I am doing? (Whitehead, 2011)

As Koshy (2010) points out, in Action Research the process is likely to be fluid, open and responsive in the light of learning from experiences during the research cycle. This means that the research plan needs to be adaptive and the repeating cycles lead to an emergent process. The points below illustrate the planning of the Research Process at this stage; however, these may be adapted as needed and any stage revisited:

- Clarifying objectives and explanations of practice or influence Includes further literature review and reflection.
- Data Collection – gathering evidence of influence.
- Testing knowledge claims of practice or influence.
- Reflection, refinement and redirection (including planning change if needed).
- Taking planned action (refinement or change).
- Accountability and feedback – making public a validated explanation of educational influence and utilising feedback for improvement as needed.

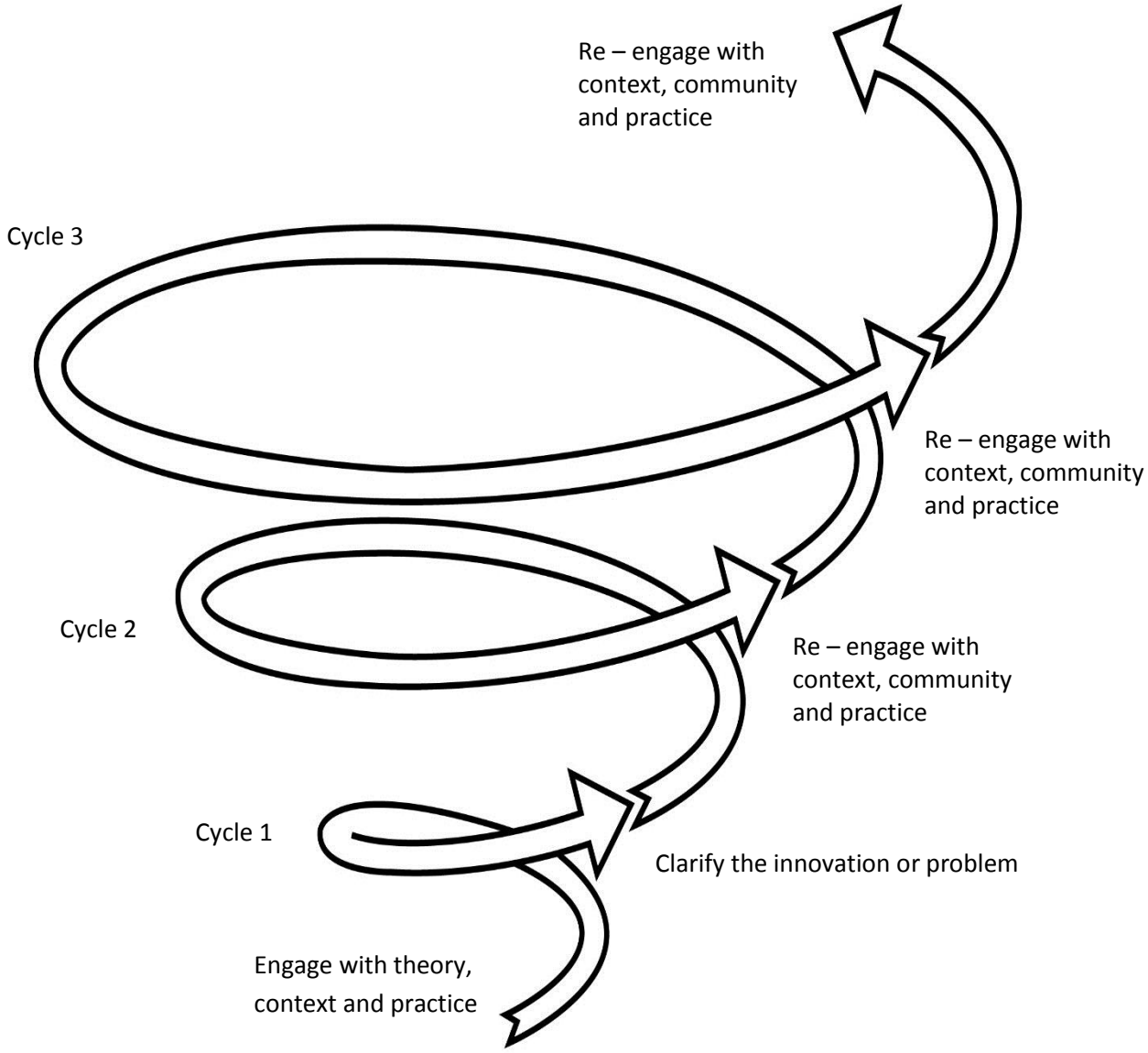

Figure 3.3: Action Research Spiral − adapted from Koshy (2010), McNiff (2008), Whitehead (2011), Muir (2007) and Creswell (2007).

In reviewing Action Research frameworks Donato (2003) describes Action Research as conducted to discover a plan for innovation or intervention and as collaborative in some way. Knowledge or insight gained results in changes to practice. Action Research can be approached deductively where an intervention is planned, implemented, monitored and evaluated, often in response to some problem. A more inductive approach is to carry out Action Research to explore what changes need to be made or what actions need to be taken in a specific context (Donato, 2003). A deductive approach to action research implements a planned intervention (often to solve a problem), monitors its implementation and evaluates the

results of the intervention (Donato, 2003). The approach outlined above is more inductive, similar to that formulated by Burns (Donato, 2003) where the approach is to carry out action research to explore what changes need to be made or what actions need to be taken in a specific context or institutional setting. Raelin (1999) describes this approach to Action Research *as "a process wherein researchers participate in studies both as subjects and objects with the explicit intention of bringing about change through the research process*". This approach starts with exploring an issue and identifying an area of concern, discovering a plan for intervention (Donato, 2003) or innovative idea or asset-based approach (DuToit, 2009; Von Maltitz, 2009). In a more inductive approach the stages and activities are more interrelated (Burns cited in Donato, 2003) and may therefore influence one another in an emergent approach. Donato (2003) points out that once the Action Research is near completion, new knowledge gained may result in changes to practice (Kemmis and McTaggert cited in Donato, 2003; Raelin, 1999; Dickens & Watkins, 1999). In my research project, I chose to follow a more inductive approach.

Recently, in South Africa, the increased application and growing validity of Action Research in a growing *scholarship of teaching* and learning communities within Higher Education have led to a growing body of knowledge regarding professional development and quality in teaching as evidenced in the 2010 Action Research conference at Nelson Mandela Metropolitan University, the emergence of the *Educational Research for Social Change Journal*, academic articles (such as Du Toit, 2009; Du Toit, 2012; Scherman & Du Toit, 2014) and projects such as the Transformative Education/al Studies (TES) (Conolly, Meyiwa & Pithouse-Morgan, 2011). There is also an increasing number of post-graduate researchers, like myself, who choose to utilise action research in master's dissertations and doctoral theses (De Jager, 2011 Mlombo, 2013; Wolvaardt, 2014; Von Maltitz, 2009; ActionResearch.Net, 2013).

Recent explorations (Du Toit, 2008) have clarified an asset-based approach, in which a researcher's practice is evaluated to test claims of knowledge regarding the researcher's transformative or innovative practice; this evidence is used to refine and further transform the researcher's practice through an adapted action research spiral. Such a spiral, consisting of several cycles, does not start with a problem, but rather an innovative idea (Du Toit, 2009) or it starts by focusing on the assets of the participants. In the context of my study the asset that I consider as point of departure are the thinking preferences of the mentor and mentee.

Due to the participatory nature of Action Research some authors describe this kind of research approach as as a *partnership between the researcher(s) and participants* or *more democratic*.

Ebersöhn, Eloff and Ferreira (2007) speaks of a *role release* when referring to the role of the researcher for participants and researchers to become authentic research partners, sharing power, ownership and transformation of practice. Ebersöhn, Eloff and Ferreira (2007) clarifies this construct of role release as a "*transition process where new roles are accepted and old roles are liberated*", which moves towards equal partnership and mutual respect. Action Research has been used to investigate various aspects of mentoring in higher education by authors such as Gerber & Nyanjom, (2009); and Scherman and Du Toit, (2014). Within this construction of research, action research is a valid approach to report investigating peer mentoring .

By utilising an Action Research design my research articulates the construction of my own perceptions and understanding of mentoring other academic staff members in their professional practice. This means that I utlise the *'I'* as identifying my own construction, perceptions, observations and reflection as suggested by Whitehead (2011) and McNiff (2008). In revisiting the spiral below, I focused my annotation on my own research journey; however, I need to acknowledge that at times this overlaps, diverges and encompasses the research journey of my peer mentees. This research occurred within the context of my own organisation, a private Higher Education provider, which is a less commonly documented form of Action Research as discussed by authors like Coghlan and Brannick (2005), and is sometimes referred to as insider Action Research. As (Scherman & Du Toit, 2014) point out this research may not be generalisable across contexts but is rather an account of My Whole Brain® mentoring relationships in terms of its meaning for professional development and professional learning in the context of a private Higher Education provider.

This Action Research design is presented as a section within a continuum, as before I embarked on my research I had previously engaged with professional development, contributing to the development of other academic staff members and presented a paper on this at a conference, although this did not specifically focus on Whole Brain® mentoring. It follows authors like Cunningham (cited in Dickens & Watkins, 1999) who comments that "*Action Research … describes a continuous process of research and learning in the researcher's long-term relationship with a problem*". This is also consistent with the concepts within professional development where an educator/academic is conceived as a reflective practitioner (Villegas-Reimers, 2003; Quinn, 2012) who enters with a knowledge base and constructs new meaning through on-going experiences and professional learning. This embodies the concept of continuity, in that once my research project is complete, I will continue to practise and develop professionally. Therefore, as part of the research design, I

include initial engagement with literature and the narrowing of my research design focus on Whole Brain® mentoring.

Coghlan and Brannick (2005) draw from the work of Zuber-Skerrit and Perry (cited in Coghlan & Brannick, 2005) to comment that in an action research project there are two research cycles operating in parallel. The first is the cycle relating to my research project, in this case my mentoring practice. The second is what Zuber-Skerrit and Perry (cited in Coghlan & Brannick, 2005) refer to as the *thesis* action research cycle. These two cycles refer to the awareness that at the same time I, as researcher am engaged in an Action Research project, I am also required to be inquiring into how the research project is going through diagnosing, planning, taking action and evaluating, with a view to making a public account in the form of a dissertation. The second cycle includes the learning process of the Action Research cycle and the researcher is learning about professional learning – i.e. professional meta-learning. This is also suggested by McNiff and Whitehead (2009) in their description of a meta-reflexive role. I chose to articulate some of my professional learning about learning and Action Research in my meta-reflection (See Chapter 5).

Therefore I have conceptualised my Action Research journey in the following figure.

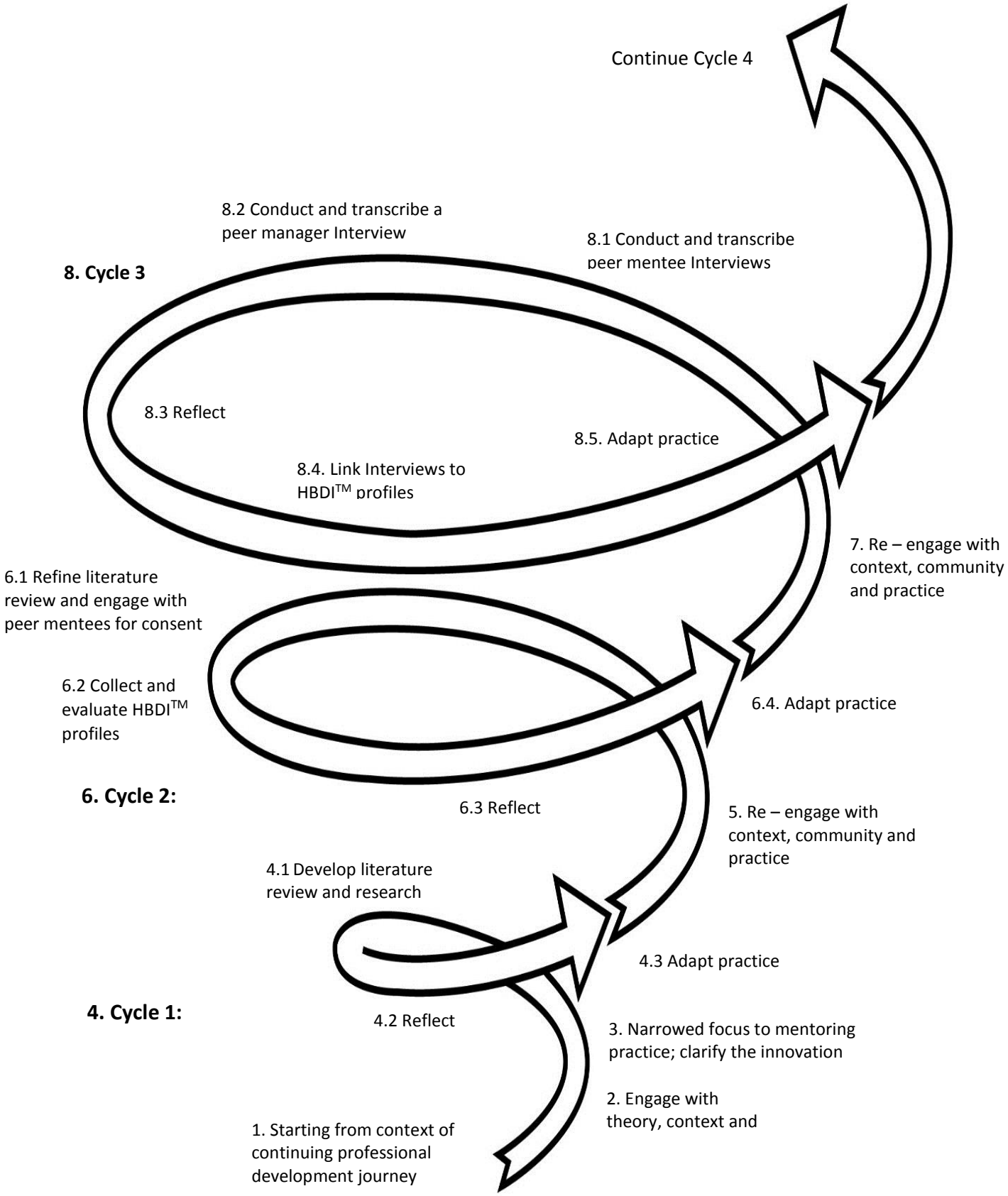

Figure 3.4: My Action Research spiral part 1 − adapted from Koshy (2010), McNiff (2008), Whitehead (2011); Muir, (2007) and Creswell (2007)

In the first cycle of Action Research I developed my literature review and research proposal. During this time I presented my research proposal and applied for ethical clearance. This meant I received feedback both from my supervisor and other academics who acted as critical readers, clarified research approaches and suggested avenues of investigation and areas where additional clarity was needed. As I documented the literature I began to be more conscious of my practice and my reflection; the literature assisted me to articulate the theory embodied in my practice and approach. During this and later cycles I reflected critically on relevant literature about mentoring and the Hermann Whole Brain® learning theory.

Through the second and third cycles of Action Research, I observed how I applied theory and principles and explored how I could improve my mentoring practice. This included part of the process of meaning making through reflection on my mentoring practice. During the second cycle I engaged with the HBDI™ profiles of myself and the peer mentees. These and the literature review led to reflection on my practice and adaptation of some activities. During the third Action Research cycle I interviewed peer mentees and a peer manager who were willing to give feedback. This led to further exploration of related literature and the reflection. In the fourth cycle I recorded most of my empirical research and began constructing meta-reflection. During this cycle I conducted an interview with a peer responsible for academic staff development at my institution to give me additional feedback. In Item 10 I declared that my professional practice will continue after finishing this dissertation and that some reflections and findings will continue to need engagement after my research project.

The second part of my Action Research journey is represented in the figure below.

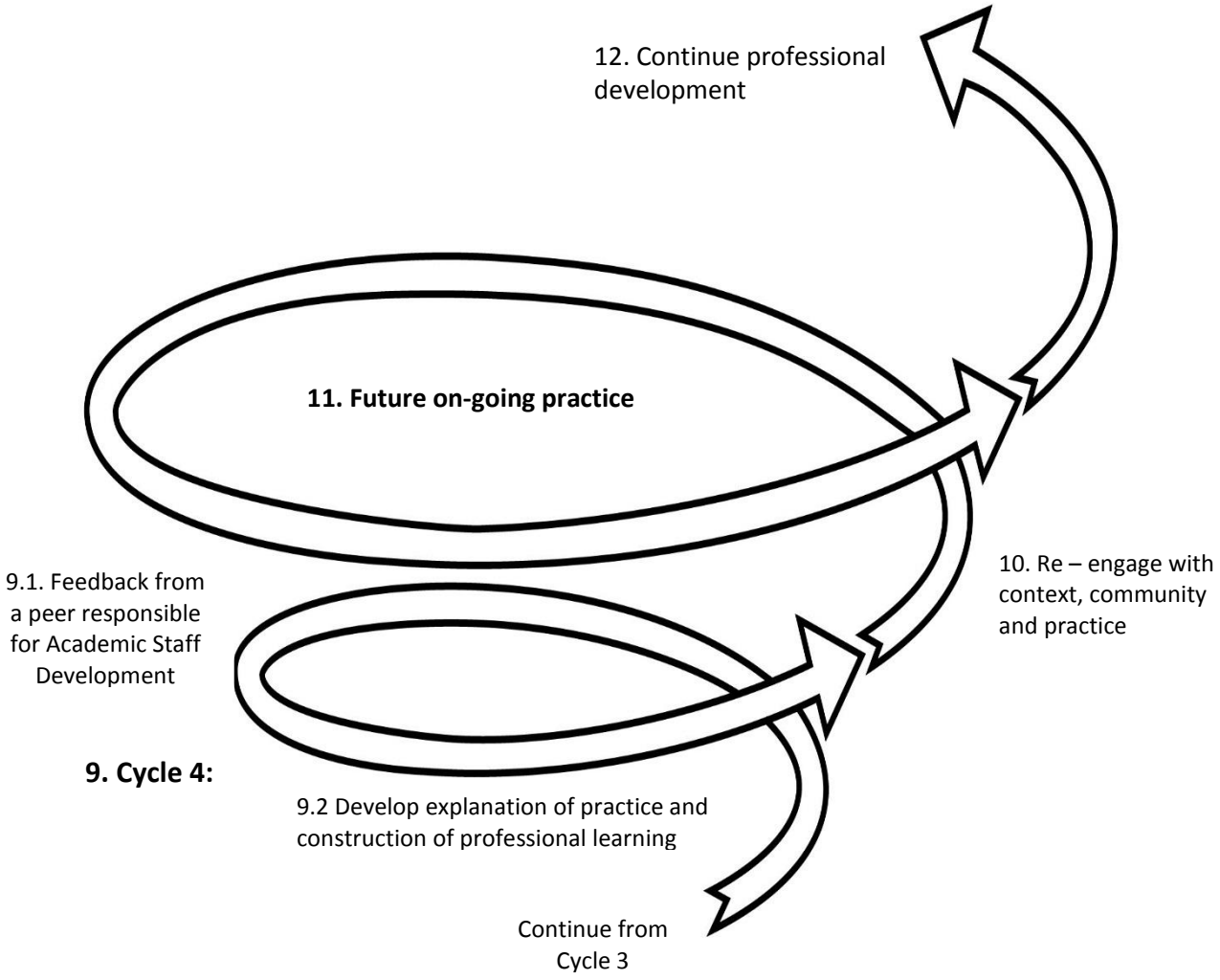

Figure 3.5: My Action Research spiral part 2 − adapted from Koshy (2010), McNiff (2008), Whitehead (2011), Muir, (2007) and Creswell (2007).

My research design shows thinking style flexibility as an action researcher, in that I drew on each quadrant of the Whole Brain® Theory as developed by Herrmann (1995). For example, my research design includes Quadrant A as I determined and quantified the learning preferences of myself and peer mentees, as I acted as a reflective practitioner, formed theories of learning and constructed meaning and built theoretical knowledge as I documented a literature review. My research design includes Quadrant B, in that I sought feedback and evaluation, both from my peer mentees and from my supervisors and peers to improve my Whole Brain® mentoring practice and the articulation of this thesis. I also evaluated the impact of the HBDI™ profiles on my own practice and those of my peer mentees. Quadrant C is included, *inter alia*, through the need to build relationships with peer mentees, utilise interpersonal competencies for interviewing (as in Chapter 4) and address personal and interpersonal challenges in mentoring as partially articulated in my meta-reflection (Chapter

5). Quadrant D was utilised in the need to take initiative in completing this dissertation when at the time the research design and question were relatively unique, as I developed visuals and graphics and constructed new meaning. I included the reflective cycle as critical to all aspects of professional development, as this draws on all four quadrants of learning style preferences.

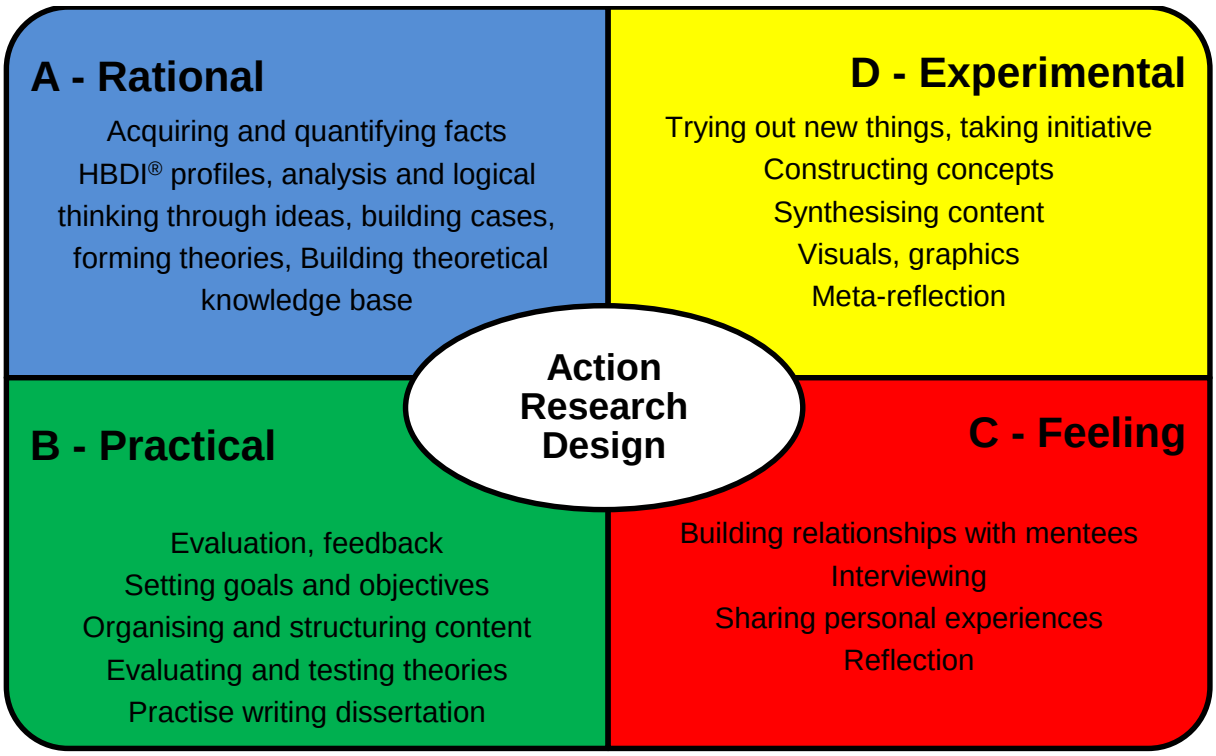

Figure 3.6: Action Research as thinking style flexibility; adapted from Figure 2.3

3.3. Research Methods

The overarching design of the research I executed is Action Research. This is considered case study research with the emphasis on addressing practice. Within the design a complementary mixed-methods approach was used. As discussed by Wadsworth (cited in Ebersöhn, Eloff & Ferreira, 2007), the use of mixed-methods is less for triangulation but rather to explore multiple views and perspectives and utilise all thinking preferences in the four quadrants of the Whole Brain® Model. The quantitative and qualitative methods were applied sequentially. Questionnaires with structured, semi-structured and open-ended questions were first administered to the peer mentees. The questionnaire used is The Herrmann Brain Dominance Instrument™ (HBDI). Thereafter critical reflection, observations and semi-

structured interviews were used. Additional qualitative informal feedback, such as email conversations was used to substantiate data.

3.3.1. Questionnaire (The Herrmann Brain Dominance Instrument™)

The Herrmann Brain Dominance Instrument™ (HBDI™) is a series of questions dealing with personality, interest, attitude and the like. The questionnaire uses a quantitative approach to determine one's thinking style as peer mentor and those of the peer mentees from self-reported answers. However, a quantitative approach is evident in completing the questionnaire; the outcome includes qualitative data in the form of narrative descriptions. The answers to these questions are used to show an individual's preference profile derived from evidence about the varieties of mental processes evident in the human brain, and refined on the basis of practical application and continuing empirical research (Bunderson, 1985; Coffield *et al*, 2004). The HBDI™ has been developed and utilised by Herrmann International and has been subject to research and validation (Bunderson, 1985; Coffield *et al*, 2004).

Each participant answers the 120-question HBDI™ assessment, which was administered by an HBDI™ certified practitioner. This assessment evaluates and describes the degree of preference individuals have for thinking in each of the four brain quadrants, as depicted in the Herrmann Whole Brain® Model (Herrmann, 1995). After completing the assessment an individual receives a comprehensive profile package containing his or her HBDI™ profile results with an in-depth interpretation of the results, reference material about the Whole Brain® Model (Herrmann International, 2011). Each profile contains qualitative and quantitative data, represented in graphic, tabular and narrative format. These HBDI™ profiles were used as baseline data. .

3.3.2. Observations

Observation is the systematic process of recording the behaviour of participants and events without questioning or evaluating them (Nieuwenhuis, 2007a). These observations were done both by myself and/or peers, and were used as one strategy of documenting changes in the practice of peer mentees. Observations promote critical reflection and questioning of approaches and practice. In evaluating teaching practice an existing institutionally designed tool for feedback was utilised. Professional practice and schedules prevented the utilisation of further observations as envisaged.

3.3.3. Semi-structured interviews

An interview is a two-way conversation in which the interviewer asks participants questions to collect data and to learn about the ideas, beliefs, views, opinions and behaviour of the participant (Nieuwenhuis, 2007a). Siedmann (2013) writes that the purpose of an interview is not to test hypotheses but to "*understand the lived experience of other people and the meaning that they make of that experience. ... If a researcher's goal, however, is to understand the meaning people involved in education make of their experience then interviewing provides a necessary, if not always sufficient, avenue of inquiry*". From a constructivist paradigm this made interviewing an appropriate part of the research design in needing to explore peer mentees' perceptions of my mentoring practice. As exploration of peer mentees' meaning was needed, I selected the approach of semi-structured interviews. A semi-structured interview is often used to support other data and begins with prepared questions. As the interview progresses a participant's answers are probed and clarified, allowing new lines of enquiry to emerge. Interviews with peer mentees were conducted by an objective person or myself when appropriate. Semi-structured and open-ended questions were prepared and included in the interview schedules (See Appendices D and F).

Mentee interviews were conducted in the second cycle of Action Research. These were recorded, transcribed and coded. Interviewees were permitted the opportunity to check and comment on the transcriptions. These interviews provided one way of exploring peer mentees' understanding of mentoring, their own practice and the influence and perception of my mentoring practice from their perspectives. These interviews also provided 'voice' to the peer mentees.

3.3.4. Qualitative informal feedback

Qualitative informal feedback is feedback given by participants in an unplanned way during conversations or mentoring interactions or in written form such as emails. It is a result of questioning or volunteered. This data was included where relevant if it might shed light on my mentoring practice and its influence. Largely this feedback was used as an *ad hoc* supplement to other data collection strategies or utilised in my reflections.

3.4. Sample

A sample is a sub-group of the target population that the researcher plans to study for the purpose of making generalisations about the population (Creswell, 2007). For the purpose of my research, interactions with five peer mentees who are academic staff at a PHEI were selected. Two sampling strategies were used for the study, namely purposive sampling (Creswell, 2007; Nieuwenhuis, 2007) where I selected the participants in the study, as these were academic staff in a professional development mentoring relationship with me; and convenience sampling (Creswell, 2007) in that I selected academic staff members who had completed a HBDI™ at my institution and were willing and available to participate in my research. This is consistent with the qualitative research approach (Nieuwenhuis, 2007) as this type of research is based on purpose, context or practice.

3.5. Ethical aspects

I first obtained permission to do this research through ethical clearance from the Private Higher Education Institution where my peer mentees and I engaged in this Research and the University examining my research (ethics clearance number HU12/05/01; appendix A). Each participant interviewed received a letter outlining the Research (appendix C and E) and signed Consent forms. Confidentiality has been addressed through the anonymising of the Institution and the use of Pseudonyms. Participants were permitted and encouraged to check Interview transcripts, received their individual HBDI™ profiles and have had access to the thesis.

3.6. Data Collection

Having received ethical clearance from the Private Higher Education Institution where my peer mentees and I practiced and the University examining my research (ethics clearance number HU12/05/01; appendix A), to conduct the research, I collected data in the first Action Research spiral by means of the literature review and the HBDI™ survey. I then proceeded on a second spiral of critical reflection, personal observation and semi-structured interviews. In the third spiral I re-engaged with my mentoring practice, literature and data to engage in further critical reflections, making innovations and documenting the research. I attempted to achieve some triangulation by the use of multiple peer mentees and peers who have observed my practice, linking this feedback to the HBDI™ Profile data and critical reflection.

3.7. Data Analysis

The HBDI™ data was first analysed independently of other data. This was then linked to qualitative data gathered through the interviews and other sources.

Content analysis was used to analyse the interview data. I worked through each respondent's transcript. Each audio-taped interview with the respondents was analysed through listening to it and transcribing it. I then reflected on the feedback and re-engaged with the peer mentees to check the transcriptions and critically reflected on this as evidence for my practice.

3.8. Conclusion

This chapter reviews the methods and designs used in this research. I discussed Action Research and the research process to describe my role as researcher and how validity was ensured as I constructed meaning through evidence gathering. The research design of my study is quantitative and specific to this context of investigating my Whole Brain® Mentoring practice, with as epicentre the application of the general principles of Action Research.

CHAPTER 4: EMPIRICAL STUDY

4.1 Introduction

In this chapter I discuss the findings of the Action Research process. I first contextualise and review the Herrmann Brain Dominance Instrument™ (HBDI) profiles of myself and the peer mentees as baseline data. I then review the semi-structured interview transcripts. Both sets of data are then linked and analysed in the context of my critical reflection. The names of the mentees have been changed to pseudonyms and any references to specific programmes or an institution have been replaced to protect the identity of the mentees as requested in their consent.

4.2 Baseline data – The Herrmann Brain Dominance Instrument™

In this Action Research I used my profile and the profiles of my peer mentees as baseline data, as discussed in Chapter 2 and 3. The Herrmann Brain Dominance Instrument™ (HBDI) profile illustrates and explains the way an individual prefers to think, learn, communicate and make decisions (Herrmann International, 2009). I evaluated each individual's profile below and then linked this to interview data. In the composite group profile and average profiles (figure 4.1 and 4.2 below), the initial group choosing to participate in receiving their HBDI™ profiles and a workshop was 12. Over the period of my Research, two participants left for various reasons and not all participants either wanted to be mentored or participate fully in my Action Research process. Individual choices and circumstances were respected.

4.3 Composite Group Profile

As can be seen in Figure 4.1 below, the average profile of mentees that participated in the HBDI™ questionnaire shows dominance in all quadrants. This implies that as a mentor I need to show thinking/mentoring style flexibility to facilitate learning in all quadrants. This implies that I needed to be able to adapt to mentees' preferred ways of thinking by accommodating them accordingly.

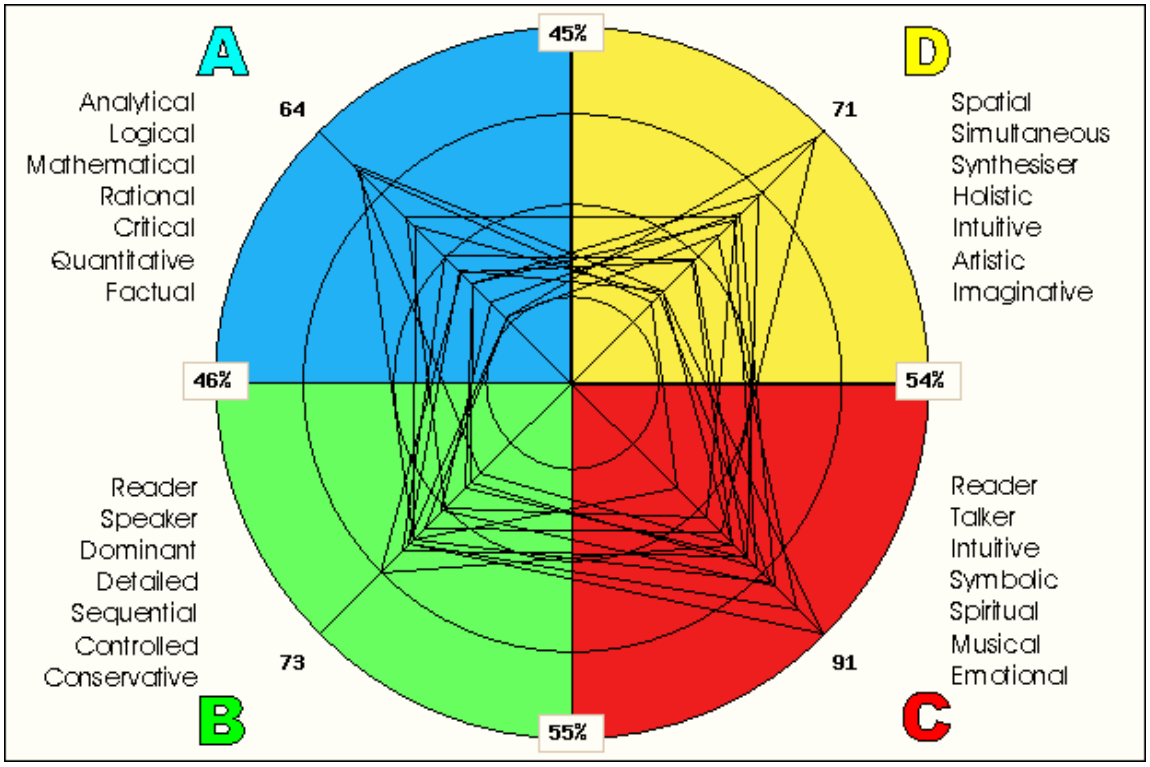

Figure 4.1: Composite of selected profiles : 12 Academic Staff Members (Herrmann International, 2011)

As can be seen in Figure 4.2 below, the average profile shows dominance in quadrant C. This profile pattern is consistent with reported research of statistical studies in an attempt to identify *typical profiles* for various careers, in which educators tend to have this type of C quadrant score (Herrmann International, 2009). The descriptors *reader* and *talker* are also relevant in an academic context. If this profile was described in the same way as an individual profile, it would be a 2111 type profile with triple dominance, showing high levels of thinking style flexibility.

These composite profiles show that in the group of mentees there are a variety of learning style preferences and that in order to mentor academic staff members appropriately in this context I need to be able to draw on all quadrants and access flexible strategies.

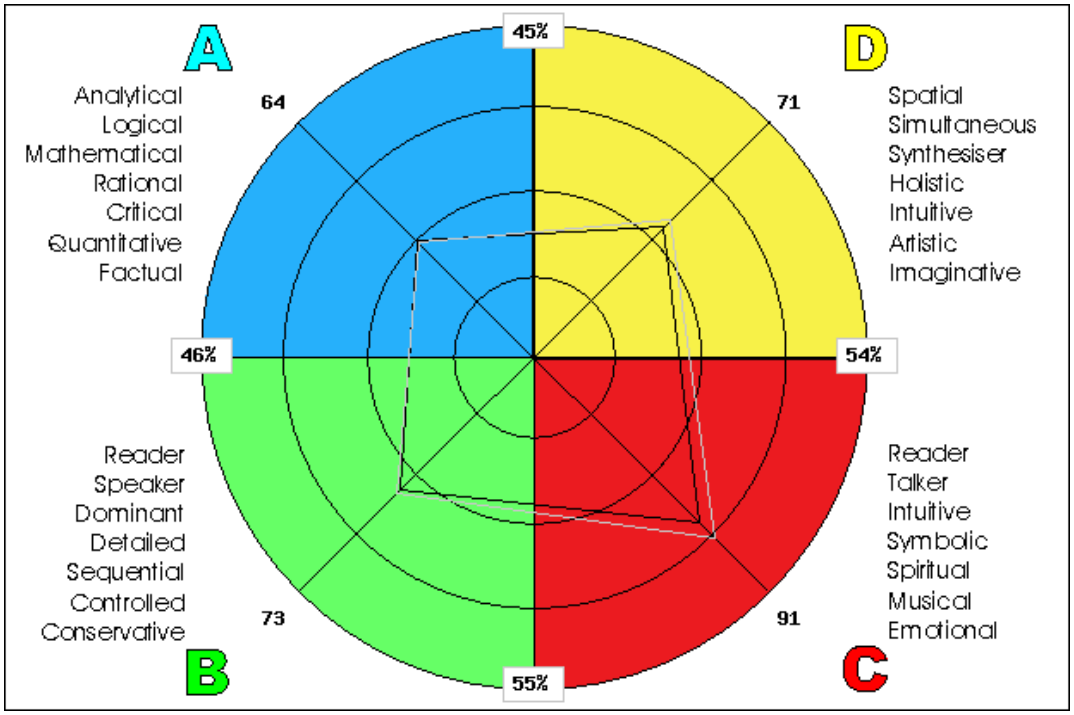

Figure 4.2: Average of selected profiles: 12 Persons (Herrmann International, 2011)

4.4 My Whole Brain® Profile

Quadrant:	A	B	C	D
Preference code:	1	2	1	1
Adjective Pairs:	5	1	9	9
Profile Scores:	69	45	95	93

Table 4.1: My HBDI™ preference table (Herrmann International, 2009)

My profile reveals a triple dominance of 1211, where the primary dominance is shown in the upper left A, lower right C and upper right D quadrant. This type of profile is characterised by utilising both left and right cerebral modes (Herrmann International, 2000). This type of profile is relatively well-balanced with the descriptors of the lower left B quadrant being secondary but occasionally functional (Herrmann International, 2000). This is represented visually in the Figure 4.3. below.

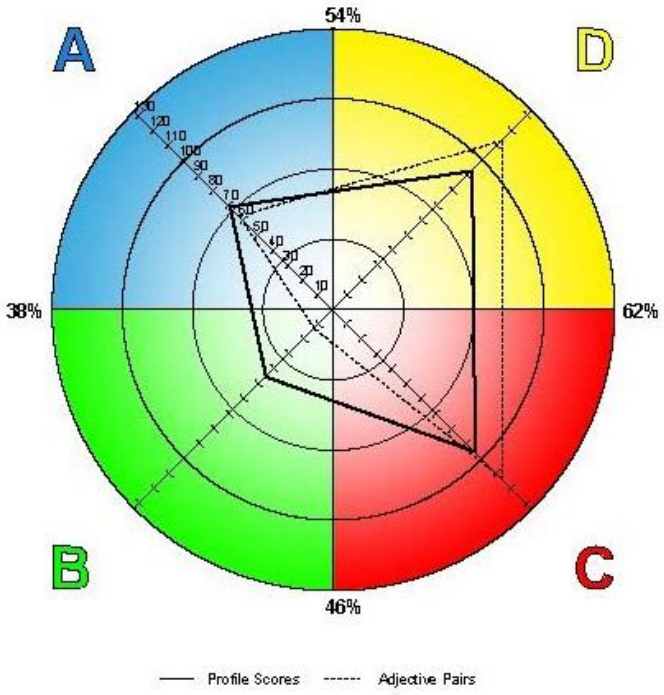

Figure 4.3: My HBDI™ profile (Herrmann International, 2009)

The feedback from this model (Herrmann International, 2009) shows I am triple dominant with dominance in quadrants C, D and A. This triple dominance allows me to move between thinking styles when presented with lecturers who facilitate learning in different thinking styles and allows me to incorporate ideas from different thinking styles more easily. I am likely to share at least one preference with others, which facilitates my interaction with them and enables easier access to thinking style flexibility. This profile has access to mental flexibility resulting from the triple dominance and I am able to look at multiple perspectives before making a decision (Herrmann International, 2011). However, the strength of the preferences in each quadrant, and the desire to utilise multiple perspectives can slow down a decision making process, especially in significant contexts with a high number of options. This profile supports why I am able to engage with different types of learning profile. The dominance in quadrant C also reveals why staff development is important to me and why I choose to engage with a whole person perspective. The dominance in quadrant D is evident in my ability to take into account a bigger picture of the context of practice and emerging trends; according to this quadrant I am able to engage with specific issues in a peer mentoring relationship and prioritise why certain aspects may be more substantive.

As visualisation is a key element of my profile, it explains why I like to use cartoons, pictures and draw models when conveying knowledge and foster understanding. The dominance of

quadrant D explains why I like to evaluate a workshop as a whole unit and not each specific activity on its own as a stand-alone item. My disinclination for learning activities related to quadrant B has meant that my research project is an important learning preference development path as it requires me to structure my Action Research project and engage both with detail and with the bigger picture.

4.4.1 Qualitative Data

My profile feedback document (Herrmann International, 2009) shows that I am very comfortable in communication approaches that include debating, involving others, providing an overview, technical accuracy and personal touch/sensitivity to others. This is evident in my choice of activity such as discussions, sharing experiences, stirring debates, formal and informal conversations, workshops and building on the contributions of participants. This makes workshops, especially interactive workshops, a very comfortable format for me – as evidenced by my willingness to volunteer to present these on occasion.

The profile points out that I like to check if I have all the facts and take into account how others will be affected (Herrmann International, 2009). I find these useful check points as they help me to anticipate how an interaction between myself and a mentee will go and prepare responses to possible variations in participant responses.

4.5 Mentees' Individual Whole Brain® Profile Data and Interview Responses

In this section I review the quantitative and qualitative (i.e. graphic and narrative) data from each mentee's profile as I begin to reflect on the interfaces between the mentee's profiles and my own. I then link these to each of the interview responses. Profiles, interview extracts and descriptions have been anonymised where appropriate. Interview responses are reported verbatim.

4.5.1 Summary of Peer Mentees and Peers

Before proceeding to the specific feedback from the HBDI™ questionnaire (Herrmann International, 2011), I presented an introduction to my peer mentees. When I commenced with this dissertation, each of the mentees in Table 4.2 below was a member of academic staff at a PHEI in the role of a lecturer in various disciplines with varying levels of experience.

Name	Approximate age	Gender	Discipline	Highest Qualification	Formal Studies during Mentoring Research	Number of years as full-time academic staff*
Lydia	40+	Female	Academic Literacy	Honours	Started master's (*to be completed*)	11+
Abigail	35	Female	English	Master's	Submitted master's, exploring doctorate	8+
Deidre	30	Female	English	Honours	Started Post-grad Diploma in Education	3+
Dorian	30	Male	Development Studies	Master's	PGCHE	1.5+
Faith	25+	Female	Communication Studies	Degree	Honours	First year

Table 4.2: A summary of peer mentee participants

***** *At onset of research*

4.5.2 Mentee 1: Lydia

Quadrant:	**A**	**B**	**C**	**D**
Preference code:	2	1	1	2
Adjective Pairs:	5	6	7	6
Profile Scores:	56	98	83	62

Table 4.3: Lydia's HBDI™ preference table (Herrmann International, 2011)

Lydia's profile (Herrmann International, 2011) shows a double dominance in quadrants B and C, and therefore has both dominances in the lower mode. This profile is characterised by strong preferences in conservative thinking and controlled behaviour with a desire for organisation, structure, detail and accuracy from the B quadrant (Herrmann International, 2000). The primary in quadrant C shows interpersonal competencies and sensitivity to feelings, and often shows sensory intuition. The lower mode dominance in B + C, brings

together a strong sense of detail and structure (B) with a sensitive, emotional awareness of feelings and people (C). An individual with this type of profile learns when to apply particular mental processes appropriately to different situations to maximise their effectiveness (Herrmann International, 2011).

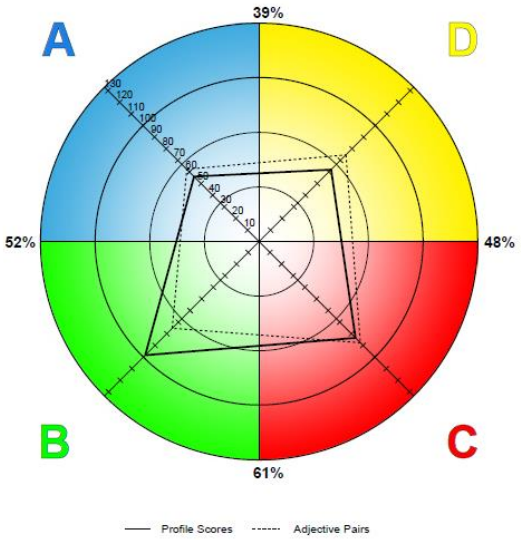

Figure 4.4: Lydia's profile 2112 (Herrmann International, 2011)

Lydia's profile is double dominant – horizontal with a preference code of 2112 (Herrmann International, 2011). Both the upper and lower dominant families of profiles unite distinct mental processes in a synergistic interchange. The two lower modes, B + C bring together a strong sense of detail and structure (B) with a sensitive, emotional awareness of feelings and people (C). The profile is characterised by very strong preferences in conservative thinking and controlled behaviour with a desire for organisation and structure as well as detail and accuracy from the lower left B quadrant (Herrmann International, 2011). Lydia's profile narrative further states that elements she strongly relates to in quadrant B include *organisation, administrative* and *implementation,* reflecting her mental preferences at work. Individuals with this profile tend to worry about details. The primary in the lower right C would equally show itself by emotional and interpersonal preferences, an interest in music, and a sense of spirituality. Such individuals have an opportunity to learn when to apply particular mental processes appropriately to different situations (Herrmann International, 2011).

In mentoring interactions this implies I must balance practical answers to *who, what, when, where a*nd *how*, with discussions on how the issue under discussion affects others and how others react. Lydia and I overlap in our learning preferences in quadrant C but diverge regarding other quadrants. Lydia's lower upper mode scores indicate that I bring a focus on

the bigger picture that she sometimes does not see, due to my learning preferences in quadrant A and D.

In her interview Lydia regarded mentoring as a relationship to "*enhance your understanding within a specific field or even … to assist you with your development as a holistic human being and also to assist you with your professional development*". She described professional development as *"development within your profession. Therefore if you are an educator, your development in education, in teaching … um … so developing yourself professionally*".

Lydia regards herself as proactive in her professional development as she feels she engages in professional development on a daily basis. This includes attending internal and external workshops, academic reading, pursuit of a master's degree and reflections. In a mentoring relationship she values the sharing of learning, skill development and new ideas, on the job training, conversations and directing activities. This is linked to her preference in quadrant B where she prefers implementation and organisation (Herrmann International, 2011).

In Lydia's practice it is clear that she regards herself as a mentor as she assists in the professional development of Faith and other new staff members. For her the most important part of a mentoring relationship is the development of the person, specific knowledge and idea sharing, skill development, which is linked to her profile where the lower mode dominance wants to learn when to apply particular mental processes appropriately to different situations to maximise their effectiveness (Herrmann International, 2011). In reviewing my Whole Brain® mentoring practice, she valued aspects of developing a *holistic person* and relational issues that are aligned with her strong dominance in the C quadrant. She also values directing activities linked to holistic thinking and strategic direction, which relate to input in quadrant D activities that is one of her less dominant quadrants.

Lydia felt my mentoring practice could improve with more analysis and evaluation of the team and individuals to develop deficient areas and putting structure in place:

"… the approach does not necessarily have to be planned because evaluation can take place unplanned, because she can evaluate a person unplanned and then pick up on something that she thinks needs more evaluation or more mentoring, maybe … um …. recording the evidence that she sees and then putting formal structures in place in order to develop". Lydia expressed a concern that other work responsibilities were drawing me away from mentoring

and felt that there would be more value added if my mentoring practice was more formally a part of my role or a bigger part of my responsibilities.

4.5.3 Mentee 2: Abigail

Quadrant:	A	B	C	D
Preference code:	3	1	1	1
Adjective Pairs:	1	8	4	11
Profile Scores:	33	75	77	125

Table 4.4: Abigail's HBDI™ preference table (Herrmann International, 2011)

Abigail's profile (Herrmann International, 2011) shows a triple dominance in quadrants B, C and D, with a strong dominance in quadrant D. This profile is characterised by a fair amount of balance between the organised and structured processing modes of the lower left B, the interpersonal and emotional modes of lower C and the holistic synthesising and creative modes of upper right D. There is a lack of preference, at times even avoidance, of the logical and analytical processes of the upper left A quadrant. This profile has access to mental flexibility evidenced by the triple dominance of the profile and an individual with it is able to look at multiple perspectives before making a decision. Abigail is also likely to share at least one preference with others, which facilitates her interaction with others and enables easier access to mental flexibility.

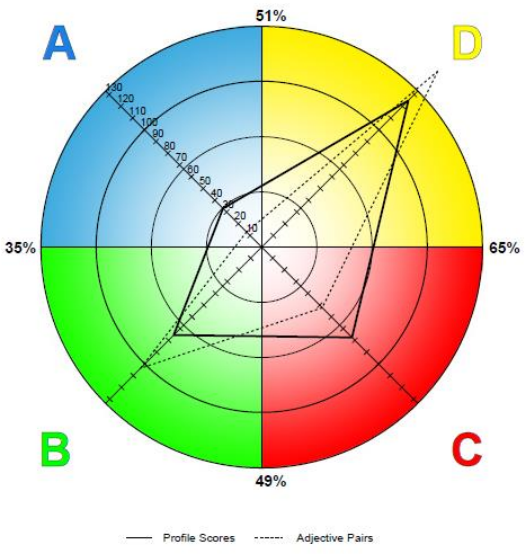

Figure 4.5: Abigail's profile 3111 (Herrmann International, 2011)

Abigail's profile is triple dominant. People that fall in this group have access to a certain mental flexibility that comes from the multi-dominant nature of their mental process. It allows the individual to move among the three dominant modes somewhat seamlessly, looking at all of the perspectives before making a decision. Such multiple preferences facilitate interaction with others. Due to the triple nature of their data, such individuals are more likely to share at least one preference with those with whom they interact, with Abigail and me sharing two quadrants. However, the multiplicity of preference can slow down the decision making process due to the real need to check out all the bases. Another potential challenge may be the multitude of options these preferences provide as career decisions or educational choices need to be made. Often the opportunities that present themselves first are pursued.

What this implies for me as a mentor is that at times I need to encourage Abigail to take action after discussing various options with her. As indicated in her profile narrative, she prefers receiving written communication before an interaction, an overview (quadrant D), involving others (quadrant C) and working with ideas. Abigail has a very strong learning preference for quadrant D and may avoid activities related to quadrant A. As a mentor I need to ensure that Abigail and I look at data and facts also, and develop a logical argument supported by the facts and details.

Abigail regards mentoring as being a guide: *"Um … mentorship is … it's very different from teaching, in that it's not about somebody standing in front of you and telling you what to think, how to think … that is more a teaching experience. Mentoring experience takes the person away from the front as a leader and puts them next to you as a guide*". In a mentoring relationship she values conversations: "*We used to have tons of conversations and now I wish I could remember half of them … But essentially it's offering a balanced opinion*" and "… *it developed me definitely, but it's not a mentorship relationship, the conversation is, especially when it's geared to a specific context*".

She describes professional development as

> *any … um … learning activity that will not, it won't build, it's not designed to build me personally, it's not designed to facilitate anything that's going to … um … ja, its more focused, its more on, for example, if I am studying English my professional development will be attending seminars, writing articles, that would be a professional development exercise in my estimation.*

She regards formal activities that are creditable as important:

> *I am writing two articles and getting ready to attend a conference so … as far as um, ja professional development we always try, it's never, it's never easy when you are a professional … especially within a growing, a growing company the way that XXX is*" .

She takes this further in saying that the purpose of professional development is "*to enhance qualifications that I may have, to build me into the next step of my, of my qualifications journey*". As Abigail links studying formally, learning activities and professional development she reveals that she sees herself as learning and as a learner and takes responsibility to be proactive in her professional development.

For her the most important part of a mentoring relationship is contextualising problems and strategy into a bigger context and purpose; she values more input in quadrant D activities, which enables her to perceive direction and a *big picture* or *ma*p perspective and towards the end of the interview she described a mentor as a guide in saying "… *I am a type A personality, so there is a worry there and it's like, but it puts you in a space of going I really want you to know where the destination is you are my GPS, you can't fail".* This is significant as Abigail's profile has a strongest dominance in the D quadrant.

4.5.4 Mentee 3: Deidre

Quadrant:	**A**	**B**	**C**	**D**
Preference code:	1	1	1	2
Adjective Pairs:	7	5	9	3
Profile Scores:	80	81	102	45

Table 4.5: Deidre's HBDI™ preference table (Herrmann International, 2011)

Deidre's profile (Herrmann International, 2011) shows a triple dominance in quadrants A, B and C, with a strong dominance in Quadrant C. This profile is relatively well-balanced with the descriptors of the upper right D quadrant being secondary but occasionally functional (Herrmann International, 2000). This type of profile has access to mental flexibility from the triple dominance of the profile and is able to look at multiple perspectives before making a decision (Herrmann International, 2011). However, due to the strength of her preferences in

each quadrant and the desire to utilise multiple perspectives, for Deidre this can slow down the decision making process, especially in significant decisions with a high number of options. Deidre often shares at least one preference with others which facilitates her interaction with others.

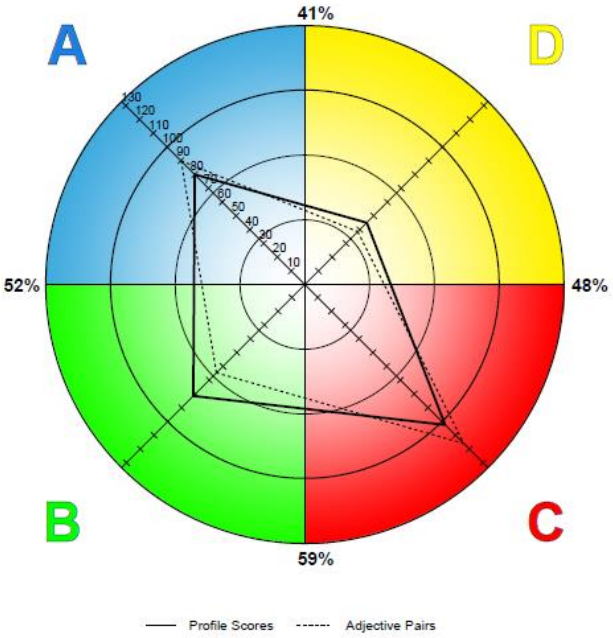

Figure 4.6: Deidre's profile 1112 (Herrmann International, 2011)

Deidre's profile is triple dominant with a preference code of 1112. As in Abigail's and my case, this type of profile has access to mental flexibility; however, Deidre's highest preference is in quadrant C, despite two preferences in the left. This profile is relatively well balanced, yet clearly the descriptors of the upper right D quadrant are secondary.

Deidre's and my profiles overlap in two quadrants, which can make our interactions easier. In reviewing the narrative profile data, in mentoring interactions I need to approach Deidre differently with brief clear information and well-articulated ideas with consideration for how others will be affected. Deidre likes solving problems through factual analysis, research, logic and re-engineering. However, a thinking preference that I bring to our interactions is the *big picture* and *innovative thinking* due to my thinking preferences in quadrant D and A.

In her interview Deidre regarded mentoring as helping in response to a request or in response to perceiving a need; however, as a lecturer she primarily grounded this in her practice with students:

Because we work on a XXX programme my understanding in this setting of mentoring is giving help where it is asked for most of the time, it's difficult to, to sometimes find people who need it without them asking for it, so for me mentoring means asking, or someone asks for help, and then you gradually help them develop.

Interviewer: *That's more as a guide in relation to students.*

Deidre: Yes

Interviewer: *And your perception of mentoring with respect to staff development*?

Deidre: "*Um, staff development I think, to some extent it's also your perception of it, you have to see it, to know that you need to help somebody, and also ask, if people don't really ask for something specific that they need to be developed on you wouldn't know so, its having a keen eye to see someone needs help with something specific, or them asking for it.*

She further described professional development in the context of professional training but struggled to distinguish between mentoring and professional development:

Professional development I think is probably training someone or training yourself in a specific field, so if you, if you know that you want to know more about something specific I think that's where development comes in, professional development. When asked about the relationship between mentoring and professional development, *I feel like it's the same thing now… Professional development is what … seems like … it's a personal thing for yourself, and mentoring as something that … obviously someone else helps you with, I don't know.*

Deidre regards herself as proactive in her professional development as she feels that "*sometimes you need to realise that you need to develop"* and agreed that this motivated her to study at the time of the interview. While Deidre felt that mentoring should be responsive to needs or requesting for help, she described a preference for planned review at the beginning and end of a semester.

I think it probably depends on the need, so I think it should probably be structured, so you should have a plan, but sometimes things will arise that you need to obviously help with.

She later added, "*We are talking about mentoring, staff development, that type of mentoring … I guess maybe beginning and end of a semester, just to make sure."*

In a mentoring relationship she values the development of structure, "*the influence obviously … comes with structure, so the more you build structure the more the influences, and I think it is definitely there, it's built there, built in"* and accessibility in that she refers to "*an open door policy*". In a previous response she referred to *having a plan* and added that mentoring "*should probably be structured*. In reviewing my Whole Brain mentoring practice she described aspects of balance and fairness linked to this accessibility for other academic staff members:

> *"I think it's the same, Its very … balanced, I think that everyone feels that they can ask for mentoring so I think it's very balanced throughout".*

Deidre could recall few of the specifics of the Whole Brain® Model, but felt that in mentoring it enabled one to *"think about what suits the person … That you are mentoring, it might help with the way you approach them I guess*".

This uncertainty in individualising an approach to mentoring is a little divergent from Deidre's profile, which has the highest preference in quadrant C. The valuing of fairness and accessibility for all academic staff does reveal this preference in quadrant C for Deidre, as she considers the impact on others. The valuing of structuring or organising practice as a function of mentoring links strongly to her B quadrant preference.

4.5.5 Mentee 4: Dorian

Quadrant:	**A**	**B**	**C**	**D**
Preference code:	1	2	1	1
Adjective Pairs:	7	6	4	7
Profile Scores:	84	65	69	84

Table 4.6: Dorian's HBDI™ preference table (Herrmann International, 2011)

Dorian's profile (Herrmann International, 2011) shows a triple dominance in quadrant A, C and D, with a secondary dominance in quadrant B. This profile is relatively well-balanced in terms of the left-right modes with the descriptors of the lower left B quadrant being secondary but functional (Herrmann International, 2000). Although his profile is similar to Deidre's, his profile scores in the dominant quadrants are not as high indicating a more balanced profile across the quadrants. The profile shows access to mental flexibility in the triple dominance of the

profile and an ability to look at multiple perspectives before making a decision (Herrmann International, 2011). However, the strength of the preferences in each quadrant, and the desire to utilise multiple perspectives can slow down the decision making process, especially in significant decisions with a high number of options. Dorian often shares at least one preference with others which facilitates his interaction with others.

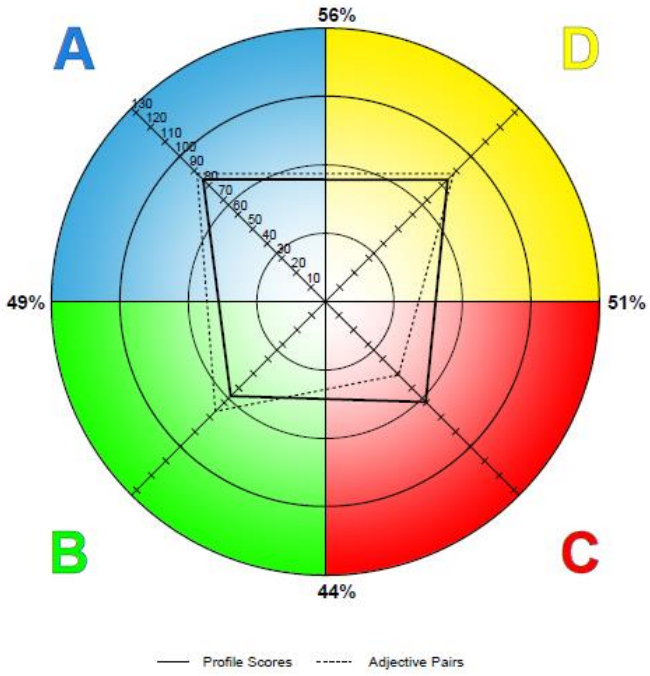

Figure 4.7: Dorian's profile 1211 (Herrmann International, 2011)

Dorian's profile is triple dominant with a preference code of 1211. Like the profile of Abigail, Deidre and myself this type of profile shows access to mental flexibility; however, Deidre's highest preference is in quadrant A. This profile is relatively well-balanced, yet clearly the descriptors of the lower right C quadrant are secondary. Dorian's profile reveals an individual who is more *experimental*, pays more attention to *broad conceptual planning*. Work elements Dorian strongly relates to include *analytical, technical* and *problem-solving.*

Dorian enjoys debating ideas and concepts, but prefers less administrative detail. For me as a mentor this means I need to support the development and need to be sensitive to relationships with others by exploring with Dorian how others will be affected by the ideas and problem-solving while managing the detail of implementation.

Dorian regards mentoring as professional development and on-boarding of new colleagues. He describes this as "*My understanding of mentoring is that it is a useful way to assist new*

colleagues who have just arrived in the workplace, in terms of how things in the workplace are done first of all, to help them learn the ropes and also to make them feel as though they belong, part of the community of, at the workplace". Later in the interview he said, "*Mentoring can help bridge that gap in saying that this is how we do things around here, this is how I would recommend for you to do, these are the things that we need you to be able to do, this would be my recommendation for you to approach this. So in short mentoring can assist in people becoming more comfortable in the work that they are doing*."

He further describes professional development as "*to grow in your own profession*". However, what he unpacks during the interview is fairly comprehensive in terms of including on-boarding, professional learning, skills development, discipline learning, employee conduct and community of practice. Dorian sees himself as proactive in professional development and was quite specific in what he was developing or focusing on at the time of the interview:

> *In terms of me being proactive in my professional development I actually have studied in the beginning of this and I have, nearly, close to completion of my PGCHE, just waiting for the results there. In terms of the other things I am taking a bit of a look at the seven roles of the lecturer, and seeing where exactly do I need greater expansion and where do I need to involve myself a bit more so in terms of my own professional development as far a researcher is concerned I am trying to keep track of the current events and trying to analyse these things from my own perspective."*

As Dorian links studying formally, research and professional development, he regards himself as a learner.

In Dorian's interview it was clear that he regarded himself as a mentor and as a guide for others, both in terms of a peer mentor for academic staff and a guide for students. For him the most important part of a mentoring relationship was improving collegial relationships and practice – which he described as the purpose of his peer mentoring with colleagues:

> *In terms of my work, I am myself trying to employ a bit of mentoring to, to my fellow module colleagues so that we can work better as a professional unit and I am also trying to improve upon the ways in which I actually facilitate learning.*

And

> *… just one thing that I might add when it comes to mentoring is that, seeing as our mentoring is a situation where the mentor and mentee have to get to know one another on a much better basis it might be useful if the mentee knows from the word go, that*

there is actually a mentoring thing that is going on so that they can be on the same page, in other words greater transparency if you will.

In evaluating his HBDI™ profile, Dorian is triple dominant and therefore relates to mental flexibility. Of all the interviewed peer mentees Dorian revealed the highest degree of familiarity with the Herrmann Whole Brain® Model which was supported by his post-graduate studies at the time of the interview. From this knowledge base he felt that it was an appropriate model for mentoring:

It's very applicable in mentoring, it is applicable because a, your mentee will have a certain preference and that preference will also come through in terms of the work that they do but in our case, in the case of lecturing and provide, and facilitating learning not all the students will be using the mentee's profile which means that when mentoring, it needs to be taken into account that the mentee must learn this but there's also the relationship between the mentee and the mentor and their own whole brain profiles so that what, or how the mentor prefers to do things is not necessarily the way that the mentee does this because of this profile … so it is also useful to the, not just for the mentee to learn but also for the mentor to improve upon their own use of the four quadrants.

When discussing this further, his choice of examples confirmed the qualitative profile information of an individual who is more experimental and pays more attention to broad conceptual planning – therefore he valued the peer mentor drawing his attention to detail:

… it's a situation that might arise is in terms of policy, alright so when it comes to policy the mentor might focus more upon the details of the policy whereas the mentee might focus more upon the spirit of the policy in other words, not strictly going word by word, rule by rule of the policy but just saying that this is what the policy is generally dealing with so that is how I am going to approach it, but the mentor might say, No, no, no, we must take a look specifically at these things, so the mentee might learn from this that details are quite important whereas the mentor might realise that as important as the details are the overall idea of what the policy is about is just as important.

In reviewing my Whole Brain® mentoring practice, he valued aspects of guidance, discernment, professional conduct, clarifying questions and improving student learning. He described these as follows:

… especially in the beginning when she provided me with a lot of guidance as on to, how to provide, how to conduct classes, how to deal with discipline issues and also

with the workshops that she has provided throughout, throughout the three and a half years that also leaded to more things that need to be facilitated in a professional way, and how to conduct myself more, in a professional manner, with not just in the workplace and administrators side but also within the classroom itself and how to facilitate the learning of students.

And

She does primarily two things I think, the first is to ask questions about why exactly I am doing it in this particular way… to perhaps provide an example it's like I would come to her relay a certain thing and then she would respond with a comment that makes me think about why exactly I did that … The second way is through more formal, more formal meetings in which we assess my own performance and in these meetings we discuss things, what I have done, what could be better, how exactly can I improve upon my own practice as it were.

In describing my influence on other academic staff members as *thought provoking* he suggested that he valued a less prescriptive approach that allowed him to learn and perceive other perspectives. Dorian seemed to indicate that he preferred being responsible for his own professional development and used connotations of being *in charge* and *leading* others.

4.5.6 Mentee 5: Faith

Quadrant:	**A**	**B**	**C**	**D**
Preference code:	2	2	1	1
Adjective Pairs:	5	6	6	7
Profile Scores:	41	66	104	86

Table 4.7: Faith's HBDI™ preference table (Herrmann International, 2011)

Faith's profile (Herrmann International, 2011) shows a double dominance in quadrants C and D, and has both dominances in the right mode. This profile is characterised by the ability to be creative, holistic and synthesising in quadrant D, while utilising the interpersonal and emotional aspects of the lower right C (Herrmann International, 2000). The primary in quadrant C shows interpersonal competencies and sensitivity to feelings, and often shows sensory intuition. This type of profile is often evident in occupations such as teaching or facilitating (Herrmann International, 2011).

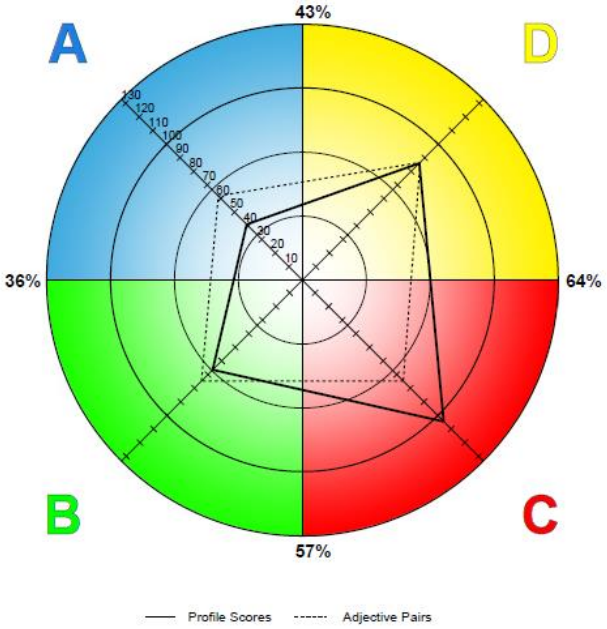

Figure 4.8: Faith's profile 2211 (Herrmann International, 2011)

Faith's profile is double dominant in the same hemisphere, with a preference code of 2211 (Herrmann International, 2011). This type of double dominant profile indicates an internal integrated coherence in the same fashion that single dominant profiles do (Herrmann International, 2000). In both left and right double dominant profiles the two quadrants tend to reinforce each other. The visual imaginative approaches of the D quadrant are supported by the expressive, sensory elements of the C quadrant. Work Elements Faith strongly relates to in this quadrant include *writing, expressing* and *interpersonal*.

Faith and I overlap in the thinking preferences of quadrant C and D. From the profile narrative it is evident that Faith enjoys *giving overviews, brainstorming, visualisation* and *involving others*. However, in mentoring I need to bring a greater appreciation of her mental opposites to appreciate mental processes very different than her own in considering facts, logical argument and working with some administrative functions.

In her interview Faith regarded mentoring as guiding and motivating a mentee. "*I believe mentoring has a lot to do with communications, when you help someone who does not have an idea of what to do or what steps to take"* and *"mentoring has a lot to do with communications and showing that person that there is some light at the end of the tunnel".*

In a mentoring relationship she values being able to *ask for advice* and feels that

> "*when we are talking about mentoring and professional development I need to learn first, I need to be a student first before I go to uplift that person*".

She described professional development as learning and educating oneself:

> *Professional development has a lot, I believe it has a lot to do with me as a person, as a lecturer, myself, I always have to get to know better, I believe in that theory of ... you might be very intelligent, but you could be actually 99% intelligent, but you must leave that 1% of getting to know more, so you must always leave and opportunity to learn more, so when we are talking about professional development it's not just a matter of saying, Yes I have a degree, I have a master's, I have an honours, I have a PhD, you always have to learn more and educate yourself. It might be through books, through people, through any skills that you can learn from people but it has a lot with that according to my understanding.*

Faith sees herself as proactive in her professional development as she takes action to ask for help:

> *I am the kind of a person who believes I don't know everything so when I need help, I ask for it, when I don't understand something I go to someone who knows better, so I think I am one of those people who would actually annoy people because I'll be asking for help all the time, if I don't understand it I will tell my superiors or my module leader and say, I don't understand this, how do you go about this. So in my professional life, I talk to people to learn and I use every person in my life as an advantage, so I open that door, that if I have this person in my life, I need to learn something from them.*

In Faith's interview it was clear that she sees herself now as a mentor of students and as being mentored:

> *I believe mentoring has a lot to do with communications, when you help someone who does not have an idea of what to do or what steps to take, especially in education. These days we find students in class who are studying law who want to study Biomedicine and all that but they are not really sure what they want to do, or it that's what they really want. I've come across a lot of students who have said I want to drop out of school because I am not really sure what I am doing here, so I believe as a lecturer is my job to mentor, to uplift that person and to make them see that life does not end in XXX programme … .*

Interviewer: So you see yourself as being mentored and mentoring?
Faith: *Yes, I think it should be a two way thing.*

Later in her interview she extended this to peer mentoring in that she sees herself as mentored by other colleagues and mentoring colleagues:

Faith: *… I have seen lecturers who are mentoring students, I am also one of the lecturers who are being mentored by some of my colleagues and I think if most people or more other lecturers would also use the advantage of, I have colleagues who can help me, who can uplift me to know more about the job I am doing every single day, it might be rally, it can be very useful.*
Interviewer: "*So do you see yourself not just as a mentor of students but also a mentor of your peers?*
Faith: *Yes.*

This shows that she sees the purpose of professional development as rooted within her roles as a lecturer by describing mentoring in relation to her educational practice with students and as she focuses on enabling her students to learn. For example, when asked if mentoring is formal or informal, she described her practice as follows:

I could say it goes both ways, it can be formal, or it can also be informal, formal in the sense of if it is a student in class that I see is lacking here, I bring the student in and say, Okay, I see you have been performing badly, you did badly in your first assignment, and your second test and all those things then let's sit and have a consultation. But then now and then I will also like try to approach that person in an informal manner to let them understand that I understand what they are going through so let's try and work together because if you don't build the bridge between the two sides, then I don't think anything will be done because I think most students fail to ask for help, or to seek help because they are too scared of the other person.

This is further revealed in her focus on learning to enable others to learn when she ends her interview by stating "*because I believe in learning from one person and having to teach somebody else what you have learnt".*

Faith also sees herself as activating development and transformation in her students:

> *When I stand in front of the class, actually the satisfaction I want to get when I get home as I look back into my day and think what have I done, what did I teach today and I always reflect on that, and in as much as this happens also in life, that we are not always going to get a pat on our back and say you did well today, what you said today really changed my life or remember what you said two years ago, really changed my life and all that, so when I say it takes place every single day, I mean it's not all the time that people will always come back and say, what you said two years ago changed my life but it happens all the time, so when I say I always reflect, I get, I love the job I do because I believe that every time or every year, or every six months I always look back and think I was in class on that first day and today I can see I have changed lives there and there, even though they are not going to come back and say you changed my life but the fact that you have moved a person from the dark to a lighter place, I believe is something to do with what I do every single day.*

For her the most important part of a mentoring relationship is guidance and motivation, so she values more input on quadrant C tasks and activities. In reviewing my Whole Brain® mentoring practice, she valued aspects of problem-solving, guidance in structuring work and motivational aspects:

> *I think one thing that I have learnt from her is that nothing goes wrong, there is nothing that could ever go wrong with the mark or a person that can never be solved, so every problem that comes along can still be solved no matter how bad the situation is. I have been in situations where I couldn't … I have so much marking to do and I will be panicking and all that but it's through what she has guided me that I have learnt to say okay, I'm gonna have to do this, first focus on this and move to the next task, then I believe everything has been going smoothly because of good communication.*

In focusing on my influence on other academic staff, she commented on relationship building activities with other staff members:

> *… because that's the time when we get to sit as a team and discuss certain things and all that. But apart from that when we have to meet as the whole team of pre-degree we also have meetings as team members according to the modules that we teach, so I think her doing that also helps us too, not just to know each other as people who teach the same module but it also helps us to get to know one another as he family of pre-degree.*

This is significant as Faith's profile has the strongest dominance in the C quadrant with a thinking preference in the D quadrant. Therefore, in responding to how I can improve my Whole Brain® mentoring practice, she valued aspects of formal training opportunities and time with fellow academic staff members to develop consensus for alignment in practice: "… *so, if we would have more training and all that then we will all be on the same page, because if I look now um, I think there are probably five lecturers who did the HBDI training, so I think more lecturers need to be brought into that even though there are people who are using it or implementing it in their classes but it's also important that we would sit and bring in every one else so that we are on the same page* ."

4.6 Additional Peer Feedback

During the third Action Research cycle I interviewed a peer manager, Rebecca who worked with some of my peer mentees and on some projects with me. Rebecca had worked with me in different roles at a prior institution and at the time of her interview had worked with me for three months in this context with my peer mentees. During my fourth Action Research cycle Rebecca continued to engage with me and the institution appointed a person, Tessa responsible for academic staff development. After some months in her role, Tessa discussed with me aspects of my professional development and our institution's approach to academic staff development. As she had also engaged with the professional practice of most of my peer mentees and had worked with me in different contexts, we agreed that the opportunity to interview her regarding my mentoring practice would add value and perhaps more expert insights. For these two interviews I utilised the Peer and Manager Interview schedule. I have summarised my peers' contributors below in Table 4.8.

Name	Approximate age	Gender	Discipline	Highest qualification	Formal studies during mentoring research	Number of years as full-time academic staff*
Rebecca	35+	Female	Psychology; Academic Management	Master's	Exploring Doctoral Studies	11+
Tessa	45+	Female	Educational Psychology	Honours	Submitting master's dissertation	Approximately 20

Table 4.8: A summary of peer and manager participants

4.6.1 Peer Manager Interview: Rebecca

Rebecca regards mentoring as the guiding or directing of someone or the influencing of another person professionally. Rebecca describes professional development as "*the way that you improve your skills, your knowledge, both in your field, but also in soft skills around things like managing your time, managing your stress, managing your workload, so yes, more holistic development".* In linking the two Rebecca sees a mentor as guiding a person in professional development and assisting in reflection or as a sounding board. Rebecca believes that the mentoring relationship depends on the mentee in terms of formality or timing. Therefore Rebecca describes a mentoring relationship that takes into account the mentor and mentee and adapts to their preferred approaches and availability. Rebecca states that mentoring is not utilised enough and that in some institutions it can be misapplied as performance management or a remedial intervention. As a result Rebecca responded to peer mentoring as less intimidating and as "*more relatable, and that you don't maybe experience that there could be a gap between what that person's gone through if the mentor isn't a peer … so it just lessens possibly that gap between mentor and mentee*" .

Rebecca regards my practice as a positive influence on the academic staff I work with; in her interview she hesitated to suggest general improvements. Rebecca described my Whole Brain mentoring practice as being able to utilise different kinds of learning preference. Rebecca pointed out that I learn from peer mentees and other academic staff members, "*hearing the phrase 'we can all learn from one another' often… so if someone knows something she wants to be shown how".*

4.6.2 Peer Interview: Tessa

Tessa started working at my institution as a lecturer and is currently responsible for academic staff development, which includes the presentation of staff development workshops, evaluation of academic staff members and related activities, such as supporting academic staff members in developing portfolios of evidence. In this role Tessa assists in the evaluation of staff nominated for the teaching excellence award and therefore evaluated two of the peer mentees who participated in this research.

Tessa described mentoring and professional development in a far more structured way:

> *Mentoring is for me, first it's a, there's an agreed upon relationship, where one person is provide the mentorship, and where the other persons provide themselves, or would put themselves out there to be mentored, so and its agreed, you have to agree to certain terminology, oh not terminology, certain terms in this partnership because it cannot, it's not a leadership in the sense that you have to, the one person leads and the other person has to follow, what I mean by that is you can disagree, but mentorship for me is where somebody has some expertise and can build that into another person who wants to acquire that expertise or wants to grow in that* respect.

She refers to professional development as a responsibility to develop one's practice within a specific role and sees the Institution as having the responsibility to provide for such development and the individual as responsible to develop professionally. This is her perspective on professional development:

> *… (In) professional development, the onus is more on the person, the individual who is in the role or the profession to develop themselves with the help of the institution providing them with opportunities where mentorship the where, uh, the, the, the individual is also, it's not so much as a responsibility that you want to take, but it is something that you want to grow, so its personal growth. I would say, that's for me the difference, mentoring is personal growth where professional development has more to do with development in the profession, uh but mentorship or being a mentee has more to do with um the fact that you want to grow yourself, not just per say in your profession, but maybe in other skills that you want to grow*.

Tessa prefers a structured relationship with an explicit agreement of expectations, that adapts to an informal structure as needs arise, once the structure is set. Tessa feels that this agreement, the context and the goals of the mentoring will determine the frequency of the mentoring. She describes peer mentoring as positive and that this can contribute to professional development but that matching of peers is critical.

Tessa regards me as being proactive in professional development through building knowledge. She described my practice as providing learning opportunities and as building collaborative learning where other staff members can assist in professional development, and added the following: "*It doesn't always have to come from the mentor, uh the mentor is the person that would drive the process but part of that mentorship is putting out platforms where people can then be mentored*". Tessa sees my influence on other staff as creating opportunities for those interested in professional development when she says "*she opens the*

door but she doesn't force people to go through the door, where I have been in meetings or at a certain development opportunities where she was part of the group she would take a key and unlock a door and give the information and then leave it for people to explore it um she won't force people to go through the door".

Tessa feels that the Whole Brain® Model can be used to improve mentoring, both as a point of departure and as an approach to development: "*It addresses the strength of people and if you can use the strength of people to develop them, to give them the skills or also understand where they are not that, where their strength is not you can sort of, I call it visit their weaker points, but from their strength*".

Tessa was able to describe instances where I had learnt from other academic staff members: "*I have seen her a number of times when she does not have the knowledge or does not understand something or she needs to know something more, ah she would sit with, even people that are at a lower level than she is managing, she would sit with them and enquire and acquire and find out ... you as a staff member of hers love to share knowledge with her*". Tessa feels that my Whole Brain® mentoring practice can develop further by creating more space for introverted staff members to develop or grow. However, she feels very positive about my Whole Brain® mentoring practice and that "*that you always feel no matter where you are in this company you can still go back to her and bounce off ideas*".

4.7 Conclusion

This chapter describes the links between a peer mentee's Whole Brain® learning preferences, as revealed in their HBDI™ profiles, and the peers' preferences in a mentoring relationship or what each valued in my Whole Brain® mentoring practice. It discusses the empirical findings of the study in detail, revealing a diverse group of peer mentees in terms of their HBDI™ profiles and transcripts of semi-structured interviews to contribute to answering the research questions. This chapter includes the perspectives of a peer manager and a professional development practitioner at my institution.

A discussion of the interviews found that several of my peer mentees see themselves as mentors, both of students and in some cases of other academic staff members, within their roles as educators and as learners in terms of their professional development. There is evidence that I do utilise multiple learning strategies and contribute to the professional development of peer mentees and other academic staff.

CHAPTER 5: META-REFLECTION, FINDINGS AND RECOMMENDATIONS

5.1 Introduction

This chapter documents my reflection on the research process through the Action Research cycles. In it I reflect on the research design and process transformation in my mentoring practice and construction of learning and knowledge in the journey represented by this dissertation. The chapter contributes to evidence of my being a reflective practitioner (reflective mentor) as conceived by Villegas-Reimers (2003). When I began to work on this meta-reflection as evidence of meta-learning (Biggs, 1985), in the case professional meta-learning and wanted to develop a narrative of my own professional learning, I re-engaged with the questions of what is evidence of professional learning. Using Biggs (1985), if meta-learning includes an understanding of the process of learning as well as the content of learning, then this meta-reflection is a valuable and key aspect of evidence of the claim (McNiff, 2008) I make in terms of my professional learning as an integral part of my Action Research journey. Professional meta-learning uses experience to change approaches to professional learning, for example through scholarly reflection, so that the professional improves at constructing new meaning based on additional experiences. Utilising a written reflection to show meta-learning in my dissertation is thus constructed as professional whole brain meta-reflection – *meta* in that it encompasses both the research cycle, professional learning and my learning about my learning and practice. Therefore this scholarly reflection starts with a reflection on the research design and research process. As Killen (2010) in his discussion of meta-learning includes the learner's perception of the learning context, I have included reflections on how my peer mentees as professionals affected my professional learning and how the context of my life and institution affected my professional learning and mentoring practice where relevant.

This chapter presents the research findings, utilising evidence collected during the empirical study (See Chapter 4) and the meta-reflection below. It seeks answers to the research question, *How can I transform my mentoring practice using the principles of Whole Brain® Learning?* In an Action Research process, where participation and interactivity are encouraged, there can be a blurring of boundaries between roles and responsibilities. Ebersöhn, Eloff and Ferreira (2007) discuss the need to clarify whose voice is being heard. Therefore, as this dissertation represents a report of my Whole Brain mentoring practice, I

have chosen to share my construction of findings, professional learning and practice-based knowledge.

From an Action Research approach, I formulated the principal research question as follows:

How can I transform my mentoring practice using the principles of Whole Brain® learning?

This research question was explored through the three subordinate research questions:

1.1. What is Whole Brain® Mentoring?

1.2. How can I contribute to enriching the professional development of academic staff with a view to transforming their teaching practice through Whole Brain® mentoring?

1.3. How do I catalyse further professional development in the academic staff members I mentor?

I explored areas of my practice that are still in transformation or still in need of transformation as self-identified during reflection and as emergent from the empirical study by examining the question, *How can I further transform my mentoring practice, using the principles of Whole Brain® learning?*

5.2 Reflection on Research Design and Research process

In reflecting on the Action Research design, I felt this design had resulted in-built challenges and yet distinct advantages. In Action Research it frequently happens that the research process differs from the initial planning. In my initial planning I anticipated a simpler process than that which emerged and had to adapt research and mentoring to peer mentees' availability. For example, I initially conceptualised involving more peer mentees in the interviewing and full research process from the initial group. In the initial workshop of developing peer mentees' understanding of the Herrmann Whole Brain® Model run by a Whole Brain® practitioner, twelve staff members completed the Herrmann Brain Dominance Instrument™ (HBDI™) and reflected on their profiles. However, in the following years two of the participants left the Higher Education provider and others expressed anxiety about time constraints to participate fully in mentoring activities and this research project. Other changes arose in peer mentees; roles; some changed departments or took on additional responsibilities as the organisation changed and grew, which meant that not all my peer

mentees had consistent mentoring through-out the period of research, so some of these were not included in the dissertation. This also resulted in changes in peer mentees' professional goals and practices. The advantage of utilising an adaptive process was that as peer mentees' roles changed, I found it possible to adapt to their new challenges and in some cases, co-learn with them – typical of the constructivist epistemology that underpinned my action research and forming of scholarly communities of practice. This adaptive research design resulted in refining my research question, especially as I clarified constructs and terminology.

Another change from my original proposal was that I originally set this meta-reflection as the sixth chapter after the research findings. While formulating my dissertation, I struggled with the placement of this and its contribution to my research findings, especially as evidence of professional meta-learning. When I realised that this was due to the treatment of the meta-reflection as something apart from the rest of my research activities, I reflected again on the two cycles contained in an Action Research project (Coghlan & Brannick, 2005; McNiff & Whitehead, 2009) and on my research design that included reflection in each cycle, not as a separate cycle or parallel cycle. The first is the cycle relating to the research project, in this case my mentoring practice. The second is what Zuber-Skerrit and Perry (cited in Coghlan & Brannick, 2005) refer to as the *thesis* action research cycle. By re-organising my dissertation there was more alignment between these two activities that fueled each other and the action I took within my mentoring practice. Conceptually this brought the reflection part of being a reflective practioner (mentor as practitioner in my case) more within my research process.

This research required thinking style flexibility in engaging with the process of the research and the thinking style preferences of the peer mentees. This meant I had to utilise many strategies in activating or encouraging professional development in peer mentees and in completing this dissertation. As can be seen in Chapter 4, my profile (Herrmann International, 2009) is triple dominant 1211, with the lower left quadrant B being secondary. However, several of my mentees have dominance in this quadrant with Dorian's profile being the most similar to mine. This required me to be regularly functionally active in this quadrant and take this thinking style into consideration more often than I would have preferred. This quadrant was utilised substantially in the organising and planning of this research and in the organising and structuring of content to write this dissertation with the necessary attention to detail and feedback. This meant that at several points in the journey I felt distinctly uncomfortable and challenged. I experienced this flexibility and the interactions from different perspectives as strengthening my account of this study as I took these aspects into consideration when documenting this account.

Furthermore, like other researchers (McNiff, 2000; Von Maltitz, 2009), I initially assumed that most academic staff members would want to improve their practice and would welcome a willing mentor to give feedback to improve their practice. This implied that in the initial stages of mentoring I had to spend more time motivating the need for professional development and the need for evidence-based evaluation of practice than anticipated. As the organisation began to include professional development more formally in performance evaluation and my peer mentees began to regard professional development as deliberate and valuable, this became less of a challenge. Once this had been normalised in their academic teams, new staff entering the teams of my peer mentees began to participate immediately in professional development activities and the number of participating peer mentees increased. I initially conceived a more formal structured relationship in mentoring; however, the timetable changes each semester and changes in the organisation and increasing work responsibilities meant that both my mentees and I had to adapt from year to year. For example, Abigail stated in her interview, "*We used to have tons of conversations*". I deliberately began to utilise more informal opportunities as peer mentees were more responsive to input in the face of an immediate need. I attempted to be more available as peer mentees came in search of input or a critical friend when they wanted one, not just when it was convenient.

The participatory nature of Action Research allowed my peer mentees to comment on my mentoring practice, influence and research process. Ebersöhn, Eloff and Ferreira (2007) describe a strength of Action Research being that practitioners can benefit directly from self-development and the development of research capacity. This has been a significant and transformative journey for me. When I review my conceptualistion of research during studies prior to commencing this research, the conference paper presented at that time and my ability to articulate and research my practice at this juncture, a marked progression in clarity, thinking and construction of knowledge becomes apparent. The constructivist approach, which embodies multiple iterations of construction and deconstruction of constructs, theory and narratives required a deeper engagement with both theory and practice. I was drawn to Action Research as a reseach design that would have immediate application in my practice, being lived out in my practice as opposed to just being bound in a book on a shelf with uncertainty as a contribution to the body of knowledge in practice. If I was going to invest the resources, time and learning, I wanted this to have an outcome of useful application within my practice. I came to realise that action research matches my thinking preferences reflected in my profile.

Another strength of this type of action research is the challenge, responsibility and authenticity in building and maintaining relationships with peer mentees. These relationships provided a source of encouragement and accountability that enabled me to further and complete my study

and disseminate the outcome of this dissertation. My peer mentees therefore mentored me during this journey. Lydia is one example of this. Lydia started her own master's journey a year after I had. She therefore shared research articles and we collaborated in discussing mentoring and meeting the requirements of the research process. For a time we met regularly as critical friends (Whitehead, 2011) to discuss our work and hold each other accountable for taking next steps. This community of practice formed with my peer mentees made me feel more committed to completing my research.

5.3 Reflection on transformation in practice

I underestimated the transformation of my own thinking and meaning making (creating new theory) in practice during this research journey. This journey was a colloborative process in soliciting input from peer mentees, my supervisor and other academic colleagues. Several years ago, before embarking on this particular Action Research journey, I described a metaphor of my practice as follows:

> *You cannot lead a horse to water and make it drink. But perhaps you can go past a salt lick and allow the horse to lick the salt which will lead to increasing the horse's thirst. A thirsty horse will drink whether you lead him/her to water or not. Therefore my practice is centred in making people thirsty for learning and development.*

When I now reflect on this I realise that embedded in this representation I was leading horses, metaphorically speaking. Now I see myself not as *leading horses* but more as a *horse* walking to the water with other *horses*. My work has moved away from working with students or less-knowledgable peers to engaging with and deliberately learning from peers. As I engage further with this metaphor I realise it has evolved. There are elements of this in my practice; for example, when Tessa described my influence on academic staff members, stating "*she opens the door but she doesn't force people to go through the door, where I have been in meetings or at a certain development opportunities where she was part of the group she would take a key and unlock a door and give the information and then leave it for people to explore it um she won't force people to go through the door*".

When I began to reflect on my mentoring practice, one of the aspects I became aware of was how much of my influence was unplanned, serendipitous and informal. I do, however, plan formal learning events to enable others to apply what they know in a developmental way; I must make use of everyday practice, conversations, feedback, problem-solving and informal events. This is in response to being available to discuss situations and practice when a mentee

felt comfortable to do so or wanted to; to solve problems as soon as possible, which often prevented a problem from growing or escalating, and that embedding my mentoring practice within the interactions of our mutual education practice kept our interactions relevant and linked to professional practice. This did not mean that a problem would arise and not be researched, but rather that informal interactions were part of the process of identifying a problem and evaluating the appropriateness of a proposed solution. This was shaped by the HBDI™ profiles of some peer mentees who preferred more informal or less structured interactions.

One of the aspects that has grown in my practice is the deliberate setting aside of time to reflect, read and think. Since I started working in my organisation I have seen a two-fold increase in the number of academic staff and students I work with and similar organisational growth. This meant that there has been an increase in the number of people wanting to consult me as a colleague, manager or mentor and an increase in problem-solving with students. In addition the Private Higher Education Institution has been undergoing substantive organisational change in the past two years due to change in strategy, technology shifts and environmental shifts that required policy review, substantial engagement at differently levels and process redesign. This is similar to the limited capacity of academic staff as identified as an obstacle by Blunt and Conolly (2006). At irregular intervals I would feel pressed for time; so I began to set aside time deliberately to reflect, read and think. Once this was established, I felt more calm, more proactive and more decisive or consistent in dealing with my priorities of developing the academic staff members I engage with in my Whole Brain® mentoring practice. The less time I have to reflect, read and think, the more interruptions and urgency increase stress and reduce effectiveness. I needed to balance this with the perceived need for accessibility or responsiveness to needs as commented on by my peer mentees in their interviews. Therefore scheduling time and communicating clearly about my availability is a key aspect of this change. Towards the end of this research project I perceived that the change and workload also meant that I needed to set aside time again to meet with peer mentees on a more regular basis as this had been interrupted or diminished as we all struggled with additional work responsibilities or meeting deadlines. For example, the number of informal conversations was reduced as we all were busier. For me this also became a process of communicating with less pressure, deeper engagement, less task or specific problem focus and more people focus. This is still work in progress, but it was something that I had considered earlier in the project due to organisational pressures and I started re-prioritising and re-evaluating.

So one of the challenges I have is to identify my values and goals in staff development and consider whether I am consistently embodying these in my practice if my mentoring practice is both unplanned, serendipitous and informal as well as planned and formal. In reflecting on interactions, I used informal discussion and feedback to set priorities for more formal activities. This meant that as I noticed several peer mentees struggling with change management, I deliberately included a discussion about adapting strategy in a staff development meeting.

Like Haigh (2005) I have begun to reflect on my conversations as a constant part of my professional practice in my academic staff development role. Some of the conversations in my practice are purposive, others are simply relationship building and serendipitous (what Tannen (1990) calls *rapport-talk*). With a greater awareness of informal conversations as a key part of my practice, I deliberately seek opportunities to *walk the floor* and discuss with peer mentees the challenges experienced. As pointed out by Patrick (Patrick, 2002: cited in Haigh, 2005), conversations often non-hierarchical and spontaneous embody an exchange of ideas and information, and there is structure evident that participants unconsciously follow, such as turn taking. My listening to and engaging with peer mentees also empowered them to share professional conversations (as mentioned in their interviews), resulting in more reciprocation of learning.

In my mentoring practice a conversation often involves problem identification, information sharing, relationship building and feedback. I often deliberately start a conversation with a staff member without a clear agenda to explore what is happening in his or her practice. The high return I have from *touching base* with staff members has led me to do this more deliberately and more consistently. When I am troubled about something I also seek out conversations with managers, advisors or experts.

As my goal in mentoring is to assist in developing independent reflexive pratitioners, I tried to ensure that I did not assume responsibility for each peer mentees' professional development, even if asked to do so. At times this was challenging, as it also required the discipline to allow peer mentees to set and apply their own pace. One of the transitions that emerged was that I asked some of my peer mentees to lead our professional learning in some areas. This was empowering to the mentees concerned, enabled them to bring new meaning to our discussions, clarified purpose in our discussions and exposed me to a wider source of professional learning. For example, Dorian became more responsible for facilitating engagement with our E-learning Moodle-based platform and acted as a resource for other lecturers in engaging with this platform. This gave him more opportunities to be a mentor for colleagues and reduced pressure on me to be the primary source of engagement. Lydia

became responsible for academic support of students and we were able to challenge each other in how professional development could better support student support. These delegations of professional learning, formal and informal, increased the visibility of these subjects to other staff.

While our conversations were mostly face to face, some continued through email or BB messenger or WhatsApp; these asynchronous conversations have increased as more of my staff have engaged in technology changes. This was also an easier way of sharing academic resources such as journal articles or Internet links through email. In several cases my peer mentees, especially Dorian and Lydia, would send me an article relevant to my studies or draw my attention to an online resource. Lydia utilised this messaging as a process of sharing information and asking for input during busy periods where setting aside face to face time was challenging. An on-going challenge to me is how to document these conversations systematically and utilise them as evidence of practice, as I had not fully resolved this and had incomplete records I did not (fully) utilise this additional evidence in the construction of my dissertation.

One of my challenges has been to clarify and adapt my role within a rapidly changing and growing institution, while enabling my staff to make similar changes. This meant that a substantive area of personal professional development included change management and dealing with change. It became an on-going discussion topic with my peer mentees. For example, Abigail specifically referred to this in her interview (See Section 4.5.3). Due to several of the changes, for example, starting to lecture with tablets and new administration systems, we were all put in the same position of needing to learn. This meant we attended external training sessions and assisted one another as peers. One of the practices that assisted all of us, was *walking the floor* to ask for regular feedback on issues, and deliberately making time to learn from one another in a collaborative way. As an example, when a peer mentee asked me a question about the use of tablets and a projector, if I did not know, we might both go to another colleague to ask for guidance. One of the benefits of this practice was that it enabled me to learn faster from multiple sources and multiple challenges of peer mentees; and more substantively validated the knowledge and experiences of my peer mentees and colleagues. This collaborative professional learning process enabled me to ask peer mentees to assist other colleagues without being the sole source of expertise – a substantive concern in a time-bound environment.

An aspect that emerged later in my research was that by just being interested in peer mentees' and colleagues' professional development motivated professional development. This interest may have created an expectation of professional development, which in turn motivated peer mentees and colleagues to be more active regarding theirs. In addition, when an aspect is role-modelled as an aspect of professional practice, peers are more likely to do likewise. For example, I noticed in that at first I was the only one engaged in further studies; several spoke about it but did not take action. In the following year two were active in further studies, and in the third year, four more. As colleagues modelled paths towards being able to complete further studies despite work and family commitments it became more of the norm. In addition I, as peer mentor, asked on a semi-regular basis, "*What are you doing towards your professional development?*" This may have created tension in that I helped create pressure to be more formally active in professional development.

A continuing challenge is balancing my studies, work responsibilities and family life. In the course of my study I experienced personal struggles as a family member had been killed, my father was diagnosed with terminal cancer and passed away, and I was involved in a car accident. On reflection I feel that these incidents deepened my reflection, causing me to re-examine priorities and reaffirmed my commitment to have a life of significance and positive influence on my context, friends and colleagues. I was reminded through this and the personal journey of several mentees that professional practice occurs in the context of a full life, and there are times in my mentoring practice when my peer mentees and I need to enable one another to deal with challenges to learning that personal circumstances may present. This supports a whole person approach. It is evidenced in my research where Lydia expressed concern regarding my workload and role changes during her interview. I experienced this in my life by the nurturing and support I received on the passing of my father through messages, listening, simple presence and other forms of condolences during this time. This encompasses what Lydia refers to as a "*holistic approach*" to a person.

5.4 Reflection on constructing meaning

The inclusion of this meta-reflection underscores the need to show capacity of reflecting on the process of reflection and how making meaning from professional learning and experiences should not be separated, as described by McNiff and Whitehead (2009). Through writing this account of my research journey I have been able to reflect critically on my educational theory, the values I sought to embody and the journey of professional learning I have undertaken.

This development of an account has exposed gaps or unarticulated aspects of my theory about my mentoring practice which have led to deeper engagement with new constructs.

For example, I refined my construction of formal and informal professional learning to formal and non-formal professional learning which clarified the aspects of intent (refer to chapter 2 for more detail). When I began this research I reflected that mentoring occurred both formally and informally in my mentoring practice. Initially this led me to link my practice and theoretical understandings to formal and informal professional learning. However, one of my journeys in this dissertation was revisiting my construction of the construct *professional learning*, refining this is to formal, non-formal and informal professional learning to be more appropriate. For me a key question was that of intent to learn or catalyse learning; this *intent to learn* distinguishes informal learning from non-formal or formal learning (OECD, 2010). My engagement with literature clarified my understanding of self-directed professional learning, professional meta-learning and what I thought my peer mentees and I were learning in the course of my research.

"*Experience by itself teaches nothing*" (Demings, 2014). For me this quotation emphasises the need to interpret and apply experience within a theory or framework of concepts and reflect to construct new meaning. Without theory or reflection experiences may not be learnt from or understood. Events may be regarded as only events, not signposts of deeper knowledge or change. In my research journey I have found the linking of experience to theory and other evidence more valuable than just a lived practice as I re-considered the assumptions and theory embodied within my practice. This reflection was not always documented, but has deepened my understanding of professional learning and professional development.

As I engaged with academic literature on learning theories, learning styles and mentoring, I reflected on my thinking and have realised that my earlier accounts of learning and mentoring were insufficient as they failed to articulate the responsibility for professional development lying with the practitioner rather than the person, or *developer* who perceives the need. This meant that I changed the way I engaged with peer mentees to instruct them less about a particular aspect to change and rather to question how they were going to develop professionally or how they would approach a specific issue. This is descibed by Dorian in his interview when he referred to *questioning* approaches. It has left me with a desire to learn about better questioning, as in this role good questioning does not only elicits thought-provoking answers but builds the motivation to transfrom practice as the respondent may have to reconstruct knowledge to be able to answer such questions.

Earlier in the literature review I quoted Burton (cited in Knowles, Holton & Swanson, 2005) who describes learning as a change that leaves an individual more capable of dealing adequately with his envirnoment. I believe I am better able to engage with colleagues, mentees or other academic staff with a clearer understanding of learning theory. By engaging with Whole Brain® mentoring I explored a toolbox of techniques for engaging distinctly with different individuals.

In reflecting on the above, I have come to construct new meaning in terms of professional learning and development and mentoring as I can now claim that I have lived experiences of whole brain professional learning, whole brain professional development and whole brain mentoring as Du Toit (2012) proposes.

5.5 How have my peer mentees contributed to my professional learning and construction?

This research journey would not be a true peer mentoring process if I had not learnt from my peer mentees; therefore it is appropriate to articulate some of my learning from peer mentees. As reviewed earlier, there is evidence that mentors can benefit from the mentoring process. The mentor may gain increased motivation, feel more engaged through the challenge of developing a mentee, develop new insights from engaging with a mentee, develop further leadership and interpersonal and communication skills as proposed by authors such as Ayinde-Adebove, (2011); Colvin and Ashman (20100; and Moorhead and Griffin (2004).

For me questioning by peer mentees often clarified my own understanding and construction of meaning, or improved my ability to communicate insights regarding problem-solving strategies. Sharing a problem-solving journey and disciplining myself to allow mentees to contribute and question my contributions in a collobrative way meant that I was alerted to alternative ideas, new approaches and different insights regarding mentoring due to their divergent learning approaches.

In my interviews with Rebecca and Tessa both agreed that I am able to learn from my peer mentees and other academic staff members. After these interviews I realised that an omission in feedback from the interview questions was to the benefit to the mentor. There are some easily articulated benefits to the mentee, but there were no references of the benefts to the mentor, particularly in peer mentee evidence. For various authors (Ayinde-Adebove, 2011; Colvin & Ashman, 2010; Moorhead & Griffin, 2004; Schunk, 2012; Scherman & Du Toit, 2014)

the benefits to the mentor may include motivation, increased engagement, development of new insights, interpersonal and communication skills and further development of leadership. As I reflected on this, I realised that there are several aspects that have benefited my mentoring practive. By taking into account diverse thinking preferences, I deliberately engaged with multiple aspects of a challenge or element of practice. The diverse range of experiences and thinking preferences meant that I have been able to observe a wide array of approaches to faciitating learning, curriculum, assessment and the execution of other academic staff responsibilities. By having professional conversations about what peer mentees are reading in their fields, I was exposed to a wide range of academic literature. This has enriched my mentoring practice by utilising or reflecting on a wide variety of approaches for specific tasks. Observing another's professional practice with a view to contributing constructive feedback has contributed to benchmarking my own mentoring practice in these areas and contributing to input in my own reflections.

In the course of my research I spent time reflecting on whether my mentoring practice develops the professional learning of mentees and gathered evidence in this regard. I have reflected on how the research design and execution of the action research as a process informed my professional learning and constructing new meaning as a professional practitioner. This meta-reflection articulates a part of the transformation of my practice, research and learning in the course of this Action Research project.

5.6 Summary of the Findings

From the empirical findings discussed earlier, I now re-evaluate my consideration of the research questions and examine my findings.

5.7 What is Whole Brain® Mentoring?

From my engagement with the literature, meaning construction and reflecting on my practice I position Whole Brain® Mentoring as a practice of mentoring that utilises multiple learning strategies, both formal and non-formal, to engage the learning preferences and thinking disinclinations of mentees to catalyse and develop the professional practice of both the mentor and mentee. From Herrmann's (Herrmann International, 2000) work, the challenge remains to develop the competencies in the non-preferred quadrants that I now refer to as *thinking disinclinations*. Academic practitioners need to be able to utilise a wide range of learning

strategies to create a wide array of learning opportunities to facilitate the learning of those they work with − students and other academic staff members. Whole Brain® Mentoring includes a range of activities, formal and non-formal, which are intended to result in the professional development of the participants.

Whole Brain® Mentoring takes into account the learning preferences of both the mentor, mentee or peer mentors, and while learning preferences are utilised to transform professional practice of practitioners, thinking disinclinations are also worked with to build the professional competencies of practitioners in order to assist them to utilise a broad range of strategies in facilitating the learning of individuals, students, peers or colleagues with a diverse profile of learning preferences.

In this context Whole Brain® Mentoring retains features of professional development where each practitioner is responsible for his or her own academic development, but expands this to include the influence or facilitation of an *other* who facilitates access to learning opportunities, provides engagement and fulfils a role of a critical friend in reflecting on practice. Mentees can learn directly from this *other*, peers, feedback, evidence, learning sources such as literature, learning programmes, unrelated parties and from critical reflection on practice. Whole Brain® mentoring may occur for part of a practitioner's development, the whole of this path or for part as mentee and later part as mentor. Both roles of mentee and mentor provide scope for professional development, as mentee and mentor co-learn and co-construct meaning within this relationship. This is especially evident when there are peer mentors or peer mentee relationships, such as those discussed in my practice.

5.8 How Can I Contribute to Enriching the Professional Development of Academic Staff?

From the feedback given by my peer mentees in their interviews, activities utilised in my Whole Brain® Mentoring practice include the following:

Peer Mentee	Learning activities within mentoring	Peer mentee's own learning activities
Lydia	• Enhancing understanding • Guidance (directing) • On the job training • Sharing of Learning • Whole Brain Evaluation	• Qualifications/further study • Research (including institutional research) • Reflection • External workshops

	• Workgroups/Workshops	
Abigail	• Conversations • Formal structured seminars/Workshops • Guidance (directing) • In(non)formal activities • Role modelling dealing with organisational change or journey sharing	• Qualifications/further study • Writing for publication • Conference participation
Deidre	• Conversations • Guidance (directing) • Meetings • Workshops/seminars	• Qualifications/further study
Dorian	• Assessment and feedback • Asking for input/guidance • Co-learning and co-construction of knowledge • Communities of practice • Guidance (directing) • On the job training (on-boarding) • Questioning • Meetings • Sharing of learning	• Qualifications/further study • Mentoring of colleagues
Faith	• Advising and motivating • Asking for input/guidance • Guidance (directing) • Meetings • Providing learning opportunities • Problem-solving • Training/ Formal structured seminars/ Workshops	• Qualifications/further study • Research • Sharing of learning • Mentoring of students

Table 6.1. Activities within Mentoring Practice and for Professional Development

In the table above most of my peer mentees included the aspects of guidance or asking for input, workshops and meetings or conversations. All peer mentees referred to some form of further study or qualifications as an aspect that they were pursuing for professional development. This reflects the need for academic staff members to upgrade their academic qualifications and the relative inexperience of some of the peer mentees. Three mentees (Lydia, Abigail and Dorian) specifically raised *thought-provoking* (i.e. causing thought and reflection) as an aspect of my Whole Brain® Mentoring and Faith raised the aspect of motivation.

During this Action Research project I challenged Lydia to enter for the institution's Teaching Excellence awards. This process developed both of us in putting together a teaching portfolio for external evaluation and feedback. Although she did not win this award that year, the external feedback on her practice and validation from a wider audience gave her useful

feedback. It also exposed her to a wider group of peers so that when I proposed Lydia as a candidate for a new role in academic support, she was known and supported in the wider institution. This process created credibility for Lydia to be a peer mentor and guide of other staff to improve their practice.

Recognising the learning for both of us that resulted from this process I repeated a nomination of another lecturer who won the award in the subsequent year. The following year, after he had completed his PGCHE, I challenged Dorian to participate and in an additional category, Deidre. This resulted in much feedback and validation from their peers to develop their teaching portfolios. Due to the process this peer feedback became more specific and allowed me to discuss their practice against external best practice criteria. Both Dorian and Deidre were now at a stage where benchmarking against a lecturer in the same module was insufficient as they were largely setting the standard for less experienced staff, as mentioned by Dorian in his interview (See Section 4.5.5) . These nominations led to an increased support for their influence as peer mentors to their colleagues.

As a peer mentor I have been enriched from observing others' teaching practices and being able to able to give feedback, which caused evaluation and reflection on my own practice. Owing to the growth in the organisation and the insight that several of my peer mentees perceived themselves to be mentors, I have more deliberately encouraged some of my peer mentees to engage in giving feedback to other peers through peer class visits and expose them to peer inputs. This has led to many peer discussions and most feel comfortable with being observed when this occurs.

5.9 How Do I Catalyse Further Professional Development?

The Whole Brain® theory that encourages participants to apply learning to practice and learn from practice by constructing new meaning supports the process of mentoring that leads to improved practice, both in the mentor and in the mentee. The Whole Brain® approach indicates that each individual is a unique learner (Herrmann, 1995), which aligns with a mentoring approach of designing opportunities for professional learning that take into account the uniqueness of each mentee and mentor and his/her particular challenges, context and goals. Consequently, by using the Whole Brain® Model (as illustrated in Chapter 2), and the HBDI™ reports of the mentees and their interview responses, my mentoring practice can be evaluated to see whether I adapted to the different thinking styles found in the Model of Herrmann (1996) as exhibited in my peer mentees.

When peer mentees were interviewed regarding my practice the following answers featured:

Interviewer: *How would you describe Heather's influence on your professional practice?*		
Lydia	*Heather has always been a mentor, she's also always directed you, not only in the right direction but in the direction she thinks you will achieve your best, and she will give you options. and within those options you find yourself this is actually what I want to do, this is actually what I can do and best practice comes from there ... she exposes you to work groups; she exposes you to levels higher than yourself; she exposes you to a high level of thinking; she exposes you to new ideas within your specific career or profession … she tends to have a lot of in-service training, I mean training on the job. Um, a lot of discussions and conversations on what you are doing, how you can advance and enhance at all times.*	Lydia
Abigail	*as far as … coming into, coming into a profession that, it was a new experience for me, to encounter various people you always gain something from them, one of the things that you are very vehement about is the ethics of it, it has to be right, not, it doesn't feel right, it has to be right and you are, your that type of, your that type of mentor, you're going, okay it's not about how it feels, it's not about your feelings, it's not, it's about getting the job done right, so as, I think that's, that's how you've, you've kind of stepped in and been that kind of mentor for me, is that you've had a very solid foundation in knowing how the business works, knowing what the business does, and telling me to put my feelings aside.*	Abigail
Deidre	*Yes we, we have a meeting, well we have a … developmental kind of programme that we go through at the beginning and end of semester so, Yes … I think … the influence is obviously, … comes with structure, so the more you build structure the more the influences, and I think it is definitely there, it's built there, built in.*	Deidre
Dorian	*If I were to describe Heather's influence … well first of all it would be to be a bit more firm especially in the beginning I recall a situation when she was assessing me on the spot, the first year where the students were showing a slight lack of discipline where she was very forthcoming in … that I can show a firmer hand, and other times she has shown me that I need to relax my firm hand a bit more in the years that followed, so in other words she has provided guidance quite frequently to help find a balance in my facilitation of learning.*	Dorian
Faith	*Um, Okay I don't want to use the word great, I don't want to use … I'd say she has been very motivating ... so from where I stand she has opened that door of … I'm in a position of … I am the one who will tell you what to do and all those things but at the end of the day, she will also facilitate what you are doing according to everyone's*	Faith

	performance. I believe that she would treat all her employees, or all the lecturers in her department the way they should be treated and she will always give them feedback the way that they supposed to be given feedback.	
Interviewer: *How would you describe Heather's influence on the academic staff she works with, peers, subordinates and other departments?*		
Lydia	*She has the skill and the capacity not only to develop herself professionally but the inputs that she gives also enhance and advance, all her peers, all her staff, even the leaders and her managers … it makes people think, in a different way. It also makes people grow and develop within their profession and in their different lines of working and managing or lecturing, etc.*	Lydia
Abigail	*Same, you are an equal opportunity, you're, you're exactly, you're consistent with everybody, and there is no favourite, there's no … so there's this idea that where one goes … where one is struggling you're going okay … where one is struggling, we will help everybody, exactly the same chance.*	Abigail
Deidre	*I think it's the same, Its very … balanced, I think that everyone feels that they can um ask for mentoring so I think um it's very balanced throughout.*	Deidre
Dorian	*I would describe the influence that she has upon the other academic colleagues as thought provoking … in the sense that when she does make statements, when she does decide that things need to be done in a certain way other colleagues do feel a lot, they do think a lot about it, and they do express themselves quite a bit about it … it's not always prescriptive.*	Dorian
Faith	*Okay, we, she sometimes have like little competitions, like when we have auditors coming up where students attendance can be really bad then say she would say, the person who would have more students will have this and this and sometimes the coffee meet, the team meetings that we have I think are very motivating, because that's the time when we get to sit as a team and discuss certain things and all that. But apart from that when we have to meet as the whole team of XXX programme, we also have like meetings as team members according to the modules that we teach, so I think her doing that also helps us too, not just to know each other as people who teach the same module but it also helps us to get to know one another as, as the family of XXX programme.*	Faith

Table 6.2. Comparison of mentee responses for selected questions

A diverse range of responses were given to these questions. Many of these responses are more useful when evaluated in relation to the particular peer mentees' HBDI® profile. However, what is common to all responses is that I do influence peer mentees and other academic staff members.

When a peer manager and a peer were interviewed regarding my practice the following answers were recorded:

Interviewer: *Do you think that Heather has facilitated her staff's professional development? If so, in what way?*	
Rebecca	*Yes … let me think about how to say this um, by… I think directing that person towards specific um points of interest um information, data, areas of help, yes ...*
Tessa	*Yes, I definitely think she has … umm she's, she's provided numerous opportunities within faculty meetings, within the faculty itself, within module meetings, within liaising with other faculties … um if we just think about the TEL, Technology Enhanced Learning she puts herself out there and she provides opportunities, not just her giving input all the time but also providing a space for collaborative um learning from each other which for me is definitely a part of a mentorship role, it doesn't always have to come from the mentor, uh the mentor is the person that would um drive the process but part of that mentorship is putting out platforms where people can then be mentored.*
Interviewer: *How would you describe Heather's influence on the academic staff she works with?*	
Rebecca	*Trying to think of the right adjectives … Um … I would say that the influence is holistic, um and its unbiased, in that it doesn't matter who you are in the team, or what level you are on the team so I don't know if unbiased is the right word … but that's what ...*
Tessa	*It's positive, she's … she drives them in a positive way, it's not in a negative way where she forces them to develop, it's in a, in a soft skill way. Um the counterpart is that people are not always willing to take that lead and to be mentored and to develop, I think … There is still an element of choice which is good because um it's sort of not everybody is in it for … in any role I think in society just to, some people are very selfish, they are in there for themselves and they think, you know that, that's just for me, I don't need this, where other people believe in lifelong scholarship or lifelong learning and it's those people that she makes, that, where the impact is the most …*
Interviewer: *How would you describe Heather's influence on other academic staff members in terms of not being in her own department?*	
Rebecca	*Not asked*
Tessa	*I think she's a, a key person, she opens the door but she doesn't force people to go through the door, where I have been in meetings or at a certain development opportunities where she was part of the group she would take a key and unlock a door and give the information and then leave it for people to explore it um she won't force people to go through the door.*

Table 6.3. Comparison of Peer responses for selected questions

From these interviews I can confirm that I do catalyse professional development in academic staff members and that Tessa and Rebecca regard my practice as beneficial. Tessa was able to point out that I may need to increase learning opportunities for peer mentees who are more introverted or reluctant to share in groups as these settings and my role can be overpowering

for some individuals. This is significant as two of my peer mentees seem to be introverts; however, neither of them raised this as an area that needs attention.

By the last year of study one of the peer mentees had completed an additional educational qualification and two others were busy with theirs, including one at master's level; another two were busy with master's degrees and three other members had completed either a master's or doctoral qualification. This created a community of practice where my peer mentees and I shared learning, both academic and personal life lessons. However, one of the transitions I did have to navigate was that two of the team had left due to various reasons, and growth in numbers of academic staff members both within my unit and at the institution. Such turnover is acknowledged, but is not unusual.

5.10 How Can I Further Transform My Whole Brain® Mentoring Practice?

As in any Action Research process, there emerged data and evidence of areas that need further attention in my mentoring practice. In my project I specifically asked peer mentees during the interview cycle how I could improve my mentoring practice. An on-going area of my mentoring practice which requires further transformation is to better balance my workload and prioritise regular interactions (both formal and informal) with peer mentees. In my meta-reflection I engaged with reflecting on challenges brought by institutional growth, organisational change and role change.

As many of my peer mentees identify themselves as mentors, both of students and other academic staff members, I began to realise towards the end of my research a deeper understanding that my mentoring practice is a role model for peer mentees' mentoring. Largely in my discussions with peer mentees previously we discussed challenges related to their practice, such as curriculum development, classroom management, problem students, interpersonal colleague relations and issues relating to assessment of learning. I have now begun to include leadership, influencing, motivating and peer mentoring of other academic staff members. I asked Lydia to assist in mentoring Faith and another academic staff member. In the past two years I began to ask more of the established academic staff to assist in on boarding of new staff; for example, Deidre assisted in the development of a check-list of things new staff members need to know at the beginning of an academic year and Dorian moved into a deliberate role of training regarding the E-learning Moodle-based platform used by

academic staff. During his PGCHE studies Dorian also documented and reflected on his mentoring of another first-year lecturer.

By drawing on the Whole Brain® Theory as developed by Herrmann (1995) I have been able to assess whether I can utilise thinking style flexibility, both as a mentor and as an action researcher. In general the feedback and research show that I am flexible to engage with mentors in different ways, utilising different quadrants. Feedback informs how I can improve my mentoring practice by creating more formal mentoring relationships and being more explicit about my mentoring practice as commented on by Dorian. My disinclination to learning tasks and activities within quadrant B indicates that I would prefer not to utilise these aspects; however, there is evidence that I can engage with a peer mentee who does wish to execute tasks or utilise activities that reflect attributes of the B quadrant.

A strong area of transformation in my professional mentoring practice is the ability to articulate my construction of knowledge and provide an academic account of my practice and the theoretical underpinnings of my practice in a more cohesive and constructive way.

5.11 Challenges in this Type of Study

Like other forms of Action Research, my research was conducted within a specific context and within my specific practice. This means that the findings may not be generalisable. However following Shenton's discussion of trustworthiness (Shenton, 2004), this account seeks to provide for transferability in providing the context of research to allow for a reader to be able to decide whether the environment and my practice are sufficiently similar to allow for insight or application in another context and practice. To address the aspect of Credibility (Shenton, 2004), I need to show a true reflection of my practice and context. This was accommodated by permitting my mentees and peers to check the interview transcripts and this document, making explicit my assumptions, constructs and reflections so that others who have been part of this research project can agreed regarding the findings. I also developed some Triangulation by the use of multiple peer mentees, critical reflection, peer mentee feedback, the use of HBDI™ profiles and peers who have observed my practice. This research achieves dependability and confirmability (Shenton, 2004) in that I believe another researcher would come to similar conclusions based on the data and that similar Action research projects can be undertaken in different contexts or practices. I feel, however that, different practices and different contexts will lead to individualised Action Research processes and outcomes as each

person's practice starts from a unique set of context, experiences and construction of knowledge and experience.

This action research utilised self-report data and data from the peer mentees' perspectives. This suggests that the data reveals participants' interpretations of mentoring and their role as mentors.

In using an Action Research design I endeavoured to make my own learning explicit and test the validity of my knowledge claims by making these public and my practice accountable. The value of accountability is embedded in my practice and contributes to validity aspects.

5.12 Recommendations for Future Research

I recommend that future research on the concept of Whole Brain® Mentoring should occur within other contexts and located within other academic practices. Some possibilities include the following:

- Research with other mentors to examine the application of Whole Brain® mentoring in differing contexts.
- Research within a variety of contexts to explore how academic staff members utilise the learning opportunities available in mentoring relationships.
- Research can be conducted to clarify the distinctions between formal and non-formal learning activities within mentoring.

In addition as a lifelong learner responsible for my professional development, it seems appropriate that I continue to further my professional development in pursuing ongoing evaluation of my educational practice and research competencies.

While my research is practice specific as discussed and may not be generalisable as a whole, it is my belief that this account may be catalytic to another's professional development in that it may motivate others to pursue such an Action Research journey and investigate their practice in a transformative way, and that there are aspects that will cause others to gain insight into their own practice or learn from the application of theory to practice, particularly in the area of Whole Brain mentoring. It is my hope that my professional learning will enable others to better design their respective research journeys. My research contributes to the research on mentoring, and specifically the area in which the perspectives of mentors are not well documented.

5.13 Conclusion

During the course of my research I spent time reflecting on whether my mentoring practice develops the learning of mentees and gathered evidence in this regard. I reflected on the research process, the research design and on my learning and construction of knowledge as a professional practitioner. This chapter articulates a part of the transformation in my practice, research and learning in the course of this Action Research project.

This chapter reports the findings of the research and recommends possibilities for further research. The Action Research design of this study has some limitations, such as its lack of generalisability and self-reported data. However, there are insights that I believe will be valuable to consider in evaluating other mentoring practices and in applying the Whole Brain® Model.

My research is significant because it contributes to the literature on professional development, peer mentoring and using thinking preferences to support academic staff professional development. My research contributes the perspective of a mentor, which is often underreported in the literature By researching my mentoring practice I endeavoured to contribute to the debate of what constitutes good educational practice in mentoring and academic staff development, make my own professional learning explicit and test the validity of my knowledge claims by making these public as McNiff (2008) suggests.

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APPENDICES

Appendix A: Permission for conducting Research

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

RESEARCH ETHICS COMMITTEE

CLEARANCE CERTIFICATE	CLEARANCE NUMBER : HU 12/05/01
DEGREE AND PROJECT	MEd Using the Herrmann Whole Brain model for mentoring academic staff
INVESTIGATOR(S)	Heather Goode
DEPARTMENT	Humanities Education
DATE CONSIDERED	27 August 2014
DECISION OF THE COMMITTEE	APPROVED

Please note:
For Masters applications, ethical clearance is valid for 2 years
For PhD applications, ethical clearance is valid for 3 years.

CHAIRPERSON OF ETHICS COMMITTEE: Prof Liesel Ebersöhn

DATE: 27 August 2014

CC: Jeannie Beukes
Liesel Ebersöhn
Dr Pieter duToit

This ethical clearance certificate is issued subject to the following condition:

1. It remains the students' responsibility to ensure that all the necessary forms for informed consent are kept for future queries.

Please quote the clearance number in all enquiries.

Appendix B: Proof of Editing

I HATE MISTEAKS

TK Language Service
Editing and Proofreading
Cell: 082 303 5415
Tel: 012 343 8412
Email: tinus.kuhn@up.ac.za
Address:180 Smith Street, Muckleneuk, Pretoria, 0002

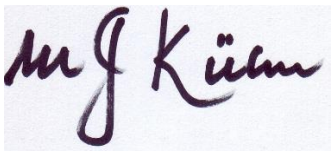
22 August 2014

TO WHOM IT MAY CONCERN

This is to certify that I, the undersigned, have edited the dissertation titled *Using the Herrmann Whole Brain® Model for Mentoring Academic Staff* by Heather Goode for language and grammar errors.

The suggested changes have been indicated and communicated to the candidate. It is the candidate's responsibility to effect the changes electronically before printing the document to be handed in for assessment.

Yours faithfully



Dr. Tinus Kühn

Appendix C: Letter to participants –peer mentees

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

Date

Dear

RE: Research Project

A Whole Brain Approach to Mentoring of Academic Staff in Private Higher Education

This letter is an invitation to participate in a study I am conducting as part of a master's degree in the Department of Humanities Education at the University of Pretoria under the supervision of Dr PH du Toit. I would like to provide you with more information about this project and what your involvement would entail if you decide to take part.

Research Overview

This is an Action Research study into my mentoring practice and how it can be improved. The aim of this research is to use the principles of Action Research to investigate and monitor the improvement of my mentoring practice; to explore the efficacy of the Whole Brain approach to mentoring as a means of promoting professional development in myself and others to improve the quality of teaching and learning at our institution.

Your involvement will consist of:

- Completing the Herrmann Whole Brain® Dominance Instrument (HBDI) and sharing the results of your learning profile with me for the purposes of this research.
- Participating in typical professional development, assessment, conversations and feedback about your academic practice, i.e. being mentored in the course of your work.
- Participating in an interview about my mentoring practice. The interview would last about one hour and would be arranged at a time convenient to your schedule. To ensure the accuracy of your input, I would ask your permission to audio record the interview.
- Providing a peer with feedback regarding his/her practice either through peer observation or report.
- Reflecting on your experiences of working with me and providing a reflective report giving me feedback in which you would be assessing any changes to Heather's mentoring practice in the course of this study.

- Optional: video-recording one of your learning opportunities for self-assessment and peer observation and reflecting on the feedback given.

You will also have the option/opportunity to check any transcripts made from any interview or conversation with you and give feedback on how your input is used in Heather's writing and her dissertation before final drafts are submitted. Your name will not appear in the dissertation or any publication resulting from this study unless you provide explicit consent to be identified.

If you choose not to participate in this study, there will be no penalties or disadvantage and you will continue to be mentored by me, invited to take part in any opportunity of mentoring presented through this research cycle as any learning activities and resources will be made available to all academic staff in this unit.

If you have any questions regarding this research, or would like additional information about participation, please contact me at 082 318 6254 or by email to heather.goode70@gmail.com.You can also contact my supervisor, Dr PH du Toit at 012 420 2817 or email at pieter.dutoit@up.ac.za.

I would like to assure you that this study has been reviewed and received ethics clearance through the Ethics Committee at the University of Pretoria and the Research Committee of MGI. However, the final decision about participation is yours. I hope that the results of my study will be beneficial to you as well as to other academic staff being mentored by myself, as well as to the broader research community.

I look forward to receiving your input and thank you in advance for your assistance in this project.

Yours sincerely,

Heather Goode Date

Student

Dr PH du Toit Date

Supervisor

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

CONFIDENTIALITY UNDERTAKING AND CONSENT Date:

_____

I have read the information presented in the information letter about a study being conducted by Heather Goode for her master's degree in the Department of Humanities Education at the University of Pretoria. I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and any additional details I wanted.

I understand that all information discussed in the context of the research into Heather's mentoring practice will be completely confidential. Information will only be shared with a third party with my explicit consent.

I understand that in Heather's dissertation and any other publication that may result from this research I will be referred to by a pseudonym and that my identity will be protected unless I consent to disclose my identity.

I am aware that my interview may be audio-recorded to ensure an accurate recording of my responses. I am also aware that excerpts from the interview may be included in the dissertation and/or publications to result from this research, with the understanding that the quotations from transcriptions will be anonymous or referred to by a pseudonym.

I was informed that I may withdraw my consent at any time without penalty by advising the researcher. I further understand that I can refuse to partake in any of the suggested activities.

I agree, of my own free will, to participate in this study.

_____ _____

Signature Date

Appendix D: Interview schedule for peer mentees

SEMI-STRUCTURED INTERVIEW PROTOCOL

PURPOSE OF THE STUDY

This interview forms part of a research project investigating the mentoring practice of Heather Goode and your perceptions of mentoring. Therefore the data collection for this part of the research project is done in collaboration with other research.

SOURCES OF DATA TO BE COLLECTED

Data is collected by conducting semi-structured interviews with academic staff members who work with Heather Goode.

PROTECTION OF CONFIDENTIALITY

You are assured your identity as well as your responses will be treated confidentially at all times and will not be made available to any unauthorised user. Your participation in this study is completely voluntary. Should you not wish to continue being part of the research project, you are free to withdraw at any time. Precautions will be taken that you will not be harmed in any way by this research. You will be given an opportunity to verify the transcription of the interview.

DURATION OF INTERVIEW

This is a semi-structured interview that should not take longer than 45 minutes. I could ask you to expand or explain some of your answers.

The interview will be recorded and then transcribed. Heather will arrange a follow-up meeting during which you will be given the opportunity to verify the information provided during the interview. You will also be given an opportunity to comment on how any of your contributions are used should you wish to do so.

During the interview I will make notes as the discussion progresses.

BIOGRAPHICAL AND DEMOGRAPHIC INFORMATION:

SECTION A: PERSONAL INFORMATION

Name:	

1.

Professional qualification	
Academic qualification	

2.

Modules taught	1.
	2.

3.

Employment status	☐PART-TIME ☐FULL-TIME

4.

Gender	☐MALE ☐FEMALE

SECTION B – OPEN ENDED QUESTIONS

1. What is your understanding of mentoring?

.....

.....

2. What is your understanding of what *professional development* is?

.....

.....

3. What, in your opinion, is the relationship between professional development and mentoring?

.....

.....

4. Do you think mentoring is a mainly formal (structured and planned) intervention or mostly an informal (ad hoc, situational and unplanned) intervention?

.....

.....

5. How often do you think mentoring should take place?

.....

.....

6. To what extent do you perceive yourself as being pro-active in your professional development?

.....

.....

7. How long have you worked with Heather?

.....

.....

8. How would you describe Heather's influence on your professional development or practice?

[Possible probing questions]:

- Can you give an example of this?
- What does Heather do that helps you deal with challenges or situations in your practice?
- How would you describe Heather's influence on other academic staff members she works with?

.....

.....

9. What do you know about learning style models such as the Whole Brain® Model?

.....

.....

10. Do you think the Whole Brain® Model can be used to evaluate or improve mentoring? If so, in what way?

.....

.....

11. How can Heather improve her Whole Brain® mentoring practice?

.....

.....

12. Is there anything else you would like to say regarding mentoring or Heather's mentoring practice?

.....

.....

Thank you for your time and responses.

Appendix E: Letter to participants – Peers or managers

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

Date

Dear ***Participant***

RE: Research Project

A Whole Brain Approach to Mentoring of Academic Staff in Private Higher Education

This letter is an invitation to participate in a study I am conducting as part of a master's degree in the Faculty of Education at the University of Pretoria under the supervision of Dr PH du Toit. I would like to provide you with more information about this project and what your involvement will entail if you decide to take part.

Research Overview

This is an Action Research study into my mentoring practice and how this can be improved. The aim of this research is to use the principles of Action Research to investigate and monitor the improvement of my mentoring practice; to explore the efficacy of the Whole Brain approach to mentoring as a means of promoting professional development in myself and others to improve the quality of teaching and learning at our institution. As one of Heather's managers or peers, your perspective on her mentoring practice would be helpful.

Your involvement would consist of:

- Participating in an interview about Heather's mentoring practice. The interview should last about one hour and will be arranged at a time convenient to you. To ensure the accuracy of your input I would ask your permission to audio-record the interview.

You will also have the option/opportunity to check any transcripts made from any interview or conversation with you and give feedback on how your input is used in Heather's writing and her dissertation before final drafts are submitted. Your name will not appear in any dissertation or publication resulting from this study unless you provide explicit consent to be identified.

If you choose not to participate in this study, there will be no penalties or disadvantage. If you have any questions regarding this research, or would like additional information about participation, please contact me at 082 318 6254 or by email to heather.goode70@gmail.com.

You can also contact my supervisor, Dr PH du Toit AT 012 420 2817 or email at pieter.dutoit@up.ac.za.

I would like to assure you that this study has been reviewed and received ethics clearance through the Ethics Committee at the University of Pretoria and the Research Committee of MGI. However, the final decision about participation is yours. I hope that the results of my research will be beneficial to you, as well as to other academic staff mentored by me, as well as to the broader research community.

I look forward to receiving your input and thank you in advance for your assistance in this project.

Yours sincerely,

Heather Goode Date

Student

Dr PH du Toit Date

Supervisor

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

CONFIDENTIALITY UNDERTAKING AND CONSENT Date: _____

I have read the information presented in the information letter about a study being conducted by Heather Goode for her master's degree in the Department of Education at the University of Pretoria. I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and any additional details I wanted.

I understand that all information discussed in the context of the research into Heather's practice will be completely confidential. Information will only be shared with a third party with my explicit consent.

I understand that in Heather's research and any other publication that may result from this research I will be referred to by a pseudonym and that my identity will be protected unless I consent to disclose my identity.

I am aware that my interview may be audio-recorded to ensure an accurate recording of my responses. I am also aware that excerpts from the interview may be included in the dissertation and/or publications to result from this research, with the understanding that the quotations will be anonymous or referred to by a pseudonym.

I was informed that I may withdraw my consent at any time without penalty by advising the researcher. I further understand that I can refuse to partake in any of the suggested activities.

I agree, of my own free will, to participate in this study.

_____ _____

Signature Date

Appendix F: Interview Schedule for Peers or Managers

SEMI-STRUCTURED INTERVIEW PROTOCOL

PURPOSE OF THE STUDY

This interview forms part of a research project investigating the mentoring practice of Heather Goode and your perceptions of mentoring. Therefore the data collection for this part of the research project is done in collaboration with other research.

SOURCES OF DATA TO BE COLLECTED

Data is collected by conducting semi-structured interviews with academic staff members who work with Heather Goode.

PROTECTION OF CONFIDENTIALITY

You are assured your identity as well as your responses will be treated confidentially at all times and will not be made available to any unauthorised user. Your participation in this study is completely voluntary. Should you not wish to continue being part of the research project, you are free to withdraw at any time. Precautions will be taken that you will not be harmed in any way by this research. You will be given an opportunity to verify the transcription of the interview.

DURATION OF INTERVIEW

This is a semi-structured interview that should not take longer than 45 minutes. I could ask you to expand or explain some of your answers.

The interview will be recorded and then transcribed. I will arrange a follow-up meeting during which you will be given the opportunity to verify the information provided during the interview. You will also be given an opportunity to comment on how any of your contributions are used should you wish to do so.

During the interview I will make notes as the discussion progresses.

PEER OR MANAGER'S BIOGRAPHICAL AND DEMOGRAPHIC INFORMATION:

SECTION A: PERSONAL INFORMATION

Name:	

1.

Professional qualification	
Academic qualification	

2.

3.

Employment status	☐PART-TIME ☐FULL-TIME

4.

Gender	☐MALE ☐FEMALE

SECTION B – OPEN-ENDED QUESTIONS

1. What is your understanding of mentoring?

.....

.....

What is your understanding of what *professional development* is?

.....

.....

What, in your opinion, is the relationship between professional development and mentoring?

.....

.....

2. Do you think mentoring is a mainly formal (structured and planned) intervention or mostly an informal (ad hoc, situational and unplanned) intervention?

.....

.....

3. How often do you think mentoring should take place?

.....

.....

4. How long have you worked with Heather as mentor?

.....

.....

5. To what extent do you perceive Heather as being pro-active in professional development?

.....

.....

6. Do you think that Heather has facilitated her staff's professional development? If so, in what way?

.....

.....

7. How would you describe Heather's influence on the academic staff she works with?

[Possible probing questions]:

- Can you give an example of this?
- How would you describe Heather's influence on other academic staff members she works with?

.....

.....

8. Does Heather demonstrate that she is able to learn from her staff?

.....

.....

9. Do you think that learning styles models such as the Whole Brain® Model can be used to evaluate or improve mentoring? If so, in what way?

.....

.....

10. How can Heather improve her Whole Brain® mentoring practice?

.....

.....

11. Is there anything else you would like to say regarding mentoring or Heather's mentoring practice?

.....

.....

Thank you for your time and responses.