

## Chapter 2

### What Methodological Approach did I use?

The great mistake we have made in education  
is to have adopted only the teacher's point-of-view,  
so the perspective of our psychology is that of the teacher  
*Marcel Jousse*

#### Introduction

In this chapter I provide an account of the variety of methodologies I use to answer my research question “*How can I account for my understanding of learning as a biochemical process?*” In my study I aimed to demonstrate the possibility of the biochemistry of human learning through my own lived experiences, and the lived experiences of others, of active learning.

I also describe the methods I used to generate my data and to mine my data for relevant evidence. I include the modifications I have made to the various frameworks I have used to compile my report.

#### What was my research approach?

I chose a qualitative research approach as the focus of my evidence is in “lived experiences”(Denzin and Lincoln 1994) both my own and those of my research participants. I have chosen not to use a quantitative approach as I did not want to use a biochemical laboratory for my study, but rather “laboratories of awareness” (Jousse, 2000:27) in which

... the experimenter is simultaneously the experimented. Man is no longer ‘this unknown’: [s]he becomes [her] own discoverer. The only person one can know well, is oneself. But to know oneself well, one must observe oneself thoroughly. The true laboratory is an observation laboratory of the self, so called because it is difficult to learn to see oneself. That is why it is necessary to create what could best be called ‘Laboratories of awareness’. While we will never be able to step outside of ourselves, yet, thanks to Mimism, everything that is re-played through us, is within us. All science is awareness. All objectivity is subjectivity. The true Laboratory is therefore the Laboratory of the self. *To instruct oneself is to develop oneself.* Only the individual can know [her]self, whence today the ever-increasing awareness of the role of *living memory* and of its omnipresent adjuvant, *rhythm* (Jousse, 2000:26/7).

In short, I am providing an account of my understanding of learning as a biochemical process out of my “lived experience” and the “lived experiences” of my research participants.

In my exploration of “*How does learning happen deep within my biochemical being?*”, I provide evidence from scientific literature accounting for learning as biochemical process out of the lived experiences of a number of scientists engaged in human biology, physiology and human expression.

I subsequently provide an account of my understanding of learning as a biochemical process, using a series of “perspectives” (Jousse, 2000:99 and 242, *inter alia*) and “lenses” (Singer 1995:5). I include evidence of the biochemical nature of learning from the perspective of my own personal learning and through a personal lens, from the perspective of spiritual learning and through a spiritual lens, and from the perspective of educational learning and through an educational lens. I provide evidence of my learning from three perspectives - personal, spiritual and educational - since they are integral to my lived experience as a family member, as a member of a spiritual community and as a member of an educational community of practice. These perspectives have influenced my life and my thinking. I look at my learning and the learning of others through multiple lenses to gain deeper and richer insight as I point outwards to the world and to other people. My study is thus significant for teachers and learners not only in education and specifically in university classrooms but also in the teaching and learning of spirituality in our communities and society.

Throughout I will try to work with only what I truly know, by which I mean, with that which I have experienced, directly or, if that is not the case, with what I have read and been able to verify, and not with what has been written about it and for which I can find no personal confirmation (Sienaert, 2006:2).

My lived experience includes many interactions that are dynamic and energy-filled. I support the view of Jousse that to know is

to become conscious in a dynamic, live fashion (...) in both an integrated and anthropological [manner] (Jousse 2006:18).

I become conscious, become aware, bring-into-consciousness through a continuous process that demands ceaseless study in the “living reality of the human beings

themselves” (Jousse 2006:22). The living reality of humans is their complexity of movement and play. Through my entire body, I “receive, integrate, conserve and re-play in ex-pression, the reality of human experience in ways which are dynamic, concrete and whole” (Jousse 2006:175).

I am thus investing in my studies at both a personal and profound level and can identify with Ross Mooney in “*The Researcher Himself*” in his assertion that

Research is a personal venture which, quite aside from its social benefits, is worth doing for its direct contribution to one’s own self-realisation. It can be taken as a way of meeting life with the maximum of stops open to get out of experience its most poignant significance, its most full-throated song (Mooney 1957:155).

I make meaning of my personal “lived experiences” as a learner and teacher as I explore approaches that enable me to know myself. Jousse in his book *Be Yourself* (2006) reminds me that as I know and value my own true origins, I am in a position to have authority in my work and to identify who I am in relation to others. In order to know myself both as a learner and as a teacher, I observe myself. I observe what is real before me and within me in an analytical and rigorous manner from my early years of childhood, my schooling until my present learning in adulthood.

As a practitioner researcher, I am encouraged by Dadds and Hart (2001) to be inventive in my methodology:

More important than adhering to any specific methodological approach, be it that of traditional social science or traditional action research, may be the willingness and courage of practitioners – and those who support them – to create enquiry approaches that enable new, valid understandings to develop; understandings that empower practitioners to improve their work for the beneficiaries in their care. Practitioner research methodologies are with us to serve professional practices. So what genuinely matters are the purposes of practice which the research seeks to serve, and the integrity with which the practitioner researcher makes methodological choices about ways of achieving those purposes. No methodology is, or should be, cast in stone, if we accept that professional intention should be informing research processes, not pre-set ideas about methods or techniques...(Dadds and Hart 2001:169).

Furthermore, Kincheloe reminds me that bricolage, a multi-method mode of research,

exists out of respect for the complexity of the lived world (...) it is grounded on an epistemology of complexity (...) construct[ing] a far more active role for

humans both in shaping reality and in creating the research processes and narratives that represent it (Kincheloe 2005:324 - 325).

In my study, I avoid monological knowledge and unilateral perspectives on the world as they “fail to account for the complex relationship between [my] material reality and [my] human perception” (Kincheloe 2005:326). In my study I bring at times an “insider” perspective (Jousse 2000:9), at times an “implicated” perspective (Stoller 1997), and other times an “outsider” perspective (Stoller 1997). In my research “I” am thus both the subject and the object (Jousse 2000:26). I bring an *insider* perspective when I am studying my own *whole-being-learning*. I bring an *implicated* perspective when I am studying the *whole-being-learning* of my fellow-parishioners and my colleagues as my students. I bring an *outsider* perspective when I am studying the *whole-being-learning* of the students of my colleagues.

I use a number of different qualitative methodologies of self-study (Hamilton and Pinnegar 1998; LaBoskey 2004; Hamilton *et al.* 2008; Pithouse *et al.* 2009) critical autobiography (Taylor, PC and Settelmaier 2003; Taylor, PC and Afonso 2009) autoethnography (Ellis and Bochner 2000; Baker 2001; Ellis 2004) informed by values driven action research living theory methodology (Whitehead and Huxtable 2008; Whitehead 2009a; Whitehead 2009b; Whitehead 2009c) transmitted in the mode of narrative inquiry (Clandinin and Connelly 2000). My research design has focussed on my story (narrative inquiry), on my self within a larger context (critical autobiography and autoethnography), my self in action within educational contexts (self-study) and my self in action informed by values of my lived self (action research living theory methodology).

I present a graphic summary, in Venn diagram format, (see Figure 1) to illustrate the convergence and divergence of the five methodological components of my study. (Hamilton *et al.* 2008; Pinnegar and Hamilton 2009). My Venn diagram is different to those presented by Hamilton *et al.* (2008) and Hamilton and Pinnegar (2009) in that I have included Action Research Living Theory Methodology (Whitehead 2009a; Whitehead 2010a). As I engaged in my research, I noticed a blurring of the boundaries of the five methodologies. I have found that there are instances where these methodologies overlap and concur particularly in respect of *critical reflection*, *common places*, *use of narrative/story*, *the position of the “I”* and *the commitment to improvement*. I discuss how I have engaged with each of these commonalities and

similarities in my study before discussing the unique contributions of each methodology to my study.

### **What is the central core of overlap of the methodologies?**

I use critical reflection of my practice as I reflect on critical incidents of my own active learning in my critical autobiography and self-study to make claims about my understanding of my own learning and teaching and the learning and teaching of others (Schon, DA 1983b; Mitchell and Weber 1999; Pinnegar and Hamilton 2009; Pithouse *et al.* 2009). I engage in critical reflection of my practice in my autoethnography and action research self study living theory methodology as I ask questions for clarification or explanation. During my interactions with members of my local Anglican Churches teachers and learners at the Durban University of Technology, I critically reflected on how parishioners and students and I were motivated to learn when we became emotionally involved, having fun and experiencing joy in our learning. I experienced a contradiction in that learning in general, and spiritual learning, and educational learning in particular, are not associated with having fun (Rieber 2001; Rieber and Matzko 2001; Mungai and Jones 2002). I observed that there is a lack of understanding of the **activity** experienced during active learning, or rather during learning occurring in the whole being – body, mind and spirit. My study has been provoked by this contradiction and lack of understanding of the nature and operation of the **activity** in active learning. In my study I explore the **activity** in active learning as the biochemical change (learning) happening throughout the whole being of the learner.

I critically reflect on the work of, amongst others, the biophysicist, Candace Pert (1999; 2006; 2008), the neurobiologist, Michael Gershon (1998; 1999a), and the cell biologist, Bruce Lipton (2005) and the educationist, anthropologist, linguist, mathematician, biblical scholar, ethnologist, psychologist, Marcel Jousse (2000; 2004; 2005; 2006), to gain an understanding of learning as a biochemical process. I thus coined the term '*whole-being-learning*' as an expression of "bio-chemical change/learning" that happens when humans engage in learning. I use the term *whole-being-learning* throughout my thesis from this point on, to express "biochemical change/learning that happens when humans engage in learning".

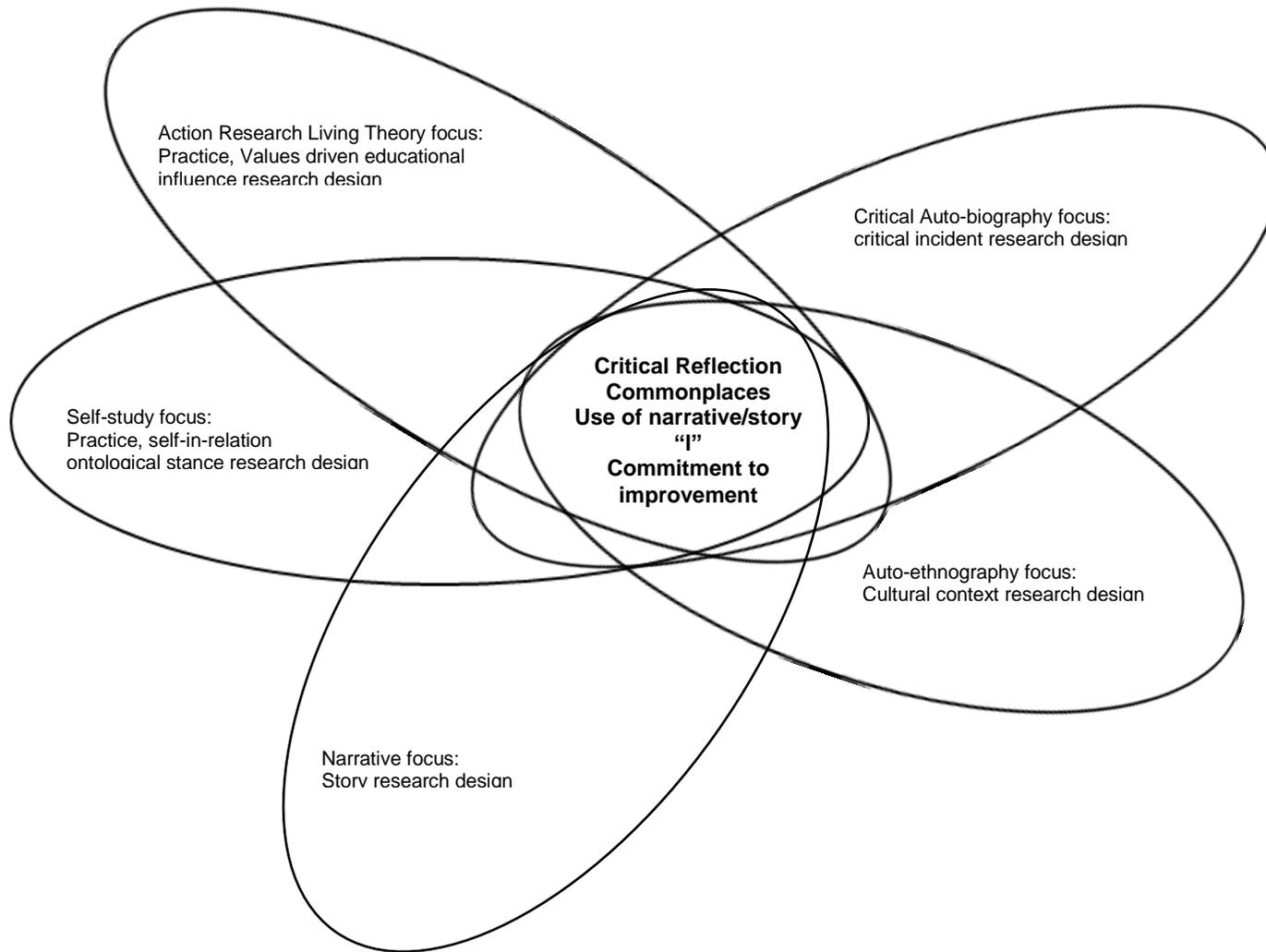


Figure 1: Venn diagram showing an Analysis of Methodologies – adapted from (Hamilton *et al.* 2008; Pinnegar and Hamilton 2009)

In my study, I give an account of my understanding of learning as a biochemical process from my '*whole-being-learning*' experiences during the period 1969 – 2011. My focus in my study has been on my engagement in '*whole-being-learning*' and the engagement in '*whole-being-learning*' of those with whom I interacted in the local Anglican church and with teachers and students from the Durban University of Technology.

I have approached the use of narrative or story as a research strategy for each methodology. Overall, I have used story as a means of expression of the actual action in the research itself (Clandinin and Connelly 2000; Connelly and Clandinin 2006).

My study is influenced by Dewey's work in which education, experience and life are inextricably intertwined (Dewey 1916; Dewey 1934; Dewey 1938). I think about education as experience and support the view that

We learn about education from thinking about life, and we learn about life from thinking about education (Clandinin and Connelly 2000:xxiv).

My inquiry is about me living, telling and reliving my own story as a researcher interested in providing an account for my understanding of learning as a biochemical process. From the beginning I was able to deal with questions of "who I am in the field and who we are in the texts that we write on our experience of the field experience" (Clandinin and Connelly 2000:70). My primary research tool on my research journey over the past decade has been critical thinking and critical reflection. I started used writing only recently as a method of discovery of myself, my practice and others in my practice (Richardson 2000).

My critical autobiography moves into an autoethnography as it becomes entangled with the stories of the lives of other people with whom I interacted in my family, my work place, in the church and in my whole life (Ellis and Bochner 2000; Taylor, PC and Settлмаier 2003; Ellis 2004). I use action research living theory methodology to provide a story of my living theory, my explanation of my educational influence in my learning and in the learning of others. I use multimedia narratives such as video and photographs to present stories of my life-affirming energy with values as part of my action research self-study living theory (Whitehead 2009a; Whitehead 2009c; Whitehead 2010a).

I situate myself in my study as an *insider*, an *implicated insider* and *observer* (Jousse 2000; Stoller 1997) as I “understand, facilitate and articulate the teaching-learning process” from the perspectives of and through the lenses of my personal, spiritual and educational lived experiences (LaBoskey 2004:856). All the methodologies result in my personal, spiritual and educational life being exposed and open to critique. I found that I needed to have great courage as I expose my own vulnerability in my study.

As a self-study researcher, I focused on my “situated self” (Pithouse *et al.* 2009:45) using an “holistic approach that acknowledges the intersection of the personal and professional ... lead[ing] to reflective critique and a concern about change, social justice and professional action” (Pithouse *et al.* 2009:58). However I do not focus only on the “intersection of the personal and professional” but rather I observe that in my study I have *integrated my personal, spiritual and professional life as a learner and educator* (my italics) (Mitchell and Weber 1999).

Using auto-ethnography, my cultural “I” is shaped by my cultural contexts and complexities of my personal, spiritual and professional lived experience. “I” am privileged in action research living theory methodology as my focus is on the generation of my personal living theory, my spiritual living theory and my educational living theory.

In my research, all the methodologies are committed to me using different approaches to make a difference in the world by improvement of (my) practice (Whitehead 2009c). In my study I focus on the improvement of my understanding of my own learning as well as the learning of others in and through their practice. I found a common approach between an action research self-study living theory methodology and a self study methodology as they both involve a “systematic inquiry into [my] own practice” (Dinkelman 2003:9). My research is “self-initiated and self-focused and improvement aimed” (LaBoskey 2004:259). As I engage in this systematic inquiry, I “make explicit what is implicit in practice” (Pinnegar and Hamilton 2009). In my study I reflect on how I used action research cycles intuitively at first in my practice and only made it explicit in later years. My concern about myself in my research is to “provoke, challenge and illuminate rather than confirm and settle” (Bullough and Pinnegar 2001:20).

In writing my critical autobiography and autoethnography, I critically examine how my personal life-story and my cultural context (in)forms my present practice and plans for my future practice. I examine the concern of myself and others not living out our values as fully as they could be in our practice, as in action research self-study living theory methodology improvement of practice is values driven.

In my research regardless of methodology, I am committed to ethical behaviour in my interactions with colleagues and other participants. I obtained ethical clearance from my university for the overall study and from each research participant who was willing to participate in my study (see Appendix A : Template of consent form). I negotiated with participants as to the form of their input to my research. I asked them to write their stories by responding to open-ended questions on a questionnaire, at times and venues that were most suitable and comfortable for them. I allowed participants who did not want to write, the opportunity to share their story via an audio-recorded conversation. All my participants except for my colleagues students, agreed for their first names to be used in my study. I refer to the students by the coded numbers I gave to each of their response sheets.

### **What are the unique contributions of each methodology?**

In my research, I have been guided overall by the following five elements of self study which according to LaBoskey (2004:259) are “self-initiated and focused”; “improvement aimed”; “interactive”; “includes multiple qualitative methods” and “intention of formalising work and making it available to the professional community for deliberation, testing and judgement”.

I have already described how many of these elements overlap with other methodologies. I see the unique contribution of self-study as the interactive element as I focus on the action of self in relation to other(s) as well as with documented literature revealing my professional identity and knowledge (Hamilton and Pinnegar 1998; Loughran and Northfield 1998; Guilfoyle *et al.* 2002; Hamilton and LaBoskey 2002; Dinkelman 2003; LaBoskey 2004; Hamilton *et al.* 2008; Pithouse *et al.* 2009; Pinnegar *et al.* 2010). I am reminded that I

...do not construct practice alone, and most often coming to know practice involves deepening [my] understanding of and relationship with others. ..provid[ing] understanding and assertion about how we might act differently in our future practice.(Pinnegar and Hamilton 2009:15)

In my study I thus engaged in dialogue with self, others and practice. In my narrative about my research, I have mingled my voice and my participants' voices through dialogues in the stories. I shared the stories I had written of my participants with them, asking them for their comments: "Please tell me what you think about what I have written about you, and me." I include their responses in my account.

In thinking about my lived experiences of my learning, I started by writing my autobiography (Taylor, PC and Settelaar 2003; Afonso 2007). I write my autobiography from the perspective of and through the lens of my personal learning. In my thesis, I start with my autobiography in order to deal with the question of who I am as a learner by focussing on critical incidents in my own life-history. Some of the critical incidents I experienced were the love and support of a caring family, the loss of self-esteem as a socio-economically disadvantaged learner attending an under-resourced school, rejection I faced as a learner entering Higher Education and my spiritual growth through my experience of divine healing of Bell's Palsy. These critical incidents are nodal moments as they illuminate the struggles of my life, and will, I hope, allow readers to recognise and connect with my story.

In my autobiography, I reproduce the emotional impact of the incidents through a series of short evocative descriptions that reveal the "dramatic, thematic, and emotional significance" of educational experiences (Burroway 1987; Afonso 2007). Through engaging in the emotional impact of the incidents, I have come to understand myself and the process of learning in deeper ways (Ellis and Bochner 2000). As I wrote my stories and critically reflected on what I had written, I was able to uncover layers of meaning in my life, and in my connections with the lives of others. I became aware of the many layered narratives in my personal, spiritual and educational life that intersected. As I articulated these intersecting narrative threads, I found myself articulating my values, bringing them out of my gut- and heart-brain intuitions, knowing, and understanding, into my head-brain consciousness, knowing and understanding.

I experienced reflexive relationships in my study as I told my story of my childhood learning, filled with emotions of love, care, support and belief in myself, and was able to retell my childhood story as the story of JNGE (*pronounced Ginger*). JNGE is my story about me believing that I was/am 'Just Not Good Enough', and showing how I have grown and changed – which I think of as learning – and coming to believe in myself (showing the growth and change in my narrative from a story of rejection and not believing in myself). I have enriched my autobiography with photographs taken during my school years and at graduation, school reports from primary school through to matric and letters of application and rejection to study at university (Mitchell and Weber 1999).

I have pointedly provided unique insights and interpretation of the socio-political and cultural forces such as the specific apartheid policy of “separate education” in South Africa and how that has shaped my practice (Bloch 2009). As I engage history in my journey of personal development and occasional disappointment, I reveal my prejudices about education that excludes and rejects people that are from different cultural and socio-economic backgrounds to my own. In my autobiography I also highlight my biases towards engaging in educational experiences that are active, highly emotional, driven by intuition.

In my autoethnography, as I study myself, I include cultural elements of my personal experience of learning such as being a coloured female in a racially divided system of education and in a patriarchal system of education and religion (Ellis and Bochner 2000; Ellis 2004). As I situate myself within a broader socio-cultural context I reveal multiple layers of experience and understanding of *whole-being-learning*.

In my study of my educational practice, I have used action research living theory methodology. Whitehead (2009a) offers a living theory methodology that is useful for creating my own living theory which explains my educational influence. In November, 2009, I had a privileged opportunity of interacting with Jack Whitehead face-to-face during his keynote address at HELTASA at the University of Johannesburg, and then a week later at workshops based on “*Using a living theory methodology in improving practice and generating educational knowledge in living theories*” at the Durban University of Technology.

This interaction helped me to realise that action research living theory methodology was a relevant methodology and method for my research. Jack helped me to understand, and accept, that because my practice is lived, and because my practice is values-driven and (in)formed, my practice is the manifestation of my living theory, and therefore the ex-pression of me as *my own living theory*. I then came to understand that as I engage in understanding my own living theory, I am able to learn more (change more) and thus my theory changes as I am living what I learn, and new knowledge emerges (Hamilton and Pinnegar 1998).

In using an action research living theory methodology, I am able to show how I am both congruent and contradictory in my personal, spiritual and educational beliefs and behaviours. In some instances, I and others are not experiencing a joy-filled love and love-filled joy in our spiritual lives which is a contradiction. In some ways, our spirituality and learning in educational institutions is not fully active when our biochemistry for educational learning is operating at less than optimal levels because it is focused on something other than the educational learning at hand.

I adopt a living approach to educational theory and use action reflection cycle to “present [my] claims to know how and why [I] am attempting to overcome” my concerns in the form:

I experience a [concern] when some of my [spiritual and educational] values are negated in my practice. I imagine a solution to my concern; I act in the direction of my solution; I evaluate the outcomes of my actions; I modify my problems, ideas and actions in light of my evaluations (Whitehead 2009c:112).

I give an account of my own learning as a practitioner-researcher as well as the learning of others by investigating my practice of *whole-being-learning* with a view to offer explanations for what I am doing so that I can hold myself publicly accountable (McNiff 2010). I have used multimedia narratives to identify and express my values in my spiritual and educational lives. I have critically reflected on how, when and to what extent I live these values in my practices of engaging in *whole-being-learning* (Whitehead 2008a; Whitehead and Huxtable 2008; Whitehead 2009b). I use multimedia to show the life-affirming energy with my values of being loving, kind, respectful, considerate, impartial and showing sincere treatment of others, as explanatory principles of my spiritual influence. My values of loving what I do, having a passion for what I do and having fun and pleasure in all I do are explanatory

principles of my educational influence, and ex-pression of my biochemistry of learning, movement, change, development and understanding.

I use the unique contribution of narrative inquiry to share the lived experiences of myself and others as a story (Connelly and Clandinin 2006; Clandinin *et al.* 2007). In my study I use narrative inquiry as a mode of reporting my research through storytelling and as such I have been guided by issues of time, social elements and elements of my individual context and the location of my actions.

### **With whom did I interact in my study? How did I interact with them?**

In my autobiography and autoethnography, which is my account of my personal learning, I have shared photos of my life-history from pre-school years, through high school to university study, highlighting the socio-political environment that influenced my *whole-being-learning*. I have constructed my account using photographs in the exploration of school-in-memory work (Mitchell and Weber 1999).

Using action research living theory methodology I studied the spiritual and educational influences of myself and others engaged in *whole-being-learning*. I compiled a schedule of my participants (SOP) with whom I interacted during my research and have presented it as Appendix B: Schedule of Participants (SOP). In my study, I reference the audio/video interactions with the participants using the following format: (SOP number, name, date, exact time of utterance in minutes). I omit the time for the written responses as they were a maximum length of a short paragraph

I studied the spiritual influences of myself and others engaged in *whole-being-learning* from the perspective of spiritual learning and through a spiritual lens by interacting with a total of eighteen parishioners from the local Anglican Communion where I worshipped and ministered from 1988 until 2011. In my account of my spiritual learning, I share a video of how I teach during my sermons in the church, and a video showing how I engage in liturgical dance as an influence on my spirituality.

My interactions with others were in the practice of ministry, my own theological studies and Bible studies, liturgical dance, floral arranging, and during “Quiet Mornings” that I facilitated. I used open-ended questions to determine the spiritual

influences experienced during their participation with me to actively learn, move, change, develop and understand their spirituality. I did not stipulate the length of the responses to the questions. Some of the participants responded with bulleted terms whilst others wrote many paragraphs. Some responses were hand written and others were typed and emailed or even sent as message on social media using Facebook. See Appendix C: Written responses of the participants. The general format of the questions for the spiritual learning perspective and lens were:

1. To what extent and how did I influence your learning during ...
2. To what extent and how did you influence my learning during ...
3. Can you describe the emotions you experienced during these learning moments giving instances or examples as appropriate?

I distributed the questionnaire either after a church service or for those who no longer attended the church, I contacted them via email and some of them responded via a SKYPE conversation. I held two SKYPE conversations with participants who were out of town – one with Fr Terry and his wife Rita who were in New Zealand and the other with Faith, an ex-parishioner from one of my local parishes who had moved down to the South Coast. I communicated with them via email and Facebook to set up a suitable time for the conversation. I audio recorded the conversations on the computer, but unfortunately the recording software I used was freeware - Jing™ and I had a problem starting the recording so I missed out on the initial few minutes. The conversation during that time though involved general niceties so I did not miss any critical data.

In my account of my spiritual learning, I have used photographs of Dawn, Charys and me arranging flowers for an Easter service to show the ex-expression of our spirituality achieved by realising our connections and relationships with each other, and the connection between God and His creation. I have also used photographs as a record of the activities during Quiet Days, which the women in the parish and I found promoted our spiritual *whole-being-learning*.

When studying the lived experience of *whole-being-learning* from an educational perspective and through an educational lens, I interacted with seven colleagues from the Durban University of Technology and five groups of their students in their second, third or fourth years of study, who were engaging in using games for *whole-*

*being-learning*. In my account of my educational learning, I share videos showing how I facilitate workshops on promoting the use of active learning, present at symposia and a conference. I have also included a video of Sherlien, one of my colleagues, presenting the games that she used for active learning at a symposium. I also used photographs to show how the creative potential of Derrick's students had been realised as they were nurtured in the development of their games for *whole-being-learning*.

I held conversations, at pre-arranged times during June to September 2009 with the lecturers, in their offices. As I engaged with the lecturers in conversation, for some, their story telling was short approximately 20 minutes whilst for others they spoke for up to 45 minutes. I originally scheduled a one-hour session with them. I interacted with the students by requesting them to write their responses as there were too many of them to hold individual conversations. I asked both the lecturers and students one open-ended question to elicit their stories:

*What would you like to tell me about your experience – your feelings, thoughts and emotions - of using games for learning teaching and assessment?*

After reading and listening to the responses of my colleagues and students, I realised that there were parts of the story that they had omitted and were critical for my account of my understanding of learning as a biochemical process.

I then held focus group discussions to elicit feelings and descriptions about what they had mentioned earlier. From the sharing of the ideas in a group, I hoped that others would also recognise their own ideas which they had not probably mentioned before (Pinnegar and Hamilton 2009). I did not sit in on the focus group discussions as I also wanted them to engage freely without my influence. I asked the lecturers the following questions:

1. How did you **feel** - what were your personal experiences - when you designed the games for playing or when you developed the games assignment for your learners?
2. What made you **feel** that you had to “make learning fun for them”?
3. The students had a **voice** they never had before. What did you observe in the learners - what gave them the voice and how did they express it?
4. Why do some students not want to **engage** in game-playing with the others?

5. What **changes** did you notice in the learners after they had played the games or designed the games?
6. What **changes** did you notice in yourself after you had introduced games in the classroom?

The followup questions for the students were

1. How do you **feel** when you play games?
2. Why do you think games help you **remember** better?
3. Why do you think games help you **understand** better?
4. In previous input from you, you mentioned that “Games make learning easier and games make studying easier”. What is the difference between **learning and studying**?

I used the specific terms that are underlined and bold in the followup questions as they are key terms that provide evidence of learning as a biochemical process (Pert 1999; Jousse 2000; Jousse 2004; Jousse 2005; Jousse 2006; Pert 2006).

### **How did I mine the data for usable and relevant evidence?**

I generated a great deal of data: 180 minutes of audio recorded conversations, 130 minutes of video recordings, over 300 books, thesis and journal articles, more than 30 pages of photographs, email and questionnaire responses. I was “spoiled for choice” in the words of my supervisor. I learnt from Jack Whitehead during one of his presentations at the Durban University of Technology that all data is not evidence (Whitehead 2004).

So I had to ‘mine’ the data for ‘evidence’ I listened to the audio recordings, I watched the videos, I read and reread the books, the articles and the emails, and talked again and again to my research participants, trying all the time to distinguish what was usable and relevant. I was still “spoiled for choice” with respect to the evidence I had mined from the data. The stories that I could have written would have filled volumes, however I was restricted by the word limit of my thesis so I had to be even more rigorous in the selection of the appropriate evidence.

I transferred the audio recordings of my conversations to my i-Pod digital playback device from the digital recorder. Instead of transcribing the videos and the audio-recorded conversations, I listened to each recording numerous times for the different emotions revealed in the way my research participants spoke, informed by the view of Conolly (2002) that

While the scribal record captures and records aspects of the linguistic elements of the performance, i.e. the actual words are recorded, it does not record the dynamic vitality of the performance as an indivisible whole made manifest in (1) the kinaesthetic features, i.e. movement and gesture; (2) the spatial features, i.e. line, form, shape; (3) the paralinguistic and non-verbal aural features, i.e. non-verbal sounds, pitch, inflection, timbre, emphasis, vocal modulation; (4) the temporal features, i.e. pace, pause; (5) the interactive features, i.e. the responses of the audience (Conolly 2002:162).

I am aware that the paralinguistic elements of speech are connected to the emotions through the work done in the research field of Speech Emotion Recognition (Caponetti *et al.* 2011). I took particular note of the non-verbal sounds, I interpreted, them and created Table 1 which I used as a guide:

**Table 1: Interpretation of Non-Verbal sounds (Timm, 2012)**

<b><i>Non-verbal sound</i></b>	<b><i>Interpretation</i></b>
Pitch	High/low
Pace	Quick or slow
Pause	Frequency and length
Inflection	Up/down or wriggle
Volume	Loud/quiet
Timbre of voice quality	Sad, happy, thinking
Emphasis	Words emphasised
Repetition	Word or phrase

I mined the audio recordings for evidence, focusing on those aspects of the recordings that provided the most relevant and appropriate evidence to construct the narratives for my account of understanding learning as a biochemical process.

I used Whitehead's method (Whitehead 2008b; Whitehead 2009a; Whitehead 2009c; Whitehead 2010a) of viewing the video in order to "see and experience" the relationally dynamic flows of energy and values. Using Quicktime to view the videoclip, I moved the cursor along at about seven times the normal speed, a few times, back and forth, as I focussed on the values being expressed. I found that I could see and appreciate the embodied expression of values of the person, between

persons and within a space, in the rhythm of moving the cursor backwards and forwards. When I felt the “moment of empathetic resonance” I stopped the cursor, and reflected on the validity of the video.

As I viewed the videos, I was able to recognise the expression of our life-affirming energy (Whitehead 2008b; Whitehead and Huxtable 2008; Whitehead 2009c) through our corporeal-manual and laryngo-buccal gestes (Jousse 2000; Jousse 2004; Jousse 2005). Jousse used the term cinematograph for what we call video and he shared how the recorded cinematograph could be used to “study at our leisure” the psycho-physiological movement or ex-pressions of the body” (Jousse 2000:32). I agree with Jousse when he states :

I am well aware that even the most adequate vocabulary would not enable us to grasp fully the refinement and the highly expressive power of this intuitive, logical, mimismological gesticulation. Such density of life could not possibly ‘be expressed’ statically on paper. A proper lesson in Cinemimage would demand the collaboration of a man of pure Corporeal manual Style or the help of a cinematographic record of his gesticulation. It is *because it runs on without interruption*, that the movie film constitutes in fact the only ‘continuous, moving book’ capable of receiving and rendering, *in its full duration*, the movement and indivisible continuity of the logical, living, Propositional Geste (Jousse 2000:71).

In this way, I was also able to identify our – my own and those of my research participants - values of loving what we do, supporting and encouraging others as we engage in *whole-being-learning*. In my account, I provide an explanation of the particular context of the video as well as an explanation of the embodied values. I have used You Tube (<http://www.youtube.com>) as a streaming server to enable the integration of my videos into explanations of educational influence and the communication of meanings of energy flowing values as these are expressed in practice. I also provide all the videos I refer to in this thesis in the Schedule of Participants - Appendix B and on the enclosed DVD.

I used two stages of mining the data for evidence of biochemical activity in the lived experiences of myself and my research participants.

### **What was the first stage of mining data for evidence?**

I believe that the evidence of biochemical activity in learning is found in the emotional issues experienced by learners. I believe in the indivisibility of thinking and

feeling and hence indivisibility of intellectual and emotional engagement (Jousse 2000; Pert 2008). The emotions experienced either trigger the learning or are the obstacles to learning. The low energy emotions are indicative of low biochemical activity whilst the high energy emotions indicate heightened biochemical activity. I observed the physical gestures, listened to the spoken word and read the written word recorded from the lived experiences of myself and my research participants. I identified the emotions of low energy, hence no, or low, engagement in learning experienced by myself and others, such as loss of self-esteem – in the case of Ingrid, lack of belief in the self – in the case of Sherlien, boredom experienced by Ivan and Dorinda's students and inertia as experienced by Derrick and Anisa's students. I identified the evidence of changes in emotion, energy and hence biochemical changes experienced when learning happens to me personally, spiritually and professionally as an educator. As I mined the data for evidence, I also identified within the written texts, the use of the terms by myself and others, such as, 'movement', 'growth', 'development', 'change' and 'understanding' as being synonymous or associated with 'learning'.

### **What was the second stage of mining data for evidence?**

I used the evidence from the first stage for the second stage of mining the data for evidence. I mined for evidence of *whole-being-learning*. *Whole-being-learning* happens when there are nurturing relationships, recognition of talents and gifts and integration of knowledge. The key words - with synonyms - I used are 'caring', 'nurturing' or 'hurting'; recognising talents and gifts, questioning, integrating and embodied as well as intellectual knowing.

### **How did I use frameworks in my research?**

I used frameworks to structure and direct the reporting of my research process as well as in the mining of the data for appropriate evidence when I explored my learning and the learning of others from a spiritual perspective and from an educational perspective.

In my stories of spiritual learning and my educational learning perspectives and lenses, I used Action Research Self-Study framework to structure and direct the reporting of the research process (McNiff and Whitehead 2006; McNiff 2010). I have re-phrased and re-ordered the sequence of the questions in the Framework in order

to present a coherent and meaningful report. I found the framework a most useful tool to help me discriminate or discern what data to use as evidence. Various frameworks for have been presented by different authors such as Brown (1994) Bullough and Pinnegar (2001), McNiff and Whitehead (2006; 2010).

I follow Whitehead's advice that "generating knowledge relies on asking, researching and answering good questions" (Whitehead 2009c). I realised that my particular context of my research and my voice in my research could not be adequately included in the original McNiff and Whitehead Framework unless I rephrased the questions. I have presented the adaptations and modifications in Table 2 and Table 3 I have thus been able to explicitly make space for the lived experience of myself and my research participants in my research report.

**Table 2: Adaptation of Action Research Framework: my Spiritual learning (Timm 2012)**

<b>McNiff &amp; Whitehead(2006)</b>	<b>McNiff(2010)</b>	<b>Questions used for my spiritual learning</b>
<p>1. What really matters to me? 2. What do I care passionately about?</p> <p>3. What kind of difference do I want to make in the world?</p> <p>4. What are my values and why?</p> <p>5. What is my concern?</p> <p>6. Why am I concerned?</p> <p>7. What kind of experiences can I describe to show the reasons for my concerns?</p> <p>8. What can I do about it?</p> <p>9. What will I do about it?</p> <p>10. How do I evaluate the educational influences of my actions?</p> <p>11. How do I modify my concerns, ideas and actions in the light of my evaluation?</p>	<p>1.What is my concern?</p> <p>2.Why am I concerned?</p> <p>3.How do I show the situation as it is and as it develops as I take action?</p> <p>4.What can I do?</p> <p>5.What will I do?</p> <p>6.How do I generate evidence from the data?</p> <p>7.How do I check that any conclusions I come to are reasonably fair and accurate?</p> <p>8.How do I explain the significance of my action research?</p> <p>9.How do I modify my ideas and practices in light of my evaluation?</p>	<p><b>1. What really matters to me? What do I care passionately about? What kind of difference do I want to make in the world?</b></p> <p><b>2. What are my values and why?</b></p> <p><b>3. What is my concern? Why am I concerned?</b></p> <p><b>4. What evidence do I have for my concern?</b></p> <p><b>5. What have I done about my concern?</b></p> <p><b>6. How did studying theology influence my <i>whole-being-learning</i> of Christian Spirituality? What evidence can I present of this influence? What evidence can I present of my influence on the Christian spirituality of others?</b></p> <p><b>7. How did participating in liturgical dance influence my <i>whole-being-learning</i> of Christian Spirituality? What evidence can I present of this influence? What evidence can I present of my influence on the Christian spirituality of others?</b></p> <p><b>8. How did participating in floral arranging influence my <i>whole-being-learning</i> of Christian Spirituality? What evidence can I present of this influence? What evidence can I present of my influence on the Christian spirituality of others?</b></p> <p><b>9. How did I use Bible Studies to influence the <i>whole-being-learning</i> of Christian Spirituality of others? What evidence can I present of this influence? What evidence can I present of my influence on the Christian spirituality of others?</b></p> <p><b>10. How did I use Quiet Days to influence the <i>whole-being-learning</i> of Christian Spirituality of others? What evidence can I present of this influence? What evidence can I present of my influence on the Christian spirituality of others?</b></p> <p><b>11. What do I see as future explorations following on my study?</b></p>

**Table 3 : Adaptation of Action Research Framework: my educational learning**

<b>McNiff &amp; Whitehead (2006)</b>	<b>McNiff(2010)</b>	<b>Questions used for my educational learning</b>
<p>1. What really matters to me? 2. What do I care passionately about?</p> <p>3. What kind of difference do I want to make in the world?</p> <p>4. What are my values and why?</p> <p>5. What is my concern?</p> <p>6. Why am I concerned?</p> <p>7. What kind of experiences can I describe to show the reasons for my concerns?</p> <p>8. What can I do about it?</p> <p>9. What will I do about it?</p> <p>10. How do I evaluate the educational influences of my actions?</p> <p>11. How do I modify my concerns, ideas and actions in the light of my evaluation?</p>	<p>1. What is my concern?</p> <p>2. Why am I concerned?</p> <p>3. How do I show the situation as it is and as it develops as I take action?</p> <p>4. What can I do?</p> <p>5. What will I do?</p> <p>6 How do I generate evidence from the data?</p> <p>7. How do I check that any conclusions I come to are reasonably fair and accurate?</p> <p>8. How do I explain the significance of my action research?</p> <p>9. How do I modify my ideas and practices in light of my evaluation?</p>	<p><b>1. What is my concern? Why am I concerned?</b></p> <p><b>2. What really matters to me? What do I care passionately about? What are my values and beliefs? What kind of difference do I want to make in the world?</b></p> <p><b>3. What is the extent of me living out my values and creating a safe space for <i>whole-being-learning</i> ?</b></p> <p><b>4. What is the evidence for my concern that students do not believe in themselves and how their emotional issues get in the way of their <i>whole-being-learning</i> ?</b></p> <p><b>5. What evidence do I have of my students who do not believe in themselves? What did I do to influence their belief in themselves?</b></p> <p><b>6. What evidence do I have of students not actively engaging with the teachers and with the subject matter? What did the teachers do? What evidence do I have of my influence? What evidence do I have of the teachers influence?</b></p> <p><b>7. What do I see as future explorations following on my study?</b></p>

The Johari Window was developed as a model of awareness of group processes by Joseph Luft (a Psychologist) and Harry Ingram (a physician) (Luft 1969). I modified the Johari Window framework (Kormanski 1988; Shenton 2007) and used it to mine the data I had generated from my colleagues for evidence of them using *whole-being-learning* techniques in their classrooms. I modified the Johari Window framework to examine the self as perceived by the self, and the self as perceived by others.

**Table 4 : Original Johari window Framework**

<i>Public self</i> Features of which the individual is aware known to the wider world as well	<i>Blind self</i> Characteristics of person known to others but not to the individual
<i>Private self</i> Individuals self knowledge which is not revealed to others	<i>Unknown self</i> Includes aspects of the person that neither the individual nor anyone else knows

**Table 5 :Modified Johari Framework for the interpretation of data (Timm, 2012)**

	Observed by the lecturer	Not observed the lecturer
Observed by the Academic Developer		
Not observed by the Academic Developer		

I have modified the framework by changing the focus from the “known” to the “observed” and the “self” to the lecturer whilst the “World or others” is changed to “the Academic Developer” as presented in Table 4 and Table 5.

I identified three concerns, as part of the action research living theory methodology (Whitehead 2010a; Whitehead 2011), regarding the engagement of *whole-being-learning* by lecturers and students at the Durban University of Technology. The three concerns were that students did not believe in themselves and emotional issues they experienced got in the way of their learning, students were not actively engaging with their teachers and learning was not happening and teachers were in a state of despair in their classes and needed support and encouragement.

I compiled one Johari window for each concern per lecturer. I populated the table with evidence I obtained from mining the data generated in observing the lecturers in my workshops and in their classrooms, audio-recordings of purposeful conversations with them and reading and listening to feedback from others with whom they interacted. I identified the terms/phrases indicating the emotions experienced by the teachers or the students as well as movement, growth, development, change and understanding relevant to the concern. In the first vertical column, I recorded the exact words used either in the purposeful conversations together with the time in minutes or the words from the student questionnaires with the corresponding identification number for the questionnaire. I recorded my observations and reflections in the second column. The second column was only completed after the first column.

Appendix D includes an exemplar of a completed framework for one concern for a lecturer.

### **How do I justify the use of ‘anecdotal stories’ as research?**

During my research journey, I was often asked “How can anecdotal stories be research?” I thought about this deeply.

I realised that to answer this question, I had to decide what I understand about ‘research’ and ‘anecdotal stories.’

## What do I believe about research?

I believe, like Marcel Jousse that

The aim of research is to quest for and discover fresh insights and understanding. But how can we discover something fresh and new when it appears as if all has already been discovered? By the incessant, meticulous and detailed scrutiny of the Old (Jousse 2000:482).

I also believe, like Laplace, that research is about discovery, and that

Discoveries consist in the bringing together of ideas susceptible to being connected, which have hitherto been isolated (Jousse 2000:54).

I further understand that

Humankind is not a recent, newly created phenomenon. Neither has it restricted its thinking and searching to customary and inevitably limited formulations. The sum of its age-old, never-ending experience, fertile with living psychological discoveries, is not totally contained in the library of the so-called classical authors. An even broader study of human thought and of all its vital and dynamic means of expression will assuredly lead us to a richer understanding of life (Jousse 2004:16).

Then there is an age-old dictum that echoes through my being.

Every Zen master knows though that the answer is "in" the question. There is no such thing as an impossible problem or enigma. The only thing that makes a solution "impossible" is the route used to find it. If you're going off on circuitous paths that lead nowhere, then nowhere is where you'll end up

([enchantedmind.com/html/creativity/.../zen\\_pondering\\_puzzles.html](http://enchantedmind.com/html/creativity/.../zen_pondering_puzzles.html))

I like the way Neil Postman and Charles Weingartner express this.

Once you have learned how to ask relevant and appropriate questions, you have learned how to learn and no one can keep you from learning whatever you want or need to know (Neil Postman and Charles Weingartner, *Teaching as a Subversive Activity*, [fno.org/oct97/question.html](http://fno.org/oct97/question.html)).

When I put all of the above together in my mind, I find that I have a number of beliefs which inform my understanding of 'research'.

I believe that the answer lies in the question. I believe that all human beings know a great deal of what they need to know. I believe that this human knowing is ancient in that it is held in the human genome, and because it is their own knowing, that it is authentic. I believe that I can discover something new when I juxtapose those things which have not been previously juxtaposed.

### **What do I do in my research informed by this set of beliefs?**

I ask questions of human beings about human beings. I ask human beings, myself included, about their lived experiences. I ask human beings, myself included, about the intellectual discoveries they have made of themselves and others, and for themselves from their lived experiences. I ask human beings, myself included, about the emotional discoveries that they have made of themselves and others, and for themselves from their lived experiences. I ask human beings, myself included, about the spiritual discoveries that they have made of themselves and others, and for themselves from their lived experiences. I juxtapose all these responses and then I look for congruencies which answer the research questions that I have asked myself.

### **What do I believe about ‘anecdotal stories’?**

I believe that all human knowledge however recorded is an ‘anecdotal story’ of one kind or another.

### **What is a story?**

The Concise Oxford Dictionary defines a ‘story’ in seven different ways

1. past course of person’s or institutions life (...)
2. account given of an incident or series of events (...)
3. piece of narrative, tale of any length told or printed in prose or verse of actual or fictitious events, legend, myth, anecdote, novel, romance, narrative or descriptive item of news (...)
4. main facts or plot of novel or epic or play (...)
5. facts or experiences that deserve narration (...)
6. (colloq. or childish). lie, fib; liar (...)
7. ~book (...) ~line (...) ~teller (...).

All in this definition lend themselves to research of one kind or another. The “past course of person’s or institutions life”, an “account given of an incident or series of

events”, the “facts or experiences that deserve narration” all deserve responsible investigation to provide insights about human behaviours and the human condition.

Erik Ericson, the psychiatrist, has described each patient as a “universe of one”, and an eminent physician has claimed that “85 per cent of the problems a doctor sees in his office are not in a book (Schon 1983:16).

A “piece of narrative, tale of any length told or printed in prose or verse of actual or fictitious events, legend, myth, anecdote, novel, romance, narrative or descriptive item of news”, the “main facts or plot of novel or epic or play”, and storybooks, storylines, and storytellers also throw light on human behaviours and the human condition from a different perspective, that recorded in human stories, and grist to the mill of research into orality-literacy, and literature, and providing another perspective and lens for our understanding of the human being and the human condition. Even where human lies and fibs, and liars are significant to the mill of responsible research.

I borrow from the motto of Glenwood High School, Durban, South Africa, where my two sons spent their high school years. The Roman playwright Terentius Varro, who lived in the last few decades preceding the birth of Christ, wrote "Homo sum humani nihil a me alienum puto"<sup>3</sup> - "I am a *human* - I consider nothing pertaining to human kind a matter of indifference to me" (my italics).

### **What is an anecdote?**

An anecdote is defined in the Concise Oxford Dictionary as a “narrative (or painting, etc.) of amusing or interesting incident; (...) L.f. Gk *anekdota* things unpublished (...).”

There are three elements in this definition which deserve some attention in relation to the research. A “narrative” is a story which is primarily “interesting” and may be “amusing”, and which is a “thing unpublished”.

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<sup>3</sup> <http://glenwoodhighschool.co.za/school-prospectus>

Having addressed the “interesting” and perhaps “amusing” “narratives” under “story”, I focus here on the “thing unpublished”. I refer again to Marcel Jousse

The sum of its age-old, never-ending experience, fertile with living psychological discoveries, is not totally contained in the library of the so-called classical authors. An even broader study of human thought and of all its vital and dynamic means of expression will assuredly lead us to a richer understanding of life (Jousse 2004:16). (my bold)

From Jousse I understand that responsible and inclusional research cannot restrict itself to knowledge that has already been published, nor can it restrict itself to knowledge that has been recorded only in writing. I also reflect that all research is “unpublished” until it is published.

I am satisfied that “anecdotal stories” are research.

### **What do I believe about my study?**

I believe that the evidence which I have provided appropriately answers the research questions which I have asked. My stories/accounts provided evidence of my concerns as well as the educational influences of various activities that I and others undertook to address the concerns experienced within our classrooms and learning environments in general. In order to address the concerns, I engaged in action research living theory methodology. I offer an explanation for my educational influence, my living educational and living spiritual theory. I offer my belief in the value of joy-filled love and love-filled joy in educational and spiritual practice.

**In summary**, in my research I have juxtaposed human biology and human learning. I have juxtaposed the scientific enquiry of many, which is already published and accredited, with the authentic accounts of the lived experiences of myself and others, which are shared orally, and are not published. I believe that this multiple juxtapositioning has revealed important discoveries about our understanding of effective education. I believe that in so doing, I have answered the question “How can anecdotal stories be research?”

## **Conclusion**

In this chapter, I have described how my research design as a self-study researcher has included *insider, implicated and outsider* perspectives as I account for researching the 'self' as a phenomenon, my practice and the practice of others. I have been inventive in my methodology and provided a Venn analysis of the different methodologies I have employed in my study highlighting the commonalities and unique contributions of each methodology.

I provide information on how I interacted with various research participants during my generation of my data. I have described how I have mined my data for usable and relevant evidence using a two-stage approach as I was "spoiled for choice" with all the data I had generated. I share my modifications that I made to the Johari Framework and the Action Research Framework to structure my account of my study.