Chapter 8:
How have I shared my study of my understanding of learning as a biochemical process in the public space?

Introduction

In this chapter I provide a chronological account, over the past decade from 2002 until 2012, of how I have shared my understanding of learning as a biochemical process in various public spaces.

When did I start making my voice public?

I began sharing aspects of my study in local and international public spaces since 2002 as a way of holding myself responsible for what I am doing (McNiff 2010). Sometimes I did this alone, but mostly I collaborated with critical friends in the construction of posters and in the sharing of presentations at conferences about our lived experiences of using games for active learning and engaging in whole being learning, out of which emerged my understanding of learning as a biochemical process. In this chapter I will give an account of some of the presentations and conversations I had in public spaces about the development of my thesis.

During 2002, I collaborated with three colleagues, Shubnam, Nalini and Penny in the design of a poster about the board game, *Chemistry is a Gas* that we had developed for students studying a National Diploma: Analytical Chemistry. We developed this game to promote active learning in Penny's Organic Chemistry class. Our abstract was accepted at the Annual Conference of the Royal Australian Chemical Institute (RACI) in Melbourne, Australia. I have included the abstract below and a picture of the poster. We were all very excited about the achievement. Only one person could attend the conference from the team. We chose Shubnam as she had been the most enthusiastic and showed the greatest commitment during the design of the game and the poster. Our abstract read as follows:

"CHEMISTRY IS A GAS" BOARD GAME"

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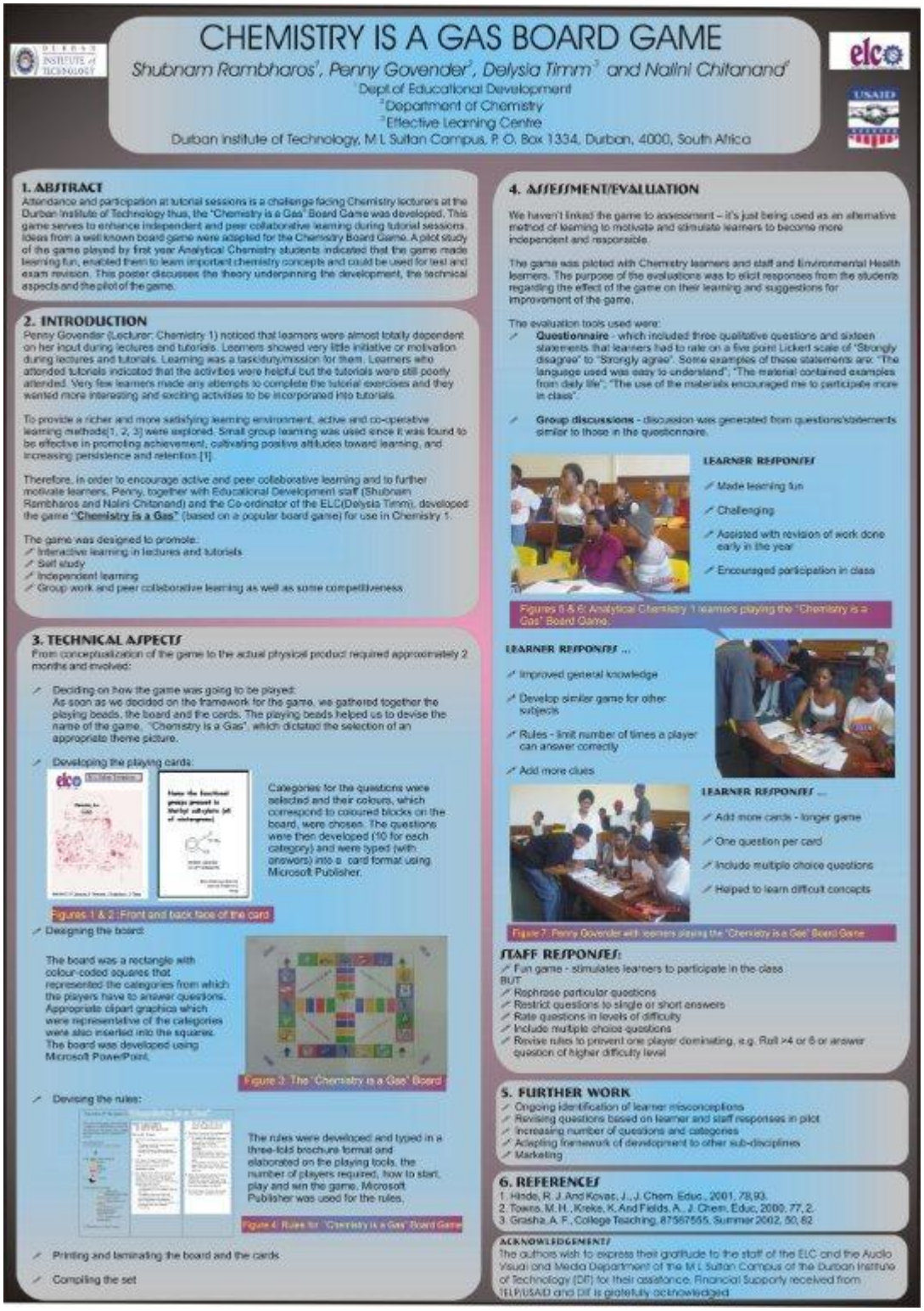
Attendance and participation at tutorial sessions is a challenge facing Chemistry lecturers at the Durban Institute of Technology thus, the "Chemistry is a Gas" Board Game was developed. This game also serves to enhance independent and peer collaborative learning during tutorial sessions.

Ideas from a well known board game were adapted for the Chemistry Board Game. A pilot study of the game played by first year Analytical Chemistry students indicated that the game made learning fun, enabled them to learn important chemistry concepts and could be used for test and exam revision. This poster discusses the theory underpinning the development [1,2], the technical aspects and the pilot of the board game.

[1] M. H. Towns, K. Kreke and A. Fields, J. Chern. Educ., 2000,77, 1

[2] R. J. Hinde and J. Kovac, 1. Chern. Educ., 2001 , 78, 1



Unfortunately, we were unable to get the game patented. I was deeply saddened that when Shubnam and Penny left the Chemistry Department, no other lecturer in the Chemistry Department was interested in pursuing the use of the games for learning. During a conversation with Shubnam in June 2009, she spoke with deep sadness and longing about how the lecturers in Australia in 2009 were more

interested in the game “Chemistry is a GAS!” than the lecturers in our own institution. I ask myself “Is this a case of the prophet not being heard in her own land?” I think so.

In November 2004, I presented a paper at the South African Academic Development Association (SAADA) annual conference in Port Elizabeth, South Africa. The annual conference was attended by Academic Developers as well as lecturers and tutors who were interested in improving their teaching, and their students’ learning. The title of my presentation was **Educators, Learners and the Critical Crossfield Outcomes: Who Learns What from Who, When, Where and How?** My abstract for the paper read:

> The SAQA Critical Cross Field Outcomes and Underlying Principles (CCFO’s and UP’s) were among the first post-apartheid statutes and arguably the most important. If these are met, learners are truly empowered by the realization of their innate capacity and education is truly transformed. Spady (2004) points out that the CCFO’s and UP’s reflect qualities and competences that are the essence of quality living and are not bound by specific subject content. These outcomes can be translated easily into role performances which enrich”the quality of the student’s experience as a preparation for life”.
>
> This paper presents two cases highlighting educator and learner engagement with the CCFO’s and UP’s in the design and implementation of innovative learning materials at a University of Technology. The processes undertaken by the educators and learners involved and the issues arising from the various approaches to operationalising the CCFO’s and UP’s in a Higher Education Environment are discussed.

At this stage in my inquiry, I was trying to ascertain the acceptability of games as a learning strategy in Higher Education. In my presentation, I discussed the development of games as innovative learning materials. I shared how the lecturers were using the games in their classrooms to promote active learning. I was very excited to present my work at the conference. I was even more excited when the people who attended the conference showed an interest in the games that we had developed. During informal discussions after the presentation, I shared the fun and excitement in the classrooms and how the students were engaging in learning.

In 2002, when my friend, mentor and supervisor, Joan Conolly, saw what we were doing with games for learning, she introduced me to the *Molecules of Emotion,* by the biophysicist, Candace Pert, who tells us that human beings are "hardwired for pleasure" (Pert 1999), and to the 'memory of water' work of Jacques Benveniste (Benveniste 1999), which tells us that memory operates when subtly energised and activated.

Since 2002, Joan and I have been debating and discussing repeatedly the possibility, and increasingly the opinion, that human learning has biochemical origins, particularly because she and I came from opposite sides of the 'great academic divide' – she from arts, specifically drama and orality-literacy studies and I from science, specifically chemistry.

By November 2005, we were sufficiently confident to submit a joint paper at the annual South African Academic Development Association (SAADA) conference hosted in the Durban University of Technology, our university, in Durban, we titled **Exploring the nature and operation of learning as a biochemical process.** Our abstract was accepted and we co-presented at the conference. Our abstract was:

> Given that effective teaching can only be measured as a consequence of effective learning, we need to understand the nature and operation of learning. Historically we are persuaded that learning is psychological, hence educational and cognitive psychology and multiple and emotional intelligences being cited as important factors in the learning and teaching interface. But the intuitive insights of Marcel Jousse based on three decades of the observation of the transmission of oral traditions indicate that learning is psycho-physiological and the product of learned experience lodged in memory. This insight is corroborated by the scientific findings of Candace Pert which indicate that memory and therefore learning is a biochemical process driven by emotion, and that in fact "Your Body is Your Subconscious Mind" (Pert 2000). This insight is further corroborated by Benveniste's discovery that water has memory informed by the agitation of its subtle energy field, implying that human memory is lodged in the waters of the viscera. This paper explores the implication of these insights and argues for the biochemical nature of active learning thereby identifying what is essential to effective learning and teaching.

This was the first occasion on which I had spoken with my public voice directly to my understanding of learning as a biochemical process.

I was very nervous about this presentation, as I realised that by identifying learning as a biochemical process, we were challenging the current thinking about how learning happens. There were many questions about our ideas, some of which we could answer, and some which were beyond our understanding at that time.

I found this process exciting and encouraging. I was excited about the new journey of discovery I was embarking on and I was encouraged that we were able to stimulate peoples thinking about learning.

As a result of this event, I began to read extensively about the operation of human learning from a scientific perspective, in the areas of biology, chemistry, anatomy, physics and I became increasingly convinced that there was a link between human learning as a result of the fun of playing games and the biology of the human being. (Peterson 1984; Buffer 1985; Byrne 1986; Schandry *et al.* 1986; Sylwester, R 1986; Hendry and King 1994; Liston 1995; Mollica and Danesi 1995; Sylwester, Robert *et al.* 1995; Liston 1996; Caine and Caine 1998a; D'Arcangelo 1998; Haberlandt 1998; Rose and Fischer 1998; Wolfe, Pat and Brandt 1998; Brandt 1999; Gathercoal 1999; Greenleaf, RK 1999; Brandt 2000; Bransford *et al.* 2000; D'Arcangelo 2000; Jensen 2000; Saunders and Vawdrey 2002; Zull 2002; Lamon and Laferriere 2003; Adolfs 2004; Greg 2004; Elsbeth 2005; Michael and Andrew 2005; Cozolino and Sprokay 2006; Gloria *et al.* 2006; Ross 2006; Tye 2006; Zull 2006; Schulte-Korne *et al.* 2007; Jensen 2008).

What has happened in the past five years?

In 2007, I was a member of the Holistic Learning and Integrated Teaching and Assessment (HoLITA) project, which gave me the opportunity to attend off campus workshops in May and September. These workshops were attended by Visiting Scientists who were there to share their specialised expertise with the workshops participants. The Visiting Scientists included Edgard Sienaert, Paulus Gerdes, Emilia Afonso, and Alberto Cupane. I presented my work informally at these workshops and was encouraged yet again by the enthusiastic appreciation of the participants, and the visitors. Edgard Sienaert is the original translator of the work of Marcel Jousse into English, and was generous in sharing his encouraging opinion of my work from a

Joussean perspective. Paulus Gerdes is a leading international ethno-mathematician whose work demonstrates the relationship between mathematics and weaving crafts, and I saw echoes of what I was thinking about in his scholarship. Emilia and Alberto had both just completed their doctorates in chemistry and physics from an auto-ethnographic perspective with Peter Taylor in Australia, and their experiences further encouraged and informed my thinking.

By November, 2007, when I presented at the annual HELTASA[18] (Higher Education Learning and Teaching Association of South Africa) conference in Bloemfontein, I had developed an understanding of how 'learning as a biochemical process' was informing 'learning from games'. The title of my presentation was **From designing games to understanding learning: what happens when we play?** I have included a copy of the powerpoint presentation in Appendix M.

I was excited by the large number of delegates who attended my presentation: there were even people sitting on the floor. There was a great interest in what I presented. People commented on how they could relate to what I was saying about how games can assist learning. They had observed how games had increased learning in their own children at home who still attended school. I was excited to discover that more and more higher education teachers were interested in trying to use games in their learning, teaching and assessing. I was asked to describe in more detail about why I thought games facilitated learning as effectively as they do. I was able to draw on the knowledge from the many discussions that Joan and I had had, our SAADA 2005 paper, and my reading around the subject (which reading had become extensive by then), and share my understanding of learning as a biochemical process, with scientific detail. For the first time, I believed that people were listening to the possibility that human bio-chemistry plays a role in human learning.

In 2008, I accompanied Anisa Vahed to the 2nd European Conference on Games Based Learning where she presented a paper on how she had used games for learning. During the discussions after her presentation, and at other presentations, I was able to share my knowledge and understanding of learning as a biochemical process. I was delighted when Anisa acknowledged my influence in her paper:

Acknowledgements:

[18] In 2006, SAADA became HELTASA – Higher Education Learning and Teaching Association of South Africa.

The author would like to express her sincere gratitude to the person who was not only catalytic in motivating her to tread the path of game based teaching but challenged her educational philosophies, Mrs Delysia Timm, without whom this game would have not been possible.

I had "challenged [Anisa's] educational philosophy" by questioning her on the relationships between herself as the teacher and her learners in the classroom, promoting learning as a fun experience and by getting her to focus on the learning process. In challenging Anisa in this way, I believe I contributed to her learning about learning and teaching, which resulted in her receiving the HELTASA Excellent Teaching Award in 2009. I also note, with some degree of wry humour, that I had not in 2009, yet, influenced Anisa to speak about herself as "I" in her research, even though this was becoming part of my research identity at that time, through the influence of Krishnamurti (1953), Whitehead (1999), Jousse (2000), and Taylor (2007).

In July, 2008 Peter Taylor came to DUT to present a series of workshops on auto-ethnography, which were again encouraging. Also in 2008, HoLITA became Self-Study for Transformative Higher Education Studies (SeStuTHE), which in 2009 brought 22 (inter)national self-study associated scholars to DUT, including Diane Hill (Canada), Claudia Mitchell (Canada), Lebo Moletsane (SA), Kathleen Pithouse (SA), Mathabo Khau (Lesotho), Peter Taylor (Australia), Lily Settelmaier (Australia), Emilia Afonso (Mozambique), Paulus Gerdes (Mozambique), Alberto Cupane (Mozambique), Jack Whitehead (UK), and Joan Whitehead (UK).

By the end of 2009, 'Self-Study for Transformative Higher Education Studies' had become 'Self-Study for Transformative Higher Education Studies and Social Action' (SeStuTHESA). By the end of 2009, I had the opportunity to interact with and talk informally about what I was doing with all of the above-mentioned generous (inter)national self-study scholars. I experienced encouragement from them all, together with critique which was most helpful.

As early as April 2009, I was able, albeit apprehensively, to present **Challenges of Structure, Environment and Process facing a part-time doctoral student in a**

new UoT: a critical autobiographical view, at the second biennial International Post-Graduate Supervision Conference in Stellenbosch. I was apprehensive about discussing my autobiography/ autoethnography because this was the first time I was going to be talking about myself, in a formal public forum, as 'object and subject of my research', following Jousse (2000:26/27).

> The only person one can know well, is oneself. But to know oneself well, one must observe oneself thoroughly. (...) The true Laboratory is therefore the Laboratory of the self. *To instruct oneself is to develop oneself.*

When the time came, I found myself confident, and excited because it was so well received. This was the first of my two papers relating to my autobiography. I include a copy of my powerpoint presentation in Appendix N.

In November 2009, I presented at the annual HELTASA conference in Johannesburg, the theme of which was "Risk and Resilience in Higher Education". My title was **The Risk of Being Oneself in Higher Education** and my abstract read

> All higher education learners should be self-directed, autonomous learners who are able to solve problems and think critically. In becoming a self-directed learner there is a risk of losing the self as a complete entity that exists in a whole and integrated state (Jousse, 2000, Krishnamurti, 1953) and moving towards a disintegrated, non-holistic being. Application of the principles of holism (Smuts, 1925) to the education process can help provide an holistic experience ensuring that learners are resilient and ready for the world of work.
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> Using self-study as transformative scholarship (Jousse, 2000, 2004; Taylor, 2007; Whitehead, 1999, inter alia) I will weave memories of my own as well as those of other educators and learners in Higher Education to seek an answer to "Who is the self in the self-directed learning?"
>
> This paper examines what it means for the learner to be resilient as an individual whole, interacting in a dynamic and organic manner whilst constantly maintaining an holistic state. The balance and rhythm of learning in the whole life of the learner needs to be identified and acknowledged by being included in curricula in a manner that they do not risk losing who they are in their society, in the higher education environment and in the workplace in which they engage.

> I will argue that the self cannot survive alone and it is more a notion of 'self and others' and the relationship between them that makes for a successful learner who is able to function in the world outside of the formal academic institution.

My focus in this presentation was on my critical reflective study of my personal learning. Once again, I was apprehensive about sharing my own story, but I found that I experienced joy in the public sharing. I recall how one of my colleagues in the audience commented that my presentation had really challenged his thinking about his learners in his own classroom. He believed that my presentation had moved him to act with more compassion towards his learners. Another member of the audience commented on the strong emotion that he too experienced during my presentation. Jack Whitehead video-recorded my presentation and uploaded it onto Youtube. He expressed how he could feel my dynamic expression of energy as I shared my story. The video clip can be viewed on Youtube by clicking on the hyperlink below or it may be viewed on the DVD. https://www.youtube.com/watch?v=Ei7w9F4a1xw

Jack also video-recorded a conversation that Joan, my supervisor and I had with him about my research (SOP 42, Jack, Joan and Delysia). This conversation was conducted at the end of a two-day workshop Jack had facilitated with academics on the use of living theory methodology in researching the "self". As I view the videoclip, I notice the life-affirming energy between Joan and me during our conversation which Jack had noticed (Whitehead 2010b). I notice the nurturing relationship between us and the recognition of each other's talents and gifts. I realize now how we were both engaging in *whole-being-learning*. I had not previously thought about our teacher-student relationship and the conversation we had was very important for me as it raised into consciousness my own position yet again as a learner in higher education. The video-clips are accessible on You tube at http://www.youtube.com/watch?v=O2uTcxZtYcw as well as on the enclosed DVD.

In July 2010, I presented a paper at our Self-Study for Transformative Higher Education and Social Action (SeStuTHESA) Seminar at the Durban University of Technology. My presentation was one of twenty-one presentations on self-study research. My title was **Towards an Understanding of the Biochemical Nature of Learning** and my abstract read:

> Transformation of learning and teaching is influenced amongst other things, by our own beliefs, values and skills. Our belief of learning is very often limited to processes occurring in the brain and does not take into account the kind of activity that makes learning happen in the whole being. Historically and currently, theories of learning espouse the notion of learning as a process of change. Change as an understanding of learning is demonstrated as behavioural change as a result of experience. The locus of learning is stimuli in external environment, internal cognitive structuring, affective and cognitive needs, and the relationship between people and environment. Sensory stimulation theory supports the notion that for greater learning to take place, multi-senses need to be stimulated. This theory does not provide the answer as to what is happening in the body when this stimulation occurs. My concern about the actual process of learning as a common experience for all prompted this study.

> In this paper I explore an understanding of learning as a biochemical process within the whole human being - the mind and the body (Conolly and Timm 2005). I will provide evidence of the biological underpinnings of human awareness as it is expressed in our emotions, beliefs and expectations. Human awareness influences how we respond to, and experience our world, and how we learn. I argue that there must be something that is common to everyone as to how learning occurs, and that this is not fully socially or psychologically observable, but can only be usefully explored through understanding of biochemical operations.

I was the last presentation on the last day of the seminar. Even so, I had a very interested audience and my paper was well received. The video clip of my presentation is available on You tube at http://youtu.be/Ei9QLqTsXWg. When I reflect, I can see how confident I had become using the personal voice - the voice that speaks from “I” about “me” and “my” and “mine” and “myself” - not in a self-congratulatory way, but as the voice of the one who ‘shows up’, and ‘speaks up’ about what she values and believes. I began to realise that this was self-empowering in that my confidence was growing, but that this was also a power-filled way to share scholarly knowledge because it enabled me to speak with convincing passion from a deep seated place of my own beliefs and values.

I must note at this point, that my belief in what I was doing was challenged when this abstract was refused inclusion at an action research symposium at another

university. On reflection, I find it deeply ironical that my action research undertaken to suggest how 'action research' to establish the origins of the 'action' in 'active learning' can be refused inclusion at an action research conference. On further reflection, I decided that this was the 'way of the cosmos': my belief in my study needed to be challenged for me to think deeply about my commitment to my living theory about the knowledge that I was espousing. I am glad to say the living theory and the knowledge won, and undaunted by the exclusion of my work, I continued with my studies with renewed determination.

In April 2011, at the 3rd Biennial International Post-Graduate Supervision Conference organised by Stellenbosch University, I presented a paper entitled **How My Lived Experience of Multiple Responsibitlies on a Doctoral Journey is being Transformed through Critical Reflective Self-Study.** The abstract read :

> There is a need within the Universities of Technology to move into the domain of promoting doctoral study programmes as part of their transformation from Technikons to Universities. Furthermore, there is an added pressure for staff at these institutions to be awarded Masters and doctoral degrees so that staff meet the minimum academic requirements for employment. Hence, the students studying for these degrees are academic staff registered part-time within the same Institutions. The supervisors are also colleagues of the same students within the Institution with professional roles that have the potential for conflict since there is a small pool of possible supervisors available. There is a large student to supervisor ratio which also affects the nature of the supervision process and the educational influence of the supervisor. All of these factors make demands upon the supervision relationship which are idiosyncratic and challenging.
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> In this paper I will share my lived experiences as a part-time doctoral student at a University of Technology. I will draw on Jack Whitehead's living theories methodologies to reflect on the various educational influences on my doctoral journey of self-transformation (Whitehead, 2009). I will interrogate how my knowledges and hence my ways of knowing, being and becoming, together with my values are being transformed during the journey. I will also examine the role of life-enhancing energy during my learning and how this contributes significantly to my own transformation. I will also share how the apparently different and conflicting, multiple responsibilities that I have, actually inform and transform my study progress and success. These intersections have a significant impact on my learning as a doctoral student. In telling my story, I will generate my own living theory of spiritual resilience gained through connection with a loving dynamic energy as a standard of judgement (Walton, 2008).

In this presentation, I focused on how I was using living theory methodology in my study. I was pleased to see that there was one other person at the conference who also used a living theory methodology in her study. I was able to discuss with her my use of the living theory methodology and hear from her how she had used the same. I was excited that the living theory methodology I was using in my study was being used more widely. I was no longer apprehensive and nervous about presenting my work. I started feeling much more confident about my own knowledge and understanding of my study. AGE (*pronounced Aggy)* came to the fore, and JNGE (*pronounced Ginger)* retreated.

What is the most recent spaces where I made my voice public?

Recently, and I believe, significantly, I presented as part of a Self-Study Special Interest Group (S-SSIG) symposium at the American Educational Research Association (AERA) meeting held in April 2012 in Vancouver, Canada. The title of our group presentation at the symposium was : **"Starting With Ourselves": Perspectives From the Transformative Education/al Studies Project,** and my particular presentation was **How Am I Transformed as a Higher Education Practitioner-Researcher through Self-Study?** My abstract read:

> Higher Education in South Africa has, amongst its many challenges to deal with, the issue of poor undergraduate success and throughput among students from the previously disadvantaged communities as well as the subminimum academic staff qualifications (ASSAf, 2010; Scott, Yeld & Hendry, 2007). I identify with these issues both as a doctoral student from a previously disadvantaged community and as an academic staff member teaching at a University of Technology in South Africa.
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> I have found that the self-study approach to education/al research is appropriate in my Higher Education context since "knowing more about ourselves as teachers and teacher educators changes us, provokes growth, jolts us out of complacency – sometimes radically, in ways that can seem transformative…The very process of self-study itself changes its practitioners and their situations. Seeing things differently, self-study can prod us to take action" (Pithouse, Mitchell & Weber, 2009, p. 48). It is in changing myself and my situation during both my practice and my research that I believe I am contributing to the American Educational Research Association's mission to

> “promote the use of research to improve education and serve the public good” (Ball & Tyson, 2011, p. 198), particularly in South Africa.
>
> In this presentation, I will explore my lived experience as a Higher Education practitioner and part-time doctoral student, showing how my research as well as my practice have been transformed during my self-study research process. Whilst doing a self-study, I have examined my own values, beliefs, knowledges and hence ways of knowing, being and becoming as a practitioner-researcher in Higher Education to provide an account for my understanding of learning as a biochemical process. It is in systematically examining my practice through telling my own stories, the stories of those that I interact with as a professional academic developer and the use of multimedia that I have become more aware of the various educational influences on my practice.
>
> Through the application of Marcel Jousse’s “Laws of the Anthropology of Geste and Rhythm” (Jousse, 2000), I discover how changes in my values and my beliefs are associated with biochemical changes occurring in my whole being as a result of intussusception. My new knowledge of myself, my educational influences as well as the educational influences of those I interact with during my doctoral study have transformed my practice both as a doctoral researcher and as a practitioner. This transformation has resulted in the generation of a living theory (Whitehead, 2008) that offers spiritual resilience gained through a connection with a loving dynamic energy as a standard of judgement.

I was excited to be talking about the process of self-study on a South African panel led by Kathleen Pithouse-Morgan, and including Theresa Chisanga, Daisy Pillay, and Wendy Rawlinson, all of whom are engaged as either students or supervisors of self-study as part of the Transformative Education/al Studies (TES) project funded by the South African National Research Foundation. Our seminar discussant was Jack Whitehead and our chairperson was Joan Whitehead. Jack video-recorded my presentation and uploaded it on Youtube it can be viewed at http://www.youtube.com/watch?v=V48l2BB7Bj4. As you view the video, you may observe my personal contributions from 4:23 – 7:04 mins and then later at 35:49 – 45:08 minutes. Kathleen Pithouse-Morgan has subsequently been appointed as secretary to the Self-Study Special Interest Group (S-SSIG) of AERA.

Our session was the first session on a Saturday morning, the second day of the meeting. There were hundreds of other presentations happening at the same time at

about eight different venues across the city. I was delighted that I was making my knowledge public amongst international researchers of self-study. I realized that my voice and what it was sharing was acknowledged and accepted. I realized yet again that I have evidence that what I am saying about my study is significant. Figure 48 is a photo that was taken after attending the Self-study SIG closed meeting session. My paper I prepared to present at the AERA S-SIG has been recorded in my thesis as the *Prologue.*

Figure 48 At the AERA Self-study SIG meeting. from l to r: Wendy Rawlinson (SA), Kathleen Pithouse-Morgan (SA), Delysia Timm (SA), Joan Whitehead (UK), Theresa Chisanga (SA), Jack Whitehead (UK), Daisy Pillay (SA), Jackie Delong (Canada), Lesley Coia (USA)

On 18 September 2012, I presented my research at the TES workshop at the Assagay Hotel. My presentation was entitled **What have I learnt about using an action research framework for my self-study doctorate?** I shared how and why I had adapted the action research framework of McNiff and Whitehead(McNiff and Whitehead 2006) and McNiff (McNiff 2010) in reporting my research I had undertaken. I was encouraged by the interactions of the audience, who were fellow self-study masters and doctoral students with their supervisors, during my presentation as well as in the conversations after the presentations. I believed that I was able to assist some students who were experiencing difficulties using the framework in their research. They believed that the framework had to be applied as a given by the authors. As I explained the process I had engaged with, they too understood how they could possibly adapt the framework.

After my presentation, I was asked why I had chosen to do a D Tech degree through Durban University of Technology (DUT) instead of a PhD at another university. I responded saying that I had chosen the D Tech at a university of technology, specifically DUT, rather than a PhD at a traditional research university, because the D Tech was a professional degree which encouraged me to research my practice, and that I had chosen DUT because it was at the DUT that I had explored my practice and my learning.

Mine will be one of the last six D Tech Education degrees to be awarded at DUT because the qualification is no longer being offered. I am very sad about this because even though we have developed a vibrant community of practice (Wenger *et al.* 2002) at DUT, which we have formed we will not have opportunity to promote new masters and doctorate studies in educational practice at our own university. We will however continue to pursue post-doctoral studies in our various practices.

The titles of our Unpublished D Tech Education studies within our community of practice are:

Examined and awarded:

1. Alethea (Snoeks) Desmond. 2010. A Journey in Family Literacy: Investigation into the Influences on the Development of an Approach to Family Literacy (Desmond 2010).

2. Jerome Thamsanqa Gumede. 2011. An Auto-Ethnographic Enquiry: Critical Reflection on the Influences in the Development of a Black African Male Educator (Gumede 2011).

Submitted for examination

Christina Nosabata Ngaloshe. 2012. Breaking the silence, addressing the confusion and challenging denial surrounding HIV and AIDS by engaging tradition: a study of the mnemonic oral style with special reference to Marcel Jousse (Ngaloshe 2012).

What are my reflections?

As I reflect on what I have written in this chapter, I am amazed at what I have achieved during the past decade and how it has actually been so closely aligned to my doctoral studies. During the planning of this study, I did not believe that it would be at all possible for me to have these opportunities to share my knowledge by making my voice public before I had actually completed writing my thesis. I was then of the opinion that the writing of the thesis would happen before the sharing of my knowledge at conferences, in public spaces. My supervisor Prof Joan Conolly played an important role in exposing and encouraging me to submit abstracts and attend the various conferences. I realise now that my learning was happening all the time as I was interacting with people through speaking in the public spaces. I experienced the various emotions that triggered my biochemistry, deep within my viscera. After each interaction in the public space, I believed more and more that I had knowledge to share with the wider community.

Conclusion

In this chapter I have shared how my understanding of learning as a biochemical process has been made public, been engaged, acknowledged and even accepted in both local and international public spaces. I have interacted with various practitioners and researchers engaging in and out of the field of self-study research. I have interacted with persons interested in improving their understanding and practice of learning teaching and assessment. I have been encouraged by the safe space in which these interactions have occurred where I have experienced a change from emotions of fear to joy as I engaged in *whole-being-learning* in the public spaces.