

Changing Climates Education for Sustainable Futures
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Dancing with Dinosaurs – keeping professional learning moving

“If you’ve got a guy who wants to stand up in front of a whole group of teachers and says ‘If you’re teaching basketball these are the steps: boom, boom, boom’ and we all do the mental check and say ‘Yep I do that, I do that , I do that, oh I don’t do that, maybe I should’. Then you think ‘I’ve learnt something’ or we go ‘that’s crap, that’s crap’, and then you are challenging the authority of the person who does it, but there’s a time when I think ‘That’s been a good motivator!’

Rob, Interview # 1, 2007 p 5

- ❖ Context of the research
- ❖ Review of the literature
- ❖ Methodology
- ❖ Emergent findings

Prior to 2006 when I was in the midst of developing the proposal for this research, an inaugural State Education Leaders Convention was held in south Australia. At the convention, the then

Chief Executive of the Department of Education and Children's Services (DECS) referred to the position of education in the then (2005) current political agenda as follows, "Both the Premier and the Minister (Education) have stated that education is at the heart of the South Australian Strategic Plan". In response to questions related to the ability to deliver posed by the education leaders, the Chief Executive's response was 'through the building (of) networks of educators engaged together in inquiry, our goal as a system must be to identify key areas for change, take action and keep moving'.

This paper will share the emergent findings of my current research exploring how six experienced secondary school teachers access professional learning and bring about change in their teaching pedagogies to "keep them moving"!

The aim of this research is to reach a deeper understanding of how teachers currently value and understand meaningful professional learning. Such understandings can have an impact on the practice of teachers and learning outcomes for children and young people in schools, on teacher training institutions, and inform the development and articulation of education professional learning policy, pedagogical practice and the professional learning and support provided to experienced teachers in physical activity.

The importance of this research will be demonstrated through the emergent findings presented in this paper providing an insight through case study research into the current development of professional knowledge by teachers. There is potential for this research to impact on the development of deep knowledge that goes beyond surface technical knowledge to improve learning outcomes for children and young people in schools. Through the development of deep knowledge, teachers identify the assumptions they make about their practice as they become active learners and inquirers about their practice.

An expectation of this study is that along with understandings acquired through the emergent design structure of this research, a contribution will be made to the way professional learning for experienced teachers in the field of physical activity is supported and delivered in the future by adding to the current body of knowledge on teachers and change. Much of the research undertaken in this field has a focus on pre-service and beginning teachers with little research undertaken with experienced teachers with the exceptions of researchers such as O'Sullivan and Tsangaridou (1997, 2005)

Based on a review of the literature at the time of writing the research proposal I contended that the following possible themes may emerge through the process of data analysis:

- ❖ Educational change and teacher change
- ❖ Teaching pedagogies in the field of physical education and reflective practice and change pedagogies
- ❖ Professional development and physical education teachers and international change in teaching and education
- ❖ Contemporary issues of increasing obesity levels and the aging teaching population

These themes were to later help shape the development of questions for the semi-structured interviews with the research participants through my exploration of the literature.

Educational change occurs in response to the changing social context in which the system undergoing change is located and how teachers are/are not supported to respond to this constant change is fundamental to this research. "(teachers) need to increase their capacity for dealing with change because if they don't they are going to continue to be victimized by the

relentless intrusion of external change forces” Hargreaves (2004) A clue is provided by Brookfield (1995), “It requires a moral and political culture characterized by an openness to diverse perspectives and ideologies, and a respectful acknowledgement of the importance of each person’s contribution, irrespective of seniority or status”.

Schon (1983) recognized that many teachers frequently share their knowledge with colleagues as they seek to understand some aspects of what has been happening in the classroom, what they can learn from this and how to change and improve this practice for future lessons. In doing so, teachers are already researching their practice by reflecting on events and engaging in a process of change to enhance how they connect with the children and young people they teach. “...as (the teacher) tries to make sense of (day-to-day practice) He/she also reflects on the understandings which have been implicit in his/her action, understandings which he/she surfaces, and criticizes.” Schon (1983)

Changing teaching pedagogies in the field of physical activity is an increasing challenge for physical educators is to learn ‘how to increase the level of activity’ (Suchyna) and establish active participation as an integral part of their future lives. Pangrazzi (2004), Corbin and Lindsay (2005) have a strong belief that ‘children who adopt “lifestyle” activities – which can be done at a moments’ notice without extensive skills, equipment, or required teams – tend to remain more active than people who grow up involved primarily in “skill” activities’.

Research undertaken by Hopper and Rossi, 2001 viewed any possibilities for changing practice in physical education as being situated in ‘how a person constructs discipline knowledge for physical education and develops a sense of knowledge for teaching’.

Countries such as the UK and the US have implemented a range of projects to explore ways of changing the values and beliefs of their physical educators to find new approaches to engage their children and young people in physical activity. In 2004 the UK developed an approach using sport and community links, “Learning through Physical Education and Sport”. The US adopted an approach of ‘fitness fun and no-one left on the bench’ based on a report to the President by the Secretary of Health and Human Services and the Secretary of Education in 2000 , ‘Promoting Better Health for Young People Through Physical Activity and Sports’. In South Australia the Department of Education and Children’s Services funded an innovative physical activity project for R-12 teachers of physical activity, *be active – Let’s go* (2004 – 06). During the two years of the project teachers were supported to become critically reflective of their practice to achieve an outcome of increasing physical activity levels for all children and young people in their schools.

Current issues now dominating the health and physical education agenda are the reported increasing levels of obesity across the population and the aging of the teaching force. The Parliament of South Australia Inquiry into Obesity (2004) suggested that ‘preschools, primary and secondary schools provide ideal access points for education and other strategies aimed at children and families’ to increase their physical activity levels and decrease their obesity levels.

In the ‘Report on A Class Act’ (2002), 58% of the teaching population across Australian schools’ are, aged over 40 years with the average at 46 years. In South Australia, Flinders University research (Brown, 2002) found that 65% of teachers had been teaching for more than eleven years and 51% were over 40 years of age. Although the age profile of teachers in the Flinders University Report may be viewed as a cohort of “experienced/expert teachers” learning does not stop at this “expert stage”. Research undertaken by Hattie (2000) exploring the

difference between 'expert and experienced teachers' (p.5) identified 'expert teachers (as) have(ing) deeper representation about teaching and learning'. (p5) In citing Berliner (1988) Hattie recognized that 'expert teachers, like experts in most domains, show more emotionality about successes and failures in their work' 2003, p8

The research methodology used in this study is interpretive and qualitative using an emergent design structure where the methodology is only constrained by the participants' workplaces and the busyness of their work. The application of an interpretivist approach to the research has been allowing me, as the researcher, to become part of the school environment as I immerse myself in the participants' settings to obtain meaningful insights by undertaking each interview at their school. Hall and Hord (2001) describe the interpretivist paradigm as being more than simply dealing with observable behaviours – it stresses unearthing and describing the interpretations and meaning that people attach to each action, event, or concept. My analysis of the transcripts of each interview with the research participants will enable me to unearth and describe this meaning as it emerges.

Six purposefully selected experienced secondary school physical education teachers who have been teaching for more than fifteen years have been participating in this case study. Using a case study approach to the research is providing an in-depth understanding of the particular situation and is offering personal and useful manifestations and insights (Patton 2002; Hakim 1987; Merriam 1998; Stark and Torrance 2005) into the phenomenon of interest.

Carney established that 'professional development must be located close to the classroom, resourced and championed by the school' (2003, p. 426), but most significantly 'teachers must desire and look for opportunities to develop, and be encouraged to do so' (Carney, 2004, p.426). In this research motivating teachers to examine their own practice has been addressed through the process of semi-structured interviews where I have been able to identify aspects of their current professional learning by asking questions about the types of self-initiated professional learning they engage in, and the aspects of their work environment influencing their participation. The interviews have also been used to establish the participants' understanding of "professional knowledge".

The purposeful sampling of six participants has facilitated the selection of potentially interesting cases with an equitable gender base (three female and three male) while also providing a demographic range with two participants teaching in rural schools and four in metropolitan schools that are geographically accessible for the researcher. The schools also demonstrate the additional characteristics of high index of disadvantage; girls only enrolment; middle years only enrolment; traditional secondary schools; and a special sport focus school. All of the research participants are currently teaching in Department of Education and Children's Services (DECS) secondary schools as physical education teachers of more than 15 years experience:

Stake (1994) indicates that a case study approach to research is usually organised around a small number of research questions ... which are then developed into "thematic lines" or common "emergent themes" (Donalek and Soldwisch 2004). Conducting semi-structured interviews with the research participants at the beginning and during the period of the research will allow for these "emergent themes" to be realised and inform the next phase of the research.

This study is using the following methods of qualitative data collection to gather information to gain an intensive description and construct an analysis of the ways in which the selected

teachers with fifteen years or more of experience in the field of physical activity use and engage with professional knowledge:

- Reflective journal writing (Research participants and researcher)
- Field notes and memos. (Researcher) The field notes will contain immediate perceptions and thoughts about the research participants while the memos will provide later perceptions and thoughts. The field notes and memos will also provide a vehicle for reflections on the research process, my own role and potential influence on the data that is collected.
- Semi - structured interviews (Research participants) conducted at the beginning of this study and approximately every six months over the two years of the research. The structure of these interviews will be based on a planned series of questions focussing on different parts of an issue in the research, (Donalek, 2005, p. 124). The function of the interviews as proposed by Seidman (1998, p 102) is '... to come to know the experiences of the participants through their stories'.
- Document analysis (Researcher)

The frequency of the semi-structured interviews during the two years of the proposed research has been determined by the impact of the calendared school terms and holidays on the availability of the teacher participants for the researcher. 'Every research method has its limits and its strengths. In-depth interviewing's strength is that through it we can come to understand the details of people's experience from their point of view. We can see how their individual experience interacts with powerful, social and organizational forces that pervade the context in which they live and work, and we can discover the interconnections among people who live and work in a shared context'. (Seidman, 1998, p 112)

'... research design is an evolving process, one in which the questions to be asked and the data to be collected emerge in the process of doing research. In keeping with the qualitative tradition of attempting to capture the subjects own words and letting the analysis emerge, interview schedules ... generally allow for open-ended responses and are flexible enough for the observer to note and collect unexpected data on unexpected dimensions of the topic' (Bogdan & Biklen, 2007, p 79)

First-run data reduction has been employed to not only begin the process of analysis but also to identify emerging themes across the collective case and within the individual cases which will emerge to inform the on-going collection of data from future semi-structured interviews. (Seidman, Miles & Huberman, Bogdan & Biklen) 'In most forms of case studies, the emerging themes guide data collection, but formal analysis and theory do not occur until after the data collection is near completion' (Bogdan & Biklen 2007, p 73)

The process of first-run analysis has incorporated the following:

- ❖ Marking with brackets interesting passages
- ❖ Organizing these excerpts into categories using the questions as an initial guide
- ❖ Using a word or phrase to tentatively describe the passage
- ❖ Looking for a word in the passage that might suggest a category which will later become a code
- ❖ Writing a memo about each of the categories developed to enhance the clarity of their meaning
- ❖ Writing a memo about the profile of each participant as it develops

In the initial interview (Interview # 1) with the research participants the amount of data acquired was over-shadowed by the time needed to introduce the participants to the research process. It was necessary to ensure that they were able to situate what I had invited them to participate in so that they would feel comfortable and that the experience would have personal meaning for them. Investing this valuable time was proven to be effective when I began the second round of interviews (Interview # 2) and found that most of the research participants had not only read their transcript from the first interview but also prepared notes in response to the interview questions that I had sent to them for second interview and begun sharing their experiences with their colleagues.

The semi-structured interview questions were developed from my research of the literature and provided the framework for the key research questions to be explored. For example in Interview # 1, the key question and supporting questions were:

How do experienced teachers access relevant professional knowledge and expertise?

- ❖ What are the ways in which teachers of physical activity use their professional knowledge and experience?
- ❖ What are the perceptions of experienced teachers' about influences which change pedagogical practice in order to improve learning outcomes for children and young people?
- ❖ How do experienced teachers understand change in their daily practice?

Stake (1994) indicates that a case study approach to research is usually organized around a small number of research questions ... which are then developed into "thematic lines" or common "emergent themes" (Donalek and Soldwish 2004). Conducting semi-structured interviews with the research participants has allowed for these "emergent themes" to be realized and inform each phase of the research.

Findings from the first phase of the research have been located within the theme of the participants' definition of 'professional knowledge' together with identification of their educational values, beliefs and practices that have continued to inform the development of subsequent phases and themes for the research. My initial analysis of the data looked for evidence as to whether the participants supported the interpretation by Schempp, Manross and Tan (1998, p.1) that 'pedagogical content knowledge is composed of: knowledge of student's conceptions of the content, curriculum, teaching strategies, and purposes for teaching'? As teachers of physical education do participants also concur that in a practical sense, professional knowledge ... represents a class of knowledge that is central to teacher's work and that would not typically be held by non-teaching subject matter experts or by teachers who know little of that subject?(1998, p. 1) 'It's a good question because I believe that absolutely sums us up. We have a high focus on technical learning at our school but that is in a framework that is very much around personal development' (David, 2007)

All of the research participants were able to describe their own understanding of "professional knowledge" but differed in their confidence and level of comfort in articulating this to the researcher. For some of the participants this may have been attributed to this being the first interview and they were not sure what to expect from the experience. Would it be like a conversation with a familiar colleague? Would it be similar to a job interview environment and therefore stressful with an expectation that they were expected to demonstrate their knowledge/expertise as an experienced teacher?

Through the questions in the first interview I was endeavouring to uncover how the participants consciously engaged in professional learning or was there an assumption that this type of learning was a function of their increasing experience as an educator? All of the participants when talking about technical change used traditional pathways through the professional development provided at their school or other professional providers to target specific needs in areas of skill or knowledge development. Unorthodox pathways were used when the participants sought to bring about pedagogical change to their practice through engagement with elite sporting people, elite coaches and sports psychologists. Different levels of networks were accessed and participants personally reflected-in-action and on-action as they sought to bring about change. A sentiment common to the six research participants was expressed by Mandy in the first interview "... I don't want to teach like I taught eighteen years ago" (2007, p 7)

In my first run analysis of the first round of interviews (Interview # 1), I recorded findings on a contact summary form as described by Miles and Huberman, (1994). with each of the research participants demonstrating common and different motivators in their pursuit of professional knowledge. This was a useful tool to obtain '... a perspective that combines immediacy with a reflective overview of what went into the contact' Miles and Huberman, (1994). The completed contact summary forms then provided me with an initial overview of the data which, although not coded as yet was able to inform the emergence of a theme for the second interview and also surfaced data relevant to the individual participants that I wanted to explore further.

The emergent findings have identified a diverse range of motivators for each of the participants as to why they continuously engage in professional learning, such as:

- their own parenting experiences, "The thing that personally has kept me going (engaging in professional learning) is that teaching is a lot like parenting and I'm an old parent. I'm very much engaged in the nitty gritty of adolescent behaviour ...' Sally (2007)
- the impact of geographical isolation
- being able to access a diverse range of networks
- a belief that growth and learning will always be a part of professional life
- valuing the process of reflection-in-action and reflection-on-action as a part of professional learning
- recognition of the role of "power" in the relationship between teachers and students, and its impact on learning

All of the research participants felt that these motivators for professional learning enable them to continue in the provision of quality experiences for the children and young people they teach.

Most of the participants have frequently reflected on the positive impact of their pre-service training leading to their development of a critically reflective headset from key learning incidents, such as a story related by Wendy while on a snow skiing trip during pre-service training '... I remember I felt so useless and just horrible, just couldn't do it. that was great because I hadn't had that feeling before and that made me know how the kids that can't do anything feel.' (2007, p 22) They also have strongly held values related to physical activity whether they were from positive or negative experiences as a young person that have reinforced their own values related to physical activity and continue to influence what they value as professional learning:

- ❖ Father's death seen through the lens of low levels of physical activity
- ❖ Sporty family environment
- ❖ Physical activity experiences as a child that were diverse and personally rewarding
- ❖ Experiences when growing up with parents having different interest and participation levels in physical activity
- ❖ Poor quality learning experiences with Physical Education teachers when at school critiqued as students through knowing what they deemed quality experiences to be and what the teacher was not providing to enable this '... the programs we had when we were kids (at school), I'm trying not to swear, were disgusting!' Mandy (2007, p 23)

There are already indications of strong connections between their own early life experiences and the formation of how they value physical activity and their desire to provide positive meaningful experiences for the young people they teach. This approach has been transferred to how they manage their own professional learning which also has to be a positive experience and personally meaningful. 'My professional learning is centred around my interest in group dynamics ... I devour that type of book, those types of books during the holidays that give me this energy'. David (2007, p 14)

The second round of interviews (Interview # 2) initially explored the participants understanding of reflection-in-action and reflection-on-action to uncover how they learn professionally and how this is influencing the ways in which they engage in professional learning.

This study is already demonstrating that professional learning is not only a deep learning experience for the participants but also impacts on the other educators at their site. An emergent finding from the research is that the semi-structured interview process is providing a supportive environment in which the participants are able to re-examine their values and beliefs in the complex environment surrounding the engagement of children and young people in physical activity.

The participants are all motivated by how much they value being able to make a difference to students they work with, providing role models for pre-service teachers and in mentoring early career teachers. They also share a strong sense of responsibility to be quality mentors and role models. 'It is incumbent upon us as senior teachers to do that (mentor pre-service teachers) and that's also why we take on student teachers. It's sort of like passing over the baton. Matt (2007, p25) The research participants in this study want to be living out what they see as being a "quality physical education teacher". There is a conscious engagement in professional learning that is driven by personal meaning for them as an individual.

This research has the potential to become a unique demonstration of professional learning that is a deep learning experience for the six participants.

- ❖ It will impact on other educators at their site and build capacity.
- ❖ It will impact on their students as they re-examine their values and beliefs in the complex environment surrounding the engagement of children and young people in physical activity.

My own reflections on the research process contain a mixture of ongoing professional stimulation in response to my own growth in researching at this level tinged with various frustrations. The frustrations range from not being able to devote long term chunks of time to fully immerse myself and constantly feeling as though I am losing touch with my research and

letting my research participants and supervisors down, to feeling inadequate in my degree of comfort with research methodology. The struggle of working full time and researching at this level is a frustration that I share with many other educators and knowing that I am not alone in this context is sometimes comforting.

I empathise strongly with a comment made by Mandy in our first interview, "... I personally seek out my own professional development because ... I'm happy with that but it would be nice to have some support to do that as well..." (2007, p 34)

The positives are that I can recognise the growth that I have undergone over the years since commencing my PhD and the ease with which I can engage in sharing what I am learning with other educators and gain their interest. Over the years that I have been working in Central Office in the Department of Education and Children's Services in South Australia as a Project Manager I have been encouraged by colleagues who will seek me out to discuss contemporary research in the field of education and actively explore with me how they can develop greater rigour in their own work.

This research when concluded will provide an exemplar of rich data demonstrating personally meaningful processes to support teachers to change their pedagogy in the field of physical activity to keep them moving, and, hopefully to change policy as to what experienced teachers require from professional learning!

Thank you for your attendance at this presentation.

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