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Self-reflection on emergent research design

Abstract

This paper provides a self related narrative to the development of the philosophical and methodological framework for my PhD study. The thesis involved evaluating case studies of the educational outcomes and experiential learning process of courses at Outward Bound institutions in New Zealand, Czech Republic and Australia. It presents a story, reconstructed through reflection of the development of an emergent research design based on my experience of the research process, methodologies and methods. My dilemma in using a traditional pre-planned design was that whilst my research background and review of literature into outcomes of experiential education programs initially favoured a quantitative approach. My world view and the nature of the different research contexts related to the educational process suggested using a phenomenological paradigm. The emergent unplanned journey reflected my experiences as a researcher becoming increasingly involved in the different contexts of the study. The resulting use of different methods reflected the benefits of both quantitative and qualitative approaches and how some research methods may be more appropriate for different contexts and cultures. The epistemological implication from this paper for other interdisciplinary studies is the benefit of a multi method approach related to the emergent nature of the research, which aims to enhance the study's reliability (dependability) and validity (credibility and transferability). This experiential process also allows the development of a broader perspective of research methodologies involving adaptations to different learning environments.

Key words: self-reflection; emergent design; experiential learning; case study

1. Introduction

The structure of this paper initially provides some background to the case study approach used to develop a greater understanding of the experiential educational processes at Outward Bound and why specific outcomes were achieved. The evaluation of experiential education programmes had been limited mainly to studies focusing on participant's perceptions of change in aspects of self-concept involving quantitative statistical analysis (Hattie, Marsh,

Neill & Richards 1997). However the use of more qualitative methods had been advocated to investigate why the outcomes of the courses are achieved (Bocarro & Richards 1998). My particular interest was in the Czech method of 'dramaturgy' (a theatre term), which involves student-centred design of the courses.

The paper then presents the ontological, epistemological, and my own perspectives and involvement that impacted the research. The main focus of the paper is the change and development of the emergent research design involving my prolonged involvement and use of context and culture specific multiple methods, which aimed at enhancing the study's credibility.

Development and change are central to the process of experiential learning and these were certainly themes for me during my PhD involving Outward Bound (Martin 2001a). These themes were not just in terms of the many powerful participant learning experiences that I read through my research, but from the significant learning that occurred, as I became comfortable as a researcher with the epistemological consequences of my interdisciplinary and multi method approach. The process was very similar to the model of experiential learning (Figure 1) presented by Boud, Cohen and Walker (1993), which provided a conceptual framework for the research design. It focuses on the three stages of reflection associated with experiential learning activities, prior, during and following the activity with assumptions that the learner brings a personal foundation to the experience and that the learning milieu is the social, psychological and physical environment in which the learner is situated. The key factor being the 'reflection on action', which involves the learner re-evaluating the experience (Boud et al 1993; Andresen, Boud & Cohen 1995).

The aim of this paper is to present a narrative of self (Ellis & Bochner 2000; Sparkes 2000), which draws upon my PhD experiences and reflections, as a novice researcher gaining a broader perspective of different research methodologies. It also aims to provide greater understanding of the benefits and emergent nature of using a multiple method research process in interdisciplinary research involving different contexts.
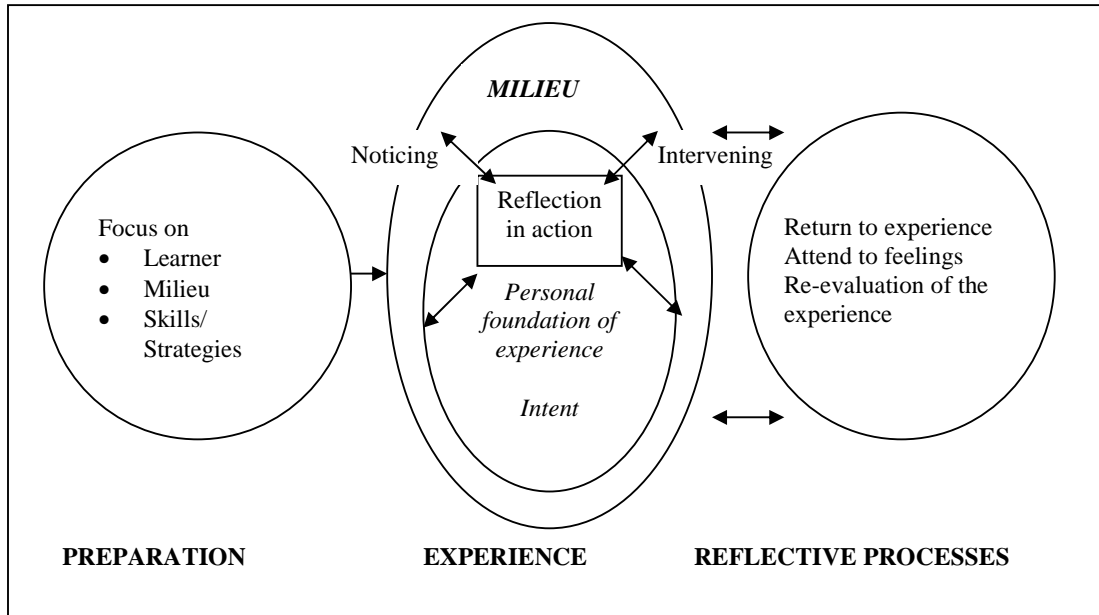
Figure 1   Model for promoting learning from experience (Boud, Cohen, & Walker 1993: 7)

2. A Special Place

My association with Outward Bound (OB) began whilst lecturing sport and outdoor recreation management at Massey University in New Zealand, as I undertook some preliminary funded research into participant outcomes of Outward Bound New Zealand (OBNZ) courses, at a time of major change for the organization due to falling enrolments and financial losses (Martin & Legg 2002). I had an outdoor activity interest, but limited skills based 'expertise' in this adventure field and regarded myself as a novice researcher, which meant I entered the OB environment nervously. My involvement at the beginning of this study appeared to be purely on a professional level, however, little did I realize the type of personal impact this study would bring, as I subsequently participated in a 9-day course. The participants were made aware of my involvement as an observer at OBNZ, but this did not appear to affect my acceptance in the group or the instructors involved in the study (although

not all of the instructors agreed to be involved). On a personal level, the series of mainly outdoor activities was not particularly physically challenging, however, the 'mountains spoke for themselves' (James 1980), and the interaction within the group provided a personal learning platform due to the range of experiences and backgrounds. This immersion provided a professional appreciation of the organisational culture and helped me personally gain a greater understanding of the importance of my friends and family. I wrote at the time 'Outward Bound is certainly an experience of a lifetime and Anakiwa is certainly a very special place'

My initial role was as a university lecturer, an external and independent evaluator and observer. My increasing interest in the OB experiential process led to the development of the PhD topic, a topic that was deviant from my initial aim prior to undertaking the project. My case study aimed to determine what outcomes OB achieved and to develop a greater understanding of why the outcomes were achieved. Much of the literature on experiential education programs that I had reviewed focused on outcomes using primarily quantitative methods. However, there was a lack of empirical research linking outcomes and educational processes to experiential learning. The objectivity of a positivist approach and collecting outcome data that could be compared to previous research provided me with a starting point to commence fieldwork and was certainly favoured as a 'safe' option by me. My real interest, resulting from my participation, was about 'how' and 'why' the outcomes occurred. Part One of my study evaluated the outcomes of the 22-day and 9-day courses at OBNZ over a 6 month period and investigated the key elements of the educational process (Martin 1998). To complete this research it became clear to me that this could not be done using purely an objective research model (Bocarro & Richards 1998), due to the social construction of the many variables of outdoor education (people, processes, and outcomes) (Easterby-Smith, Thorpe & Lowe 1991).

3. Dramaturgy

The focus of the PhD could have remained on OBNZ but during the same month as I was participating two instructors from Outward Bound Czech Republic (OBCZ) were also participating in a course. Their training experiences soon led to a 'creative day' initiative on

the New Zealand courses involving activities such as painting, story telling and role-playing. The Czech courses appeared to be significantly different from other physical outdoor activity based OB courses. The instructors placed emphasis on 'dramaturgy', an holistic method of course design, characterized by the intertwining of a wide variety of social, physical, creative, and reflective 'games in nature' using 'the dramaturgy wave' (Martin, Franc, & Zounková 2004).

Encouraged by the OBNZ director and my supervisors, I travelled to Prague to investigate an OBCZ course for international participants (Intertouch). With the invitation to 'take a ride with us and discover gears you did not even know about' it certainly pushed my comfort zone (Leberman, & Martin, 2002), as I reproduced a 'masterpiece' painting with my nose and took on various dance and drama role plays. The holistic course design using 'dramaturgy' (Martin, Leberman, & Neill 2002) integrated a variety of activities/games involving reflection and the learning environment provided a safe, positive and supportive atmosphere allowing participants to play (Martin & Leberman 2004).

My increasing interest in 'dramaturgy' and the range of methods and activities of OBCZ, led to Part Two of the study, which focused on investigating the outcomes and key elements of the educational process of the initial 12- day OBCZ course, Intertouch and the course held the following year, which I helped facilitate. I should mention that I met my wife, Lenka, on the Intertouch course. We were married less than a year later and now have two sons whose learning environment and ability to play influenced my thinking in relation to the PhD study. What was evident to me on the Czech courses was 'adults' learning from playing. Clearly this personal impact led to potential biases towards the Czech courses, however, the international nature of the study also presented difficulties for data collection and communication, as I initially did not speak Czech and the instructors were not used to or comfortable with me using pre/post quantitative questionnaires and hence more open ended questioning was developed, which resulted in rich description of participant outcomes and the key elements of the experiential process. Lenka assisted greatly in translating literature and participant responses, and also provided me importantly with a greater understanding of the Czech outdoor context.

Rather than an activity focus, the emphasis is on *turistika*, which has the basics of activity and sport but differs in that it is mainly about aesthetic and educational experiences, whilst moving (on foot, bike etc) and playing games in nature. My experiences in the Czech

Republic provided a more holistic educational approach and also personally afforded a more creative side, illustrated by me subsequently writing poems and experimenting with colours and art. However, professionally the development of a rich narrative, balancing and integrating description, analysis and interpretation, continued to present a significant challenge (and frustration for my supervisors) in writing up the findings, as it has also done in developing this paper. This reflection process pushed my comfort zones, but produced considerable learning and understanding, and provided me with the confidence to go on to produce the book ' Outdoor and Experiential Learning' , written with two Czech colleagues, which describes the Czech methods and activities (Martin et al 2004).

4. The Dramatist

Three instructors from Outward Bound Australia (OBA) participated in the Intertouch course I helped facilitate. Their enthusiasm and interest in the course led to the objective of Part Three of the study, which was to try the Intertouch course in a traditional outdoor adventure context at OBA (which I also helped facilitate the following year) and evaluate the course outcomes and key elements of the educational process.

This unplanned journey involving three different OB contexts allowed me to 'reflect on action', re-evaluate the experience (Boud et al 1993), and become increasingly involved with the Czech methods. I used mixed methods for each of the three parts of the study, which overall involved: participant observation of five courses; over one hundred and fifty participants' questionnaire responses, initially from Likert scale survey and then open-ended written responses using a longitudinal approach six months and up to two years after the courses; semi-structured interviews with seventeen instructors. The additional fieldwork involved a considerable amount of time and close cooperation with the staff of the organizations, and a requirement for me to adapt and change methods to the different contexts, courses and environments. I also recognize that my participation questions the thesis' credibility because of potential researcher bias contributing either directly or indirectly to the implementation of the research and to the final conclusions. However, my subsequent involvement as a participant observer of a number of OB courses in a variety of contexts

importantly gave me an increasingly greater perspective of the phenomena and variables involved.

The findings from all three parts suggested that the main outcomes perceived by participants related to the course objectives of personal and interpersonal development; in particular improved self-confidence and better interpersonal relationships. The key elements of the experiential education process, developed from the qualitative data, in achieving the outcomes were: a holistic approach to course design, integrating a variety of activities involving reflection. These elements are illustrated by the following participant response from the OBA course.

> 'It was like a lifetime of experiences/lessons compressed into 2 weeks. It was like an experiment where I experienced tests of every capability I thought I had as a human being, and more. I used every sense, every skill, every limb, every milligram of energy in the shortest space of time possible. I used neurons I knew I had, and created connections between neurons that have never been used.'

Other key elements are the learning environment, which is safe and creates a positive and supportive atmosphere that allows participants to play; the range of instructor facilitation methods and a diverse group of participants.

> 'The critical element is that this 'experiment' occurred in a 'cocoon' of safety/support/compassion/caring, allowing me to play full out. This cocoon allowed me to go on this emotional roller coaster of the highest highs and the lowest lows without wanting to get off. I wanted to stay on because I knew that during this journey of 2 weeks I was learning what would possibly take me 2 years or more in my 'normal' life. I know that this was more than an educational experience because when I try to explain the activities/learning to others, I often can't find the words. It was a wake up call too because all of that was and is within me, I only need to tap into it.'

The empirical findings of this present study have reinforced the views of Hattie *et al*. (1997) that the study of outcomes is of limited value unless linked to the investigation of the educational process. The development of a conceptual model (Figure 2) offered a broader

theoretical understanding of the phenomena and was the final level of my analysis. This model supported Itin's (1999) and Beard and Wilson's (2002) theoretical view of experiential education, which links the interaction of facilitators, participants, the learning environment and a range of activities that involve all the senses. The development of the model followed many of the elements of grounded theory (Glaser & Strauss 1967), although this was not an original intent of my study.
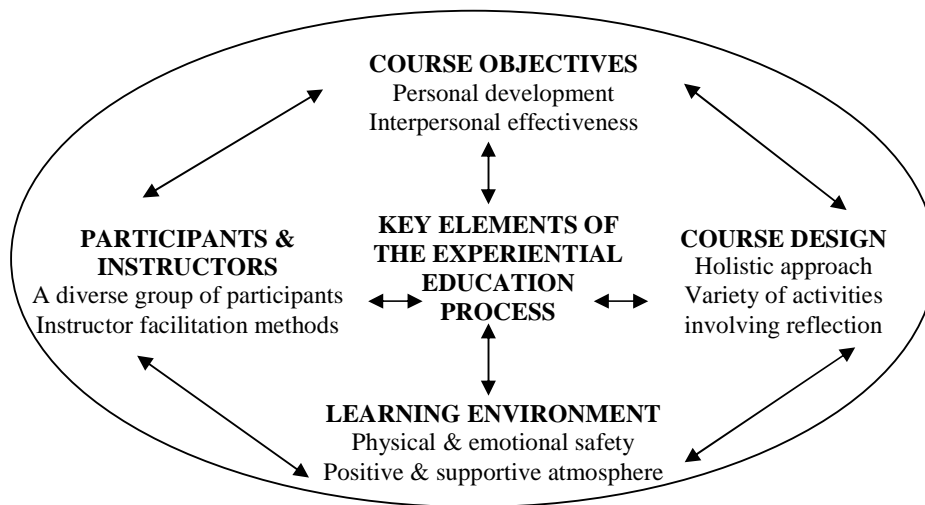

COURSE OBJECTIVES
Personal development
Interpersonal effectiveness

KEY ELEMENTS OF THE EXPERIENTIAL EDUCATION PROCESS

PARTICIPANTS & INSTRUCTORS
A diverse group of participants
Instructor facilitation methods

COURSE DESIGN
Holistic approach
Variety of activities
involving reflection

LEARNING ENVIRONMENT
Physical & emotional safety
Positive & supportive atmosphere

Figure 2   A holistic model of the key elements of the experiential educational process (Martin, 2001a: 276)

5. Multiple Perspectives

My background to research had been limited to mainly quantitative approaches, due to an undergraduate mathematics and computer science degree, followed by seven years of teaching high school mathematics and, in particular, statistics. It was whilst teaching that my interest in enhancing the experiential educational process developed. Many of the students had negative prior experiences of mathematics, hence the success and challenge of my teaching depended on more than just achieving results, but providing and developing an environment and activities that gave a positive learning experience, whilst improving the student's knowledge. Similarly, from coaching a number of sports, the player's enjoyment

and development is not just about the skills of the sport, but involves a number of other factors, such as social and team involvement. Subsequently, working in the health and fitness industry, the social aspect and feeling of belonging were often more important factors in sustaining people's interest and involvement, than the activity itself. My philosophy and educational beliefs have been the same since I started lecturing, although the assimilation of course content is important, it is my role to develop a positive learning environment using a variety of facilitation and experiential methods that aim to enhance the learning process for the individual students.

In considering my approach to the PhD study, a mathematics and statistics background favoured using a positivist approach, but my involvement in the development of a variety of educational programs and my interest in what happened to people on these programs had given me more of a phenomenological perspective favouring naturalistic enquiry (Lincoln & Guba 1985). My recognition of a multiplicity of perspectives early on in this research process was particularly evidenced by the epistemological and methodological discourse amongst my initial two supervisors whose own backgrounds favoured a positivist approach and action research, respectively (Lewin 1946). A third supervisor became involved after the second phase of the study, having recently completed their own PhD using grounded theory (Glaser & Strauss 1967). Not surprisingly, each one impressed upon me to use methods they were most familiar with, and I acknowledge that each of the methodologies has, in part, clearly informed the study.

However, the reality of my PhD research process changing contexts resulted in an emergent design (Lincoln & Guba 1985), rather than pre-determined, which added credibility to my findings due to the within-case analysis, cross-case analysis, and methodological triangulation. This approach reflected research as experience (Garratt & Hodkinson 1999), my role as a participant observer, and the purposive sampling of the different courses and contexts used in the study. Purposive sampling was used as each case extended and maximized the information I had already obtained (Lincoln & Guba 1985). As the researcher I became a *bricoleur*, 'jack of all trades' (Denzin & Lincoln 1994: 2), which supported the emergent design and the use of mixed methods. My inevitable adjustment to the design and methods depended on the questions asked, which in turn depended on the context. At no stage during the various dilemmas that were faced in each context did I feel comfortable with any one method or methodology, and whilst my supervisors urged me to make decisions on

these early on, it was only at the latter stages of the process that I was able to argue confidently that collectively the different parts had strengthened and added credibility to my findings.

Initially in reviewing the literature I found there was a lack of accepted and appropriate methods used in evaluating outdoor education programs (Cason & Gillis 1994; Hattie et al 1997). Whilst a quantitative assessment of OBNZ outcomes did initially allow me some comparison with previous research, the nature of my research aims pointed towards how these outcomes were achieved, and the focus of the study switching to the Czech context led to a more qualitative development of my study.

Assumptions on how the research should be conducted and my world view as an educator also suggested using an interpretative paradigm or naturalistic inquiry, especially as I would be studying subjects in their natural setting, and trying to make sense of and interpret the phenomena in terms of the subjective nature of participant's different experiences (Cohen Manion, & Morrisson 2000; Denzin & Lincoln 2000). As a consequence in each of the parts of the study I attempted to increasingly build 'a holistic picture, formed with words, reporting detailed views of informants' (Creswell 1994: 1).

6. Ontological and Epistemological Perspectives

The ontological premise (nature of reality), concerning the nature or essence of the social phenomena being investigated (Cohen *et al*. 2000), underpinning the qualitative part of my study as opposed to the positivist approach, was in studying the many variables of outdoor education (people, processes, and outcomes), that were socially constructed rather than objectively determined (Easterby-Smith *et al* 1991). Dahlgren and Szczepanski's (1998) review of Scandinavian research and Barrett and Greenaway's (1995) review of outdoor research in the UK also supported the use of more humanistic and qualitative approaches. My research supported Allison and Pomeroy's (2000) view that focusing on a single question 'Does it work?' demonstrates a lack of understanding of the complexity of the experiential education field. They indicated that there was a need to 'shift the focus of the questions asked (epistemological shift)' in order 'to understand reality in a different way (ontological shift)' (96).

The epistemological assumptions (nature of knowledge) for using an interpretative paradigm in this study were its subjectivity and my concern with greater understanding of the experiential process (Allison & Pomeroy 2000), where knowledge was created in interaction between myself, the participants and instructors rather than independently, with emphasis on my interpretation of the experience. I attempted to 'emphasize, describe, judge, compare, portray, evoke images, and create, for the reader or listener, the sense of having been there' (Guba & Lincoln 1981: 149). Humberstone (1997a) also argued that research in outdoor education should involve the instructors and participants, but also the researcher. As I found, the researcher was an integral part of the research process and could not easily be removed from it (Humberstone 1997b).

The emergent nature of my PhD was due to the different contexts of the research and allowed the exploration of both paradigms and use of a range of methods, which provided a 'meaningful design' (Kolb 1991) for the evaluation of these experiential programs. Whilst there has been much discussion about the incompatibility of the epistemological positions (Hammersley 1996), this study showed that both quantitative and qualitative can be complementary and used within a naturalistic paradigm (Guba & Lincoln 1994). 'A false dichotomy existed between qualitative and quantitative approaches [despite it being more than thirty five years since Dawe (1970) wrote his seminal paper on 'the two sociologies'] … researchers should make the most efficient use of both paradigms in understanding social phenomena' (Creswell 1994: 176).

The resulting design provided an eclectic 'naturalistic' investigation (Remenyi, Williams, Money, & Swartz, 1998), resulting in my evolving understanding of the dynamics present within this multi case setting (Adelman, Jenkins & Kemmis 1976; Hussey & Hussey 1997). The type of case study used was 'ethnographic', as it involved participant observation and was 'evaluative' of the programs using fieldwork (Stenhouse 1985; Sturman, 1997). Although my research did not consist of a number of cycles, a 'technical' action research approach (Bunning 1994) clearly informed my study as it aimed to enhance educational practice, with the Czech Intertouch program being tested in another context, i.e. Australia (Martin 2001b).

Action research (Lewin 1946) provides a very practical methodology for conducting research into the outdoor education field, as the learning process is cyclical involving, action,

reflection and then testing the result elsewhere (Cohen & Manion, 1994), which is reinforced as part of the experiential process (Kolb 1984).

Kolb's (1984) model is commonly used as a basis for discussion of the experiential learning process, where reflection on experience is seen as the second stage in the cycle followed by conceptualization and then action. He characterizes learning as "a process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p.38). Leberman and Martin (2004) proposed an extension to Kolb's experiential learning model in terms of two extra times for reflection (see Figure 3). The extension affects the reflection part of Kolb's model and incorporates the important element of time in promoting learning.
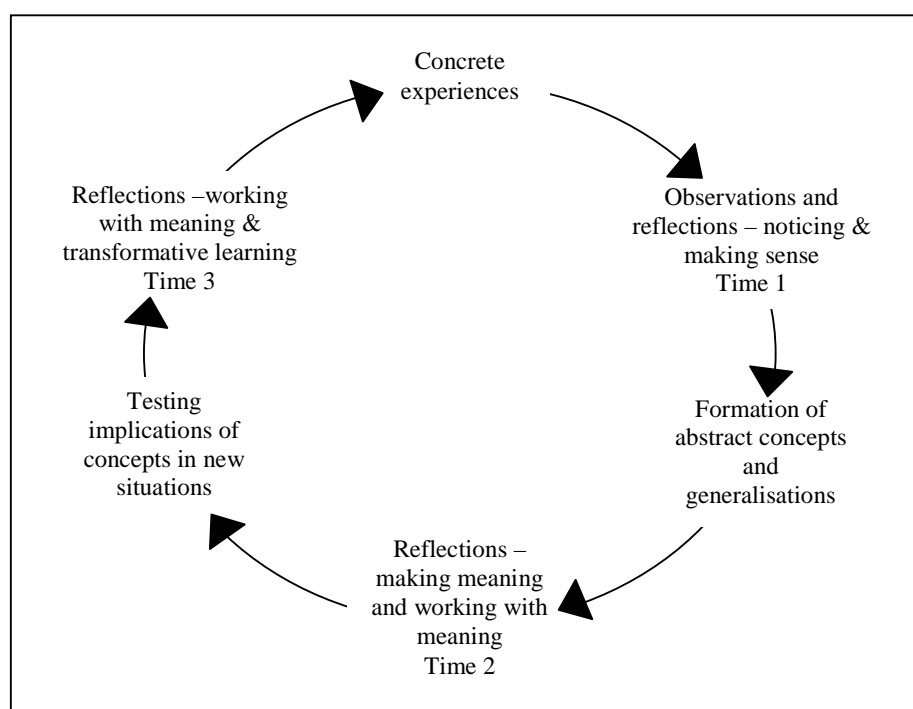

Figure 3   Extended experiential learning cycle incorporating the notion of time with respect to reflection (Leberman & Martin 2004: 181)

7. My Involvement

My preference for learning style empathized with visual and kinaesthetic approaches and I had often used an experiential approach in my teaching, lecturing and coaching. Also, my involvement in many outdoor recreation activities had reinforced that knowledge was based on observation and action, as suggested by Dewey (1938). These experiences piqued my interest in participating and observing, as a way to understand what was happening at Outward Bound, than being detached from the process. I was also interested in focusing on the actual experiences of both participants and instructors. The method of participant observation required me, as the researcher, to be part of the group, observe the activities, or be part of the team of instructors. One of the strengths of the qualitative aspects of my case study was the rich descriptive material allowing an increasingly holistic interpretation (Bassey 1999; Merriam 1998) of 'the setting, environmental factors and the group dynamics which influence participants' experiences' (Kolb 1991: 41). The use of participant observation allowed me to experience, observe, and be part of the experiential process. This opportunity of being both a participant and an instructor, particularly on the Intertouch courses, gave me greater insight and understanding of the participant's experiences and instructor practices, than a more positivist approach.

During my involvement as a participant observer at the three OB schools I was conscious of potential issues of bias and subjectivity, and the need to conduct the research in an ethical manner. I felt that this role, in most situations was informal, and did not appear to cause a conflict of interest. Indeed much of the success of the study was due to the respect and friendship generated by my interaction amongst participants and staff alike. For example, pre- or post-course questionnaires were not used at the Intertouch courses, as the team of instructors were not used to, or comfortable with, administering a questionnaire survey on the course. However, the questionnaires were given at OBA, as their instructors were used to this type of quantitative tick box approach. This reinforced the importance of me, as the researcher, adapting to the context, and how some research methods may be more appropriate for different contexts and cultures, which are important characteristics of an emergent research design (Lincoln & Guba 1985).

8. Mixed Methods

My mixed method approach initially used a pre- and post-course quantitative survey, with Likert scales, but this limited the response of participants to specified questions. These methods focused on short-term changes and followed previous statistical procedures of analysis related to outcomes and issues of self-concept (Hattie *et al.* 1997). I added a number of open-ended questions post-course, which asked participants to comment on specific course outcomes (personal, interpersonal and professional development) and elements of the educational process (the atmosphere and instructors). These formed most of the questions in the six-month post-course questionnaire. I acknowledge that these questions may have led participant responses, but they provided me with a range of descriptive responses that enhanced my understanding of the process.

I subsequently added a longitudinal approach, which Gass (1993) had advocated, using a purely qualitative survey eliciting descriptive responses at OBCZ and OBA in the respective one and two-year post-Intertouch follow up for participants to reflect on the impacts of the course (if any) and the key factors in achieving these impacts. I realized that other factors could have impacted on their lives in the intervening time, and hence influenced their responses other than the effects of the OB course. The international nature of this study also compounded the drop out rate in participant responses, as it was difficult to follow up on why the questionnaires had not been returned (for example, change of address, not able to be contacted by E-mail, gone overseas or not interested in responding were possible reasons). Whilst the non-responses could suggest limitations in the findings' credibility and dependability, the participant's responses from questionnaires given six months, one year or two years after the Intertouch courses highlighted descriptively the many powerful learning experiences.

The use of semi-structured interviews in my PhD study provided insight into the methods used by instructors while they developed and facilitated the courses, but it was the participant responses to the questionnaires that formed the main part of the data for this study. Due to the international nature of the Czech team of instructors and difficulties in scheduling interviews, some instructors preferred to respond to the questions in written form, which were then translated while others I interviewed.

9. Credibility

My involvement and the evolving mixed method approach presented concerns for my supervisors in terms of the study's reliability and validity. When to stop data collection and the quality of the data collected were also issues frequently discussed with supervisors, due to its longitudinal nature and range of courses investigated. However, looking for similarities and differences across the various methods, contexts and courses provided more sophisticated descriptions and powerful explanations to the findings. It also attempted to address issues of my bias and the lack of rigor in case study research, and enhance the study's reliability (dependability) and validity (credibility and transferability) (Denzin & Lincoln 1994, 2000). My prolonged involvement, persistent participant observation, and identifying my biases by clearly stating the research assumptions and my world view was also important to me enhancing the study's credibility and confirmability (Priest 1999).

The different parts of the study presented two stages of analysis, within case analysis that attempted 'to build a general explanation that fits each of the individual cases' (Yin 1994: 112), and cross-case analysis which reviewed processes and outcomes across the cases (Miles & Huberman, 1994).

The findings were further strengthened using methodological triangulation (Mathison 1988), which allowed for comparisons between the main themes from the analysis of my field notes from participant observation, data from semi-structured interviews, and responses to structured questionnaires. However, I do acknowledge that my involvement did present limitations due to issues of subjectivity, problems of bias, the use of case study, and a mainly qualitative approach, which limited the generalisability of the findings until tested in other contexts. In this study there was no control group involved or supportive data from family or employers to substantiate participant responses. However, controls are often not used in qualitative research due to the many variables in social settings (Remenyi et al. 1998).

I computed effect sizes for the statistical data and content analysis quantified the descriptive qualitative data aiming for greater acceptability of the findings (Yin 1994). Burnard (1991) pointed out that although the 'researcher sets out to explore individuals' perceptions of experiential learning (the qualitative aspect)… every qualitative researcher necessarily engages in some form of categorization and quantification in order to present the

findings' (43). Initially I undertook the interpretation of participant responses into codes and categories manually, but the qualitative data analysis package HyperRESEARCH (Researchware 1998) provided me with a much more structured and rigorous analysis process and removed much of my own biases. It allowed me to identify the number of respondents for each code, who was making repeated comments about the same code, and also non-typical responses that I may have overlooked. However, I found the structured approach to content analysis difficult to follow strictly due to the variety of the data, which was in contrast to a qualitative 'analytic process of creating and assigning the categories themselves' (Dey 1993: 58).

10. Summary

The development of the emergent research design involved my prolonged participation and use of context and culture specific multiple methods. This approach enhanced the study's credibility and addressed potential limitations of subjectivity and bias, the generalisability of case study findings, and the quality and quantity of data collected from a mixed method approach. The study was descriptive, illustrative, and experimental, creating a story or narrative as it evolved from the different contexts. It illustrated educational innovative practices (OBCZ), and was experimental, implementing procedures into new contexts and evaluating the benefits (OBA). The initial focus of my study changed, reflecting the emergent design, but although this meant that more data were created (in Czech and Australia) and some data were rejected (from OBNZ), the aims remained unaffected. The shift in focus was particularly important for me as a participant observer, as it gave me a greater range of perspective than I would have had with just the single case study.

As a relatively novice researcher, the emergent design has allowed me to develop a broader perspective of research methodologies, and better still as a *bricoleur*, 'jack of all trades'. My more recent research continued to focus on the development of the experiential educational process using qualitative approaches (Martin & Leberman 2005a, 2005b; Leberman & Martin 2005, 2004) and also on the Czech outdoor methods of *turistika* (Turčová, Martin & Neuman 2005). I have also been fortunate in being invited to share the Czech methods, through presentation of the book, and a series of conferences and workshops

in different continents around the world. This has also led me to facilitating OB and other courses internationally using the dramaturgy methods, which came as quite a surprise to OBNZ staff who did not regard me initially as an 'outdoor' instructor. This facilitation has also allowed me to reinforce the transferability of the study's findings in relation to the key factors of the experiential education process.

Emergent design supports Garratt and Hodkinson's (1999) argument against choosing a list of preordained sets of universal paradigmatic rules or criteria, but presenting a powerful case for the hermeneutics of interpretation and understanding of research as experience. This more naturalistic, holistic, participative research also provided opportunities for activities that involve social aspects and feelings of belonging, personal interest and involvement, which may be a more appealing and appropriate approach for novice social researchers than traditional positivistic scientific research methods linked to validity and reliability. The evaluation of the findings from the different parts and methods used within my study created greater credibility and dependability, and enhanced the transferability of the findings.

This self-reflection serves to illustrate the process of experiential learning highlighted above by Boud *et al*. (1993). The experiential process led to my development as a researcher involving adaptations to different learning environments. This also led to the development of a broader perspective of research methodologies, and learning from the variety of experiences and reflective opportunities that also resulted from the emergent design of the research process. The epistemological implications for other novice researchers are the benefits of the emergent design, cross case analysis, and use of a multiple method process involving methodological triangulation in enhancing the credibility of interdisciplinary research involving different contexts.

Acknowledgement

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