A Practitioner Researcher perspective on facilitating an open, infinite, chaordic simulation.

Learning to Engage with Theory while
Putting Myself Into Practice

A thesis submitted in fulfilment
Of the requirements
For the Degree of
Doctor of Education

At the University of Technology, Sydney

by Elyssebeth Leigh

UTS 2003

1. Certificate of Originality

- a) I certify that this thesis meets the requirements for theses as set out in UTS Rule 3.4 or 3.5 as appropriate, and UGS Guidelines for Presentation and Submission of Theses for Higher Degrees.
- b) I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.
- c) I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

2. Deposit of Thesis

- (i) I understand that if I am awarded a higher degree, the University shall retain all three bound copies, one of which will be deposited with the University Library and listed in the Library's catalogues. It shall be available immediately for consultation, loan or copying at the discretion of the University Librarian, unless otherwise advised by me. (Rule 3.4.13 or 3.5.13 as appropriate)
- (ii) I understand also that the University Librarian will require each user of the thesis, or recipient of a copy of the thesis, to undertake in writing to respect my rights as author under law relating to Copyright.

3. Listing of Thesis

I give leave to the University to:

- a) Publish, or to authorise publication, of the abstract from the thesis Yes
- b) Include bibliographical details of the thesis in catalogues of theses compiled in places other than the University Yes

Name: Elyssebeth Ellen Leigh

Signed:

Production Note:

Signature removed prior to publication.

Degree: Doctoral

Date: 22.12.2003

Thesis Title: A Practitioner Researcher perspective on facilitating an open, infinite, chaordic simulation

Dedication

As I began writing this dissertation my husband, Mick Leigh, died. In 32 years of life together he supported me through 4 tertiary study programs, while not having a high opinion of it as a way of building knowledge, preferring (if only I had known its name) to grow his 'working knowledge'. Our discussions about the merits of all forms of learning influenced the final shape of this dissertation. I miss him and still learn from him.

Acknowledgements

While completing this dissertation I re-learned two vital skills—asking for help, and saying 'thank you'. The final document must be—and is—mine alone, but completing it has been a joint enterprise. It was sometimes difficult to ask for help—despite needing it badly, and at times not recognising it when offered. To everyone who has helped me so freely and generously, my deepest thanks.

Roger Putzel introduced me to the 'world of XB' and nothing has ever been quite the same for me as an educator. Mark Tennant became supervisor of an incomplete and inchoate research project after it had survived a number of false starts and provided support, time and ideas generously—including the reference, which gave me the title and a central theme for this work.

My sons Michael and Glenn have lived through my study adventures and remain friends and supporters for whom I have a depth of gratitude beyond words. Thank you both so much. My parents, Nita and Vincent Morrisey helped me begin this journey—I cannot ever fully repay their faith in me, and this is one more step along a path they knew I could 'make by walking'. My sisters, sisters-in-law, and brothers and brothers-in-law encouraged me to finish this task through to the end!

My friends have been great listeners and questioners—Ann Burke, Elizabeth Christopher, Thomas Cosgrove, Gwen Daly, Eugene Fernandez, Rod Gorrie, Dawn Hough, Barbara Jones, Dmitri Kavtaradze, Jeff Kinder, Bruce Napper, Kaye Remington, Maria Rodoreda, Ted Rosen, Rosa Williamson, Laraine Spindler, Gaye Scully.

The participants in XB teach and learn their way through their own experience helping each other—and me—gain personal insights. The support of the first Australian XB was especially vital in forming ideas and practices recorded here.

And finally, most recently, Janet Prentice took a document that 'had potential' and helped me make it something I enjoyed working with. To each person named, and all those who have been beside me through this time, thank you so very much.

Abstract

This thesis investigates two intertwined themes. The first concerns the development of a framework for understanding, and making appropriate use of, simulations and games as tools for learning. The second concerns the utilisation of the term PratitionerResearcher to reflect the unity of practice and research activity in creating 'working knowledge' (Symes 2000).

These themes are intertwined in the sense that the route I take to understanding simulations and games is through the stance of a PractitionerResearcher. Conversely the thesis aims to draw out what it means to be a PractitionerResearcher through my engagement as a facilitator of simulations and games.

I argue that the knowledge I generate as a PractitionerResearcher is utilitarian and pragmatic. Grounded in my practice as an adult educator it utilises theoretical perspectives chosen for immediate relevance rather than because of any claims to 'truth' or permanence. Understanding how this shapes and influences my practice was a complex, difficult process. Using an auto-ethnographic approach, Chapter 1 outlines the development of my 'working knowledge' as a PractitinerResearcher. It draws on selected personal experiences in my work as an adult educator using simulations and games for teaching and learning.

While curiosity about historical facts initiated the research reported in Chapter 2, the chapter focuses on uses of historical precedent for generating greater understanding, and acceptance by participants, of simulations and games as teaching/learning strategies. It identifies a range of contributions—from war games, religious games, and children's play—to the structuring of modern educational simulations and games.

Chapter 3 explores approaches to classifying simulations and games. Its development brought a gradual realisation of the futility of trying to establish a single definitive categorisation system for all simulations and games. Understanding how they can be arranged in a variety of different relationships provides a better insight into their general features and helps in making decisions

about when and how to use specific activities. One outcome of the work for this chapter was the realisation of some simulations as 'open and infinite' in nature, and that XB—a simulation of importance in my practice—is such a simulation.

Chapter 4 uses concepts developed in the field of chaos theory to illustrate how certain simulations create messy but 'chaordic' (Hock 2002) rather than disorderly learning contexts. 'Chaos/chaotic' once meant only dis-order, 'messiness' and unpredictability. Twentieth century scientific discoveries illustrate that order is concealed within 'chaos' producing richly complex patterns when viewed from the right perspective. I argue that 'chaos' concepts can be usefully applied to open and infinite simulations to demonstrate how they are similarly 'chaordic'.

XB (for eXperience **B**ased learning) is an open, infinite chaordic simulation, and has been a driving force in my practice for six years. The case study in Chapter 5 introduces the 'world according to XB' and takes the reader 'inside' participants' experiences as the unfolding nature of their learning is revealed in the way they apply theories of organisational behaviour to immediate behaviours.

Chapter 6 reflects on my experiences of facilitating XB, via a review of interactions with some past XB participants. The influence of such a learning process on my practice is analysed. The emotional impact of these interactions has brought a better understanding of my own practice, and the chapter considers the concept of 'dispassionate reflexivity' as an aid for the facilitator in such contexts.

Chapter 7 examines the evolution and distinctive features of the PractitionerResearcher in more detail. As an educator, a consistent focus of my work has been simultaneously 'to know more' and 'to be able to do better' – and it is the interdependence of these that lies at the heart of what it means to be a PractitionerResearcher.

It is my hope that this thesis offers a solution for practitioners wanting to combine 'research' and 'practice' into a practical and scientifically rigorous 'whole'. For such professionals the PractitionerResearcher model offers an integrated approach, combining and validating 'learning *in* action' and 'learning *for* action'.

Contents

Dedication	i
Acknowledgements	ii
Abstract	iii
List of Figures	iv
List of Tables	vi
List of Acronyms	vii
Chapter 1 Engaging with theory and putting myself into practice	2
Introduction	2
Attributes of Simulations and Games	3
Introducing the PractitionerResearcher	5
Encountering 'Working Knowledge'	20
The final form of this thesis	25
Chapter 2 A PractitionerResearcher approach to history	29
Introduction	29
Benefits of an understanding of history	33
Contributions from military games and simulations	37
Contributions from religious games and simulations	47
Contributions from children's uses of games and simulations	56
Summary of the three historical contexts	63
Afterword	66
Chapter 3 The value of classifying	67
Introduction	67
Classifying games and simulations	72
A Practitioner researches classification systems	77
Introducing XB as an open infinite simulation	107

Summary	108
Chapter 4 Using both order and chaos to create learning	111
Introduction	111
Chaos and Complexity	113
Orderliness and Chaos—some antecedents	118
Chaord: 'chaos' and 'order' con-joined	125
Chapter 5 A Case Study: XB—an open, infinite chaordic simulation	136
What is XB?	141
Underpinning Theoretical Frameworks	145
Stages in the development of a 'typical' XB	156
Assessing the Learning	170
Summary	176
Chapter 6 Facilitation of XB	177
Introduction	177
Meeting XB	180
Thinking about what I'm trying to do	186
Learning from adversity	195
Concluding comment	208
Chapter 7 The PractitionerResearcher	210
Finding a framework, not imposing one	210
Being a PractitionerResearcher	218
Distinctive features of the PractitionerResearcher	223
Afterword	236
Bibliography	237

List of Figures

Figure 1 Consciousness and competence-a learning matrix	18
Figure 2. Images of 'multiple perspectives'	24
Figure 3 Tracing the origins of a history-based approach to simulations and games	_
Figure 4 A PractitionerResearcher perspective on seeking a rationale for simulations and games-revised and expanded	history-based
Figure 5 How simulations 'work' (from Leigh and Rising 1998)	78
Figure 6 A relational classification system, after Percival and Ellin and Ellington 1980)	
Figure 7 Classifying games from a basic referent system perspect Duke 1994)	`
Figure 8 Elgood's system of classifying by 'objectives'	92
Figure 9 Simulations and games as arranged on a continuum of mos	-
Figure 10 Adding emotions to Taylor's continuum	96
Figure 11 - Classifying 'life' as 'finite' and 'infinite' games in acco	
Figure 12 Characteristics of closed and open simulations (a Christopher and Smith, 1987)	-
Figure 13 An image of relationships between 'chaos' concepts and simulations	_
Figure 14 A typical XB organisation chart	142
Figure 15. Kolb's four learning style preferences	146
Figure 16 Honey and Mumford's representation of the learning styles	s concept. 147

Figure 17 The tasks of each XB Department, described as a Learning	Preference
	148
Figure 18 The seven Stages in Group Development, as used in XB	150
Figure 19 The First Learning Cycle in XB	150
Figure 20 The Second Learning Cycle in XB	151
Figure 21 Invitation to participate in XB	155
Figure 22 Results of a Force Field analysis conducted by an XB class	on its own
processes	169
Figure 23 A sample of the Behaviourally Stated Objectives in XB	171
Figure 24 - Example of Job Description documentation in the XB Manu	ıal 172
Figure 25 A 3D Image of XB, 1997	173
Figure 26 Three 3D images presented in 1997 now used in the	'invitation'
documents	173
Figure 27 A PractitionerResearcher model of facilitation practice	225

List of Tables

Table	1	Comparing	reatures	01	tne	Practitioner,	Researcher	and
Pra	ctit	ionerResearch	er					28
Table 2:	K	ey words from	military ga	ames	and si	mulations		46
Table 3.	K	ey words from	religious g	games	s and s	imulations		55
Table 4.	K	ey words from	children's	game	s and	simulations		60
Table 5	Co	omparison of	military, r	eligio	us an	d children's pla	ay contribution	ns to
cor	nten	nporary simula	tions and g	games	S			65
Table 6	- A	n arrangement	of classific	cation	ı syste	ms		83
Table 7	Kev	v characteristic	s of 'pure'	form	ıs, bas	ed on Percival a	and Ellington	85

List of Acronyms

AAACE Australian Association for Adult and Continuing Education

ABSEL Association for Business Simulation and Experiential Learning

ALARPM Action Learning, Action Research and Process Management

AITD Australian Institute for Training and Development

ICEL International Consortium on Experiential Education

ISAGA International Simulation and Gaming Association

NASAGA North American Simulation and Gaming Association

SAGSET Society for the Advancement of Games and Simulations in

Education and Training

SIAA Simulation Industry Association of Australia

SimTect Simulations Industry Technology Conference

SoL Society for Organisational Learning

TAFE Technical and Further Education – the government-based bodies

which are providers of posts-secondary skills and trade training in

Australia

UTS University of Technology, Sydney