

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

**Understanding Preparedness: The Influence of Teaching and Learning
Experience on Bioscience Integration by Nursing Lecturers**

A thesis presented in partial fulfilment of the requirements for the degree of

Doctor of Education

Massey University

Palmerston North,

New Zealand

Jane Hardcastle

2014

ABSTRACT

This thesis explores how teaching and learning experiences influence nursing lecturers' preparedness to integrate biosciences in their teaching practice. The biological sciences have been a problematic component of nursing education and practice for many years and bioscience knowledge levels amongst many nursing lecturers are reported to be poor. This research encompasses a detailed exploration of the teaching and learning experiences of ten New Zealand nursing lecturers to identify experiences that influence their preparedness with bioscience integration.

The phenomenon of preparedness was explored from the perspective of transcendental phenomenological philosophy and the key theoretical construct of intentionality. Study participants' subjective, conscious experiences were explored through in-depth interview and phenomenological analytical procedures to identify the universal experience and essences of how experiences came to be. Preparedness as a phenomenon is influenced by participants experiencing contrast, reflection and responsibility in learning, nursing, and teaching practice. These cognitive and affective processes occur as a result of the complex relationship between experiences, personal values and beliefs about 'good' nursing and teaching practice, and are found to be more influential than experience alone. This is an important discovery for nursing education as mere exposure to examples of bioscience in nursing may not affect students' or lecturers' perceptions of bioscience value.

The way that bioscience knowledge is valued within personal perceptions of good nursing underpins lecturers' preparedness, and shapes the way that learning, teaching and practice experiences are evaluated. The research demonstrates the importance of reflective learning and meaning perspectives in bioscience education, and the preparedness of nursing lecturers to practice integrated teaching. However,

despite a willingness to integrate bioscience when teaching nurses, lecturers question their confidence with traditional academic perceptions of bioscience knowledge. The findings question contemporary pedagogies in bioscience education and epistemological perspectives of bioscience theory in the context of nursing as a practice-based profession. Recommendations are made to facilitate reflective learning, and lecturers' preparedness with integrated teaching, through progressive spiral curricula that value clinical bioscience knowledge and the contribution of nursing lecturers' clinical expertise.

ACKNOWLEDGEMENTS

This thesis is dedicated to my late father, Victor Russell Wellacott. I will always be sad that you are not here to share in this moment and realise the inspiration that I have drawn from your courage.

I would like to express my heartfelt thanks and appreciation to my supervisors, Dr Linda Leach and Dr Philippa Seaton. Your support and expertise have consistently challenged my thinking and have enabled me to complete the study and thesis writing with the rigour that is expected of doctoral students.

To my husband, Shaun, thank you for believing in me and managing to pick exactly the right moments to tell me that you were proud of me. You will never know just how much that helped to pick me up and put me back on track. Thank you. I also appreciate your unexpected enthusiasm with Husserl's phenomenology. Our philosophical conversations have been enlightening and have contributed to my appreciation of philosophy.

I thank my friends and family for their ongoing support throughout this journey, and for understanding the inevitable fluctuations in my energy and enthusiasm for doctoral study. I also acknowledge the support and focus that I have gained through my yoga practice and fellow yogis. Through this I have found the clarity, determination and belief to enable this thesis to be written.

Finally I would like to thank the study participants. Your willingness to openly share your experiences has enabled me to develop a deep understanding of teaching, learning, and practice in nursing.

CONTENTS

ABSTRACT	ii
ACKNOWLEDGEMENTS.....	iii
CONTENTS.....	iv
LIST OF FIGURES	xi
LIST OF TABLES	xi
CHAPTER ONE	1
Introduction and Background	1
Introduction	1
Background	2
Integrated learning in the biological sciences.....	4
Nature and scope of the inquiry.	6
Significance of the Inquiry.....	7
Terminology.....	8
Thesis Structure.....	10
CHAPTER TWO	13
The ‘Bioscience Problem’ in Nursing Education – A Review of the Literature.....	13
Introduction	13
Historical Context	15
The biomedical revolt (1970-80s).....	15
The era of the new curricula (1990s).	19
Contemporary Opinions and Concerns (2000 to date).....	30
The New Zealand context.	37
Lessons from the Literature.....	38

Study direction.....	39
Conclusion.....	40
CHAPTER THREE	42
Transcending Experience - Research Methodology	42
Introduction	42
Phenomenology as a Means of Inquiry	43
Phenomenology as Philosophy.....	46
The natural attitude.	47
The phenomenological attitude.....	48
Intentionality.....	50
Phenomenological reduction.....	51
Transcendence.....	54
Eidetic intuition.....	57
Reflexivity – the self as transcendental.....	59
Achieving phenomenological reflexivity and reduction.....	61
Reflexivity in data collection.....	65
Phenomenology as a Research Methodology.....	68
Alternative Approaches to Phenomenological Inquiry	73
Conclusion.....	75
CHAPTER FOUR.....	77
Research Methods	77
Introduction	77
Transcendental Phenomenological Approach.....	77
Researcher Presuppositions.....	78

Bracketing presuppositions.	84
Research Methods	84
Pilot Study	86
Phase 1 – group discussion.	86
Conduct.	86
Participants.	88
Data collection.	89
Refinement.	92
Phase 2 – Pilot interview.	92
Conduct.	93
Pilot study outcome.	94
The Study	95
Participants	95
Participant characteristics.	97
Ethical practice.	98
Data Collection.....	100
Data management.....	102
Rigour.....	102
Data Analysis	104
Data analysis framework.....	105
Data Analysis Procedures.....	111
Textural analysis.	112
Structural analysis.	117
Textural-structural synthesis.	123
Conclusion.....	126

CHAPTER FIVE.....	127
Findings.....	127
Introduction	127
The Experience of Learning and Teaching Biosciences in Nursing	128
Core textural themes.	128
Ideals of nursing.....	131
Need to know.	133
Wanting to know.....	136
Motivators.	139
Negative motivation.....	141
Ways of learning.	144
Ideals of teaching.	147
Realities of teaching.....	151
Summary – core textural themes.....	156
Experiencing Learning and Teaching Biosciences in Nursing	157
Experiencing contrast.....	157
Experiencing responsibility.....	166
Experiencing reflection.....	174
Textural-Structural Synthesis	182
Preparedness with Bioscience Integration in Teaching Practice.....	187
Preparedness to integrate biosciences in teaching practice.....	188
Preparedness for bioscience integration in teaching practice.	190
Conclusion.....	193

CHAPTER SIX	195
Discussion.....	195
Introduction	195
The Centrality of Personal Ideals of Nursing.....	197
Experiencing.	200
Relationships between experiencing and reflection.....	201
The Role of Reflection	202
Learning from experience.	204
Knowing through valuing.	208
Values in teaching.....	210
Experiencing teaching.....	212
Concepts of Preparedness.....	214
Knowing <i>that</i> and knowing <i>how</i>	215
The know <i>that</i> – know <i>how</i> distinction.....	218
Making Sense of Things.....	220
If Preparedness to Integrate is Missing?	222
Implications for Nursing Education	224
Conclusion.....	226
 CHAPTER SEVEN.....	 229
Conclusions and Recommendations	229
Introduction	229
Understanding Preparedness – Aims and Achievements.....	230
Reflective learning.	231
First steps.	232
The Elements of Preparedness	233

Personal values.....	234
Epistemology.	236
Letting go of dominant pedagogies.....	239
Recommendation One:	241
Barriers.....	242
Action points:	243
Recommendation Two.	245
Action point:	246
Recommendation Three:	248
Action points:	252
Acknowledging barriers.....	253
Limitations of the Study	253
Positive perceptions of bioscience.	253
Predominance of pre-registration experience.....	255
Generalisation.	256
Future Research.....	256
Bioscience or bioscience for nursing?	256
Understanding limited preparedness.....	257
Revisiting Presuppositions	257
Conclusion.....	259
REFERENCES.....	261

APPENDICES	277
Appendix A. Ethical Approval Confirmation.	277
Appendix B. Indicative Interview Guide	278
Appendix C. Pilot Group Discussion Invitation.....	279
Appendix D. Pilot Group Discussion Information Sheet.....	280
Appendix E. Pilot Group Discussion Confidentiality Agreement	283
Appendix F. Participant Consent Form Pilot Group Discussion.....	284
Appendix G. Pilot Group Discussion Concept Map	286
Appendix H. Invitation to Participate - Pilot Interview	287
Appendix I. Information Sheet - Pilot Interview.....	288
Appendix J. Head of School Approval Letter	291
Appendix K. Invitation to Participate - Interview	295
Appendix L. Transcriber Confidentiality Agreement	296
Appendix M. Moustakas' modification of the Stevick-Collaizzi-Keen Method of Analysis of Phenomenological Data	297
Appendix N. Moustakas' modification of the van Kaam Method of Analysis of Phenomenological Data.....	300
Appendix O. Emerging Textural Themes and Colour Codes	303
Appendix P. Coding Distribution of Core Themes	304
Appendix Q. Verified Core Textural Themes	309
Appendix R. Core Structural Themes and Contextual Sub-Themes.....	310
Appendix S. Universal Essences and Emerging Relationships.....	313

LIST OF FIGURES

Figure 5.1 Core Textural Themes	129
Figure 5.2 Core Textural Themes and Sub-themes.....	130
Figure 5.3 Experiencing Contrast - Core Structural Theme and Related Sub-themes	159
Figure 5.4 Experiencing Responsibility - Core Structural Theme and Related Sub- themes	168
Figure 5.5 Experiencing Reflection - Core Structural Theme and Related Sub-themes	177
Figure 6.1 The Critical Nature of Ideals	198
Figure 7.1 The Supportive Spiral Curriculum for Nursing Bioscience.	251

LIST OF TABLES

Table 4.1 Data Analysis Framework.....	107
--	-----