

Towards a framework to assist women enrolled in the WIST bridging program learning communities

Robyn Terese Donovan

B Sc *UQ*, Grad Cert in Mgt *Flinders*

A dissertation submitted in partial fulfilment of the award of
Master of Informatics

Faculty of Business and Informatics
Central Queensland University

Abstract

Women are returning to study as mature age students in increasing numbers. Typically, these women have been away from study for a number of years and, in order to gain entrance into a university course most women are required to undertake a bridging program. Bridging programs can provide women with an alternative pathway into university and are designed to develop the academic and study skills required to successfully undertake undergraduate studies. The Women into Science and Technology (WIST) bridging program, offered by Central Queensland University, is a self-paced bridging program which provides a low cost, study at home option specifically designed to accommodate women's needs.

This research focuses on the perceived needs of women who are enrolled in the WIST program. To this end a survey instrument has been developed to identify the needs and challenges of women undertaking the WIST program. This instrument was used to explore the needs and challenges of women enrolled in the WIST program.

The survey results revealed that women have a range of needs which include support from the university, development of study and academic skills, personal qualities such as motivation and determination as well as support from their family and personal networks. The results indicate that the university needs to provide a range of support mechanisms and processes. These outcomes were used to develop the *Get SET for Study* framework that can be used for the planning and design of bridging courses similar to WIST for women who are considering enrolling in university.

Acknowledgements

I wish to acknowledge the expert guidance and support provided by my research supervisors Emeritus Professor John Dekkers and Dr Teresa Moore. Their combined expertise and encouraging support have ensured that the research process has been both successful and rewarding. I am very grateful and privileged to have supervisors who are always affirming and supportive.

I am particularly appreciative of Professor Dekkers' ability to step me through the research process in ways that matched my expertise at that time. Professor Dekkers has the rare ability to provide the appropriate combination of challenge and support in the tasks he assigns. Dr Teresa Moore provided me with opportunities to develop and to clarify my thinking and reminded me when to take the big picture view. I am grateful for their belief in the importance of this study and in my ability to complete this research.

This research has been made possible by the generous participation of Central Queensland University (CQU) colleagues who agreed to be interviewed and WIST students who participated in focus groups and completed the survey. CQU colleagues gave their time willingly and I am grateful for their insights and their contribution to the research.

The results of this research would not have been possible without the participation of WIST students. I am very grateful for the commitment they showed to the WIST program by participating in the research and I am looking forward to implementing the findings of the research for their benefit.

The support provided by my family and friends has sustained me through the research process. I am very appreciative of Barbara Stubbs for ensuring the document was presented with distinction and to Carmel Marshall for her attention to detail during the proofreading process. To my friends and colleagues in Zonta, the AIM Committee and to Jim and Margie T, Kath, Margie P, Denise, Sue, Margie D and Sally I am grateful for your acceptance of my absences in recent times.

To my parents Lance and Joan McDermott who recognised the value of a good education and ensured that I was provided with one I am forever grateful. I am also indebted to my parents and to my sister, Keren, for providing me with physical sustenance and moral support throughout this research journey. My daughters Eleanor, Jocelyn and Kate have also provided me with support and encouragement and I am especially appreciative of Eleanor's proofreading and her attention to detail in that process. I am also very appreciative of the relaxing times spent sailing with Chris and Joe.

Finally I would like to thank my husband Paul for his unwavering support and for his encouragement. His moral and practical support enabled me to more easily overcome the challenges associated with fitting study into my work and family life.

Declaration

I declare that the work presented in this dissertation is to the best of my knowledge and belief, original, except as acknowledged in the text, and that the material has not been submitted either in whole or part for a degree at this or any other university.

The submission of this dissertation is in partial fulfilment of the requirements of the Masters of Informatics at Central Queensland University.

Robyn Terese Donovan
Rockhampton, Queensland Australia
July 2007

Contents

Abstract	ii
Acknowledgements	iii
Declaration	iv
Index of Tables.....	vii
Index of Figures.....	viii
Chapter 1 Introduction.....	9
1.1 INTRODUCTION	9
1.2 BACKGROUND	10
1.3 DESCRIPTION OF THE WIST PROGRAM	12
1.4 RATIONALE AND SIGNIFICANCE.....	18
1.5 AIM, OBJECTIVES AND RESEARCH QUESTIONS	19
1.6 DEFINITIONS OF KEY TERMS.....	21
1.7 CHAPTER STRUCTURE	26
Chapter 2 Literature Review	28
2.1 INTRODUCTION	28
2.2 CONTEXT FOR THE STUDY	29
2.3 ADULT LEARNERS.....	32
2.4 BRIDGING PROGRAMS	38
2.5 SUPPORT SYSTEMS	43
2.6 NEEDS OF WOMEN ADULT LEARNERS	45
2.7 THEORETICAL FRAMES FOR THIS RESEARCH	49
2.8 CONCLUSION	61
Chapter 3 The Design and Development of a Survey Instrument.....	67
3.1 INTRODUCTION	67
3.2 RESEARCH DESIGN.....	67
3.3 DESIGN OF INSTRUMENT.....	71
3.4 SURVEY INSTRUMENT DEVELOPMENT PROCESS	73
3.5 CONCLUSION	100
Chapter 4 Exploration of Student Needs	102
4.1 INTRODUCTION	102
4.2 STUDY SAMPLE AND METHOD OF RESPONSE	102
4.3 PRELIMINARY SURVEY ANALYSIS	107
4.4 OTHER ANALYSIS	126
4.5 SUMMARY OF RESULTS	142
Chapter 5 Discussion of Survey Responses	146
5.1 INTRODUCTION	146
5.2 LIMITATIONS OF THE RESEARCH INVESTIGATION	146
5.3 CONSIDERATION OF RESEARCH QUESTION 1	149
5.4 CONSIDERATION OF RESEARCH QUESTION 2	164
5.5 DISCUSSION AND CONCLUSIONS	167
Chapter 6 Towards a framework to Assist Women Returning to Study	171
6.1 INTRODUCTION	171
6.2 NATURE, PURPOSE, RATIONALE AND ASSUMPTIONS OF THE FRAMEWORK.....	171
6.3 DESCRIPTION OF THE FRAMEWORK	179
6.4 CONCLUSION	194
Chapter 7 Conclusions and Utilisation of Results	196
7.1 INTRODUCTION	196
7.2 A CONSIDERATION OF THE SCOPE AND LIMITATIONS.....	196
7.3 OUTCOMES OF THE RESEARCH	197

7.4	WOMEN RETURNING TO STUDY	202
7.5	UTILISATION OF RESULTS	203
7.6	CONCLUDING REMARKS.....	212
	References	215
	Appendix A Description of Courses in the WIST Program	235
	Appendix B Focus Group Discussions	242
	Appendix C Interview Questions	243
	Appendix D Consent Form.....	244
	Appendix E Information Sheet.....	245
	Appendix F Survey Development Draft.....	246
	Appendix G Survey – Final Version	251
	Appendix H Survey – Online Version, Screen Shots	255
	Appendix I Summary of Results	262
	Appendix J Means and Standard Deviations.....	266
	Appendix K Crosstab Q3_r11: *Category of Student	267
	Appendix L Crosstab Q5_r4: *Category of Student.....	268

Index of Tables

Table 1.1 WIST Courses and numbers of enrolled students in 2006	15
Table 1.2 WIST student support.....	15
Table 2.1 Bridging Programs listed on the Queensland Tertiary Admissions Centre Website....	39
Table 2.2 Comparison of Learning Communities and Communities of Practice	57
Table 3.1 The Positivist and Constructivist/Interpretivist basic belief systems	68
Table 3.2 Themes identified in the Literature	75
Table 3.3 Focus Group instrument question organisation	79
Table 3.4 Themes identified in the focus groups.....	82
Table 3.5 Interviewees by Position and Role	84
Table 3.6 Themes identified in the Interviews	88
Table 3.7 Themes for survey instrument.....	89
Table 3.8 Organisation of survey questions	91
Table 3.9 Administration plan for survey distribution	99
Table 4.1 Student Categories.....	103
Table 4.2 Sample composition WIST student cohort 2006.....	103
Table 4.3 Respondents' Location – Population of towns.....	105
Table 4.4 Student Needs - Question 1 Statements.....	109
Table 4.5 Analysis of responses to Question 1.....	109
Table 4.6 Question 2.....	110
Table 4.7 Responses to Question 2.....	111
Table 4.8 Question 3.....	113
Table 4.9 Responses to Question 3.....	114
Table 4.10 Question 4.....	115
Table 4.11 Responses to Question 4.....	115
Table 4.12 Summary of responses to Question 4b	117
Table 4.13 Question 5.....	118
Table 4.14 Responses to Question 5.....	118
Table 4.15 Question 6.....	120
Table 4.16 Responses to Question 6.....	120
Table 4.17 Summary of responses to Question 8	123
Table 4.18 Summary of responses to Question 9	124
Table 4.19 Summary of responses to Question 10	125
Table 4.20 Summary of responses to Question 11	125
Table 4.21 T-Test Less than 30 years old Vs 30 years and older.....	127
Table 4.22 T-Test Carers Vs Non-Carers.....	128
Table 4.23 T-Test Remote Vs City.....	128
Table 4.24 Crosstab Q3_r11: I am studying because it will help me in my career path	130
Table 4.25 Q5_r4: I need to be able to contact the WIST staff	130
Table 4.26 Varimax Factor Solution for survey data	133
Table 4.27 Factor names and description	134

Table 4.28 Factor 1 - Studying with others and group work	135
Table 4.29 Factor 2 - Mattering and support.....	136
Table 4.30 Factor 3 - Family and significant others support	137
Table 4.31 Factor 4 - Study capability practices	138
Table 4.32 Factor 5 - Study priority /Establishing and setting priorities.....	139
Table 4.33 Factor 6 - Support mechanisms and processes/Study actioning	140
Table 4.34 Factor 7 - Women's needs.....	141
Table 4.35 Factor 8 - Family and personal circumstances/Circumstances.....	142
Table 6.1 Grouping of factors and responsibility	180
Table 6.2 Components and associated Factors	186

Index of Figures

Figure 2.1 Online support for students covering three domains. Adapted from Tait (2000)	61
Figure 3.1 Diagrammatic view of research process	73
Figure 3.2 Survey Item development using Focus groups	76
Figure 3.3 Survey development and testing	89
Figure 3.4 Sample question showing Likert scale	93
Figure 3.5 Online Questionnaire Question 1	96
Figure 3.6 Online Questionnaire Question 2.....	97
Figure 4.1 Percentage of Primary Carers in sample	104
Figure 4.2 Age distribution of WIST students and Survey Respondents	106
Figure 4.3 Method of Response to the Survey	107
Figure 4.4 Responses to Question 1 - Women's needs at University.....	110
Figure 4.5 Responses to Question 2 - Skills needed to succeed at University	112
Figure 4.6 Responses to Question 3 - Qualities needed	114
Figure 4.7 Responses to Question 4 - Importance of Services and Support.....	116
Figure 4.8 Responses to Question 5 - Other services and support	119
Figure 4.9 Responses to Question 6 - Networking and learning in groups	121
Figure 4.10 Scree Plot of survey data	132
Figure 4.11 Women's needs when returning to study	145
Figure 5.1 Research Question 1.1 Summary of women's identified needs.....	150
Figure 6.1 Reasons for the use of a framework.....	173
Figure 6.2 Support mechanisms and strategies within the WIST Community of Practice.....	185
Figure 6.3 Framework for WIST students' needs and challenges when returning to study	187
Figure 6.4 Learning Communities within the WIST Community of Practice.....	193
Figure 7.1 Framework components of needs and challenges when returning to study	203