



MURDOCH
UNIVERSITY
PERTH, WESTERN AUSTRALIA

**Universities as Learning Organizations:
How can Australian Universities become
Learning Organizations?**

By

Philip David Reece, BBus, MBus

**This Thesis is presented for the degree of
Doctor of Philosophy of Murdoch University**

- 2004 -

Certificate

I certify that the substance of this thesis has not already been submitted for any other degree and is not currently being submitted for any other degree. I also certify that, to the best of my knowledge, any help received in preparing this thesis and all sources have been acknowledged in this thesis. I further certify that, except where has been acknowledged, the work and ideas presented in this thesis are the researchers own.

Signed: (Philip David Reece)

Dated

Acknowledgements

To complete a PhD thesis is not just the work of one individual alone. To complete a thesis requires the support and encouragement of a great number of people and these are acknowledged here:

My wife, Jill Reece, whose unfailing support, encouragement, love and patience allowed the researcher to have the time to do the research and complete this thesis. Above all Jill reminded the researcher that everything is accomplished in baby steps. My supervisor Associate Professor Leland Entrekin who allowed the researcher to pursue their ideas about the research topic, to decided and then use the most appropriate methodology and for his unflagging support. Thanks must also go to Dr Cecil Pearson, who helped the researcher through the process of learning how to write at an academic level and for his ideas on the right methodology and, for reading the many early drafts of this thesis. The researcher thanks Dr Antonia Girardi who read the thesis and offered some insights into what could be done to improve it. Also, Dr Kathy Hastings who helped to guide the researcher through the choice of methodology, its implementation then read and critiqued the methodology section and read the thesis. Thanks must go to Professor Greg Tower who advised the researcher in the early days about alternative methodology and who read the thesis. The researcher must thank Vera Reicheld who did all the fiddly bits with the diagrams and formatting. Thanks to all the staff at Murdoch Business School for their support. Finally, thanks to the thirty-two respondents, in the two West Australian universities, whose views are the basis of the findings and without which, this thesis could not have been completed.

Abstract

This thesis examines the research issue of universities as Learning Organization. It examines the research problem of *“How can Australian universities become Learning Organization?”* This thesis presents the findings from a qualitative study of two publicly funded universities based in Western Australia, using the convergent interview and multiple case study methodology. The 11 convergent interviews were used to establish the ten key dimensions of what, the researcher considered, are necessary for Australian universities to become Learning Organization. The 32 case studies were then used to confirm or disconfirm these ten key dimensions which are listed below:

- Leadership
- Vision
- Organizational culture
- Human resource management
- Role in society
- Accessibility
- Resources
- Innovation and creativity
- Information Communication Technology
- Global reach

Of the ten key dimensions examined some, such as leadership, vision, Human Resource Management and having sufficient resources, were found to be clearly important to Australian universities becoming Learning Organization. While others, such as the global reach of a university and the accessibility to a university, presented with less clear findings, but still remain as part of the overall basis for Australian universities to become Learning Organization. The findings presented in this thesis represent the combined views of 32 staff members of two West Australian universities and provide many meaningful insights to the current state of two contemporary West Australian universities; one noted primarily as a research university and the other as primarily a teaching university. Finally, this thesis presents a model of what Australian universities could be, as Learning Organization.

Glossary of Terms

DETYA	Department of Education, Training and Youth Affairs
HECS	Higher Education Contribution Scheme
TAFE	Technical and Further Education

Contents Page	Page
Certificate	i
Acknowledgements	ii
Abstract	iii
Glossary of terms	iv
List of Tables and Figures	xix
Chapter 1: The research problem	
1.1: An overview of the thesis	1
1.2: Overview of chapter 1	3
1.3: Introduction	5
1.4: Overview of the Study Problem Area	7
1.5: Justification for the Research	8
1.6: Limitations	13
1.7: Anticipated benefits coming from the research	15
<u>Practical Benefits:</u>	15
<u>Theoretical Benefits:</u>	16
1.8: Definitions	16
1.9: Summary of Chapter 1	18
Chapter 2: The Literature Review	
2.0: Introduction	19
2.1: The rationale for the research	21
2.2: Senge’s ideal of a Learning Organization	25
2.2.1: Systems Thinking	26
2.2.2: Personal Mastery	27

2.2.3:	Mental Models	27
2.2.4:	Shared Vision	28
2.2.5:	Collective Learning	29
2.3:	Other Paradigms of a Learning Organization	30
2.3.1:	Transition into an Information Society and Economy	32
2.3.2:	Long lived organizations and organizational survival	33
2.3.3:	Competitive Advantage and Increasing Profits	35
2.3.4:	Knowledge Management	36
2.3.5:	Organizational learning equates to a learning organization	38
2.4:	What could make Australian universities Learning Organization?	39
2.4.1:	Leadership	44
2.4.2:	Vision	48
2.4.3:	Organizational Culture	52
2.4.4:	Human Resource Management	56
2.4.5:	Role in Society	59
2.4.6:	Accessibility	66
2.4.7:	Resources	71
2.4.8:	Innovation and Creativity	77
2.4.9:	Information and Communication Technology	80
2.4.10:	Global Reach	85
2.5:	The ten dimensions of Australian universities as Learning Organization	88
2.6:	Conclusion	89

Chapter 3:	Convergent Interviewing	
3.1:	Introduction	91
3.1.1:	Nature and Structure of the Methodology	93
3.1.2:	Convergent Interviewing-What is it?	93
3.1.3:	Convergent Interviewing-Strengths and Weaknesses	95
3.2:	Research Design	96
3.2.1:	Sample Selection	97
3.2.2:	Sample Size	99
3.2.3:	The Interview Protocol	99
3.2.4:	The Data Analysis	102
3. 3:	The Quality of the Data Obtained	103
3. 4:	Convergent Interviews: The results	105
3.4.1:	Theme 1: Leadership	106
3.4.2:	Theme 2: Innovation and Creativity	110
3.4.3:	Theme 3: Globalisation	113
3.4.4:	Theme 4: Technology- Information Communication Technology	117
3.4.5:	Theme 5: Resources	120
3.4.6:	Theme 6: Academic Concerns	123
3.4.7:	Five Emergent for Themes	126
3.4.8:	A summary of the research issues thus far	127
3. 5:	Convergent Interviews-Independent Verification	131
3. 6:	Ethical Considerations in using the Methodology	133
3. 7:	Convergent Interviews-A Conclusion	134

Chapter 4:	The Research Paradigm and Case Study Methodology	
4.1:	Introduction	135
4.1.1:	The Research Process	137
4.1.2:	Amendments to the original model	139
4.2:	Justifying the Choice of Paradigm	143
4.2.1:	The Three Perspectives: Ontological, Epistemological and Methodological	143
	1. The ontological perspective	
	2. The epistemological perspective	
	<u>3. The methodological perspective</u>	
4.2.2:	Competing Paradigms-The Different Ways of ‘Seeing’	144
4.2.3:	Positivism	147
4.2.4:	Critical Theory	147
4.2.5:	Constructivism	148
4.2.6:	Realism	148
4.3:	Justifying use of the Realism Paradigm	149
4.4:	Alternative research methodologies	151
4.5:	Induction and deduction as a part of the research process	154
4.6:	Background to the Choice of Methodology	158
4.7:	Using the Case Study Methodology to Build a Theory	161
4.8:	Selecting the Cases-The Criteria for Replication Logic	163
4.8.1:	How many cases?	164
4.8.2:	Selecting the Number of Cases	165
4.9:	The Case Study Protocol	169

4.9.1:	Standardising the Case Study Protocol	169
4.10:	Limitations of Case Study Based Research	173
4.11:	Analysing the Case Study Data	175
4.12:	Ethical Issues	176
4.13:	Conclusion-Convergent Interviewing and Case Study Based Research	177
Chapter 5:	Analysis of the case study results	
5.1:	Introduction	178
5.2:	The case study respondents	181
5.3:	Analysing the data	182
5.4:	Leadership	184
5.4.1:	The means for research statement 1- Leadership	184
5.4.2:	The Comments of Respondents 1A to 4D on Research Issue 1	186
	<u>Case 1: Executive Staff - Respondents 1A to 1D</u>	
	<u>Case 2: Academic Staff – Respondents 2A to 2D</u>	
	<u>Case 3: Administration Staff – Respondents 3A to 3D</u>	
	<u>Case 4: General Staff – Respondents 4A to 4D</u>	
	<u>A Summation of Cases 1-4 about University ‘A’</u>	
5.4.3	The Comments of Respondents 5A to 8D on Research Issue 1	187
	<u>Case 5: Senior Staff-Respondents 5A to 5D</u>	
	<u>Case 6: Academic Staff-Respondents 6A to 6D</u>	
	<u>Case 7: Administrative Staff-Respondents 7A to 7D</u>	
	<u>Case 8: General Staff-Respondents 8A to 8D</u>	
	<u>A summation of Respondents 5-8 in University ‘B’</u>	

5.4.4:	A Comparison between University ‘A’ and University ‘B’	189
5.5:	The Vision	189
5.5.1:	The means for research statement 2-The Vision	189
5.5.2:	The Comments of Respondents 1A to 4D on Research Issue 2	192
	<u>Case 1: Senior Executives-Respondents 1A to 1D</u>	
	<u>Case 2: Academic Staff-Respondents 2A to 2D</u>	
	<u>Case 3: Academic Staff-Respondents 3A to 3D</u>	
	<u>Case 4: Academic Staff-Respondents 4A to 4D</u>	
	<u>In Summation Cases 1-4 in University ‘A’</u>	
5.5.3:	The Comments of Respondents 5A to 8D on Research Issue 2	193
	<u>Case 5: Senior Executives-Respondents 5A to 5D</u>	
	<u>Case 6: Academic Staff-Respondents 6A to 6D</u>	
	<u>Case 7: Administrative Staff-Respondents 7A to 7D</u>	
	<u>Case 8: General Staff-Respondents 8A to 8D</u>	
	<u>In Summation of Cases 5-8 in University ‘B’</u>	
5.5.4:	A Comparison between University ‘A’ and University ‘B’	194
5.6:	Organizational Culture	195
5.6.1:	The means for research statement 3-Organizational Culture	195
5.6.2:	The Comments of Respondents 1A to 4D on Research Issue 3	198
	<u>Case 1: Senior Executives-Respondents 1A to 1D</u>	
	<u>Case 2: Academics-Respondents 2A to 2D</u>	

	<u>Case 3: Administrative Staff-Respondents 3A to 3D</u>	
	<u>Case 4: General Staff-Respondents 4A to 4D</u>	
	<u>In Summation Cases 1-4 in University ‘A’</u>	
5.6.3:	The Comments of Respondents 5A to 8D on Research Issue 3	199
	<u>Case 5: Senior Executives-Respondents 5A to 5D</u>	
	<u>Case 6: Academic Staff-Respondents 6A to 6D</u>	
	<u>Case 7: Administrative Staff-Respondents 7A to 7D</u>	
	<u>Case 8: General Staff-Respondents 8A to 8D</u>	
	<u>In Summation Cases 5-8 in University ‘B’</u>	
5.6.4:	A Comparison between University ‘A’ and University ‘B’	201
5.7:	Human Resource Management	201
5.7.1:	The means for research statement 4- Human Resource Management	201
5.7.2:	The Comments of Respondents 1A to 4D on Research Issue 4	204
	<u>Case 1: Executive Staff - Respondents 1A-1D</u>	
	<u>Case 2: Academic Staff - Respondents 2A-2D</u>	
	<u>Case 3: Administrative Staff - Respondents 3A-3D</u>	
	<u>Case 4: General Staff – Respondents 4A-4D</u>	
	<u>In Summation of Cases 1-4 in University ‘A’</u>	
5.7.3:	The Comments of Respondents 5A to 8D on Research Issue 4	205
	<u>Case 5: Executive Staff – Respondents 5A-5D</u>	
	<u>Case 6: Academic Staff – Respondents 6A-6D</u>	
	<u>Case 7: Administrative Staff – Respondents 7A-7D</u>	
	<u>Case 8: General Staff – Respondents 8A-8D</u>	
	<u>In Summation of Cases 5-8 in University ‘B’</u>	

5.7.4:	A Comparison between University 'A' and University 'B'	207
5.8:	Role in Society	207
5.8.1:	The means for research statement 5- Role in Society	207
5.8.2:	The Comments of Respondents 1A to 4D on Research Issue 5	210
	<u>Case 1: Executive Staff - Respondents 1A-1D</u>	
	<u>Case 2: Academic Staff - Respondents 2A-2D</u>	
	<u>Case 3: Academic Staff - Respondents 3A-3D</u>	
	<u>Case 4: Academic Staff - Respondents 4A-4D</u>	
	<u>In Summation of Cases 1-4 in University 'A'</u>	
5.8.3:	The Comments of Respondents 5A to 8D on Research Issue 5	211
	<u>Case 5: Executive Staff - Respondents 5A-5D</u>	
	<u>Case 6: Academic Staff - Respondents 6A-6D</u>	
	<u>Case 7: Administrative Staff - Respondents 7A-7D</u>	
	<u>Case 8: Administrative Staff - Respondents 8A-8D</u>	
	<u>In Summation of Cases 5-8 in University 'B'</u>	
5.8.4:	A Comparison between University 'A' and University 'B'	212
5.9:	Accessibility	213
5.9.1:	The means for research statement 6- Accessibility	123
5.9.2:	The Comments of Respondents 1A to 4D on Research Issue 6	216
	<u>Case 1: Executive Staff-Respondents 1A to 1D</u>	
	<u>Case 2: Academic Staff-Respondents 2A to 2D</u>	

	<u>Case 3: Administrative Staff-Respondents 3A to 3D</u>	
	<u>Case 4: General Staff-Respondents 4A to 4D</u>	
	<u>In Summation of Cases 1-4 in University ‘A’</u>	
5.9.3:	The Comments of Respondents 5A to 8D on Research Issue 6	217
	<u>Case 5: Executive Staff-Respondents 5A to 5D</u>	
	<u>Case 6: Academic Staff-Respondents 6A to 6D</u>	
	<u>Case 7: Administrative Staff-Respondents 7A to 7D</u>	
	<u>Case 8: General Staff-Respondents 8A to 8D</u>	
	<u>In Summation of Cases 5-8 in University ‘B’</u>	
5.9.4:	A Comparison between University ‘A’ and University ‘B’	219
5.10:	Resources	219
5.10.1:	The means for research statement 7- Resources	219
5.10.2:	The Comments of Respondents 1A to 4D on Research Issue 7	222
	<u>Case 1: Executive Staff-Respondents 1A to 1D</u>	
	<u>Case 2: Academic Staff-Respondents 2A to 2D</u>	
	<u>Case 3: Administrative Staff-Respondents 3A to 3D</u>	
	<u>Case 4: General Staff-Respondents 4A to 4D</u>	
	<u>In Summation of Cases 1-4 in University ‘A’</u>	
5.10.3:	The Comments of Respondents 5A to 8D on Research Issue 7	223
	<u>Case 5: Executive Staff-Respondents 5A to 5D</u>	
	<u>Case 6: Academic Staff-Respondents 6A to 6D</u>	
	<u>Case 7: Administrative Staff-Respondents 7A to 7D</u>	
	<u>Case 8: General Staff-Respondents 8A to 8D</u>	

	<u>In Summation of Cases 5-8 in University ‘B’</u>	
5.10.4:	A Comparison between University ‘A’ and University ‘B’	225
5.11:	Innovation and Creativity	225
5.11.1:	The means for research statement 8- Innovation and Creativity	225
5.11.2:	The Comments of Respondents 1A to 4D on Research Issue 8	228
	<u>Case 1: Executive Staff-Respondents 1A to 1D</u>	
	<u>Case 2: Academic Staff-Respondents 2A to 2D</u>	
	<u>Case 3: Administrative Staff-Respondents 3A to 3D</u>	
	<u>Case 4: General Staff-Respondents 4A to 4D</u>	
	<u>In Summation of Cases 1-4 in University ‘A’</u>	
5.11.3:	The Comments of Respondents 5A to 8D on Research Issue 8	229
	<u>Case 5: Executive Staff-Respondents 5A to 5D</u>	
	<u>Case 6: Academic Staff-Respondents 6A to 6D</u>	
	<u>Case 7: Administrative Staff-Respondents 7A to 7D</u>	
	<u>Case 8: General Staff-Respondents 8A to 8D</u>	
	<u>In Summation of Cases 5-8 in University ‘B’</u>	
5.11.4:	A Comparison between University ‘A’ and University ‘B’	230
5.12:	Information Communication Technology	231
5.12.1:	The means for research statement 9- Information Communication Technology	231
5.12.2:	The Comments of Respondents 1A to 4D on Research Issue 9	234
	<u>Case 1: Executive Staff-Respondents 1A to 1D</u>	

	<u>Case 2: Academic Staff-Respondents 2A to 2D</u>	
	<u>Case 3: Administrative Staff-Respondents 3A to 3D</u>	
	<u>Case 4: General Staff-Respondents 4A to 4D</u>	
	<u>In Summation of Cases 1-4 in University ‘A’</u>	
5.12.3:	The Comments of Respondents 5A to 8D on Research Issue 9	235
	<u>Case 5: Executive Staff-Respondents 5A to 5D</u>	
	<u>Case 6: Academic Staff-Respondents 6A to 6D</u>	
	<u>Case 7: Administrative Staff-Respondents 7A to 7D</u>	
	<u>Case 8: General Staff-Respondents 8A to 8D</u>	
	<u>In Summation of Cases 5-8 in University ‘B’</u>	
5.12.4:	A Comparison between University ‘A’ and University ‘B’	237
5.13:	Global Reach	237
5.12.1:	The means for research statement 10- Global Reach	237
5.12.2:	The Comments of Respondents 1A to 4D on Research Issue 10	240
	<u>Case 1: Executive Staff-Respondents 1A to 1D</u>	
	<u>Case 2: Academic Staff-Respondents 2A to 2D</u>	
	<u>Case 3: Administrative Staff-Respondents 3A to 3D</u>	
	<u>Case 4: General Staff-Respondents 4A to 4D</u>	
	<u>In Summation of Cases 1-4 in University ‘A’</u>	
5.12.3:	The Comments of Respondents 5A to 8D on Research Issue 10	241
	<u>Case 5: Executive Staff-Respondents 5A to 5D</u>	
	<u>Case 6: Academic Staff-Respondents 6A to 6D</u>	
	<u>Case 7: Administrative Staff-Respondents 7A to 7D</u>	

Case 8: General Staff-Respondents 8A to 8D

In Summation of Cases 5-8 in University 'B'

5.13.4:	A Comparison between University 'A' and University 'B'	243
5.14:	Conclusion of chapter 5	244
Chapter 6:	Conclusions and implications	
6.1:	Introduction	245
6.1.2:	Contributions of this thesis	249
6.2:	The Synthesis-A Comparison of the results with the model	249
6.3:	The leadership styles of University 'A' and University 'B'	250
6.3.1:	Recommendations for leadership in an Australian university, as a learning organization	252
6.4:	The Visions of Universities 'A' and 'B'	252
6.4.1:	Recommendations for the vision of an Australian university, as a learning organization	254
6.5:	The organizational cultures of Universities 'A' and 'B'	255
6.5.1	Recommendations for the organizational culture of an Australian university, as a learning organization	256
6.6:	The Human Resource Management approaches of Universities 'A' and 'B'	257

6.6.1:	Recommendations for the Human Resource Management of an Australian university, as a learning organization	259
6.7:	The roles played in society by Universities ‘A’ and ‘B’	259
6.7.1:	Recommendations for the role in society of an Australian university, as a learning organization	261
6.8:	Accessibility to Universities ‘A’ and ‘B’	261
6.8.1:	Recommendations for the accessibility of an Australian university, as a learning organization	263
6.9:	The resources of Universities ‘A’ and ‘B’	264
6.9.1:	Recommendations for the Resources of an Australian university, as a learning organization	265
6.10:	The use of Innovation and Creativity in Universities ‘A’ and ‘B’	267
6.10.1:	Recommendations for developing the Innovation and Creativity of all the staff in an Australian university, as a learning organization	268
6.11:	Using Information Communication Technology in Universities ‘A’ and ‘B’	269
6.11.1:	Recommendations for the Information Communication Technology of an Australian university, as a learning organization	272
6.12:	The Global Reach of Universities ‘A’ and ‘B’	273
6.12.1:	Recommendations for the global reach of an Australian university, as a learning organization	275

6.13:	The model of Australian Universities as Learning Organization	275
6.14:	Further Research Issues	280
6.15:	Thesis Conclusion	282
References		285

Figures and Tables	Page
Chapter 1	
Figure 1.1:	Flowchart of the entire Thesis 2
Figure 1.2:	Flowchart of Chapter 1 4
Chapter 2	
Figure 2.1	Flowchart of Chapter 2 20
Table 2.1	The Abilities, Skills and Knowledge required of Individuals in Industrial Organizations vs. Information Organizations 22
Table 2.2	Senge's Learning Organization 25
Table 2.3:	Why organizations need to develop into Learning Organization 30
Table 2.4:	Ten Dimensions of Australian Universities as Learning Organization 43
Table 2.5:	Leadership Attributes-A synthesis 47
Table 2.6:	Vision-A synthesis 51
Table 2.7:	Organizational Culture-A synthesis 55
Table 2.8:	Human Resource Management-A synthesis 58
Table 2.9:	Role in Society-A synthesis 65
Table 2.10:	Accessibility-A synthesis 70
Table 2.11:	Fiscal Data 1994 to 2003-Australian Government Funding for Higher Education 74
Table 2.12:	Resources -A synthesis 76
Table 2.13:	Innovation and Creativity-A synthesis 79
Table 2.14:	Information and Communication Technology -A synthesis 84

Table 2.15:	Global Reach-A synthesis	88
-------------	--------------------------	----

Chapter 3

Figure 3.1:	Flowchart of Chapter 3	92
Figure 3.2:	Flowchart of the convergent interview process	94
Table 3.1:	Profile of the respondents from the convergent interviews	98
Table 3.2:	Themes about Leadership	106
Table 3.3:	Themes about Innovation and Creativity	110
Table 3.4:	Themes about Globalisation	113
Table 3.5:	Themes about Information Communication Technology	117
Table 3.6:	Themes about Resources	120
Table 3.7:	Themes about Academic Concerns	123
Figure 3.2:	A model of Australian universities, as Learning Organization	130

Chapter 4

Figure 4.1:	Flowchart of Chapter 4	136
Figure 4.2:	The seven phases of the research process	138
Figure 4.3.a:	Amended model of Australian universities, as Learning Organization	140
Figure 4.3.b:	The further amended model of Australian universities, as Learning Organization	142
Table 4.1:	Basic Belief Systems-Paradigms for Alternative Methods of Inquiry	146
Table 4.2:	Requirements to be met by a research paradigm and methods used	150
Figure 4.3:	The knowledge accrual triangle	152

Table 4.3:	A Comparison of different research methods for different situations	153
Figure 4.4:	The two case study positions: Exploring to confirm or deny	155
Figure 4.5:	Blending induction and deduction as a research approach	156
Figure 4.6:	The seven phases of the research process	157
Table 4.4:	Research Design Using Multiple Case Studies	166
Table 4.6a:	Characteristics of the Respondents of University 'A'	168
Table 4.6b:	Characteristics of the Respondents of University 'B'	168
Table 4.7:	Research Issues, Definitions and Research statements	170
Table 4.8	Strategies to overcome the limitations of Case Based Research	173
 Chapter 5		
Figure 5.1a:	Flowchart of Chapter 5	179
Figure 5.1b:	Flowchart of Chapter 5	180
Figure 5.2:	Leadership Data Matrix	185
Figure 5.3:	Vision Data Matrix	191
Figure 5.4:	Organizational Culture Data Matrix	197
Figure 5.5:	Human Resource Management Data Matrix	203
Figure 5.6:	Role in Society Data Matrix	209
Figure 5.7:	Accessibility Data Matrix	215
Figure 5.8:	Resources Data Matrix	221
Figure 5.9:	Innovation and Creativity Data Matrix	227

Figure 5.10:	Information Communication Technology Data Matrix	233
--------------	---	-----

Figure 5.11:	Global Reach Data Matrix	239
--------------	--------------------------	-----

Chapter 6

Figure 6.1a:	Flowchart of Chapter 5	246
--------------	------------------------	-----

Figure 6.1b:	Flowchart of Chapter 5	247
--------------	------------------------	-----

Table 6.1:	The characteristics of each dimension-unlikely and likely to become a learning organization	248
------------	--	-----

Table 6.2:	A combined presentation of the characteristics of leadership	251
------------	---	-----

Table 6.3:	A combined presentation of the characteristics of a vision	254
------------	---	-----

Table 6.4:	A combined presentation of the characteristics of a learning organizational culture for an Australian university, as a learning organization	256
------------	--	-----

Table 6.5:	A combined presentation of the characteristics of an effective and appropriate Human Resource Management approach for an Australian university, as a learning organization	258
------------	---	-----

Table 6.6:	A combined presentation of the characteristics of an effective and appropriate role in society for an Australian university, as a learning organization	260
------------	--	-----

Table 6.7:	A combined presentation of the characteristics of an effective and appropriate level of accessibility for an Australian university, as a learning organization	263
------------	---	-----

Table 6.8:	A combined presentation of the characteristics of the resources required for an Australian university, as a learning organization	265
------------	---	-----

Table 6.9:	A combined presentation of the characteristics of Innovation and Creativity required for an Australian university, as a learning organization	268
Table 6.10:	A combined presentation of the characteristics of the resources required for an Australian university, as a learning organization	271
Table 6.11:	A combined presentation of the characteristics of the resources required for an Australian university, as a learning organization	274
Figure 6.2:	The Final model	278
Table 6.12:	A comparison of the means for research statements 1-10, for both universities	280