Copyright Statement

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand). This thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of this thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from their thesis.

To request permissions please use the Feedback form on our webpage. http://researchspace.auckland.ac.nz/feedback

General copyright and disclaimer

In addition to the above conditions, authors give their consent for the digital copy of their work to be used subject to the conditions specified on the Library Thesis Consent Form

Teachers' Conceptions of Assessment

Gavin Thomas Lumsden Brown

M. Ed. (Hons.) Massey University

B. Ed. (TESL) (Dist'n) Concordia University

Supervisor: Professor John A. C. Hattie, University of Auckland

A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Education, The University of Auckland, 2002

Abstract

Teachers' conceptions are powerful in shaping the quality of their instructional practice. The purpose of this thesis is to defend a four-facet model of teachers' conceptions of assessment, which revolves around emphasising improvement or school accountability, or student accountability purposes or treating assessment as irrelevant. Further, it explores how those conceptions relate to teachers' conceptions of learning, teaching, curriculum, and teacher efficacy.

A literature review is used to identify the major conceptions. Multiple studies led to a 50-item Teachers' Conceptions of Assessment (COA-III) questionnaire based on the four main conceptions of assessment. Structural equation modelling showed a close fit of a hierarchical, multi-dimensional model to the data. Teachers moderately agreed with the improvement conceptions and the system accountability conception. Teachers disagreed that assessment was irrelevant. However, teachers had little agreement that assessment was for student accountability. Improvement, school, and student accountability conceptions were positively correlated. The irrelevance conception was inversely related to the improvement conception and not related to the system accountability conception.

A four-factor structure of teachers' beliefs about assessment, curriculum, teaching, learning, and teacher efficacy, was found. Teachers agreed that assessment influences and improves their teaching and student learning. They agreed less strongly that assessment, measuring surface learning only, makes schools, teachers, and students accountable and that teachers are able to conduct assessment through a systematic technological approach. They agreed at a similar level with student centred learning that involves deep approaches to learning, divorced from assessment. They disagreed with a telling type of teaching that focuses only on intellectual development of students or on reconstruction or reform of society.

Use of the CoA-III makes teachers' conceptions of assessment more explicit and will assist in the development of teacher training programs, the design of assessment policy, and enhance further research into educational assessment practices. Furthermore, explicit attention to teachers' conceptions of assessment is expected to be a precursor to teachers' self-regulation of their assessment beliefs and practices.

© 2002, Gavin Thomas Lumsden Brown

Acknowledgements

I would like to thank my wife, Judith, and children, Iain, Anthony, Kate, and Heather, for their tolerance and support over many long hours in the last 3 years. This research has taken me away from you many a fine sunny day when we should have been in the garden or on the beach and robbed you of my company and taken from me the pleasure of yours—I believe that it has been worth it.

I acknowledge the logistic and financial support of the Assessment Tools for Teaching and Learning Project, School of Education, University of Auckland with special thanks to Tim Sutherland for help with data preparation and to Angela Parker for help with data collection. I recognize the support of the New Zealand Council for Educational Research, and especially Mr Cedric Croft, for allowing me to use, as part of this thesis, the work I did in Study 1 while employed at NZCER. This research could not have been completed without the full participation of hundreds of anonymous teachers, teacher trainees, and education students—to any of you who read this, thank you.

Extra-special thanks to my supervisors, Professor John Hattie and Associate Professor Mike Townsend—without your feedback, advice, and assistance through Sunday afternoon phone calls, long talks over coffee and lunch [PS the next one is on me], slaving over a hot keyboard, and countless statistical iterations I would not have completed this thesis.

The bus is coming, and thanks to all of you, the story of how New Zealand teachers conceive of assessment can be told before it leaves!

Table of Contents

INTRODUCTION	1
THE NEW ZEALAND CONTEXT	3
STRUCTURE OF THESIS	6
CHAPTER I. TEACHERS' INSTRUCTIONAL CONCEPTIONS: LEARNING	G,
CURRICULUM, TEACHING, EFFICACY, AND ASSESSMENT	
CONCEPTIONS OF LEARNING	11
CONCEPTIONS OF CURRICULUM.	
CONCEPTIONS OF TEACHING	
CONCEPTIONS OF EFFICACY	
CONCEPTIONS OF ASSESSMENT.	24
Assumptions About Assessment	25
Conception 1: Improvement of Teaching and Learning	27
Conception 2: Accountability of Teachers and Schools	32
Conception 3: Accountability of Students	40
Conception 4: Irrelevance	43
Summary	
Conclusions	53
CHAPTER II. EXPLORING TEACHERS' INSTRUCTIONAL CONCEPTIO	NS
	58
STUDY 1: In-Service Secondary Teachers' Conceptions of Learning	59
Instruments	62
Analysis	66
Participants	67
Results	69
Conceptions About Learning	
Conceptions About Curriculum.	
Conceptions About Teaching	
Conceptions About Efficacy	
Assessment Practices	
Conclusion	
STUDY 2: In-Service Primary Teachers' Conceptions of Assessment	
Instrument	
Participants	
Results	
Conclusion	91
CHAPTER III. MEASURING TEACHERS' CONCEPTIONS OF ASSESSME	
	94
STUDY 3: TEACHER TRAINEES' CONCEPTIONS OF ASSESSMENT (COA-I)	
STUDY 4: STUDENTS' AND PRACTISING TEACHERS' CONCEPTIONS OF ASSESSMENT	
(CoA-II)	
Concluding Comment	
STUDY 5: TEACHERS' CONCEPTIONS OF ASSESSMENT (COA-III)	113

Instruments	114
CoA-III	114
Demographic Questionnaire	115
Assessment Format or Types	
Assessment Practices	118
Assessment Literacy Training	120
Participants	122
Results	
CoA-III Measurement Model	
Differences in CoA-III Mean Scale Scores	130
Teacher & School Characteristics	
Assessment Format or Types	
Assessment Practices	
Assessment Literacy Training	
Conclusion	145
CHAPTER IV. A FOUR-FACET MODEL OF TEACHERS' INSTRUCT	IONAL
CONCEPTIONS	
STUDY 6: COA-III RELATED TO TEACHERS' CONCEPTIONS OF LEARNING,	151
CURRICULUM, TEACHING, AND TEACHER EFFICACY	
Conceptions of Learning.	
Conceptions of Curriculum	
Conceptions of Teaching	
Conceptions of Teaching Conceptions of Teacher Efficacy	
Results	
Conceptions of Learning.	
Conceptions of Curriculum	
Conceptions of Teaching	
Conceptions of Teacher Efficacy	
Teachers' Instructional Conceptions	
•	
CHAPTER V. CONCLUSION	181
FINDINGS	183
IMPLICATIONS	186
FUTURE RESEARCH	
Contribution	193
REFERENCES	195
Tables	
Tables	
Table 1. Learning Conceptions Items by Approach	65
Table 2. Interview Schedule for Teachers' Conceptions about Curriculum, Tea	iching,
Assessment, and Students	
Table 3. Teacher Questionnaire Participants by School Size, School SES, and S	•
Table 4. Interviewed Teachers by Gender, Decile, and Teaching Level	
Table 5. Teacher Conceptions of Learning Factor Structure	70

Table 6. Mean Learning Conceptions of Students and Teachers	71
Table 7. Goals of Teachers for Their Subjects	72
Table 8. Teaching Approaches	74
Table 9. Recent Changes in Teaching Approach	75
Table 10. Definitions of Teaching.	
Table 11. Attributes of Good Teachers	77
Table 12. Frequency of Assessment Task Usage	79
Table 13. Deep and Surface Requirements in Examinations	80
Table 14. Teacher Conceptions About Obstacles to Achieving Teaching Goals	
Table 15. In-Service Teachers Conceptions of Assessment Organised by Four Major	
Conceptions	85
Table 16. Conceptions of Assessment Factors, Statements, and Loadings	98
Table 17. CoA-I Factors Means and Reliabilities	
Table 18. CoA-II Factor Structure Study 4	.104
Table 19. CoA-II Measurement Model Characteristics: Accountability, Improvement	
and Irrelevance	
Table 20. CoA-II First Order Factor Loadings	.111
Table 21. Assessment Practices and Processes Statements, Factors and Loadings	
Table 22. CoA-III Key Demographic Characteristics Comparison	.123
Table 23. CoA-III Participant Characteristics	
Table 24. CoA-III Participants by School Characteristics	
Table 25. Intercorrelations CoA-III Model of Conceptions of Assessment	.128
Table 26. CoA-III Scale Characteristics	
Table 27. Percentage of Teachers by Agreement Level for CoA-III Scales	.131
Table 28. CoA Mean Scale Scores Across Studies 3-5	.135
Table 29. Intercorrelation CoA-III Mean Scale Scores Across Studies	.135
Table 30. Multidimensional Scaling of Types of Assessment	.137
Table 31. Frequency of MDS Assessment Types Scores	.138
Table 32. Multivariate Results COA-III by Assessment Type	.138
Table 33. Intercorrelations Assessment Practices Subscales	.139
Table 34. Intercorrelations Assessment Practices and CoA-III	.142
Table 35. CoA-III Participant Assessment Literacy Training	.144
Table 36. Multivariate Results COA-III Subscales by Assessment Literacy Training	.145
Table 37. Conceptions of Curriculum Inventory Statements, Factors, and Loadings.	.153
Table 38. Teaching Perspectives Inventory Factors, Statements and Loadings	.155
Table 39. Teacher Efficacy Statements, Factors, and Loadings	.156
Table 40. Intercorrelations Conceptions of Learning and CoA-III	.158
Table 41. Intercorrelations Conceptions of Learning and Related Conceptions	.159
Table 42. Intercorrelations Conceptions of Curriculum Subscales	
Table 43. Intercorrelations Assessment Practices and CoA-III	.162
Table 44. Intercorrelations Assessment Practices and Related Conceptions	.163
Table 45. Intercorrelations Teaching Perspectives Subscales	.164
Table 46. Intercorrelations of Teaching Perspectives and CoA-III	.167
Table 47. Intercorrelations Teaching Perspectives and Related Conceptions	
Table 48. Intercorrelations Conceptions of Efficacy and CoA-III	
Table 49. Intercorrelations Conceptions of Efficacy and Related Conceptions	.171
Table 50. Factor Structure Teachers' Instructional Conceptions	
Table 51. Intercorrelations Teachers' Instructional Conceptions Factors	.175
Table 52. Descriptive Statistics Teachers' Instructional Conceptions Factor Scores	

Figures

Figure 1. Primary Teachers' Conceptions of Assessments Comments by Category	84
Figure 2. CoA-I Factors Mean Scores	100
Figure 3. CoA-II Accountability Conception Measurement Model	108
Figure 4. CoA-II Improvement Conception Measurement Model	109
Figure 5. CoA-II Irrelevance Conception Measurement Model	110
Figure 6. CoA-III Measurement Model of Conceptions of Assessment	129
Figure 7. Percentage of Teachers by Agreement Level for CoA-III Scales	132
Figure 8. Three Dimensional Mapping of MDS Assessment Type Dimensions	137
Figure 9. Assessment Practices Measurement Model	140
Figure 10. Conceptions of Learning Measurement Model	158
Figure 11. Conceptions of Curriculum Measurement Model	161
Figure 12. Conceptions of Teaching Measurement Model	166
Figure 13. Conceptions of Teacher Efficacy Measurement Model	170
Figure 14. Four Factor Teachers' Instructional Conceptions Measurement Model	176