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.

Formative Assessment and Re...action

A theory-seeking case study crossing the bridge from theory to practice and back again

A thesis submitted in partial fulfilment of the requirements for the degree of Master of Education at Massey University

> Martin Paul Vickerman 2002

i

I certify that the thesis entitled Formative Assessment and Re...action: A theory-seeking case study crossing the bridge from theory to practice and back again and submitted as part of the degree of Master of Education is the result of my own work, except where otherwise acknowledged, and that this research thesis (or any part of the same) has not been submitted for any other degree to any other university or institution.

Signed:

Date:

18/06/02

Abstract

Formative assessment is increasingly being recognised for its potential to enhance learning. Studies from the United Kingdom and New Zealand have revealed that frequently classroom teachers are engaged in formative assessment practices without being aware of it, or are inefficient users of formative assessment information.

This research used a theory-seeking case study approach in an attempt to establish how formative assessment was being used in three senior primary school teachers' classrooms. Through semi-structured interviews and indepth classroom observations, five emergent themes were recognised. One of these themes, that formative assessment is on-going and a cyclical process, led to the development of a model of formative assessment in action. Key features of the model include the use of assessment information/indicators to decide appropriate actions, or more frequently re...actions, to create further learning opportunities.

Appraisal and verification of the model by participants and other teachers from both the research school and others in the area, suggest that it is an accurate representation of how teachers do assess children for the purpose of enhancing their learning.

Acknowledgements

This research and the writing of this thesis have only been possible with the assistance and cooperation of many people.

A great debt of gratitude is due, first of all, to Revd Andrew Prasad, the former Secretary for Personnel Resources at the Council for World Mission (CWM), whose initial encouragement to pursue further studies manifested itself in a CWM Scholarship. To Andrew, his successor, friends and colleagues at CWM, an enormous 'thank you'.

I am especially grateful to the principal, staff and children of *Te Arawhiti Primary School*. In particular I must thank the three participating teachers, *Bryony, Karen* and *Sue* and their classes. Throughout all stages of the study I was made to feel welcome, and provided with access to anything I required for the research. *Tena koutou, tena koutou, tena koutou katoa*.

My heartfelt thanks also go to Dr Jenny Poskitt and Sally Hansen, my supervisors, who have been generous in their time, advice, 'cognitive challenges' and, most of all, their patience. Both Jenny and Sally kept me focused, motivated and shared my excitement as the research and thesis developed.

Many people have also freely given their support 'from the sidelines'. The International Student Support Office staff; fellow international and postgraduate students; numerous lecturers and tutors, many of whom I knew only informally; Terry, Eren and family; and friends from St Albans Presbyterian Church, thank you all for your constant encouragement and prayers.

Finally, to my wife Taara and daughter Georgina, thank you your love and patience. Without your support I doubt I would have survived.

Table of Contents

Table of Contents	iii iv ix
List Of Figures And Tables	ix
CHAPTER ONE	
Introduction	1
The research problem	2
The research questions	2
Te Arawhiti Primary School	3
Emergent themes	4
Organisation of the thesis	4
CHAPTER TWO Literature Review	
Introduction	6
Defining formative assessment	6
What is understood by formative assessment?	8
Locating formative assessment within shifting educational and assessment paradigms	9
Feedback and feedforward as formative assessment	12
The value of formative assessment	15
Recent studies from the United Kingdom and New Zealand	17
Concerns over validity and reliability of formative assessment	21
Recommendations and limitations	22
Summary	23

CHAPTER THREE

Methodology - A Theoretical Background

Introduction	24
Quantitative or qualitative?	24
The role of the research questions	25
The research questions	26
Case study – a brief overview	28
Theory-seeking case study as the methodology of choice	31
Data collection methods	32
Semi-structured interviews	32
Observations	34
Documents	35
The researcher as tool	35
Other methodological issues	36
Validity and reliability in case study research	36
Triangulation	37
Ethics	37
Data analysis	38
Summary	39
CHAPTER FOUR	
Methodology In Action	
Introduction	40
Negotiating access	40
Informed consent	41
Dealing with non-consent	41
Insider/outsider issues and the 'Magic Waistcoat'	42
Into the field – the data collection	43
'Checking out the ground'	43
Main data collection period	44
Participant or non-participant?	45

	Recording data from the observations	46
	Chats	47
	Group chats	48
	Final interview and questionnaire	49
	Questionnaire	50
	Other documents	50
	Recording and organising the data	50
Data	a Analysis	51
	Using table functions in Microsoft Word™ to facilitate qualitative data analysis	51
	Facilitating data analysis	53
	Other uses of table and Word™ functions	55
	Data aggregation	55
	Other sources	60
With	drawing from the field	60
Sum	nmary	61
СНАРТ	ER FIVE	
Seeking	Theory – Letting The Data Speak	
Introduction	n	62
Emergent t	hemes	63
1.	The context of assessment	64
2.	The purpose of assessment	69
3.	Formative assessment is often intuitive	71
4.	Formative assessment – the catalyst for reaction	74
5.	Formative assessment is cyclical and ongoing	77
Helena's fo	ormative assessment trail	80
Summary		

CHAPTER SIX

Towards A Theory Of Formative Assessment In Action

Revisiting the context of formative assessment	
**************************************	90
Revisiting teacher's perceptions of formative assessment	91
Revisiting feedback, feed-forward and reaction	93
Revisiting teachers' intuition	95
Revisiting formative assessment - on-going and cyclical	96
Formative assessment in action – a model	98
Explanation of model of Formative Assessment in Action	100
Justification and validation of the model	103
Limitations and recommendations for future research	104
Summary	106
BIBLIOGRAPHY	107
APPENDICES	
APPENDICES Appendix A – Letter from <i>Te Arawhiti Primary School</i> Principal	122
	122 123
Appendix A – Letter from <i>Te Arawhiti Primary School</i> Principal	
Appendix A – Letter from <i>Te Arawhiti Primary School</i> Principal Appendix B – Information sheets and consent forms Appendix C – Example of classroom seating plan and notebook with fold- out crib sheet for locating and coding	123
Appendix A – Letter from <i>Te Arawhiti Primary School</i> Principal Appendix B – Information sheets and consent forms Appendix C – Example of classroom seating plan and notebook with fold- out crib sheet for locating and coding participating children	123 129
Appendix A – Letter from <i>Te Arawhiti Primary School</i> Principal Appendix B – Information sheets and consent forms Appendix C – Example of classroom seating plan and notebook with fold- out crib sheet for locating and coding participating children Appendix D – Preliminary interview questions	123 129 131
Appendix A – Letter from <i>Te Arawhiti Primary School</i> Principal Appendix B – Information sheets and consent forms Appendix C – Example of classroom seating plan and notebook with fold- out crib sheet for locating and coding participating children Appendix D – Preliminary interview questions Appendix E – Example of field notes and typed-up copy	123 129 131 132

Appendix I –	Extract from interview keyword analysis with definitions in endnotes	146
Appendix J –	Observation codes, definitions and keywords	148
Appendix K –	Example of feedback from model appraisal	151

List of Figures and Tables

Figures

4.1	Example of data recording of observations in Microsoft Word™ table	52
4.2	Example of data recording of interviews in Microsoft Word™ table	53
5.1	Informal notes, Sue	73
5.2	Formal notes, Bryony	73
7.1	Model of Formative Assessment In Action	99
Tab	les	
4.1	The initial 45 'Indicator' keywords and their frequencies by teacher (Bryony, Karen, Sue) and interview (Preliminary and Final)	56
4.2	The seven 'indicator' (IND) sub-categories derived from the 45 'indicator' keywords	57
4.3	Summary of data from observations	58
4.4	Summary of data from all interviews	59
4.5	Other sources of data	60