

Table of Contents

1 INTRODUCTION.....	11
1.1 Purpose statement.....	12
1.2 Structure of the text.....	12
2 FUNDAMENTAL CONCEPTS IN LANGUAGE TESTING.....	15
2.1 A Brief Historical Context	15
2.1.1 Pre-scientific era	15
2.1.2 Psychometric-structuralist era.....	16
2.1.3 Psycholinguistic-socio-linguistic era	17
2.1.4 Communicative language testing	18
2.1.5 Formative testing	19
2.1.6 Assessment for learning	20
2.2 Test Qualities	21
2.2.1 Validity	21
2.2.1.1 Content validity.....	22
2.2.1.2 Face validity.....	23
2.2.1.3 Response validity	24
2.2.1.4 Criterion-related validity aspects	24
2.2.1.5 Construct validity.....	25
2.2.2 Reliability	26
2.2.3 Validity and Reliability tensions.....	27
2.2.4 Practicality.....	27
2.2.5 Washback	29
2.2.6 Providing Feedback on test performance	30
2.2.7 Practicality and Washback tensions	31
2.3 Assessment Dichotomies.....	32
2.3.1 Criterion-referenced and Norm-referenced tests.....	32
2.3.2 Discrete-point versus Integrative tests	33
2.3.3 Summative versus Formative assessment.....	34
2.3.4 Competence versus Performance.....	36
3 COMPUTER-ASSISTED LANGUAGE TESTING	39
3.1 Digital Literacy	39
3.2 Towards a CALT Framework	42
3.2.1 Directionality	44
3.2.2 Delivery Format	46
3.2.3 Media Density	46
3.2.4 Target Skill	47
3.2.5 Scoring Mechanisms	48
3.2.6 Stakes	49
3.2.7 Purpose	50
3.2.8 Response Type	52
3.2.9 Task Types	52

3.2.9.1 Selected Response Tasks	54
3.2.9.2 Limited Production tasks	56
3.2.9.3 Effective Item Checklist	57
3.3 CALT Advantages and Disadvantages.....	59
3.3.1 CALT Validity Threats	65
3.4 CALT Innovative Task Types.....	67
3.5 Comparability Studies.....	69
3.5.1 Individual Differences	71
4 RESEARCH METHODOLOGY.....	75
4.1 Research Approach.....	75
4.2 Research Questions	76
4.3 Participants.....	77
4.4 Research Apparatus	78
4.5 Research and Data Collection Procedures	80
4.6 Limitations	83
5 DATA ANALYSIS	85
5.1 Pilot Quantitative Data Analysis	86
5.1.1 Descriptives, Limitations and Discussion	86
5.2 Study 1 Quantitative Data Analysis	90
5.2.1 Reliability Estimates	90
5.2.2 Descriptives.....	92
5.2.3 Comparing Mean Test Scores	94
5.2.4 Study 1 Discussion, Limitations and Conclusions.....	99
5.3 Study 2 Quantitative Data Analysis	101
5.3.1 Reliability Estimates	101
5.3.2 Descriptives.....	103
5.3.3 Comparing Mean Test Scores	106
5.3.4 Comparing Item Means.....	109
5.3.5 Study 2 Discussion, Limitations and Conclusions.....	111
5.4 Pilot Qualitative Data Analysis.....	113
5.4.1 Positives of the Pencil and Paper-based test	113
5.4.2 Negatives of the Pencil and Paper-based test.....	113
5.4.3 Positives of the Computer-based test.....	114
5.4.4 Negatives of the Computer-based test	114
5.5 Study 1 Qualitative Data Analysis.....	115
5.5.1 Positives of the Pencil and Paper-based test	115
5.5.2 Negatives of the Pencil and Paper-based test.....	117
5.5.3 Positives of the Computer-based test.....	119
5.5.4 Negatives of the Computer-based test	120
5.6 Study 2 Qualitative Data Analysis.....	122
5.6.1 Positives of the Pencil and Paper-based test	123
5.6.2 Negatives of the Pencil and Paper-based test.....	125
5.6.3 Positives of the Computer-based test.....	127
5.6.4 Negatives of the Computer-based test	128
5.7 Research Tool Development	131

6 MERGING THE DATA: FINDINGS AND DISCUSSION.....	135
6.1 Research Question 1.....	135
6.2 Research Question 2.....	136
6.3 Research Question 3.....	136
6.4 Research Question 4.....	137
6.5 Research Question 5.....	140
6.6 Research Question 6.....	143
6.7 Practical Implications	144
7 CONCLUSION	147
7.1 Further Research	150
7.2 Closing Statement.....	151
REFERENCES.....	153
APPENDICES	165
Appendix 0: A link to a shared storage space on a drive.....	165
Appendix 1: Quantitative data analysis PILOT.....	165
Appendix 2: Quantitative Data Analysis Study 1.....	166
Appendix 3: Quantitative Data Analysis Study 2.....	168
Appendix 4: Qualitative Data Analysis	170
Appendix 5: Statistical Model – Preferences.....	173
Model: Vocabulary subtest (mean subtest scores)	173
Model: Vocabulary subtest (mean subtest scores)	175