The Making of Geography as a Secondary School Subject

The Making of Geography as a Secondary School Subject:

A Perspective from Australia

Ву

John Mortimer and Tom O'Donoghue

Cambridge Scholars Publishing



The Making of Geography as a Secondary School Subject: A Perspective from Australia

By John Mortimer and Tom O'Donoghue

This book first published 2021

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data A catalogue record for this book is available from the British Library

Copyright © 2021 by John Mortimer and Tom O'Donoghue

All rights for this book reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN (10): 1-5275-6927-6 ISBN (13): 978-1-5275-6927-0

CONTENTS

List of Figures, Graphs and Tables	vii
Abstract	X
Chapter One	1
Introduction	
Introduction	1
A Broad Outline of the Development of Geography Historically	5
The Existing Corpus of Research	11
Outline of the Constructions of Geography in Various Periods	17
Theoretical Framework	20
Research Approach	22
Structure of the Book	27
Conclusion	28
Chapter Two	29
The Broad Education Context	
Introduction	
Overview on Schooling in European Societies to 1917	29
Overview of the Development of Australian Schooling to 1917	35
Overview of the Development of Western Australian Schooling	
to 1917	47
Conclusion	59
Chapter Three	60
1917-1944: Era of Environmental Determinism	
Introduction	
National Developments	
Developments in General Schooling and Curriculum Internationall	
and in Australia	
Developments in Schooling and Curriculum in Western Australia.	
Developments in the Geography Curriculum	
The Western Australian Geography Syllabus from 1917 to 1944	
Analysis of Geography Textbooks for the period 1917 to 1944	
Conclusion	. 113

vi Contents

Chapter Four	115
1945-1957: Era of the Natural Regions of the World	
Introduction	115
National Developments	
Developments in General Schooling and Curriculum Internationally and in Australia	7
Developments in Schooling and Curriculum in Western Australia	121
Developments in Schooling and Curriculum in Western Austrana	121
Developments in the Geography Curriculum	120
The Western Australian Geography Syllabus from 1945 to 1957	
Conclusion	150
Chapter Five	151
1958-1974: Era of the Systematic Study of the Continents	
Introduction	151
National Developments	
Developments in General Schooling and Curriculum Internationally	
and in Australia	
Developments in Schooling and Curriculum in Western Australia	
Developments in the Geography Curriculum	
The Western Australian Geography Syllabus from 1958 to 1974	
Conclusion	
Conclusion	190
Chapter Six	191
1975-1997: Era of Patterns, Processes and World Problems	
Introduction	191
National Developments	191
Developments in General Schooling and Curriculum Internationally	
and in Australia	194
Developments in Schooling and Curriculum in Western Australia	
Developments in the Geography Curriculum	
The Western Australian Geography Syllabus from 1975 to 1997	
Conclusion	
Chapter Seven	252
Conclusion	
Introduction	252
Meta-analysis of the Results of the Study	253
Conclusion	
Bibliography	272
Index	307
HINDA	111/

LIST OF FIGURES, GRAPHS AND TABLES

Figure 1. Outline maps of the World, Australia and Western Australia 3
Figure 2. Bloom's Taxonomy of Educational Objectives: Cognitive
Domain with Associated Verbs
Graph 1. Frequency of Countries Examined in the Leaving Certificate
Examinations 1917-1944
Table 1. Education Reform Stages in Australian States
Table 2. Summary of the Frequency of Bloom's Taxonomy Levels
1917, 1933 and 1943
Table 3. The Scale of Cognitive Demand
Table 4. CRAS Scale of Cognitive Demands in Geography
Table 5. Summary of Levels of Structure and Demand 1917, 1933
and 1943 Examination Papers
Table 6. Analysis Summary of the Textbook Entitled <i>The New</i>
Physical Geography104
Table 7. Analysis Summary of the Textbook Entitled <i>Australia</i>
in its Physiographic and Economic Aspects
Table 8. Analysis Summary of the Textbook Entitled Australia
in its Physiographic and Economic Aspects. 3rd Rev ed 106
Table 9. Analysis Summary of the Textbook Entitled <i>The World</i>
and Australasia107
Table 10. Analysis Summary of the Textbook Entitled <i>The World:</i>
A General Geography. Australian Edition
Table 11. Analysis Summary of the Textbook Entitled <i>The Swan</i>
Geography of Western Australia109
Table 12. Analysis Summary of the Textbook Entitled <i>A Physical</i>
and Practical Geography for Secondary Schools110
Table 13. Analysis Summary of the Textbook Entitled <i>Junior</i>
Physiography and Geology: An Elementary Text Book for Western
Australian Schools
Table 14. Analysis Summary of the Textbook Entitled Atlas of Western
Australian Agriculture112
Table 15. Summary of Frequency of Bloom's Levels 1945 and 1957 138
Table 16. Summary of Levels of Structure and Demand in the 1945
and 1957 Examination Papers
1

Table 17. Analysis Summary of the Textbook Entitled <i>Junior</i>
Physiography: An Elementary Text Book for Western Australian
Schools
Table 18. Analysis Summary of the Textbook Entitled A Commercial
<i>Geography</i>
Table 19. Format for the Analysis of Spatial Content of Atlases 147
Table 20. Analysis Summary of the Atlas Entitled <i>The Comparative</i>
Atlas of Physical and Political Geography149
Table 21. Summary of the Frequency of Bloom's Taxonomy
of Educational Objectives
Table 22. Summary of Structure and Levels of Cognitive Demands
in 1959, 1964 and 1972 Examination Papers
Table 23. Comparison Analysis of the Frequency of Bloom's Taxonomy
of Educational Objectives in the Leaving Level and Matriculation
Level Examination Questions
Table 24. Comparison Analysis of the Degree of Structure and Level
of Cognitive Demands in the Leaving Level and Matriculation Level
Examination Questions
Table 25. Analysis Summary of the Textbook Entitled Africa
and the Americas
Table 26. Analysis Summary of the Textbook Entitled <i>The World</i> :
A General Regional Geography185
Table 27. Analysis Summary of the Textbook Entitled <i>Eurasia</i>
and Australasia
Table 28. Analysis Summary of the Textbook Entitled <i>The Regions</i>
of Australia
Table 29. Analysis Summary of the Textbook Entitled <i>Geography</i>
and World Affairs188
Table 30. Analysis Summary of the Textbook Entitled Australia
and New Zealand189
Table 31. Analysis Summary of the Textbook Entitled <i>The World</i> :
A General Geography189
Table 32. Summary of the Frequency of Bloom's Taxonomy Levels
for the 1978, 1988 and 1996 Examination Papers
Table 33. Summary of the Levels of Structure and Demand of the 1978,
1988, and 1996 Examination Papers
Table 34. Analysis Summary of the Textbook Entitled Sun, Climate
and Life
Table 35. Analysis Summary of the Textbook Entitled <i>Patterns</i>
and Processes in Man's Physical Environment: Geography
for Matriculation Students239

and Processes in Man's Economic Environment	The Making of Geography as a Secondary School Subject: A Perspective from Australia	ix
Table 37. Analysis Summary of the Textbook Entitled The Water Cycle: Concepts and Processes	Table 36. Analysis Summary of the textbook Entitled <i>Patterns</i>	
Cycle: Concepts and Processes	and Processes in Man's Economic Environment	240
Table 38. Analysis Summary of the Textbook Entitled Perth in its Regional Setting	Table 37. Analysis Summary of the Textbook Entitled <i>The Water</i>	
Regional Setting242Table 39. Analysis Summary of the Textbook Entitled Settlement243Patterns and Processes243Table 40. Analysis Summary of the Textbook Entitled Geography244Table 41. Analysis Summary of the Textbook Entitled Australian245Environments: Place, Pattern and Process245Table 42. Analysis Summary of the Textbook Entitled Landscapes246Table 43. Analysis Summary of the Atlas Entitled Robinson's World247Table 44. Analysis Summary of the Atlas Entitled The New Jacaranda	Cycle: Concepts and Processes	241
Table 39. Analysis Summary of the Textbook Entitled Settlement Patterns and Processes	Table 38. Analysis Summary of the Textbook Entitled <i>Perth in its</i>	
Patterns and Processes	Regional Setting	242
Table 40. Analysis Summary of the Textbook Entitled Geography in Action	Table 39. Analysis Summary of the Textbook Entitled Settlement	
in Action	Patterns and Processes	243
Table 41. Analysis Summary of the Textbook Entitled Australian Environments: Place, Pattern and Process	Table 40. Analysis Summary of the Textbook Entitled <i>Geography</i>	
Environments: Place, Pattern and Process	in Action	244
Table 42. Analysis Summary of the Textbook Entitled Landscapes and Land Uses: Studies in Australian Geography	Table 41. Analysis Summary of the Textbook Entitled Australian	
and Land Uses: Studies in Australian Geography	Environments: Place, Pattern and Process	245
Table 43. Analysis Summary of the Atlas Entitled <i>Robinson's World</i> Atlas	Table 42. Analysis Summary of the Textbook Entitled <i>Landscapes</i>	
Atlas	and Land Uses: Studies in Australian Geography	246
Table 44. Analysis Summary of the Atlas Entitled <i>The New Jacaranda</i>	Table 43. Analysis Summary of the Atlas Entitled Robinson's World	
·	Atlas	247
·	Table 44. Analysis Summary of the Atlas Entitled <i>The New Jacaranda</i>	
	Atlas	

ABSTRACT

This book provides the first comprehensive study of senior secondary school geography curricula in Western Australia for the period 1917-1997. It was conducted in relation to four sub-periods: 1917-1944, 1945-1957, 1958-1974 and 1975-1997. The focus was on three main research questions: what were the background developments that influenced the process of constructing what came to be the dominant approach to the subject?; what was the construction of the subject in the sense of 'construction as product', particularly in terms of the stated aims, content and assessment approaches?; what were the issues, conflicts and compromises that arose following the introduction of the subject for senior secondary schooling in each subperiod? Further, the emphasis was on the 'preactive curriculum' as represented in the officially prescribed syllabi in order to increase understanding of the influences and interests functioning at that level.

The results of the study are considered in relation to three hypotheses. The first hypothesis states that "curricula, both 'whole curricula' and 'subject specific curricula' including in relation to geography in Western Australia, have been influenced by international trends, nation-wide developments and State developments". It was deemed to be largely upheld though not totally, for senior secondary school geography in the State for the overall period studied. The second hypothesis holds that "the subject geography was a *field* rather than a *form* of knowledge with shifting sets of sub-groups all pursuing different objectives and that in that process school geography lagged behind academic geography". Regarding school geography in Western Australia, the hypothesis was upheld in relation to each subperiod studied. The third hypothesis states that "historically the role of the teacher of geography in Western Australia, and growth in the quality of education, moved through Beeby's four key stages: the 'Dame School Stage', the 'Stage of Formalism', the 'Stage of Transition' and the 'Stage of Meaning'. The hypothesis was not upheld in relation to the first stage in the model, namely, the Dame School Stage. That was because by 1917 schooling in the State had already progressed to the next stage. Overall, however, it was upheld in relation to the other stages.

The study contributes to the existing corpus of international research on the history of curriculum and particularly the history of geography as a senior secondary school subject. It also provides a framework for investigating

The Making of Geography as a Secondary School Subject: A Perspective from Australia

хi

the construction of senior secondary school geography curricula in other constituencies and could act as a model for engaging in further research in curriculum history for other school subjects State wide, nationally and internationally.

CHAPTER ONE

INTRODUCTION

Introduction

This book reports a study of how historically geography has been constructed as a subject for senior secondary students in Western Australia. The stimulus for conceptualising the research arose from cogitating general patterns within the development of geography as a subject for senior secondary schools internationally as discerned by various scholars. Detailed study of nuances, variations and possible deviations from these patterns within the various education jurisdictions and for various age levels in Australia, it was also noted, had not been undertaken. The study was generated as a response with the specific aim of developing an understanding of how historically geography was constructed as a subject for students in the senior secondary school years in Western Australian government secondary schools from 1917 to 1997.

¹ C. L. White and J. E. Williams (1945). Will geography be a core subject in the Post-War secondary school curriculum? Journal of Geography. 44 (1): 11-16; G. J. Butland (1968). Trends in geography today, in D. S. Biddle, (Ed.). Readings in Geographical Education, Vol. 1, 1954-1966. Sydney: Whitcombe and Tombs, 1968, 11-19; N. Graves (Ed.) (1972). New Movements in the Study and Teaching of Geography. London: Temple Smith; I. F. Goodson (1983). School Subjects and Curriculum Change: Studies in Curriculum History. London: Croom Helm; J. M. Powell (1984). Curriculum reform and the 'constituency' challenge: Recent trends in higher school geography. Australian Geographical Studies. 22: 275-295; C. J. Marsh (1985). Implementation of a high school geography syllabus: Issues and applications. Educational Research. 27 (1): 30-39; W. Marsden (1996). Geography. In P. Gordon (Ed.), A Guide to Educational Research, London: Woburn Press, 1996. pp. 1-30; R. Walford (2001). Geography's odyssey: The journey so far. Geography. 86 (4): 305-317; E. B. DaSilva and R. N. Kvasnak (2011). Taking stock in geography education around the world: An international perspective on the teaching of geography. The Geography Teacher. 8 (1): 16-23.

Western Australia is one of six States that make up the Commonwealth of Australia, a Federation of States and Territories established in 1901. Its capital city, Perth, is located approximately ten kilometres inland of the West coast and is situated on the banks of the Swan River. Australian Aborigines first occupied the area, as they did the entire landmass of the continent, about 50,000 years ago. In 1829 the landmass of what is now the State of Western Australia was established as a colony² of the British Empire. Self-government followed in 1890.

Geographically the State is very large, consisting of more than 2,500,000 square kilometres and one third of the continent. Its population on 30 September 2019 was 2.630 million.³ The State Department of Education⁴ is responsible for the provision of public education over the vast landmass. In 2019, 311,199 students were enrolled in government schools, representing 67.6 per cent of all students in Western Australian schools and there were 110,147 students in government secondary schools.⁵

² Swan River Colony was founded in 1829 with townships at Fremantle and Perth. A possessory military settlement had previously been established at King George Sound (present day Albany) located on the south coast in 1826.

³ Australian Demographic Statistics, Western Australia (September 2019). Australian Bureau of Statistics.

https://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/3101.0Main%20Fe atures3Sep%202019?opendocument&tabname=Summary&prodno=3101.0&issue =Sep%202019&num=&view=

⁴ The Department of Education, Western Australia is the government agency that is responsible for public education in the State. Throughout its history since it was established in 1893 and for much of the period under review it has been referred to by a variety of titles including: Education Committee (June 1847) General Board of Education (circa August 1847–1872), Central Board of Education (1872–October 1893), Education Department (October 1893–July 1988), Ministry of Education (July 1988–January 1994), Education Department of Western Australia (January 1994–February 2003), Department of Education and Training (February 2003-October 2009), Department of Education (October 2009–Present). The present-day name for the Department is used throughout this book.

⁵ Western Australia. Department of Education (2019). Annual Report. East Perth: Department of Education.



Figure 1: Outline maps of the World, Australia and Western Australia.

The term 'secondary school' is a regular term used in Western Australia for schools providing education for children from Year 7 (aged 11 - 12) to Year 12 (aged 17 - 18). Government secondary schools are coeducational, comprehensive and non-denominational. The final two years of schooling, Years 11 and 12, have for long been termed the 'senior years'.

The curriculum for those in the senior years of secondary school differs in certain major ways from that offered in the 'junior years' (Years 7-10). With regard to geography education, for those in Years 7 to 10 the subject is integrated with history, economics, political science, law, citizenship, sociology and cultural studies in a learning area termed 'Humanities and Social Sciences'. In Years 11 and 12 however, it is offered as a separate subject.

While it is true that the curriculum for Western Australian government senior secondary schools applies also to faith-based secondary schools in the State, the latter were excluded from the study reported here. For over a century they have embraced the State prescribed curriculum so that their students can sit for the public examinations in various subjects. There have however, been certain additional emphases within them in the teaching of many subjects, including geography, to accommodate their particular worldview. That means it is an area in itself on which much more research needs to be undertaken by others.

Four different constructions of geography as a subject for Western Australian government senior secondary schooling emerged over the period studied. These give us the following four sub-periods: 1917 to 1944, 1945 to 1957, 1958 to 1974, and 1975 to 1997. This book provides a detailed analysis of developments in the subject during each of them.

The approach taken in conducting analyses was to focus on three main research questions, namely, what were the background developments that influenced the process of constructing what came to be the dominant approach to the subject in each sub-period?; what was the actual construction of the subject in the sense of 'construction as product', particularly in terms of the stated aims, content, pedagogy and assessment approaches in each sub-period?; and what were the issues, conflicts and compromises that arose following the introduction of the subject for senior secondary schooling in each sub-period?

The remainder of this chapter is in six parts. The first part provides a broad outline of the historical development of geography internationally as a subject. The second part of the chapter describes the contribution of the study reported later to the existing corpus of research on the history of curriculum and particularly the history of geography as a school subject. The third part of the chapter identifies what determined the parameters of the sub-periods selected for analysis. The fourth part of the chapter outlines the theoretical framework underpinning the study. The fifth part of the chapter details the research approach adopted. To conclude, the structure of the book is outlined.

A Broad Outline of the Development of Geography Historically

As a subject, geography has existed since the ancient Egyptians, Babylonians and Greeks became curious about their own world. Indeed, it was the Greeks who gave the subject the name that for them meant 'a description of the earth'. Nevertheless, the establishment of geography as a 'modern science' did not take place until the century from 1750 to 1850. Further, when it was offered initially in certain institutions of higher learning the "substance of what was taught varied immensely". The two "great masters" of this "classical geography" period were Alexander von Humboldt (1769-1859) and Carl Ritter (1779-1859). Indeed, they are referred to by many writers as the 'founders' (or 'fathers') of modern geography because of their influence beyond Germany.

Humboldt and Ritter's work was taken up in Britain by Halford Mackinder (1861-1947) and Andrew John Herbertson (1865-1915), and in France by Paul Vidal de la Blache (1845-1918) and Jean Brunhes (1869-1932).¹¹ Mackinder actively promoted a perspective on geography that

Kluwer Academic Publishers, 2001, pp. 9-44.

 $^{^6}$ N. J. Graves (1984). Geography in Education. $3^{\rm rd}$ ed. London: Heinemann Educational, p. 2.

⁷ R. Hartshorne (1939). The nature of geography: A critical survey of current thought in the light of the past. *Annals of the Association of American Geographers*. 29 (3): 173-412, p. 211.

⁸ N. J. Graves (1984). *Geography in Education*. 3rd ed. London: Heinemann Educational, p. 32.

⁹ P. E. James and G. J. Martin (1981). *All Possible Worlds: A History of Geographical Ideas*. 2nd ed. Indianapolis: Odyssey Press, p. 113.

¹⁰ P. E. James and G. J. Martin (1981). *All Possible Worlds: A History of Geographical Ideas*; R. Hartshorne (1939). The nature of geography: A critical survey of current thought in the light of the past; G. Taylor (Ed.) (1953). *Geography in the Twentieth Century: A Study of Growth, Fields, Techniques, Aims and Trends*. 2nd ed. London: Methuen; H. Capel (1981). Institutionalization of geography and strategies of change. In D. R. Stoddart (Ed.). *Geography, Ideology and Social Concern*. Totowa, N.J.: Barnes and Noble, 1981, pp. 37-69; I. L. Caraci (2001). Modern geography in Italy: From the archives to environmental management. In G. S. Dunbar (Ed.) *Geography: Discipline, Profession and Subject Since 1870: An International Survey*. Dordrecht, Netherlands: Kluwer Academic Publishers, 2001, pp. 121-151. ¹¹ B. Schelhaas and I. Honsch (2001). History of German geography: Worldwide reputation and strategies of nationalisation and institutionalization. In G. S. Dunbar (Ed.). *Geography: Discipline, Profession and Subject Since 1870*. Dordrecht:

became known as 'the new geography'. Soon afterwards Herbertson divided the world into regions according to climate, vegetation and physical features, with each region, according to him, being in some way unique. Both scholars also continued to influence the teaching of geography for the next 60 years. 4

In France the writings of particular academics were influential in the development of geography as a coherent discipline.¹⁵ De la Blache promoted the theory of 'environmental possibilism' which is a view that the physical environment provides the opportunity for a range of possible human responses to it.¹⁶ Alongside him, Brunhes was a leading exponent of French 'systematic' as opposed to 'regional' geography.

In the United States of America (USA), two schools of geography emerged both of which were heavily influenced by German theories and theorists. One of these was led by William Morris Davis (1850-1934) who considered geomorphology to be the foundation of the subject. He described its development as having passed through three stages to end up being dominated by the 'causal notion' that all phenomena occurring on the earth's surface are related.¹⁷ The other school was led by Ellen Churchill Semple (1863-1932) and was concerned exclusively with human geography.¹⁸ She was the modern champion of 'environmental determinism', which is the view that the physical environment determines human activity.

By the end of the 19th century geography was being offered as a university subject in Germany, France, Britain and the USA.¹⁹ The prevailing

¹² H. J. Mackinder (1887). On the scope and methods of geography. *Proceedings of the Royal Geographical Society and Monthly Record of Geography*. 9 (3): 141-174; R. Walford (2001). *Geography in British schools 1850-2000: making a world of difference*. London: Woburn Press, p. 64.

^{13°} A. J. Herbertson (1905). The major natural regions: An essay in systematic geography. *Geographical Journal*. 25 (3): 300-310.

¹⁴ N. J. Graves (1996). The intellectual origins of late-nineteenth and early-twentieth century British geography textbooks. *Paradigm*. 19, n.p.

¹⁵ V. Berdoulay (2001). Geography in France: Context, practice and text. In G. A. Dunbar (Ed.). *Geography: Discipline, Profession and Subject Since 1870*. Dordrecht: Kluwer Academic Publishers, 2001, p. 52.

¹⁶ T. W. Freeman (1961). A Hundred Years of Geography. London: Gerald Duckworth.

¹⁷ W. M. Davis (1902). *Elementary Physical Geography*. Boston: Ginn.

¹⁸ R. Hartshorne (1939). The nature of geography: A critical survey of current thought in the light of the past.

¹⁹ N. J. Graves (1984). *Geography in Education*; R. J. Johnston (1979). *Geography and Geographers: Anglo-American Human Geography Since 1945*. London: Edward Arnold.

paradigm was what later was referred to as 'man²⁰ and his environment'. In Britain just prior to the commencement of World War One the subject, which had that orientation, was at times and in places taught under two headings, namely physical geography and political geography.²¹ Further, as Graves²² and Peet²³ have concluded, an early form of environmental determinism influenced the intellectual origins of geography textbooks in the late 19th and early 20th century and was also the essential position underpinning the geography approach that became part of the academic field of science.

Internationally the 'new geography' spread from Britain to its colonies, including Australia. ²⁴ The British born and Australian educated geographer, Griffith Taylor (1880-1963), "the Founding Father of Australian academic Geography", ²⁵ introduced modern geography in Australia. In 1920 he was appointed associate professor and foundation head of the nation's first university geography department at The University of Sydney. He also went on to write books that became standard school texts in Australia for many years. ²⁶

The main focus of geography in universities in the late inter-War years (1918–1939) was to produce syntheses. In certain constituencies also the subject was not considered to be a science. Rather it was deemed to be

...an aggregate of sciences to gather up the disparate strands of the systematic studies, the geographical aspects of other disciplines, into a coherent and focused unity [in order] to see nature and nurture, physique and

²⁰ The use of gender-neutral terms is the current convention but historically the terms 'man' and 'mankind' were used as the default terminology. Although it is recognised that these terms are outdated they have been used in this book to reflect the policy documents consulted during the study.

²¹ T. W. Freeman (1961). *A Hundred Years of Geography*. London: Gerald Duckworth, p. 175.

²² N. J. Graves (1996). The intellectual origins of late-nineteenth and early-twentieth century British geography textbooks.

²³ R. Peet (1985). The social origins of environmental determinism. *Annals of the Association of American Geographers*, 753: 309-333.

²⁴ P. E. James and G. J. Martin (1981). *All Possible Worlds: A History of Geographical Ideas*.

²⁵ O. H. K. Spate (1972). Journeyman Taylor: Some aspects of his work. *The Australian Geographer*. 12 (2): 115-122, p. 115.
²⁶ *Ibid.*, p. 117.

personality as closely related and interdependent elements in specific regions".²⁷

During World War Two (1939-1945) geographers were in high demand internationally for the production of handbooks and to work in military intelligence. Additionally they were involved in planning post-war recovery. Further, the end of the War was a watershed occasion in geography as it entered its "contemporary period".²⁸ At this time German geography emphasised geomorphology and settlement with the theme of landscape ('Landschaft') being central.

In France, Britain and America the regional geography paradigm was dominant by 1945.²⁹ British geographers at that time did not arrive at original conceptions. They were, however, able to influence developments within the discipline across the British Empire, including in Australia.

After 1945, geographers in many countries were able to avail of integrated data sources, aerial photographs, accurate topographic maps and synoptic meteorological data. They also developed new skills to interpret these sources. Further, university departments of geography expanded in terms of both staff and student numbers and new and improved facilities were provided. That development in the tertiary education sector was influenced by the expansion of the subject in schools.³⁰

The evolution of contemporary Anglo-American geography did not progress neatly from 1945. Rather it took place through a series of 'revolutions'. Seven of these were identified and termed the "quantitative, methodological, conceptual, statistical, models, behavioural and radical revolutions". On that, Bird remarked that "so many revolutions in so short a time indicate in themselves...a continuously rolling programme". 32

²⁷ S. W. Wooldridge (1956). *The Geographer as Scientist: Essays on the Scope and Nature of Geography*. London: Nelson, p. 53.

²⁸ P. E. James (1972). *All Possible Worlds: A History of Geographical Ideas*. Indianapolis: Odyssey Press.

²⁹ P. Claval (1984). Conclusion. In R. J. Johnston and P. Claval (Eds.). *Geography Since the Second World War: An International Survey*. London: Croom Helm, 1984, p. 282.

³⁰ R. J. Johnston and S. Gregory (1984). The United Kingdom. In R. J. Johnston and P. Claval (Eds.). *Geography Since the Second World War: An International Survey*. London: Croom Helm, 1984, pp. 107-131

³¹ R. J. Johnston (1979). Geography and Geographers: Anglo-American Human Geography Since 1945. London: Edward Arnold, p. 175.

³² J. H. Bird (1977). Methodology and philosophy. *Progress in Human Geography*. 1: 104-110, p. 105.

The first revolution in Anglo-American geography, namely, the quantitative one, commenced in the 1950s. It was associated with engagement in spatial analysis in most aspects of the discipline.³³ As Newby put it, this "was a change not only in method but also in paradigm".³⁴

Interest in universities in North America at the time in understanding the physical environment more broadly waned with the excising of climatology and biogeography from their geography curricula. It was replaced by introductory courses in physical geography usually in relation to regional contexts. In Britain during the same period, university geography students tended to specialise in their final year of undergraduate studies in either physical or human geography³⁵. Here disillusionment with physical geography also began to grow as human geography started to grow in popularity.³⁶ On this, it was claimed "that the insistence of the primacy of regional geography was undermining the associated systematic studies".³⁷

American geographers were more preoccupied than their British peers with the philosophy and methodology of geography. Consequently, the revolution against the regional paradigm originated in the USA. While one should not lose sight of Johnston's related observation on this that "dating the origin of a change in the orientation of a discipline, or even a part of it is difficult", 38 a noticeable change certainly occurred following the publication of a paper in the USA in 1953 by Schaefer, a refugee from Nazi Germany. That work "is often referred to by those who seek the origins of the quantitative and theoretical revolutions". 40

Schaefer criticised the regional geography paradigm as being ideographic when, as he put it, science subjects are nomothetic. Accordingly, he was brought to redefine geography as the science of spatial arrangements. American geographers responded by adopting the philosophy and methods of the logical-positivist school of philosophy in the conduct of research in the discipline, confident "in their ability to produce laws to work within the

³³ P. T. Newby (1980). The benefits and costs of the quantitative revolution. *Geography*. 65 (1): 13-18.

³⁴ *Ibid.*, p. 13.

³⁵ R. J. Johnston (1979). *Geography and Geographers: Anglo-American Human Geography Since 1945*.

³⁶ Ibid.

³⁷ *Ibid.*, p. 41.

³⁸ Ibid.

³⁹ F. K. Schaefer (1953). Exceptionalism in geography: A methodological examination. *Annals, Association of American Geographers*, 43: 226-249.

⁴⁰ R. J. Johnston (1979). Geography and Geographers: Anglo-American Human Geography Since 1945. p. 42.

canons of accepted scientific method".⁴¹ Soon considerable attention was being given to "quantification, to statistical description of patterns, and to statistical manipulation and testing of hypotheses".⁴²

As regional geography moved away from being the core of the discipline, specialisation began to increase. At first, that assumed the character of systematic groupings, including economic geography, urban geography, political geography, population geography and historical geography, alongside climatology, pedology, geomorphology and biogeography. Soon areas of study became further subdivided and specialty groups emerged. Accordingly, while as Martin observed in the early 21st century "American geography seems to have a periphery without a core", 43 by 2004 there were 52 specialty groups within the Association of American Geographers. 44 At that late point Anglo-American geography was considered to be characterised by eclecticism, fragmentation, individualism and innovation. On that, Martin observed in 2005 that "throughout the period from the 1970s to the present, geography was in a state of turmoil". 45

In many countries during the early 20th century, the geography taught in schools reflected the nature of the subject taught in universities. The USA, however, was somewhat of an exception. Here an integrated social studies curriculum for schools combining geography, history and civics emerged. Further, by the mid 1920s a surge in the evolution of social studies curricula took place. That sealed for the coming decades the fate of geography and history existing as separate school subjects in schools in the USA.⁴⁶

In Britain by contrast, geography and history became increasingly popular on school timetables with "the separate subject system continuing".⁴⁷ Education change in the Australian States largely followed this pattern⁴⁸ with school textbooks being published that had Australian material and

⁴¹ R. J. Johnston (1979). Geography and Geographers: Anglo-American Human Geography Since 1945, p. 60.

⁴² G. J. Martin (2005). *All Possible Worlds: A History of Geographical Ideas*. 4th ed. New York: Oxford University Press, p. 235.

⁴³ *Ibid.*, p. 424.

⁴⁴ *Ibid.*, p. 426.

⁴⁵ *Ibid.*, p. 527.

⁴⁶ W. E. Marsden (2001). *The School Textbook: Geography, History and Social Studies*. London: Woburn Press.

⁴⁷ *Ibid.*, p. 23.

⁴⁸ P. W. Musgrave (1979). *Society and the Curriculum in Australia*. Sydney: Allen and Unwin, p. 59.

sections added to British products.⁴⁹ Therefore, it is not surprising that throughout Australia geography was a separate subject in the senior secondary school curriculum. In some States in the later part of the 20th century including Western Australia, geography, history and economics were combined into one subject entitled 'social studies' at the junior secondary school level.

The Existing Corpus of Research

Initially, the research for the study reported here was stimulated by Goodson and Marsh's⁵⁰ argument that "the school subject is a seriously under investigated form" of rigorous historical inquiry on the school curriculum. Tanner emphasised the importance of engaging in the study of curriculum history because knowledge in the field "is essential for improving the character of curriculum reform efforts".⁵¹ Indeed, Bellack⁵² and Hazlett⁵³ expressed the view that the inadequate understanding of many of those working in curriculum development meant they were poorly equipped to address contemporary issues central in discussions on the concept of curriculum.

According to Moore, et al. "curriculum is an ambiguous concept and may be defined in a variety of ways depending on the cultural context, education system and level of education." In the design of the study reported in this book, Goodson's definition was adopted, namely, that of "a social artefact, conceived of and made for deliberate human purposes." That meant that any notion of curriculum as a 'given' and the associated risk that it can lead researchers to adopt narrow perspectives and ahistorical

⁴⁹ J. Lawry (1972). Understanding Australian education 1901 to 1914. In J. Cleverley and J. Lawry *Australian Education in the Twentieth Century: Studies in the Development of State Education*. Camberwell, Vic: Longman, 1972, pp. 1-31.

⁵⁰ I. F. Goodson and C. Marsh (1996). *Studying School Subjects: A Guide*. London: Falmer Press, p. 41.

⁵¹ L. N. Tanner (1982). Observation: curriculum history as usable knowledge. *Curriculum Inquiry*. 12 (4): 405-411, p. 410.

⁵² A. A. Bellack (1969). History of curriculum thought and practice. *Review of Educational Research*. 30: 283-292.

⁵³ J. S. Hazlett (1979). Conceptions of curriculum history. *Curriculum Inquiry*. 9: 129-135.

⁵⁴ N. Moore, E. J. Fournier, S. W. Hardwick, M. Healey, J. MacLachlan and J. Seemann (2011). Mapping the journey toward self-authorship in geography. *Journal of Geography in Higher Education*. 35 (3): 351-364, p. 352.

⁵⁵ I. F. Goodson (1987). *The Making of Curriculum: Collected Essays*. Washington DC: Falmer Press, p. 260.

epistemologies that take present-day understanding of the past for granted, was avoided.

Goodson also argued for engagement in historical studies on all subjects in the school curriculum across all forms of education systems.⁵⁶ Such studies, he asserted, could allow one to examine complex changes over time (rather than having 'snapshots of unique events') to reveal the political interests and motivations of those individuals and groups who championed various elements of curricula. Adopting that position which recognises the interrelation of history, education and politics, the study reported here is the first of its type undertaken specifically in relation to the Western Australian senior secondary school geography context. In particular, it identifies, describes and analyses the main phases of the construction of geography as a subject in that context from 1917 to 1997. Further, the results can be viewed as contributing to two main bodies of academic literature, namely, the existing corpus of research on the history of curriculum and the existing corpus of research on the history of geography as a school subject. Each of these will now be considered in turn.

Research on the History of Curriculum

For many decades the history of education focused on three main themes: the history of educational thought and thinkers in education;⁵⁷ the history of education systems;⁵⁸ and the history of education policy.⁵⁹ That thrust led to the development of a number of sub-disciplines, including the history of education aims and policy, history of pedagogy, history of education administration, history of teacher education and history of education research. Within these sub-disciplines some attention was directed to the history of the process of education in schools and institutions of higher education.

⁵⁶ I. F Goodson (1983). School Subjects and Curriculum Change: Studies in Curriculum History. London: Croom Helm; I. F. Goodson (1985). Social Histories of the Secondary Curriculum. Philadelphia: Falmer Press; I. F. Goodson (1987). The Making of Curriculum: Collected Essays.

⁵⁷ For example, R. Straughan and J. Wilson (1987). *Philosophizing About Education*. London: Macmillan; A. O. Rorty (Ed.) (1998). *Philosophers on Education*. London: Routledge; D. Lawton and P. Gordon (2002). *A History of Western Educational Ideas*. London: Woburn Press.

⁵⁸ For example, H. Silver (1977). Aspects of neglect: The strange case of Victorian popular education. *Oxford Review of Education*. 3 (1): 57-69.

⁵⁹ For example, R. Lowe (Ed.) (2000). *History of Education: Major Themes. Vol 3. Studies in Learning and Teaching.* London: Routledge Falmer.

Amongst the early works produced specifically on the history of the school curriculum were those undertaken by McCulloch⁶⁰ on England and New Zealand, by Cunningham⁶¹ on England and Wales, by Musgraye⁶² on Australia, and by Tanner and Tanner⁶³ on the USA. The pioneering work of Goodson⁶⁴ on the history of school subjects already noted brought a new sophistication to the field. He was motivated by a view that a consequence of not engaging in the study of the history of curriculum is 'historical amnesia'. 65 That, he argued, could lead to curriculum reinvention rather than development.⁶⁶ He rejected the view of the written curriculum as a neutral given, stating that one of "the perennial problems in studying curriculum is that it is a multifaceted concept that is constructed, negotiated and renegotiated at a variety of levels and in a variety of arenas". 67 In similar vein, Hargreaves⁶⁸ argued that school subjects are "more than groupings of intellectual thought. They are social systems too. They compete for power. prestige, recognition and reward". Equally, Popkewitz⁶⁹ called for an examination of "historically-formed rules and standards that order, classify and divide what is 'seen' and acted on in schooling".

More specifically, Goodson called for an understanding of how "curriculum prescriptions are socially constructed for use in schools; studies of the actual development of courses of study, of national curriculum plans,

⁶⁰ G. McCulloch (1987). Curriculum history in England and New Zealand. In I. F. Goodson *International Perspectives in Curriculum History*. London: Croom Helm, 1987.

⁶¹ P. Cunningham (1988). Curriculum Changes in the Primary School Since 1945. London: Falmer Press.

⁶² P. W. Musgrave (1988). Socialising Contexts: The Subject in Society. Sydney: Allen and Unwin.

⁶³ D. Tanner and L. N. Tanner (1989). *History of the School Curriculum*. New York: Macmillan.

⁶⁴ I. F. Goodson (1987). The Making of Curriculum: Collected Essays.

⁶⁵ Ihid

⁶⁶ I. F. Goodson and C. Marsh (1996) *Studying School Subjects: A Guide*. London: Falmer Press.

⁶⁷ I. F. Goodson (1990) Studying Curriculum: Towards a Social Constructionist Perspective. *Journal of Curriculum Studies*. 22 (4): 299-312, p. 299.

⁶⁸ A. Hargreaves (1989) Curriculum and Assessment Reform. Toronto: OISE Press, p. 56.

⁶⁹ T. S. Popkewitz (2009) Curriculum study, curriculum history, and curriculum theory: The reason of reason. *Journal of Curriculum Studies*. 41 (3): 301-319, p. 301.

of subject syllabuses and so on".⁷⁰ In particular, he argued that historical studies of school subjects could offer local detail of curriculum change and conflict and serve to identify individuals and interest groups providing examination and assessment of intention and motivation. "Thereby", he concluded, "sociological theories which attribute power over the curriculum to dominant interest groups can be scrutinised for their empirical potential".⁷¹

Notwithstanding the pioneering work of Goodson and others on the history of school subjects, few researchers responded to the challenge presented at the time. McCulloch at a later date observed:

...[curriculum history] failed to penetrate the disciplinary boundaries of education, history and the social sciences, but had instead generated uncomfortable tensions over its nature and potential contribution, although it continued to develop and to offer new contributions in succeeding decades.⁷²

Relatedly, O'Donoghue argued for a "regeneration" of such studies specifically in relation to Australia.⁷³ Reflecting also on the Australian context, Campbell drew attention to a lack of "a broad, cohesive, historical study of school curricula from colonial to more modern times".⁷⁴

Other curriculum scholars⁷⁵ emphasised the importance of engaging in the study of curriculum history and what it can reveal about the purposes

⁷⁰ I. F. Goodson (1990). Studying Curriculum: Towards a Social Constructionist Perspective, p. 305.

⁷¹ *Ibid.*, p. 309.

⁷² G. McCulloch (2011). *The Struggle for the History of Education*. London: Routledge

⁷³ T. O'Donoghue (2014). History of education research in Australia: Some current trends and possible directions for the future. *Paedagogica Historica: International Journal of the History of Education*. 50 (6): 805-812, p. 806.

⁷⁴ C. Campbell (2014). Thinking education, schooling and history: Quo vadis. Condensed version of a paper presented by Craig Campbell at the University of Melbourne, 27 March 2014. *ANZHES Newsletter* 1/14, June 2014: 1-13, p. 5.

⁷⁵ B. M. Franklin (1977). Curriculum history: Its nature and boundaries. *Curriculum Inquiry*. 7 (1): 67-79; B. M. Franklin (1986). *Building the American Community: The School Curriculum and the Search for Social Control*. London: Falmer Press; B. M. Franklin (1991). Historical research on curriculum. In A. Lewy (Ed) (1991). *International Encyclopedia of Curriculum*. Oxford: Pergamon Press, 1991; B. M. Franklin (1999) Discourse, rationality, and educational research: A historical perspective of RER. *Review of Educational Research*. 69 (4): 347-363; A. A. Glatthorn (1987). *Curriculum Leadership*. Glenview: Scott, Foresawe; H. K. Wright (2005). Does Hlebowitsh improve on curriculum history? Reading a rereading for its political purpose and implications. *Curriculum Inquiry*. 35 (1): 104-117.

of curriculum. Such engagement could, according to Davis⁷⁶ and Kliebard and Franklin,⁷⁷ aid one to arrive at a good understanding of why school curricula and the profession of curriculum work developed in the directions they did. Understanding along these lines is valuable, they argued, because any curriculum as it has appeared over time can be an important artefact of culture and what a society wants to preserve and pass on. On that, Rawling noted a tendency in "developed world education systems to use national curricula to reassert national identity, national heritage and national values",⁷⁸ and Whalley, et al. asserted that curricula can be "creatures of circumstance",⁷⁹ influenced by national needs, histories and government-driven skills and employability agendas.

Research on the History of Geography as a School Subject

Various scholars⁸⁰ adopted Goodson's position in order to study a range of school subjects. The study reported later in this book, as already pointed out, was also guided to a certain extent by his position. It was undertaken to contribute to the wider body of knowledge in curriculum history on the geography curriculum. Such a contribution, it is held, is necessary not least because of the variety of definitions and perspectives that exist on the nature of the field of geography including in Australia. Some have noted "vague

⁷⁶ O. L. Davis (1977). The nature and boundaries of curriculum history: A contribution to dialogue over a yearbook and its review. *Curriculum Inquiry*. 7: 157-168.

⁷⁷ H. M. Kliebard and B. M. Franklin (1983). The course of the course of study: History of curriculum. In J. H. Best (Ed.). *Historical Inquiry in Education: A Research Agenda*. Washington DC: American Educational Research Association, 1983, 138-157.

⁷⁸ E. Rawling (2000). Ideology, politics and curriculum change: Reflections on school geography. *Geography*. 85 (3): 209-220, p. 210.

⁷⁹ W. B. Whalley, A. Saunders, A. Robin, R. A. Lewis, M. Buenemann and P. C. Sutton (2011). Curriculum development: Producing geographers for the 21st Century. *Journal of Geography in Higher Education*. 35 (3): 379-383, p. 381.

⁸⁰ K. Tan (1993). History of the History of Curriculum under Colonialism and Decolonisation: A Comparison of Hong Kong and Macau. Hong Kong: University of Hong Kong; G. Braine (Ed.) (2005). Teaching English to the World: History, Curriculum and Practice. Mahwah, NJ: L Erlbaum and Associates; D. M. Burton (2007). The History of Mathematics: An Introduction. 6th ed. New York: McGraw-Hill; B. Green and P. Cormack (2008). Curriculum history, English and the new education, or, installing the empire of English? Pedagogy, Culture and Society. 16 (3): 253-267; T. S. Popkewitz (2011). Curriculum history, schooling and the history of the present. History of Education. 40 (1): 1-19.

frontier zones"⁸¹ where "geography has meant different things to different people in different places" and where "the 'nature' of geography is always negotiated".⁸²

Not all commentary, however, has been negative. Lambert for example, recognised the value of geography in that it "links with science, with the arts and with other humanities subjects like history" and provides "curriculum coherence" in schools. 83 Additionally, Scarfe observed that the subject "promotes ways of thinking that are distinctly geographical". 84

School geography also predated the establishment of its counterpart, the university-based discipline. So On that, Goodson revealed that the subject in fact only came to be taught in universities long after having been taught in schools. This, he concluded, was due to the upward pressure on the universities to respond to the demand for geography specialists.

Nevertheless, as with the history of the school curriculum in general and that of other school subjects in particular, Rawling noted in 2000 that the history of the geography curriculum was a much-neglected area of research.⁸⁷ Indeed, Freeman had already observed along the same lines back in 1961, commenting that "the history of geography is not an over-tilled field".⁸⁸ Marsden's explanation offered in 1996 for this situation was as follows:

During the 1960s and 1970s as social scientific paradigms were promoted in an attempt to make academic work in education more respectable, consideration of historical contexts [of subjects such as geography] became increasingly marginalised.⁸⁹

⁸¹ W. Kirk, A. Lösch and I. Berlin, (1963). Problems of geography. *Geography*. 48 (4): 357-371, p. 358.

⁸² D. N. Livingstone (1992). *The Geographical Tradition: Episodes in the History of Contested Enterprise*. Oxford: Blackwell Publishing, p. 28.

⁸³ D. Lambert (2011). Reviewing the case for geography and the 'knowledge turn' in the English national curriculum. *The Curriculum Journal*. 22 (2): 243-264, p. 249. ⁸⁴ N. V. Scarfe (1964). Geography as an autonomous discipline in the school curriculum. *Journal of Geography*. 63 (7): 297-301, p. 297.

⁸⁵ D. Lambert (2013). Who Hung the humanities? *Geographical Education*. 26: 25-28.

⁸⁶ I. F. Goodson (Ed.) (1988). *International Perspectives in Curriculum History*. London: Routledge.

⁸⁷ E. Rawling (2000). Ideology, politics and curriculum change: Reflections on school geography.

⁸⁸ T. W. Freeman (1961). A Hundred Years of Geography, p. 9.

⁸⁹ W. Marsden (1996). Geography. In P. Gordon (Ed.) *A Guide to Educational Research*. London: Woburn Press, 1996, pp. 1-30, p. 264.

Specifically regarding Australia, Seddon had in a similar tone bemoaned in 1987 the 'dearth' of curriculum history. The consequence she said, was that Australian curriculum workers did not know their own past. This position, it is arguable, still holds 25 years later.

More broadly, comprehensive studies of geography education internationally from the early 2000s were conducted by Gerber and Williams⁹¹ and by Lidstone and Williams.⁹² In indicating many neglected areas, they overlooked to point out that the history of the subject was under researched. The study reported in later chapters of this book, as already stated, was undertaken as one attempt aimed to address that deficit.

Outline of the Constructions of Geography in Various Periods

The decision to commence the study at 1917 was based on a number of considerations in relation to the history of Western Australia. From 1895 to 1912 the University of Adelaide administered public examinations in Perth for suitable candidates to enable them to gain entry to university education. That was because The University of Western Australia was not founded until 1911 and lectures did not commence until March 1913. From 1 August 1913 a Joint Board for the Control of School Certificate Examinations in Western Australia that later became the Public Examinations Board on 7 July 1915. (by Statute 17 of the Senate of The University of Western

⁹⁰ T. Seddon (1989) Curriculum history: a map of key issues. *Curriculum Perspectives*. 9 (4): 1-16, p. 1.

⁹¹ R. Gerber and M. Williams (2002). An overview of research on geographical education. In M. Smith (Ed.). *Aspects of Teaching Secondary Geography*. London: Routledge.

⁹² J. Lidstone and M. Williams (2006). Researching change and changing research in geographical education. In J. Lidstone and M. Williams *Geographical Education in a Changing World: Past Experience, Current Trends and Future Challenges*. Dordrect: Springer, 2006.

⁹³ M. A. White (1974). Public examinations in Western Australia: Reflections on their establishment. *ANZHES Journal*. 3: 41-51, p. 42.

⁹⁴ F. Alexander (1963). Campus at Crawley: A Narrative and Critical Appreciation of the First Fifty Years of The University of Western Australia. Melbourne: Cheshire; M. A. White (1975). Sixty years of public examinations and matriculation policy in Western Australia. Australian Journal of Education. 19 (1): 64-77; A. Barcan (1980). A History of Australian Education. Melbourne: Oxford University Press.

⁹⁵ The University of Western Australia Archives, Agency 1 Registrar's Office, Series 862 Indexes, Consignment 1650 Listing of Registrar's Office Archives 1913-1980, item 1

Australia) then set the examination standards for the secondary school curriculum.

The Manual of Public Examinations Board for 1917⁹⁶ contained the first detailed syllabus and it was influenced by The University of Western Australia's Professorial Board. In it, the geography Leaving Certificate examination syllabus contained four major sections for study: 'elements of mathematical geography', 'physical geography', 'commercial geography', and 'political geography'. Special study of two selected countries was also required. Furthermore, a detailed outline was provided of practical work that needed to be undertaken while candidates were also tested on knowledge gained in the Junior Certificate course.

The first sub-period relating to geography education in Western Australia that was studied by the present writer ranged from 1917 to 1944. Within it the 1920s was a time that witnessed rapidly increased post-primary school enrolments. Throughout the decades also, the influence of professors at The University of Western Australia acting as chief examiners and syllabus designers was considerable. For example, they ensured that minor revisions continued to be made to the 1917 geography syllabus. Nevertheless, the underlying conceptual framework remained the same throughout. There was also no significant change in the Leaving Certificate examination geography syllabus over the period.

The second sub-period was from 1945 to 1957. Over these years the need for expanded provision of secondary school education in Western Australia due to a post-Second World War birth-bulge and concurrent immigration policies was addressed. Enrolments of students aged 14 years and above rose steeply and led to an increase in the number of Leaving Certificate examination candidates. During the War years the Federal and State governments also planned for post-War reconstruction programs. In accord with that, policies were developed in Western Australia to provide

⁹⁶ University of Western Australia. Public Examinations Board. *Manual of Public Examinations held by The University of Western Australia for 1917*. Perth: The University of Western Australia.

⁹⁷ M. A. White (1975). Sixty years of public examinations and matriculation policy in Western Australia, p. 66.

⁹⁸ *Ibid.*, p. 70; K. Tully (1993). *An Historical Study of the Emergence of the 1958 Comprehensive Secondary Education Policy Within the Education Department of Western Australia*. Unpublished MA Thesis, Curtin University of technology, Perth, p. 171.