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Insights from Australia and Implications Globally

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Contents

Abbreviations

ACARA	Australian Curriculum, Assessment and Reporting Authority
ATC21S	Assessment and Teaching of 21st Century Skills
C21	21st Century
CDA	Critical Discourse Analysis
ICT	Information and Communication Technology
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
MDEYA	Melbourne Declaration of Educational Goals for Young Australians
NAPLAN	National Assessment Program – Literacy and Numeracy
OBE	Outcomes-Based Education
OECD	Organisation for Economic Cooperation and Development
PISA	Programme for International Student Assessment
P21	Partnership 21
SCSA	School Curriculum and Standards Authority (WA)
UK	United Kingdom
UNESCO	The United Nations Educational, Scientific and Cultural Organisation
USA	United States of America
WA	Western Australia

Chapter 1
Introduction

Abstract The book is centred on a study conducted of so-called '21st century curriculum' policies and practices in Australia within the broad context of globalization. This chapter provides a brief overview of matters dealt with in more detail in the chapters that follow. It includes an overview on the central concepts underpinning the notion of a '21st century curriculum (C21)' and on the policy trajectory framework that was used to guide the research questions and research methodology of the study reported later in the book. It also locates how the authors are positioned and details the significance of the research undertaken. It then concludes with a brief outline of the structure of the book.

> *"It is really important for leaders, for prime ministers, for ministers, for people in the media to talk about the importance of change…. We are living in the 21st century. We are living in a world that has been transformed in a very short period of time"*. – Malcolm Turnbull, (a former Prime Minister of Australia), 2015

Introduction and Aim

The aim of the study reported in this book was to conduct an analysis of so-called '21st century curriculum' policies and practices in Australia within the broad context of globalization. According to the Organisation for Economic Cooperation and Development (OECD) (2012, 2015, 2018), it is important that students are equipped with a 21st century education to cope with the demands of a knowledge-based society in light of the advent of such wide-ranging changes as globalization and technological modernization. On this, the OECD (2012, 2019) promoted Trilling and Fadel's (2009) model of a 21st century education as one that consists of knowledge linked to real world context, higher-order skills, character (including behaviours, values and attitudes prized by society) to help in dealing with a complex world, and metacognition to assist in developing this knowledge, skills and character.

Higher-order skills are also known as 21st century skills. They receive particular attention in the international policy literature (European Communities, 2007; OECD, 2019; Partnership for 21st Century Skills (P21), n.d.; International Bureau

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of Education-United Nations Educational, Scientific and Cultural Organisation (IBE-UNESCO), 2017). It is generally accepted also that creativity, critical thinking, communication and collaboration are common features of the key skills required for success in the 21st century (Fadel & Groff, 2019; OECD, 2012, 2018, 2019; Voogt, Erstad, Dede, & Mishra, 2013).

The advice of the OECD has influenced the national education policies of many countries in recent years, including in Australia (Rizvi & Lingard, 2010). Indeed, both the OECD and UNESCO have had a significant input to the development of the concept of '21st century curriculum' policy in the nation. Further, within this domain, there is frequent reference to 21st century skills.

Australia's first national curriculum, initiated in 2008, is identified as a '21st century curriculum'. For example, its key document states that it "includes learning areas, general capabilities and cross-curriculum priorities that together support 21st century learning" (Australian Curriculum, n.d., "F-10 curriculum," para. 2). Moreover, the general capabilities outlined in the curriculum include creative and critical thinking, information and communication technology, personal and social capability, ethical understanding and intercultural understanding. Collectively, these are known throughout the land as 21st century skills (Trilling and Fadel, 2009; OECD, 2018) accompanied by a view that they should be embedded within a 'C21 curriculum'. Relatedly, reference to what is regularly termed 'C21 curriculum' policy is now prevalent in England, the United States of America (USA) and Singapore, which are common sources of policy borrowing for Australia.

It is also evident that a certain amount of 'policy borrowing' is taking place in the field. On this, it is argued that 'policy borrowing' between countries should be linked to 'policy learning' to try to ensure that there will be an effective enactment of curriculum policies in different contexts (Lingard, 2010; Mundy, Green, Lingard, & Verger, 2016). Hence, a particular focus of the study reported in this book was to examine the development of '21st century curriculum' within Australian contexts, and particularly within selected non-government schools in Western Australia (WA), as well as to examine the impact of associated curriculum changes. Throughout, we, the present authors, use the terms 'C21 curriculum' and 'C21 skills' to refer to '21st century curriculum' and '21st century skills', respectively. This follows common practice nationally. Further, we use inverted commas to indicate that these are concepts that are both complex and contested.

The remainder of this chapter now provides a brief overview of matters dealt with in more detail in the chapters that follow. It includes an overview on the central concepts underpinning the notion of a '21st century curriculum' and on the policy trajectory framework that was used to guide the research questions and research methodology of the study. It also locates how we, the present writers are positioned and details the significance of the research undertaken. It then concludes with a brief outline of the structure of the book.

Central Concepts

The central concepts related to this study are 'globalization', 'curriculum', 'education policy' and '21st century curriculum policy'. Dean and Ritzer (2012, p. 1) defined globalization as a "growing multidirectional flows of people, objects, places, and information as well as the structures they encounter and create that are barriers to, or expedite, those flows." Gygli, Haelg, Potrafke, and Sturm, (2019, p. 546) argue that globalization "erodes national boundaries, integrates national economies, cultures, technologies and governance, and produces complex relations of mutual interdependence." On this, academics such as Appadurai (1990, 2013) and Bottery (2006) have claimed that while there are different facets of globalization, economic globalization plays the biggest role in influencing world-wide dynamics. Furthermore, they hold that central to economic globalization is a neo-liberal ideology that has 'competition' as its centerpiece.

Frequently, it is argued that neo-liberalism is increasingly coming to underpin most global education policies (Ball, 2008; Benze & Carter, 2011; Bottery, 2006; Rizvi & Lingard, 2010; Tett & Hamilton, 2019). This is because in recent years many countries have become more reliant than previously on knowledge generation to drive their economies. The result has been that people are viewed as human capital and knowledge is seen to be a commodity (Apple, 2006, 2012; Ball, 2008, 2016; de Saxe, Bucknovitz, & Mahoney-Mosedale, 2020).

The role of the OECD in steering the Program for International Student Assessment (PISA), a type of high-stakes testing that has been adopted by many developed and developing countries, is an example of the influence of the neo-liberal ideology, in which efficiency and standardization are deemed to be a priority in education policy making (Arbuthnot, 2017; Lingard, 2010). Academics have argued that there are major consequences resulting from this. These include class segregation and social inequalities (Kenway & Fahey, 2014; Koh, 2014; Morgan, Hoadley & Barrett, 2018).

The second concept to be considered is that of 'curriculum'. According to Breault and Marshall (2010), a traditional view of 'curriculum' is that it is a course of study. Another view extends this one, with curriculum being seen as aiming to steer practices and to represent political positions (Apple, 2018; Connelly & Connelly, 2010; Rizvi & Lingard, 2010). The latter can be observed in the various aims of curricula. For example, while education aims can forge students' sense of identity and prepare them for the future, they are often heavily influenced by such internal and external political factors as policy bench marking and borrowing (Ball, Junemann, & Santori, 2017; Yates & Grumet, 2011).

Acedo and Hughes (2014) have noted another tension arising out of the four aspects of learning found within curriculum not always being in agreement. These are the intended curriculum, the written curriculum, the taught curriculum and the hidden curriculum. In addition, in recent years, developments in curricula are faced with a conundrum in terms of Bernstein's (1971) 'three message systems' (as cited in Cause, 2010) of curriculum, pedagogy and assessment being in a "symbiotic relationship with each other" (Rizvi & Lingard, 2010, p. 131). On this, the increasing role of 'high-stakes testing' as a curriculum 'driver' is seen by some critics to upset the balance in this relationship.

The third concept to be considered is that of 'policy'. The definition of 'policy' has evolved over time. For example, a definition that has been in circulation for a long time is "the authoritative allocation of values" (Lingard, 2013, p. 116). However, for the purpose of the study reported in this book, we adopted Ball's (1994) definition. This views policy as relating to texts, action, discourse and outcomes.

Relatedly, Rizvi and Lingard (2010) have argued that as globalization has intensified, international policy borrowing has also accelerated. While this, however, is a common practice among nation-states, it has also led to messy and often unintended policy consequences due to local actors changing original intent (Ball, 1994; Vidovich, 2013). Hence, how policy is enacted within education institutions needs to be better understood, and not only in relation to globalization but also in relation to 'new localism' (Mowat, 2018; Vidovich, 2013).

Notions of '21st century curriculum' policy are usually underpinned by the concepts of globalization, curriculum and policy that were briefly introduced above and which will be elaborated upon later in Chap. 3. At this point, however, it is also apposite to state that the direction provided by the OECD in forging the notion of 'C21 curriculum' internationally in schools reflects the great impact of globalization. In addition, the role of private companies such as Microsoft in guiding schools to enact a 'C21 curriculum', reflects a neo-liberal ideology, including associated notions such as privatization, marketization and competition (Ball et al., 2017; Benze & Carter, 2011).

A Policy Trajectory Framework and Research Questions

The study reported in later chapters of this book is based on an analysis of '21st century curriculum' policies and practices in selected Australian contexts. We used a particular 'policy trajectory' framework (Ball, 1994) developed over time for empirical policy analysis (Vidovich, 2007, 2013). It is based on the notion that there are five policy contexts, namely, the context of influences, the context of policy text production, the context of practices/effects (or enactment), the context of outcomes, and the context of political strategies. For the purpose of the study, however, it was deemed appropriate to combine the contexts of 'outcomes' and 'political strategies' as outlined in Ball's (1994) original policy trajectory, thus reflecting a practice used to great effect by Rizvi and Lingard (2010) and by Vidovich (2013).

Research questions for the study were generated that related to the contexts of the 'policy trajectory' framework. These were as follows:

1. What are the influences that led to the introduction of '21st century curriculum' policies in Australian contexts?
2. What is the nature of the '21st century curriculum' policy text at national and State (WA) levels in Australia and how was it constructed?
3. What are the practices/effects resulting from the enactment of '21st century curriculum' policies in case-study schools?
4. What are the anticipated longer-term outcomes of '21st century curriculum' policies in Australia and internationally?

Hereafter, '21st century curriculum' policy is referred to as 'C21 curriculum' policy.

Methodology

The study was underpinned by two research paradigms, namely, interpretivism and critical theory. Each of these was drawn upon at different points in the study. In particular, interpretivism guided the collection and analysis of data from participants within schools about their perspectives on 'C21 curriculum' policies and practices. The critical theory paradigm was then drawn upon to guide a meta-analysis embracing the whole policy trajectory from global to local (school) levels. Its principal value was in assisting us to unearth influences of dominance and resistance along the policy trajectory (Creswell, 2007; Muller-Doohm, 2017).

Documents related to the national (Australia) and State (WA) levels were interrogated in relation to the first two research questions outlined. For the local (school) level, three case study schools were investigated. In relation to this level of the study, data from documents, from interviews and from focus group discussions were collected and analyzed. Overall, then, two major sources of data were drawn upon, namely documents and interviews. Further, while the data in the form of documents was located in relation to the national, State and school levels, the interview data were collected at the local level.

Specifically regarding policy texts pertaining to the national level, the *Melbourne Declaration of Educational Goals for Young Australians* (MDEYA) (Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA, 2008), the *Shape of the Australian Curriculum* (Australian Curriculum, Assessment and Reporting Authority (ACARA), 2012); and the *Review of the Australian Curriculum-Final Report* (Donnelly & Wiltshire, 2014) were analyzed. Specifically regarding policy texts pertaining to the State level, works such as WA's responses to the *Shape of the Australian Curriculum* and the *Donnelly-Wiltshire Review* mentioned above, were analyzed. Finally, regarding policy texts pertaining to the local level, such case-study school documents as schools' websites and 'C21 curriculum' policy texts were also analyzed. Additionally, interviews were conducted with five staff members in each school. These included, in each case, one school leader, one curriculum developer and three teachers. Further, a focus group discussion with five students who were spread across Years 9, 10 and 11 was also held in each school.

Data analysis was conducted in three stages. The first step involved the reduction and coding of data to generate themes (Miles & Huberman, 1994; Miles, Huberman, & Saldana, 2004). These themes were refined, discarded or developed as data collection progressed (O'Donoghue, 2007, 2018).

Once the process of identifying key themes was complete, a critical discourse analysis (CDA) was conducted. CDA is based on the rationale that language is a form of social practice. On this, Ball (1994) argued that while it is important to understand policy as texts, 'policy' can also be interpreted in an infinite number of ways (Ball, 1994). Hence, looking at policy as a discourse proved valuable in allowing us to focus on such matters as how power is exercised through the creation of "truth" and "knowledge" (Ball, 1994, p. 14).

The final stage of analysis involved engaging in a meta-analysis of findings arrived at from the global to local levels of the policy trajectory. In conducting it we drew upon key concepts associated with the critical theory paradigm. This facilitated the researchers in examining issues of power, equity and social justice. A series of propositions was then generated in relation to the results of the data analysis as a whole.

The Position of the Researchers

The first named author conducted all of the primary research. She had taught as a secondary school teacher in Singapore for 8 years and as an ESL (English as Second Language) teacher in WA for 4 years, as well as one who has experienced teaching academic skills at the tertiary level. Thus, she had been able to observe the influences of globalization on 'C21 curriculum' policy in a variety of contexts. In particular, she observed an increasing emphasis on such skills as critical thinking, problem solving and collaboration skills, commonly known collectively as C21 skills. On this, secondary schools in Singapore, and language centres and higher education institutions in Australia could be characterized as being based on a neo-liberal approach to curriculum to the extent that they emphasize efficiency and accountability in a bid to remain competitive in the global economy. Such an approach to curriculum was viewed as posing challenges that, in turn, prompted a desire to provide a broad evidence-base for interpretation of trends in the field observed by all three of the present authors over a range of time-periods and places.

Significance

The discourses of 'C21 curriculum' policy have been adopted in many countries, including Australia. Therefore, the findings of the study reported later in this book have significant implications for all sectors of education in the nation, as well as being instructive for an international readership. In particular, they make a significant and original contribution to knowledge within four main domains. These are as follows: adding knowledge and bringing change to the field of curriculum policy, locating Australia's moves towards 'C21 curriculum' in relation to global policy trends and international patterns of policy 'borrowing' and 'learning', informing stakeholders of the enablers and constrainers involved in enacting 'C21 curriculum' policy, and highlighting potential long term impacts on equity and social justice in education.

As 'C21 curriculum' policy indicates a new direction considered appropriate for a global knowledge society, the results also add knowledge to the corpus of work on neo-liberal education policy adopted by many countries over recent decades. This

latter development is under-researched even though such international organizations as the OECD and UNESCO have made urgent calls for schools around the world to promote C21 skills to prepare students for the rapidly changing world (OECD, 2012, 2019; UNESCO, 2015). The book thus provides a comprehensive overview that can assist understandings about the motivations of certain other schools and education systems embracing 'C21 curriculum'.

Globalization also, as already indicated, has become an overarching context for education policy development in the 21st century. In relation to this, many countries have acknowledged the significance of 'C21 curriculum' by implementing it in schools (OECD, 2012). Along with there being a need to understand apparent associated global policy convergence across countries and accelerated international 'policy borrowing' (Lingard, 2006; Mundy et al., 2016), however, it is also critical to understand the importance of both policy convergence and context-specific differences in education policy. Thus, the reporting of the analysis of Australia's 'C21 curriculum' policy and practices, focusing on Western Australia (WA) in particular, supports understandings about global-national-State-local curriculum policy dynamics better.

The research reported here also highlights enablers and constrainers related to enacting 'C21 curriculum'. Knowledge on this could be beneficial to various stakeholders in education, especially given the view that there is a 'symbiotic relationship' between curriculum, assessment and pedagogy (Lingard, 2010; Vitale & Exley, 2016). In addition, policy enactment, including in relation to 'C21 curriculum' policy, can be messy and can often come with unintended consequences, including contestation over 'meaning making' at the local level (Ball, 1994). Cognisance of this resulted in the voices of curriculum policy producers and enactors being listened to, and associated challenges at the local level of schools being sought, during the conduct of the study. The result presented on this provide policy makers and school leaders working in other contexts with insights that could guide them in aligning the intended and enacted 'C21 curriculum' closely in a bid to create a cohesive and effective 'C21 curriculum'.

The purpose of most approaches to a 'C21 curriculum' is to prepare *all* students for work and for life, thus suggesting the need for an inclusive approach. This prompts one to recall Ball's (1994) argument that possible long-term policy impact on social justice and equity needs to be given much attention if one hopes to maximize the possibility of enhancing social cohesion and inclusivity. Thus, a focus on both empowered and disempowered policy actors was maintained while conducting the study upon which this book is based. It was supported by the use of critical theory and CDA. Hence, opportunities were created to raise possibilities regarding the development of an equitable education and an equitable society for the 21st century.

Structure of the Book

The book comprises ten chapters. Following this chapter, Chap. 2, provides the background to the jurisdictions of the relevant international, national (Australia), State (WA) and local (school) contexts where the importance of 'C21 curriculum' policy is being highlighted amidst a backdrop of globalization, and competitive neo-liberalism. Chapter 3 discusses in more detail the central concepts underpinning the notion of 'C21 curriculum' policy. In particular, it examines the literature surrounding globalization, curriculum, and policy, as well as the debates that have taken place around a 'C21 curriculum' policy. Chapter 4 details the methodology that underpinned the research project, the results of which are reported in later chapters. This is followed by four chapters that present the findings of the analysis. Chapter 5 presents findings relating to the national (Australia) and State (WA) levels, while Chaps. 6, 7 and 8 present the findings pertaining to the three case-study schools. Chapter 9 then details the results of a meta-analysis of the findings along the whole policy trajectory and in relation to international, national (Australia), State (WA), and school levels. Chapter 10 concludes this book with a series of recommendations for policy and practice as well as outlining implications for future research.

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Chapter 2
Background

Abstract This chapter provides a background for this study on '21st century (C21) curriculum' policies and practices in Australia, within the broad context of globalization. It details three developments related to a 'C21 curriculum'. First, the development of the C21 skills movement across the globe is traced. Secondly, the movement towards embracing a 'C21 curriculum' in England, the USA, China and Singapore are detailed. These countries were selected because of their competitiveness in the global economic and education arenas and the fact that Australian policy makers often use them as benchmarks when making comparisons. Moreover, England and the USA have traditionally been significant sources of policy borrowing for Australia, where the study reported here was located. Further, China and Singapore are relevant to any consideration of Australian policy-making as they are the nation's Asia-Pacific neighbours, with strong economic and educational interconnections. Insights on international trends in these countries, and elsewhere, provide a strong global contextualization for examining Australian curriculum policy. Finally, a detailed description of the influences shaping Australia's move towards a 'C21 curriculum', with a particular focus on Western Australia (WA), are considered.

> *"Today we are failing too many of our children. We're sending them out into a 21st century economy by sending them through the doors of 20th century schools"*. – Barack Obama (a former President of the United States of America), 2006

Introduction

In order to provide a background against which the results reported later in the book can be considered, the chapter details three developments related to a 'C21 curriculum'. First, the development of the C21 skills movement across the globe is traced. Secondly, the movement towards embracing a 'C21 curriculum' in particular countries is detailed. The countries in question are England, the USA, China and Singapore. These were selected because of their competitiveness in the global economic and education arenas and the fact that Australian policy makers often use them as benchmarks when making comparisons. Moreover, England and the USA

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have traditionally been significant sources of policy borrowing for Australia, where the study reported later was located. Further, China and Singapore are relevant to any consideration of Australian policy-making as they are the nation's Asia-Pacific neighbours with strong economic and education connections to it. Insights on international trends in these countries and elsewhere provide a strong global contextualization for examining its curriculum policy. Finally, a detailed description of the influences shaping Australia's move towards a 'C21 curriculum', with a particular focus on Western Australia (WA), are considered.

Development of C21 Skills in a Global Context

Global changes have propelled the advancement of the concept of C21 skills (United Nations Educational Scientific and Cultural Organisation (UNESCO), 2015). On this, it is argued in influential quarter that the global changes in question, including the increasing importance of international trade, growing transnational migration, and growth of a digitized world, necessitate the introduction of accompanying changes in the education landscape so that citizens can be prepared to handle them (Organisation for Economic and Cooperation Development (OECD), 2015, 2019). This is because, overall, the twenty-first century world is increasingly being characterized as that of a knowledge-based society. Further, according to UNESCO (2005, 2015), such a society prioritizes ideas and knowledge as engines for economic growth.

A related central concept used by the OECD (2005) is that of 'competencies.' On these, it states (OECD, 2005, p. 4):

> A competency … involves the ability to meet complex demands, by drawing on and mobilising psychosocial resources (including skills and attitudes) in a particular context. For example, the ability to communicate effectively is a competency that may draw on an individual's knowledge of language, practical IT skills and attitudes towards with whom he or she is communicating.

In summary, 'competencies' is a term that refers to the knowledge, skills, attitudes, values and ethical dispositions that students are said to require to succeed in the twenty-first century (Griffin, McGaw, & Care, 2012).

While the use of the term 'competencies' is common in Europe (Voogt, Erstad, Dede, & Mishra, 2013), it has come to be regularly known as C21 skills in North America (Halasz & Michel, 2011; Trilling & Fadel, 2009; Voogt & Roblin, 2012). Further, the term a 'C21 curriculum' includes the concept of 'C21 skills'. Additionally, while there is some agreement among academics on what these C21 skills are, there is also variation in how they are embraced in different jurisdictions (Voogt et al., 2013), as later parts of this chapter demonstrate. Additionally, associated policy are sometimes contested.

Dede (2009) sought to demonstrate the importance of twenty-first century competencies by contrasting them with the knowledge taught during the twentieth

century. According to him (Dede, 2009, p. 2), in the twenty-first century "contextual skills" are emphasized, as compared to the emphasis that was placed in the twentieth century on skills being "perennial". On this, he noted (2009, p. 2) that while perennial skills are "skills that are deemed to be important throughout history", "contextual skills are skills that are unique to specific situations like work and citizenship" (p. 2). He illustrated this by pointing to 'collaborative learning', stating that while this skill is not unique to the twenty-first century, the manner in which collaboration is carried out in the twenty-first century (such as working with teams of people of different nationalities and conducting distance-learning and teleconferencing) is different to what it was previously. Dede (2009) also concluded that, overall, the situation in earlier centuries differed from that in the twenty-first century in that people now have to work with complex technology, have to be discerning with the influx of information, and have to be able to think critically in light of the unpredictable global changes.

The three major competencies required for the twenty-first century that have been highlighted by the OECD (2005) are 'using tools interactively', 'functioning in heterogeneous groups' and 'acting autonomously.' According to this organisation also, the ability to use these effectively can enable students to develop reading literacies, media literacies and technological literacies so that they may become adept in applying knowledge, be discerning in the face of a barrage of knowledge, and be able to use technology effectively. Further, the ability to function in heterogeneous groups, it is held, can help learners to foster empathy and collaborative skills that could assist with social cohesion. Additionally, the ability to act autonomously, it is maintained, can enable learners to understand the implications of their actions in the wider society across the world. This relates in particular to citizenship and to dealing with global issues.

Along with the OECD, other international organisations such as the European Union (EU) and UNESCO have also highlighted in their official documents what they see as key competencies and education goals (European Communities, 2007; International Bureau of Education(IBE)-UNESCO, 2017; UNESCO, 2005, 2015). Throughout the study being reported in this book, however, the term C21 skills was adopted. This was because of the prevalence of its use in both the political and academic world (Voogt & Roblin, 2012).

The OECD (2005, 2012, 2015, 2018) has also recognized the importance of aligning education to a twenty-first century world and has called for schools in its member countries to inculcate C21 skills amongst their students. On this, according to Halasz and Michel (2011), the move towards 'C21 curriculum' started in 1994 when the OECD published a report to redefine the curriculum for the twenty-first century. They also noted that the next significant development was the OECD's 'Definition and Selection of Competencies' project in 2001. The aim of this project was to select the key competencies deemed necessary for living in the twenty-first century.

The move towards approaches deemed appropriate for education in and for the twenty-first century has had an impact on curriculum, learners, teachers and schools. Related concepts include '21st century learner', '21st century teacher' and '21st

century schools', albeit with the latter being less commonly used in the literature than the others. Further, a '21st century curriculum' is viewed as one that embraces multiple literacies rather than one being restricted to the core literacies of reading, writing and arithmetic only (Scott, 2015). The perceived importance of adopting a constructivist pedagogy, where active engagement is encouraged and where there are multiple forms of assessment, rather than formal and standardized ones only being used (OECD, 2012, 2019; Trilling & Fadel, 2009), is also emphasized.

Another emphasis in the literature is that twenty-first century learners are expected to take ownership of their learning and be life-long learners (Fadel & Groff, 2019; Summers, 2012). Equally, twenty-first century teachers are expected to be knowledgeable, to adopt student-centred learning approaches and to be reflective learners themselves (Darling-Hammond, 2010; OECD, 2012, 2019). Furthermore, according to Shaw (2009) and Schleicher (2015), twenty-first century schools should not be mere physical buildings where knowledge is transmitted. Rather, they should be centres of learning where students are able to develop through engaging in real life activities and through harnessing their interests and talents.

The OECD (2015) cited Fadel's framework (2010) as being a good model for policy makers to add in planning to offer a twenty-first century education. This model has subsequently been revised to present a learning framework designed for the decade 2020–2030: '*OECD Learning Compass 2030*' (OECD, 2019). Trilling and Fadel (2012) had argued that a twenty-first century education features an emphasis on knowledge, skills and character, through promoting certain behaviours, values and attitudes. According to the '*OECD Learning Compass 2030*', knowledge refers to theories, ideas and practical understanding that enable learners to conduct specific tasks. This entails disciplinary, interdisciplinary, epistemic and procedural knowledge. Additionally, skills involve learners' ability to function and utilise knowledge responsibly to achieve specific goals. These include cognitive and metacognitive skills, as well as social and emotional skills, and also practical and physical skills. Further, attitudes and values, it is upheld, are guiding principles and dispositions that influence learners' behaviour and can enable them to make effective decisions. This relates to personal, social, societal and human values. While this model is deemed to be essential for "helping students navigate towards the future" (OECD, 2019, p. 6), at the same time, it was recognized that significant challenges can be thrown up by trying to attend to all of the above-mentioned dimensions of a 'C21 curriculum', simultaneously.

According to the Commercial and Industrial Security Corporation White Paper (2008), all countries would stand to benefit if they embraced a twenty-first century education. In particular, it was held, developing countries such as India and Nigeria that have more limited access to formal schooling than more developed countries, could exploit access to technology to provide quality teaching and learning in their schools. The White Paper also contended that countries that depend highly on rote learning could valuably focus more on such skills as creative and critical thinking and collaborative learning in schools so that students could become equipped for the globalized world. It was further stated that even Western countries that tend to perform well in the use of such 'soft skills' as emotional intelligence and

communication skills, but less well in the OECD's Programme for International School Assessment (PISA) tests, could utilize twenty-first century learning approaches to improve their test scores by integrating pedagogy and C21 skills effectively.

Along with the OECD, private organisations have also been involved in implementing C21 skills. They include 'Partnership for 21st Century Skills' (P21) which is based in the USA, and 'Assessment and Teaching of 21st Century Skills' (ATC21S) which was established jointly by representatives of the governments of Australia, the USA, Finland and Singapore. P21 is funded by a number of private organisations that include Commercial and Industrial Security Corporation, Microsoft, Apple and Walt Disney and aims to place C21 skills at the core of K-12 education in the USA. To this end also, ATC21S was created as part of an international effort to provide clear operational definitions for the design of twenty-first century assessment for the classroom (ATC21S, 2012; Binkley et al., 2012; Darling-Hammond, 2010).

Microsoft Corporation, an American multinational technological company, has been actively establishing itself as a dominant player in terms of assisting teachers and students to become equipped with C21 skills. In June 2018, it set out to provide guidelines for the teaching and learning of twenty-first century competencies (Baker, 2018). In doing so, it took cognizance of research results and claimed that what it outlined is relevant for policy-makers in terms of providing insights on how to improve education outcomes for students (Baker, 2018).

Microsoft also released a twenty-first century learning design framework to assist teachers in the teaching and learning of C21 skills in the classroom (Shear et al., 2014). Its associated global professional development program is underpinned by the results of research conducted by an organisation entitled the Innovative Teaching and Learning Research. This organisation identified C21 skills in six main areas: collaboration; knowledge construction; self-regulation; communication; problem-solving and innovation, and information and communications technology (Shear et al., 2014). Associated with this, Microsoft offers a three-day workshop for teachers whose schools are collaborating with it in the use of the twenty-first century learning design.

The presence of various stakeholders in developing C21 skills has several implications. First, it is important to note that while the highlighting of the topic of C21 skills has generated a lot of interest, there is still much that stakeholders in education need to understand about it (Voogt & Roblin, 2012). Secondly, an insufficient understanding of what constitutes C21 skills in certain quarters could explain the presence of certain 'unusual' players in education in providing support for teaching and learning in the area. Thirdly, the fact that both P21 and ATC21S are sponsored by such private companies as Commercial and Industrial Security Corporation (P21, n.d.) and Microsoft, suggests the existence of a relationship between C21 skills and economic interests. Finally, it is important to note that there is often a schism to be found between the intended and enacted curriculum (Chawla-Duggan, 2020; Schubert, 2010), including in relation to a 'C21 curriculum' and that this could be due to the disparate interests of various stakeholders. An overview of the

situation across a number of countries provided below is now presented to highlight these matters.

Countries Foregrounding a 'C21 Curriculum'

Since the development of C21 skills frameworks by various organisations, many countries have adopted a form of 'C21 curriculum' for their schools. Within the USA and England, for example, which are common sources of policy borrowing for Australia, there are curricula that carry the label '21st century'. Indeed, the USA has 16 states that follow a 'C21 curriculum' (P21, n.d.) and within the English national curriculum, 'personal, learning and thinking skills', that closely align to C21 skills, are emphasized (National Archives, n.d.). Countries in Asia, including China and Singapore, have also introduced 'reforms' to their curricula where the emphasis is on preparing students for a knowledge-based society in the twenty-first century through the promotion of independent learning and knowledge application (Law, 2014).

In general, then, it seems as if there is a promotion of a 'C21 curriculum' on the grounds that it is in the vanguard of a global contemporary education in a number of countries. Nevertheless, there is no one standardized 'C21 curriculum'. Indeed, there have been numerous reviews of various forms of it because various stakeholders in education have taken umbrage with proposed content, depth and outcomes (Donnelly, 2014; Levine & Au, 2013; Oates, 2011).

England

The situation in England needs to be considered in relation to its national curriculum. The origin of this goes back to 1988 and the Education Reform Act (Swift, 2009). Since then, the expectation for primary and secondary school pupils in the majority of schools is that they will learn a common set of knowledge and skills. It is optional for other types of schools, such as academies and private schools, to follow the national curriculum. At the same time, there is a strong view that they also should offer a broad and balanced curriculum (The National Curriculum, 2015).

At present, the English National Curriculum consists of the core subjects of English, mathematics and science, and a number of foundation subjects that include history and music. It has four key stages: Key Stage 1 (5–7 years of age); Stage 2 (7–11 years of age); Stage 3 (11–14 years of age); and Stage 4 (14–16 years of age). The curricula for Stages 3 and 4 are guided by statutory aims that relate to 'personal, learning and thinking skills', as well as to the development of independent enquirers, creative thinkers, reflective learners, team workers, self-managers and effective participators (National Archives, n.d.). These qualities are all in line with the notions of C21 skills and C21 curricula.

The Royal Society of Arts in the UK has developed an 'Opening Minds' curriculum that embraces personal learning and thinking skills. It encourages the adoption of an innovative and integrated approach towards designing programs around five key competencies, namely, citizenship, learning, managing information, relating to people, and managing situations (Royal Society of Arts Opening Minds, n.d.). If a school adopts this approach, Stanley, Jones, and Murphy (2012) argue, they are deemed to be compliant with the statutory aims laid down by the national curriculum. The overall aim however is to make potential economic benefits available to students on the grounds that these can prepare them for challenges of the twenty-first century (Glevey, 2008; Stanley et al., 2012). As a result, 200 schools in England had adopted the Royal Society of Arts Opening Minds curriculum by 2015 to try to ensure that the personal, learning and thinking skills promoted through the national curriculum were addressed (Royal Society of Arts Opening Minds, n.d.). Further, as Opening Minds uses a competency-based approach to help students acquire both subject mastery and skills to handle the challenges of the twenty-first century, these 200 schools are also seen to be following a 'C21 curriculum'.

As outlined by Oates (2011) and others, a 2011 review of the English National Curriculum raised several key issues. First, Oates (2011) argued that changes made to the curriculum due to following recommendations made to a previous review undertaken in 2007 did not reflect international developments as they did not facilitate schools in trying to keep up with high-performing schools in international testing. Secondly, while there was an aim to teach 'personal, learning and thinking skills' as transferable skills in general contexts, these were being taught in separate lessons (Glevey, 2008), resulting in ambiguity of their "form, purpose and scope" (Oates, 2011, p. 124). Further, even though the Department of Education and Skills issued a *Handbook for Teachers* and a *Guide for School Leaders* (Department of Education and Skills, 2015a) to provide guidance for them on the teaching and learning of thinking skills (Department of Education and Skills, 2015a), many teachers claimed that these guides failed to provide them with clear directions (Glevey, 2008). Thirdly, content reduction within the curriculum and a movement towards a more general content statement resulted in a lack of clarity on assessment and a use of narrow drill and practice tests. All of this, it was held, led to compromise on the aims of the curriculum (Oates, 2011).

According to the Department of Education (2015b, "Curriculum," para. 4), the new curriculum seeks to ensure that there are no restrictions on teachers. On this, it is stated that it aims to provide them with the "freedom to shape the curriculum to their pupils' needs" by concentrating on "essential knowledge and skills". It also aims to ensure there is a mirroring of activity in Hong Kong, Singapore, the Canadian state of Alberta and the US state of Massachusetts, that has resulted in schools performing well in international testings of student achievement (British Broadcasting Corporation, 2014).

Responses to the revised curriculum in England have been lukewarm. On this, Papanastasiou (2012) has argued that this is because it contradicts the very nature of a 'national' curriculum since it is based on international trends, and policy success is dependent on performance in global league tables. According to her, this situation

has "grave implications for the role of education in satisfying 'national' needs and moving away from being a traditional statecraft tool" (p. 417).

Others have argued that the curriculum changes undertaken have involved mere 'tinkering' rather than comprehensive changes (Hayden, 2013). At the same time, teachers complain that while it is ambitious, the new curriculum is not sufficient to equip students with C21 skills (Lee, 2013). Relatedly, Lee (2013) has argued that it reflects a top-down approach to implementing a national curriculum and thus runs the risk of there being a lack of consensus on it among the education stakeholders. This, in turn, has implications for the enactment of a 'C21 curriculum' in the classroom.

Another contentious issue is the claim that there has been a compromising of the standardization of the national curriculum because, by 2014, about 40% of the country's secondary schools were poised to become 'academies' and thus be exempted from adhering to the national curriculum (Blunkett, 2012). This means that instead of being designed to prepare the nation for the future, as it aspires to do, the nature of the national curriculum is such that it runs the risk of creating a "fragmented, atomized society" that is dependent on different curricula operating in different schools (Blunkett, 2012, p. 3). In relation to this, Hayden (2013) as well as Clapham and Vickers (2018) argued that, as in a number of other countries, England's response to global changes and the enculturation role of the curriculum within the national context would be faced by challenges and that there would be associated implications for 'C21 curriculum' development.

United States of America (USA)

Education in the USA is generally seen to be divided into three stages: elementary – kindergarten to 5th grade (5–11 years old); middle school – 6th to 8th grades (11–14 years old); and high school – 9th to 12th grades (14–18 years old). It is also based on a decentralized system where the States, and specifically the school districts, have the autonomy to decide education policies and practices within their jurisdictions, especially in terms of curriculum and professional development (Dwyer & Rose, 2005). There is also an expectation that schools will take steps to improve their standards so that they be eligible for Federal Government grants (US Department of Education, 2015).

In 2001, the *No Child Left Behind Act* was passed, following which every school child has had to be tested between Grades 3 and 8 annually (McNeil & Klein, 2011). This move towards high-stakes testing meant that schools were required to raise test scores and that failure to do so would result in teachers losing their jobs and schools closing down (Ravitch, 2014). A revamp of this policy was carried out in 2010 when the nation's President, Barack Obama, called for a greater alignment between schools and a twenty-first century education (Porter, McMaken, Hwang, & Yang, 2011). As a result, 'common core standards' were released in 2010 as part of the Federal's Government's effort to try to ensure that standardized knowledge and

skills would be developed between Grades K and 12 (Porter et al., 2011; Tampio, 2019). It was deemed that the standards published provided guidance on how to take steps to try to ensure that there would be common attainments across the nation in English, language, arts, reading and mathematics (Common Core, 2015).

P21 is a non-government organisation in the USA that consists of a number of private companies, including Commercial and Industrial Security Corporation, Microsoft and Pearson, that seek to encourage the teaching of a 'C21 curriculum'. It joined the standards movement by integrating C21 skills with the Core Common Standards. By 2016, 16 states were participating in this movement.

P21 has provided an equation for its C21 skills: 3R × 7C = twenty-first century learning. The 3R refers to the core skills of reading, writing and arithmetic. The 7C refers to the C21 skills, which are critical thinking and problem solving; creativity and innovation; collaboration, teamwork and leadership; cross cultural understanding; communications, information and media literacy; computing and ICT literacy; and career and learning self-reliance. It also includes guidelines on standards and assessments, curriculum and instruction, and professional development and learning environments that are all deemed key components of twenty-first century learning (Technological Horizons in Education Journal, 2011). Through applying its equation, P21 has developed a curriculum that integrates the Common Core Standards and C21 skills, and thus purports to have a 'C21 curriculum'.

In 2013, new reforms were introduced in education to prepare students in the USA to be successful in a twenty-first century economy (The White House, 2015). First, the *High School Redesign* initiative was introduced to encourage schools to rethink the high school experience of students. The associated curriculum is deemed to be student-centred, personalized and inclusive, and to be designed to incorporate such career-related activities as the provision of internships and the use of technology as part of them (US Department of Education, 2015). Secondly, reforms undertaken include the implementation of what is entitled *Race to the Top*, where a competition is held to determine which schools have the most innovative learning strategies. Winning schools are awarded a sum of money to be used to further improve teaching and learning in the spirit of the *High School Redesign* initiative. Thirdly, to improve students' proficiency in mathematics and science, the *Science, Technology, Engineering and Mathematics* (STEM) teaching preparation programs are offered. A further reform involves the investment of money in promoting innovation in schools geared towards ensuring that there is equal provision for all and that the teaching profession is fortified.

In total, 43 states have adopted the 'common core standards.' A number, however, put up some resistance. Oklahoma, for instance, repealed the Common Core Standards Law and Indiana has introduced its own 'College and Career Standards' (Porter, 2014). Of the 52 states in the USA also, only 16 joined P21 in championing the 'C21 curriculum' (P21, n.d.). In addition, while the Federal Government has shown autonomy and flexibility in implementing its education policies within individual states and schools, the situation also means that a lack of consensus amongst them may be impeding the implementation of a curriculum deemed appropriate for the twenty-first century. Moreover, the nature of federalism in the USA is such that

the Federal Department of Education is not permitted to exert control over the curriculum of individual states (Ravitch, 2014).

According to Ravitch (2014, para. 15), students from the USA are "the most over-tested in the world". Further, she held, because of such Federal programs as 'No Child Left Behind' and 'Common Core Standards', "schools have become obsessed with standardised testing". She also singled out such testing organisations as Pearson Education as having a lot of influence in the "rating, ranking and labeling" of students (para. 15).

China

Due mainly to the influence of globalization, China has had many changes to its national curriculum since the late twentieth century. According to Law (2014), there were two main stages in the nation's curriculum reform movement. The 'Principal Stage', which lasted from the early 1990s to 2001, involved 'reforming' compulsory basic education for primary and secondary school students. The second stage, the 'Fine-tuning Stage', which lasted from 2001 to 2011, involved developing further those outcomes put in place during the 'Principal Stage.'

Law (2014) also noted that the improvements made during the 'Fine-tuning Stage' were attempts to ensure that students are prepared to compete globally. The first improvement involved the generation of a set of aims to widen the purpose of schooling so that students work to "improve [their] core competencies for life-long learning, such as getting and using information independently, learning to learn, critical thinking, problem-solving, improvisation and creativity, digital competence and linguistic proficiency" (Law, 2014, p. 345). The emphasis here on competencies suggests that China is also moving towards a 'C21 curriculum'.

The national government made particular changes to provide support for the attainment of the outlined competencies. The importance of learning English, Japanese or Russian is emphasized. There is also a stress on developing a student-centric curriculum in the classroom through promoting a constructivist style of learning. In addition, the Chinese Ministry of Education has called for the use of assessment approaches to track students' development, rather than simply measuring their content knowledge. This has led to the granting of increased authority and legitimacy to local governments and schools to implement curriculum change (Law, 2014).

The implementation of the Chinese curriculum policy has been controversial. Thousands of people protested in Hong Kong, a special Administrative Region of China, against the national curriculum and denounced it as being a form of "brainwashing" due to its focus on the Communist Party as being "progressive" and "united" (Lau, 2012, para. 6). Additionally, the Chinese government itself expressed concern that its students might lose their traditions and socialist identity. Thus, it has promoted several measures to address this. These in turn, have implications for a 'C21 curriculum', throwing up the problem of how to balance a curriculum that

adopts a global discourse with one aimed at retaining an emphasis on a national ideology.

The strongest criticism is aimed at a shift that is taking place in the direction of learner-centred pedagogy, something that is considered a major ideological change in relation to school curricula in China (Deng, 2011). Here, the culture of testing is deeply entrenched historically and is deemed to be the most effective tool for assessing learning. Relatedly, some Chinese academics have argued that constructivism is not convincing as an approach to promoting effective learning methods (Law, 2014). Further, according to Yin, Lee and Wang (2014) as well as Tan (2016), changing from summative forms of assessment to formative ones would be difficult as the summative examination culture in China is deep-rooted. They also argue that many parents and students equate the reputation of a school and the calibre of its teachers with the results achieved in public examinations. As a result, teachers continue to resort to drill-and-practice tests to try to improve their students' results. These tests, according to Schoen and Fusarelli (2008), do not facilitate the pursuit in the classroom of the true spirit of twenty-first century learning.

Singapore

In 1997, the views of the then Prime Minister of Singapore, Goh Chok Tong, led to the introduction of a *Thinking Schools, Learning Nation* (TSLN) policy. In drawing up this policy, the motivation of the national government was to keep up with the demands of a knowledge-based society (Gopinathan & Mardiana, 2013). It was also seen to be the first really major government response to globalization within the education system (Gopinathan & Mardiana, 2013). Further, it heralded a number of reforms in Singapore's education landscape, including that of greater autonomy than previously being granted to schools with an increased adoption of information technology.

Since the advent of national independence in 1959, the People's Action Party has ruled in Singapore. According to Gopinathan (2009), this political party has always linked Singapore's education system to the potential benefits that can be yielded for the economy. On this, he noted that as Singapore is a small nation state with no natural resources, human resources are seen to be key in the development of the economy. Equally, to foster efficiency in the distribution of resources for finance, staffing, curriculum and assessment, the government has, for some time, adopted a centralized approach towards education planning (Leung, 2004). Accordingly, while there is greater autonomy than previously for schools there in the twenty-first century, the government still exerts a great deal of power in education to ensure that it is aligned to social and political goals (Hung, Lee, & Wu, 2015).

Gopinathan (2009) has argued that Singapore's education landscape has gone through three main phases: the development phase (1950s to mid-1960s), the efficiency phase (late 1960s to early 1980s), and the ability phase (late 1980s onwards). The latter was a response to the 1987 economic recession due to strong competition

from low wage economies like that of China. This forced Singapore to promote knowledge-intensive industries to drive its economy. As a result, the government displayed an urgency in introducing a flexible education system that capitalised on such diverse abilities and talents as innovation and problem solving deemed essential for the population to thrive in the twenty-first century (Gopinathan & Mardiana, 2013).

In 2004, the then Prime Minister of Singapore, Lee Hsien Loong, called for teachers to teach less and for students to learn more in the classroom. This resulted in the *Teach Less Learn More* (TLLM) policy, which was viewed as being an extension of the TLLN vision. The primary goal of TLLM is to embrace students' diverse learning inclinations (MOE, 2012). According to Ng (2013), the Ministry of Education made key changes so that the spirit of TLLM could be embraced. First, there was encouragement to adopt a social constructivist style of learning, the notion being that knowledge should be constructed rather than memorized. Secondly, learning was promoted as being self-directed rather than teacher-led, and assessment was to be both formative and self-administered, rather than just being summative. Thirdly, teachers were encouraged to facilitate learning to help students attain such higher-order skills as creative thinking and critical thinking. Taken together, these three developments were seen as forging further moves towards a twenty-first century education.

According to a website of the Ministry of Education in Singapore (2018), the national curriculum is underpinned by such C21 skills such as civic literacy, global awareness and cross-cultural competencies; critical and inventive thinking; and communication, collaboration and information skills. Further, such social and emotional skills as self-awareness, self-management, social awareness, relationship management and responsible decision-making are seen to reflect important values that will have an impact on efforts aimed at helping one to achieve C21 skills. The aim is that these skills and associated values will lead to the development of confident persons, self-directed learners, active contributors and concerned citizens.

Back in 1997, another notable development took place with the introduction of what was termed 'national education'. This was one of the government's initiatives taken to foster a sense of national identity in a globalizing world and to try to ensure the "continued success and well-being of Singapore in the 21st century" (Singapore Ministry of Education, 1997, "Purpose of National Education", para. 5). The importance attached to this is indicated by the fact that it is still a goal of the national education system.

Critics view the introduction of 'national education' as problematic. According to Koh (2010), even though 'national education' is part of a 'C21 curriculum', it is rigid and contrived in its construction, which is aimed at seeking to establish a sense of citizenship. He also noted that many Singaporeans consider 'national education' to be "jingoistic propaganda of the government" (Koh, 2010, p. 162).

While Singapore has performed well in such international league tables as the Trends In International Mathematics and Science Study (TIMMS) and in the OECD's Programme for International Student Assessment (PISA) tests, and while it has been relatively successful in its innovation strategies, academics have raised

several issues regarding the nature of the education system. According to Deng, Gopinathan, and Lee (2013), there is a gap between the 'Thinking School Learning Nation' vision and the curriculum enacted in the classrooms. They noted also that the national Ministry of Education still mandates standardized testing. This includes doing TIMMS and PISA tests, while students also sit for the traditional 'General Certificate Examinations' at 'ordinary' and 'advanced levels'. Success in the latter provides proof of eligibility and achievement for students seeking to enter tertiary institutions. In addition, competition among schools and teachers is reinforced by ranking them in performance tables. Ultimately, successful academic results are still seen as being the end goal in Singapore (Deng & Gopinathan, 2016; Ng, 2013; Tan, 2010). These can then act as constraining factors on developing C21 skills.

Developments Towards a 'C21 Curriculum' in Australia

There are six states and two territories in Australia. The national or Federal government has responsibility for defense and the economy, but state and territory governments constitutionally have responsibility for education policies in their respective jurisdictions. During the 1980s and 1990s, however, there was an increase in the centralization of power over education policies by the Federal Government (Cranston, Kimber, Mulford, Reid, & Keating, 2010; McInerny, 2003). It used financial levers to achieve this.

The Hawke-Keating Labor Government (1983–1996) period in particular saw the commencement of greater Federal control than previously, specifically over curriculum in order to try to streamline policies towards developing the economy (Cranston et al., 2010). The subsequent Howard Coalition Government, which had a conservative orientation (1996–2007), then solidified the Federal Government's strong hold on education. The Rudd/Gillard Labor Government that followed, with its social democratic orientation, further accelerated the process when it called for standards and accountability to be raised. Concurrently, there was a push aimed at developing a national curriculum (Cranston et al., 2010).

There are two types of schools in Australia, namely, government schools and non-government or private schools (Australian Bureau of Statistics (ABS), 2020). Non-government schools comprise Catholic schools (largely governed by Catholic education offices) and independent schools (that include Protestant, Islamic, non-denominational schools and non-affiliated Catholic schools). Overall, the proportion of students in private schools has grown steadily, with about 33% of Australia's school students currently attending them (ABS, 2020).

Funding for schools from the Australian Federal government, as opposed to from the states and territories, is guided by the *Australian Education Act 2013* (Department of Education, Skills & Employment, 2020a). Currently, government schools receive funding from state and territory governments, with supplementary funding coming from the Australian Federal Government (Department of Education, Skills & Employment, 2020b). Non-government schools receive the bulk of their funding

directly from the Federal Government and receive supplementary funding from their respective state and territory governments (Department of Education, Skills & Employment, 2020b). Federal Government funding for non-government schools, first introduced in a bid to encourage choice and competition (Southwell & Perry, 2014), continues. Federal Government control has also continued to grow steadily, especially through moves to produce a national curriculum that aspires to be a 'C21 curriculum'.

In April 1999, the publication of the *Adelaide Declaration on National Goals for Schooling in the Twenty-First Century* was a catalyst for the emergence of a movement aimed at providing a twenty-first century education in Australia (ABS, 2001). The declaration identified those qualities, skills, knowledge and attitudes that students should possess on leaving school. It also served as a guide for schools and education bodies to guide them in producing learning outcomes for students (ABS, 2001). Concurrently, schools began to adopt an outcome-based education (OBE) approach to guide them in their efforts aimed at meeting the goals of schooling espoused by the Declaration (Alderson & Martin, 2007). However, the initiative became plagued with problems in a number of states and territories.

The *Melbourne Declaration of Educational Goals for Young Australians* (MDEYA) of 2008 was a development of the earlier Adelaide Declaration as it provided further guidance in the move towards a focus on C21 skills. It and the *Shape of the Australian Curriculum* are documents that informed the development of the new Australian Curriculum (ACARA, 2012). One goal of this curriculum was to promote "quality" and "equity" (ACARA, 2012, p. 5).

The new Australian Curriculum identifies itself as a 'C21 curriculum' that aims to equip young Australians with skills and knowledge deemed appropriate for them. According to the ACARA (2012), the "rationale for introducing an Australian Curriculum centres on improving the quality, equity and transparency of Australia's education system" where a quality education is one that "will contribute to the provision of a world-class education by setting out the knowledge, skills and understandings needed for life and work in the twenty-first century and by setting common high standards of achievement across the country" (ACARA, 2012, p. 5).

It is further argued that "the Australian Curriculum has a three-dimensional design -discipline-based learning areas, general capabilities as essential twenty-first century skills and contemporary cross-curriculum priorities" (ACARA, 2012, p. 14).

Learning areas in the new curriculum consist of the core subjects of English, mathematics, science, humanities and social sciences, together with the learning areas of the arts, technologies, languages, health and physical education, and work-studies (Australian Curriculum, n.d.). The seven general capabilities to be promoted are literacy, numeracy, ICT capability, critical and creative thinking, personal and social capability, ethical understanding, and intercultural understanding (Australian Curriculum, n.d.). Additionally, there is a promotion of three cross-curricular priorities. These relate to Aboriginal and Torres Strait Islander histories and cultures, Australia's engagement with Asia, and sustainability in the world. There is also an emphasis on teachers having a "clear and shared understanding of what young people should be taught and the quality of learning expected of them, regardless of their

circumstances" (Department of Education, Skills & Employment, 2020a, "Australian Curriculum", para. 1).

At the time of the introduction of the new curriculum, the expectation was that by 2015 it would be up and running in all schools across the nation. The associated intention was that the schools' authorities would ensure that teachers would teach the same knowledge and skills. Related to this was the intention that there would be assessment of all in relation to national standards.

The Australian (Federal) Department of Education (2015) stated that schools' authorities were to use a three-phase approach when introducing the new curriculum. The expectation was that phase one would commence in 2009 and phase two and three would commence between 2011 and 2013. At the same time, the various states and territories, due to the influence of such factors as readiness and the availability, or otherwise, of resources, drew up different timetables for implementation.

Since the publication of the *Melbourne Declaration*, there have been two major education reviews within Australia. The Gonski Review (2011) initiated by David Gonski, who worked in the business sector, was an attempt to tackle issues of funding to promote quality and equity within Australian education. Three main factors drove associated activity: a deteriorating performance amongst the nation's school students in international testing of student achievement, a Government-declared need for Australia to be competitive in the world, and Government commitment to trying to ensure that curricula promoted equity (Kenway, 2013).

Responding to the report of the review committee, the Labor Government (2007–2012), through the administration of Prime Minister Gillard, increased the financing of schooling by AU$14.5 billion over 6 years. Public schools received the bulk of the funding (Australian Broadcasting Corporation, 2013). This was applauded by many, including the OECD, on the grounds that it was a concerted effort to improve education outcomes for students (OECD, 2015). In May 2018, however, the Turnbull Coalition Government proposed a change to the funding agreement that would result in a decrease.

Another education policy development took place in late 2014, when a new Federal Coalition government commissioned a review of the Australian Curriculum by a business academic, Ken Wiltshire, and an education researcher, Kevin Donnelly. They outlined their recommendations in what came to be termed the *Donnelly-Wiltshire Review* (Donnelly & Wiltshire, 2014). They used education indicators in relation to several countries, including New Zealand, Finland and Singapore, as benchmarks for analyzing the situation in Australia. One conclusion they reached from their analysis was that a major problem existed with the new Australian Curriculum because it was "overcrowded" (Donnelly & Wiltshire, 2014, p. 2). They proposed several solutions and called for greater parental engagement in their children's schooling, a rebalancing of the curriculum, a review of the governance of the Australian Curriculum, Assessment and Reporting Authority (ACARA), an improved system of assessment, and a high standard of teacher professionalism (School Curriculum and Standards Authority (SCSA), 2014).

Each of the two authors of the *Donnelly-Wiltshire Review* (2014, p. 2) proposed his own strategies to address the matter of the "overcrowded curriculum". Wiltshire, on the one hand, suggested that only the two components of literacy and numeracy should be the focus of schooling from the Foundation Year to Years 1 and 2, with other subjects being added in Year 3 and then again in Year 7. Donnelly, on the other hand, suggested that English, mathematics, science and history should be compulsory subjects from the Foundation Year to Year 10, with all other subjects being electives.

Both authors of the review recommended the removal of media arts from the prescribed content for the compulsory arts subject, and also the removal of four out of the seven general capabilities areas prescribed. They also proposed that teachers should avoid using a cross-curricular approach when teaching Indigenous, Asian and sustainability perspectives. In addition, they recommended that teachers emphasize teaching about Western civilization and related Judeo-Christian moral and spiritual values more than had previously been the case.

Various academics in Australia lambasted the above recommendations in *The Conversation* (an online platform for informed debate) as they believed the Donnelly-Wiltshire revisions ran the risk of compromising the Australian Curriculum as a 'C21 curriculum'. Regarding the proposal to remove media arts as a compulsory area of study, Goldsmith (2014, para. 5) condemned this as being "wrongheaded" and "ignorant". He added that undermining the importance of media arts in the curriculum had "the potential to detrimentally affect young people's prospects of prospering in the 21st century digital economy" (Goldsmith, 2014, "Digital literacy for our times," para. 5). Furthermore, Maude (2014) argued that to reduce curriculum content across the curriculum and thus reduce students' access to knowledge, would be to move in a different direction to that which high-performing school systems internationally were taking.

With regard to the proposal to remove the general capabilities section of the national curriculum, Maude (2014) noted that there was confusion about the difference between content and skills, with the *Donnelly-Wiltshire Review* (2014) seeing general capabilities as being additional to the content of the subjects taught, rather than being skills to be integrated within content areas. On this, Adoniou (2014, para. 11) argued that general capabilities and cross curriculum priorities can add depth to lessons if based on "integrated and interdisciplinary" planning. She also held that removing this depth from the prescribed content could compromise the outcomes of education and the "kinds of dispositions and attributes" that employers seek in their employees (Adoniou, 2014, para. 4). In addition, Roffey (2014, para. 13) questioned the proposal to have a narrow focus on literacy and numeracy on the grounds that it could compromise "the future of Australia". Likewise, Paterson (2014, para. 3) argued that a removal of the moral aspects of the curriculum would contradict the tenet of the *Melbourne Declaration* proposing that young Australians should act with moral and ethical integrity.

One can add to the criticisms outlined above. For one thing, the *Donnelly-Wiltshire Review* referred cynically to C21 skills as "so-called C21 skills and capabilities" and recommended that "education should not be utilitarian as the future is

impossible to predict" (Donnelly & Wiltshire, 2014, p. 28). The tone of these words contradict those of the MDEYA, which professed to support twenty-first century learning. Further, Wiltshire and Donnelly seemed to imply that one should adopt a certain skepticism and uncertainty towards the validity of the notion of a 'C21 curriculum'.

Western Australia (WA)

Global trends and some context-specific variations have affected curriculum policies in Western Australia (WA). Aligning with a technical-instrumentalist view of education that prioritises preparing students with skills to handle performance outputs, the State education department introduced outcomes-based education (OBE) for government schools in 1998 to try to ensure that students would acquire generic and transferable skills (Andrich, 2002). First introduced by William Spady in the USA, OBE requires that one outline specific outcomes and adopt a norm-referenced approach to assessment (Donnelly, 2007). Regarding this, two documents – *The Curriculum Framework* and the *Student Outcome Framework* – were published to help WA educators assess the learning outcomes of their students (Leggett & White, 2011).

There was much opposition to OBE both in WA and across the nation. The Federal government was dissatisfied with the associated assessment and reporting aspects, indicating it preferred a traditional numerical-based model (Griffiths, Vidovich, & Chapman, 2008). Teachers also declared that the new OBE assessment overwhelmed them (Power & Berlach, 2008) and made them disgruntled. One result was the setting up of an anti-OBE website called PLATO (People Lobbying Against The Outcomes) and the use of the media for the expression of resentment (Leggett & White, 2011). University professors also questioned the viability of OBE as a practical curriculum design tool (Cole, 2005). The WA Curriculum Council became embroiled in associated controversy and was the subject of scathing remarks made in the media and by stakeholders in education. Eventually, the Federal government threatened to remove Federal school funding from the State if the education authorities there continued to follow an OBE approach to curriculum (Hiatt, 2005).

Following media pressure and growing resentment, the WA State government formulated a *Parliamentary Inquiry into Changes to the Post-Compulsory Curriculum in WA* to address the shortcomings of OBE (Millett & Tapper, 2009). The ensuing report supported the establishment of OBE, but recommended implementation in 2008 as opposed to 2007 (Millett & Tapper, 2009). Overall, the report also failed to offer substantial support to validate OBE as informing a credible education policy. Instead, it undermined the Curriculum Council as a legitimate curriculum authority (Berlach & McNaught, 2007). Eventually, blame for the failure to introduce OBE in Years 11 and 12 and for the numerous errors in the Year 12

examinations was placed on the Curriculum Council of WA. This resulted in the dissolution of the Curriculum Council of WA.

There are several lessons to learn for the enactment of 'C21 curriculum' in WA schools and beyond from the failure of OBE in WA (Griffiths et al., 2008). First, while the legal responsibility for education lay (as it still does) in the hands of the State governments in Australia, the Federal government had a lot of power in shaping education policies on a State level by using financial policy levers. However, according to Marsh (2011), the WA authorities seemed reluctant to relinquish control to the Federal government for fear of jeopardizing State level decision-making. This, it seems likely, had a negative effect on the implementation of education policies, including those to do with the curriculum. Secondly, the fact that the wider community, including the media, plays a large role in forming perceptions about education policies, was seen in the events related to OBE in WA. Thirdly, it became clear that teachers' perspectives can play a major role in determining the success of OBE (Griffiths et al., 2008; Leggett & White, 2011; Marsh, 2011).

According to Leggett and White (2011), issues of curriculum content such as clarity and the selection of subjects to be included in the OBE-based curriculum, constituted a major area of concern. Another was assessment; an OBE approach requires a paradigm shift, since it deviates from a numerical form of assessment, using competency-based testing instead. This requires, they stated, that teachers have to be clear, confident and trained appropriately in a new discourse (Leggett & White, 2011). They also noted that teachers have become a powerful pressure group in education. The significance of this, they argued, is that if the concerns of teachers over possible classroom implications had been addressed at an early stage in the formulation of the OBE curriculum framework, OBE could potentially have enjoyed a more stable and secure introduction than had been the case.

In WA, in 2012, the government established the School Curriculum and Standards Authority (SCSA) to replace the disbanded Curriculum Council of WA. The newly formed SCSA is primarily responsible for the enactment of the Australian National Curriculum in WA as it sets the State's standards and assessment approaches in relation to students desired outcomes (SCSA, 2014). While the competencies that students are required to acquire in the State's enactment of the Australian Curriculum are very similar to those that relate to the C21 skills outlined by ATC21S, such skills as problem-solving, decision-making, communication, collaboration and citizenship are not seen as existing in separate domains. Rather, the expectation is that teachers should teach them in an integrated manner as part of teaching literacy and intercultural understanding.

Further, while SCSA follows closely the standards for quality and equity as espoused nationally by the MDEYA and the new Australian Curriculum, it voiced concerns when following closely the Australian Curriculum. On this, and in light of the Western Australian Response of the Australian Curriculum (2014), it submitted a jurisdictional response on behalf of SCSA, the Department of Education of Western Australia (DoE), the Catholic Education Office of Western Australia (CEOWA) and the Association of Independent Schools of Western Australia (AISWA). This response announced that WA was taking an 'adopt and adapt'

approach to the Australian Curriculum because it argued that not all aspects of it were suitable for the State's contexts. It indicated also that Phase One of the Australian Curriculum had been implemented for those students enrolled from pre-primary to Year 10 levels, while Phase One of the Year 11 and 12 curriculum had been 'adapted'. In addition, it was pointed out that in 2014 WA was not ready to implement the second and third stages of the Australian Curriculum because too much curriculum content had been prescribed for the humanities and social sciences, the arts, technologies, and to health and physical education was overcrowded (SCSA, 2014).

It was indicated also that there would not be an adoption of the achievements' standards outlined by ACARA because, it was held, they lacked an "empirical evidence base" (SCSA, 2014, p. 5). Furthermore, the general capabilities and cross-curriculum priorities (deemed to be key features of a 'C21 curriculum') were not seen to be applicable for the Year 11 and 12 students following the WA curriculum. Instead, it was argued that general capabilities should be assessed only in "specific content-based contexts" and that "caution should be exercised to ensure that the general capabilities do not become a de facto curriculum at the expense of specific content knowledge" (SCSA, 2014, p. 6).

Returning at this point to the national *Donnelly-Wiltshire Review* (2014); when it was published in October 2014 and was offered as a means to help to refine the Australian Curriculum, it was highlighted that many stakeholders in education in WA welcomed its recommendations (Hiatt, 2014). The WA Education Minister maintained that the authors had "vindicated WA's decision to take its time adopting and adapting the national curriculum" (Hiatt, 2014, para. 11). The executive directors of CEOWA and AISWA were also pleased about a proposal to take steps to make the curriculum for primary schools more manageable (Hiatt, 2014). Further, while the President of the National History Teachers' Association (WA) was concerned about the extent of the emphasis on a Judeo-Christian heritage in the teaching of history, many applauded the push for a more inclusive education for children with disabilities (Hiatt, 2014).

Overall, then, a common premise among the Federal and State governments in Australia has been that a national curriculum should be future-oriented to prepare students for a global economy. Nevertheless, there is still uncertainty over which curriculum model best suits the Australian and WA contexts for the twenty-first century. Constant revisions to both the national curriculum and the particular WA curriculum also reflect the economic, political and social pressures that Australia faces in curriculum policy-making in general and 'C21 curriculum' in particular.

Conclusion

This chapter has provided an overview of the global movement towards a 'C21 curriculum', and particularly the role played by the OECD and such private organisations as Microsoft in steering it. The implications of their positions in urging for

'C21 curriculum' policy were briefly analyzed. Policy flows relating to 'C21 curriculum' policy between particular countries were also considered, including the fact that what eventuates can be complex and contested. Specifically in relation to Australia, we considered the development of a 'C21 curriculum' policy in relation to the national and the WA State levels. Relatedly, we addressed several education policy challenges for the Australian contexts, including in relation to a 'C21 curriculum'. The next chapter, Chap. 3, now provides an exposition on the central concepts underpinning 'C21 curriculum' policy internationally.

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Chapter 3
Overview of Related Literature

Abstract By way of providing further background to this study on twenty-first century ('C21') curriculum policies and practices in Australia, within the broad context of globalization, this chapter provides an exposition on the key concepts of globalization, policy, and curriculum. Additionally, it addresses the specific notion of a 'C21 curriculum'. The first section outlines the principles underpinning globalization and how processes of globalization have influenced the education landscape. The second section details how globalization has influenced education policy-making within nation-states. The third section examines the concept of curriculum and the factors that can influence curriculum planning, production and enactment. This is followed by a section that explores the central concepts underpinning the complex and contested notion of 'C21 curriculum' policy as well as possible tensions involved in enacting such a policy. Finally, issues related to the enactment of the Australian Curriculum are considered, as it purports to be a 'C21 curriculum'.

> *"Globalisation cannot be reversed because the technologies that made globalisation inevitable cannot be reinvented."* – Lee Kuan Yew (the former Prime Minister of Singapore), 2009

Introduction

By way of providing further background to this study on twenty-first century ('C21') curriculum policies and practices in Australia, within the broad context of globalization, this chapter provides an exposition on the key concepts of globalization, policy, and curriculum. Additionally, it addresses the specific notion of a 'C21 curriculum'. The first section outlines the principles underpinning globalization and how processes of globalization have influenced the education landscape. The second section details how globalization has influenced education policy-making within nation-states. The third section examines the concept of curriculum and the factors that can influence curriculum planning, production and enactment. This is followed by a section that explores the central concepts underpinning the complex and contested notion of 'C21 curriculum' policy as well as possible tensions

Z. Kunhi et al., *Twenty-first Century Curriculum Policy*,
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involved in enacting such a policy. Finally, issues related to the enactment of the Australian Curriculum are considered, as it purports to be a 'C21 curriculum'.

Globalization

Dean and Ritzer (2012, p. 1) defined globalization as "growing multidirectional flows of people, objects, places, and information as well as the structures they encounter and create that are barriers to, or expedite, those flows". This definition posits both that enhanced 'flow' is the basis of globalization and that it can be achieved in different ways. On this also, Bottery (2006) explicated the different types of globalization as 'cultural', 'environmental', 'political', 'demographic', 'American' and 'economic.' Relatedly, Appadurai (1990, 2013) identified a series of movements that can establish new identities in the twenty-first century: 'ethnoscapes' (movement of groups of people such as immigrants, refugees); 'mediascapes' (movement of information by different media platforms); 'technoscapes' (movement of technology in different spheres); 'finanscapes' (movement of capital); and 'ideoscapes' (movement of government's ideology and its counter movement).

According to Milliot and Tournois (2010), it is also important to differentiate between the various types of markets (products and capital) and actors (regulators and operators) involved in globalization. As they see it, globalization involves the interdependence of regulators (states, regional blocs and transnational organisations) and operators (multi-national companies and pressure groups). Further, Powell and Steel (2011, p. 74) highlight the importance of transnational actors in globalization by defining it as a process where "nation states are influenced (and sometimes undermined) by transnational actors". This influence, it is held, is largely due to the role of such transnational organizations as the International Monetary Fund (IMF) and the World Bank (Appadurai, 2013; Apple, 2006; Bottery, 2006; Klees, 2020) in steering the capital market in the global arena. The Organization for Economic Cooperation and Development (OECD) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) have also been identified as having a significant influence on globalization processes (Arbuthnot, 2017; Rizvi & Lingard, 2010).

The role of such transnational actors in capital and finance has led to academics claiming that economic globalization (Bottery, 2006) and finanscapes (Appadurai, 1990, 2013) play a dominant role around the world. Underpinning globalization is a neo-liberal ideology that emerged under the rule of Margaret Thatcher in the UK and under Ronald Reagan in the USA in the 1980s. Further, many scholars argue that it still prevails across much of the world. According to the World Health Organization (2015), a neo-liberal ideology entails little interference by the state in directing the flow of ideas and resources in the face of globalization due to a belief that the free market maximizes resources. Many countries deemed this ideology to be a successful response to the challenge of collectivization, which was a dominant

ideology that emerged while communist rule pertained in certain countries that had restricted freedom in the economic realm. Neo-liberalism's emphasis on individual freedom and its non-imperialistic nature also made it attractive in many societies because of its link to the economy and to ideals of free trade rather than to the state and to ideas of totalitarianism (Canestrari & Marlowe, 2019; Pesqueux, 2008).

Many academics also consider the principles of individual responsibility, competition, excellence, efficiency, standardization and privatization to be neo-liberal values (Benze & Carter, 2011; Starr, 2019). These are important concepts of economic rationality that are deemed core to market order, with the argument being that they provide everybody with an opportunity to succeed and at the same time eliminate inefficiency (Hayek 1994, as cited in Turner, 2008; Slater, 2020). The perceived associated productive economic system has led such financial institutions as the World Bank and the International Monetary Fund to champion the use of economic rationality to assist in eliminating global, social, economic and political problems (Klees, 2020; Pick & Taylor, 2009).

Davies and Bansel (2007) suggested that three forces have resulted in the move towards neo-liberalism, namely, an emphasis on consumerist behaviour as a means of self-advancement, national pride linked to economic and cultural survival, and the inevitability of following global movements. Nevertheless, neo-liberalism in the twenty-first century faces many paradoxes (Milliot & Tournois, 2010; Tett & Hamilton, 2019; Turner, 2008). On this, Mudge (2008) identified three faces of neo-liberalism that characterize many societies today: the intellectual, the bureaucratic and the political. The intellectual face, he stated, stems from the Anglo-Saxon influence that originated from the Cold War (1985–1991) gulf and that hails the market as the ultimate origin of human liberty. Secondly, he stated, the bureaucratic face focuses on the power of the state to exercise elements of privatization and deregulation in economic management. Finally, he argued, the political face involves conflicts in carrying out rational, market-centric decisions and in preserving the state's authority in decision-making.

While some academics acknowledge that the involvement of the state is necessary to establish conditions for market order, others claim that its role should not go beyond that of enforcing rules and laws (Starr, 2019; Turner, 2008). This suggests that there is an ideological schism between neo-liberalism and the role of state. Another paradox relates to the role of supra-national organisations. According to authors such as Turner (2008) as well as, more recently, Tett and Hamilton (2019), while these supra-national organisations play a pivotal role in championing neo-liberal ideas, they also promulgate top-down policy measures in countries that seek their help. The World Bank, for example, has provided financial aid to governments in developing countries based on their willingness to follow advice on education reforms (Small, 2011). Arguably, the imposition of the authority of institutions like this in such circumstances has resulted in a contradiction between what these institutions stand for as opposed to what they really do. Hence, one should understand neo-liberalism to be a multi-faceted ideology rather than a single entity (Mudge, 2008).

Turning now to neo-liberalism in education, many academics have argued that education policies are increasingly becoming neo-liberal because of the rise of transnational organisations in championing a managerialist form of education (Lingard, 2010; Small, 2011; Wahlström, Alvunger, & Wermke, 2018). For example, the OECD started the Program for International Student Assessment (PISA) in 2000. This is a form of high-stakes testing adopted by many industrialized and non-industrialized countries and has resulted in PISA becoming a "globalized educational policy discourse" (Lingard, 2010, p. 131). In addition, many countries have in recent years turned to knowledge and education to drive 'a knowledge-based economy', which is seen to be vital to the development of the country. Consequently, there is a view of students as being 'human capital' and that schools should teach them to be economically productive (Apple, 2006, 2012; Hanushek, 2016). Equally, there is, within education, an increasing trend towards commodification, efficiency and standardization (Ball, 2008, 2012; Connell, 2013; de Saxe, Bucknovitz, & Mahoney-Mosedale, 2020; Karpov, 2013; Rizvi & Lingard, 2010; Williams, Gannon, & Sawyer, 2013).

Governments deem such ideological principles of neo-liberalism as freedom, excellence, choice and standards to be crucial to yielding numerous benefits not only to schools but also to the state, on the assumption that market order and not the state ensures that there will be an improvement in education (de Saxe et al., 2020). On this, they perceive that having national curricula is an effective way of seeking to standardize education in a nation. Relatedly, they argue for standardized testing to assess learning outcomes (Doherty, 2007; McNeil & Klein, 2011; Stein, 2016). Further, there is a belief that privatization of schooling can increase competition and thus choice for parents with particular education preferences (Levin, Cornelisz, & Hanisch-Cerda, 2013).

While many advocate a market ideology on the grounds that it promotes efficiency and accountability, others have highlighted what they consider to be its limitations (Apple, 2006; Ball, 2016; Connell, 2013; Lingard, 2010). A major area of contention is around the notion of equity. On this, it is pointed out that in the global arena the PISA testing carried out by the OECD has contributed to further dominance by member countries as they strive to demonstrate the competitive 'quality' of their educational outcomes, but at the same time 'equity' concerns are relatively silenced. Zajda (2013) describes the 'academic elitism' of strong performing countries. Further, Lingard (2013) has argued that the 'naming and shaming' of poorly performing schools can distract stakeholders from cogitating a central issue in education, namely, the relationship between poor performance and low social and economic status.

Some writers have also argued that other aspects of the market ideology, and particularly the privatization and commodification of education, could lead to elitism and class segregation across schools (Kenway & Fahey, 2014; Koh, 2014). Both Ball (2008) and Bourassa (2020) have pointed out that the ramification of having a neo-liberal approach to education contradicts the very nature of what education today should be about. The issue, as they express it, is that a knowledge-based society requires that there be equality of access to knowledge. Conversely, the existence

of social inequalities tends to exacerbate economic and social polarizations in knowledge-based societies (Morgan, Hoadley, & Barrett, 2018; UNESCO, 2005).

The perceived benefits and drawbacks of neo-liberal processes in education have not only contributed to a paradox in the outcomes of education, they have also brought into question the value of education as a public good (Muller & Young, 2019; Turner, 2008). Furthermore, an effect of the neo-liberal ideology that has accompanied globalization is that there has been a new alignment of education such that purposes associated with profit making are prioritized in decision-making (Exeley & Ball, 2014; Ford, 2020). Exeley and Ball (2014) have argued that this effect is prevalent in higher education due to an increase that has been taking place in corporate partnerships as well as in funding and donations made from the private sector. They have also predicted that a similar scenario could emerge within the compulsory education sector because of the rise of 'edu-businesses' due to the role of such companies as SERCO and Pearson. On this, Ball (2012) argued that the commodification of education has resulted in the emergence of complex relationships among multi-players in policy-making.

The interdependence of multi-players due to globalization has also resulted in the emergence of a paradoxical relationship between the state and the market (Ball, 2012; Jessop, 2010; Rata, 2018). This view fits with Appadurai's (1990, 2013) notion of 'ideascapes'. Steger (2005, p. 13) summed up what this involves by defining globalization as "a set of complex, sometimes contradictory, social processes that are changing our current social condition based on the modern system of independent nation-states." On the one hand, the market establishes conditions to allow neo-liberalism to thrive. On the other hand, it equally works in opposition by having a strong hold on education (Ball, 2012; Jessop, 2002; Morgan et al., 2018). Jessop (2002) identified the outsourcing of state services to private companies, the role of knowledge brokers in policy formulation and evaluation, and sponsorships to fund educational innovation as a form of 'destatisation', namely, a process where the private sphere is allowed to exert its influence in the public sphere. Indeed, Morgan et al. (2018) argued that although an immediate goal of schooling is to address educational inequalities, the knowledge learnt in school embodies the world perspectives of the middle and elite classes, thus further marginalizing the interests of the working and unemployed classes. This means that the state is not only steering education policy more tightly in a competitive global knowledge society, but it is also complicit in over-representing the interests of the powerful.

Notwithstanding the dominance of globalization, Robertson and Dale (2015) cautioned against looking at it as a hegemonic force that dominates education. This is because non-market forces also steer policies. They suggested that the diverse economic, political and cultural forces that work together within the education landscape ought to be considered. Ways in which this operates are detailed in later chapters of this book, with reporting on the study undertaken about curriculum policy for the twenty-first century.

Policy

According to Easton (1953), policy can be defined as "the authoritative allocation of values" (cited in Lingard, 2013, p. 116). Another definition refers to it as a text that involves the achievement of a set of objectives (Ozga, 2000). However, over time, policy has also come to be regarded as more than a text; it is also a process (Taylor & Singh, 2007). Further, even though policy has subsequently been defined in a variety of ways, the definition used throughout the remainder of this book is based on Ball's (1994, p. 15) seminal characterization of policy as "texts and action", policy as "discourse" and policy as "outcomes".

According to Olssen, Codd and O'Neill (2004, p. 60), policy is text because it highlights "particular information, ideas and intentions". Additionally, given that implementers need to interpret policies, Ball's (1994) point that many conditions are involved in the process of policy-making, ranging from creative thought to the maximizing of limited resources, is instructive. This suggests that contestation may arise from the initial stage at which policy as text is formulated or/and through the process where many interpretations may subsequently take place.

Policy involves dynamic power relations among the stakeholders in education when it comes to its production, translation and enactment (Heimans, 2012). On this, Yates and Grumet (2011) stated that education policies are linked to politics and to power relationships, while Ball, Junemann, and Santori (2017) have linked education policies to political rationality. Further, different types of power struggles can take place within education policies, especially over such important resources as funding and the language used to represent competing groups (Taylor & Singh, 2007). Additionally, the groups that manage to have access to these valued resources are likely to have their ideology expressed in policy, thus, making it a discourse (Simons, Olssen, & Peters, 2009).

Bernstein's theory (2000) of 'production', 'reproduction' and 'recontextualization' (as cited in Apple, 2007) relates to Ball's (1994) conceptualization of policy. He explained that during the production stage, ideas and knowledge are created and then formulated into a policy. Matters then move on to the reproduction stage with pedagogy and curriculum being enacted in schools. Eventually, 'recontextualization' – a situation where ideas and knowledge are selected and transformed according to individual ideologies and agendas – is reached (Apple, 2007). Additionally, as outcomes, reproduction and recontextualization can differ from the intended production stage and therefore can create a gap between policy planning and enactment (Levin, 2008; Vitale & Exley, 2016).

Policy processes are complex and globalization has contributed to this (Olssen et al., 2004; Taylor & Singh, 2007; Vidovich, 2013). The emergence of a knowledge-based society has resulted in the linking of policy to "knowledge-informed policy making" (Grek & Ozga, 2010, p. 273). The OECD has contributed significantly to this development by making international comparisons (e.g. through PISA testing) to identify trends in students' performances (Ball, 2008; Byrne & Prendergast, 2020; Sellar & Lingard, 2013). As a result, many countries have been involved in

active engagement not only with local data, but also with international data, to identify patterns and carry out analyses (Grek & Ozga, 2010) aimed at suggesting improvements.

Transnational advocacy groups, like the OECD, also contribute to the "global flow of policy ideas" (Ball, 2012, p. 10). Such large international organisations adopt managerialist ideas in their work and disseminate them by "developing local policy infrastructures, and embedding prevailing western policy discourses, directly or as 'spillovers' into the local policy systems" (Ball, 2012, p. 12). This form of 'policy entrepreneurship' that arises out of the adoption of management strategies has resulted in 'policy transfer' (Ball, 2012) and 'policy borrowing' (Steiner-Khamsi, 2016) across different jurisdictions. In particular, many countries are adopting ideas and strategies recommended by the OECD that can result in 'policy convergence' across the globe (Ball, 2012). For example, as indicated in the previous chapter, education reforms found in the UK, USA, Australia, China and Singapore share common goals and outcomes.

Policies can also be contradictory and contested (Ball, 2008; Vidovich, 2013). On this, Rizvi and Lingard (2010), amongst others, have argued that policy borrowing can perpetuate neo-liberal ideology within nation-states and that this can lead to equity issues that can arise from it. Relatedly, Vidovich (2013) has argued that policy borrowing creates a form of 'policy pandemic' that travels across continents to 'infect' countries with very different contexts and lead to maladapted policies in a scramble to enhance national competitiveness in the global arena. Lingard (2010), in similar vein, refers to this development as 'blind borrowing', as it ignores the context of the nation-state and its unique historical and cultural dimensions. To help to counteract the situation, Luke (2008), as well as Clapham and Vickers (2018), have highlighted the importance of recognizing the diversity of cultures, new economic contexts and such school related influences as teachers, students and classroom instructions when analyzing curriculum policies.

Another contested domain can be observed to exist around the rise of private companies (Au & Ferrare, 2015) or knowledge-brokers in education policies (Ball, 2010). Such knowledge-brokers as *Opening Minds* in the UK and Pearson in the USA, as well as Australia, are now being consulted by governments in search of 'policy knowledge' (Ball, 2012). As a result, the role of the state has become paradoxical as on the one hand, it assumes autonomy of policy-making on the part of authorities while, on the other hand it relinquishes power to these knowledge brokers for purposes of efficiency (Ball, 2010; Ball et al., 2017).

The role of transnational groups and new knowledge brokers, together with the rise of policy borrowing, has also resulted in certain cases where academics see globalization as a hegemonic and repressive agent of change in relation to education policies (Stromquist & Monkman, 2014). However, Rizvi and Lingard (2010) argued that policy change takes place within the forces of both homogenization and heterogenization. They hold that policy agendas are recontextualized as they pass through global, national and local spaces. This position underscores a view that policy-making is a multi-layered and multi-faceted process (Ball, 2009; Taylor & Singh, 2007; Vidovich, 2013).

To counteract the repercussions of looking at globalization as a homogenizing force, Rizvi and Lingard (2010) and Vidovich (2007) have advocated the importance of 'policy learning'. On this, they argue, nations should critically analyze the processes and effects of policy flows so that the awareness generated will help nations formulate an active and critical engagement with them. Further, since local actors tend to translate 'global' policies into localized contexts, unintended consequences can result (Ball, 1994; Vidovich, 2013). Hence, there is a need to trace policy processes between global to local levels in a bid to unravel the complexities of policy-making (Vidovich, 2013).

Curriculum

According to Breault and Marshall (2010), a traditional view of the curriculum refers to it as a course of study. However, since the turn of the twentieth century, there have been many other interpretations. In 1902, John Dewey (as cited in Breault & Marshall, 2010) for example, insisted that a child's experience should be included in the definition of curriculum. Today, however, curriculum also usually has many other dimensions.

According to Scott (2014, p. 15), a curriculum is

> ….always a selection from a range of cognitions, skills or dispositions that are available within a society; that is, these are being, or have been, manifested in human practices of a discursive, institutional, agential, or embodied kind. Choices also have to be made as to how a curriculum is constructed; that is, what relations are considered to be appropriate between the contents of the curriculum, its pedagogic forms, its learning strategies, and its evaluative criteria and apparatus.

In relation to this position, critical theorists emphasize that experiences have to be considered in their social contexts and also that power can have an impact on curriculum work (Smyth, 2010). Nevertheless, as Breault and Marshall (2010) conclude, having multiple and conflicting interpretations of curriculum can bring about meaningful discussion in the field of curriculum and that, in turn, could result in meaningful activities taking place.

According to Connelly and Connelly (2010), there are three kinds of curriculum policy: formal (on official document that specifies what has to be taught to students); instrumental (policies at different administrative levels that affect curriculum activities); and prudential (expert and practical knowledge used by school level actors). They also explained that these three types of curriculum policies can serve two main purposes, namely, steering practices and representing various political positions. In similar vein, Acedo and Hughes (2014) noted that a curriculum can contain four aspects of learning: the intended curriculum (what it is students should learn), the written curriculum (how these expectations are arranged), the taught curriculum (what is instructed in the classroom) and the hidden curriculum (subconscious). They also argued that for a curriculum to demonstrate cohesion and effectiveness, these aspects of learning must be in harmony with one another.

Schubert (2010) outlined various concepts that can affect the enactment of curriculum in the classroom. On this, he cited Schwab's (1983) four areas of interaction, namely, teachers, learners, subject matter, and milieu. He also cited Foshay's (1991) curriculum matrix, that lays out 25 variables in three domains as key conceptions that can assist in explaining the complexities of curricula. Within the matrix, the first domain is purpose (intellectual, emotional, social, physical, aesthetic, transcendent), the second domain is substance (subject areas such as English, mathematics, foreign languages), and the third domain is practice (evaluation, cost, governance, circumstances, when, how, why, what, who). These variables, it is held, can be helpful when seeking to unravel the complexities of the different types of curricula, including the 'intended curriculum', 'the taught curriculum', 'the experienced curriculum', 'the embodied curriculum', 'the tested curriculum', 'the hidden curriculum', 'the null curriculum' and 'the outside curriculum' (Schubert, 2010).

Different types of knowledge (Priestley & Sinnema, 2014; Scott, 2014; Winter, 2012; Young, 2014) can also have an impact on formal, instrumental and prudential curriculum policy practices. On this, Scott (2014) proposes that there are three different types of knowledge within curricula, namely, cognitions, skills, and dispositions. Relatedly, he refers to cognition as the 'knowledge of something', including the internalization of such resources as words, pictures and numbers, while skills refers to the 'how of doing something', and dispositions refer to the attitudes and values that one possesses in handling situations.

Specifically within cognition, there are different types of knowledge yet again. For instance, Scott (2014) mentions that within this domain, knowledge can be 'determinate' (a single truth), 'rational' (there is no competing explanations), 'impersonal' (more objective than subjective), 'verificationist' (human behaviour is explained through observation and experiments), and 'predictive' (knowledge claims are made based on controlled events). He further argued that since the meaning of knowledge is contested the nature of curriculum knowledge selected needs to be considered carefully because of its influence on the type of pedagogy to be used in the classroom.

Along with the outcomes achieved in the classroom, knowledge can also have an effect in the social world (Scott, 2014). Considering this, Elgstrom and Hellstenius (2011) argued that knowledge can be categorised as being perennialist, essentialist, progressive and reconstructivist. Perennialim focuses on knowledge being facts and being unchanged, and promotes a view that the role of teachers is to transmit it to students. Essentialism takes the relationship between knowledge and evidence into consideration, and sees teachers as being its primary transmitter. Progressivism argues for the importance of having a link between education and societal issues, on teaching students how to adapt to a changing society, and on teachers being facilitators of knowledge, and helping students to negotiate and understand it. Reconstructivism is similar to progressivism, while also being focused on a critical view of society and on transforming it. Further, Elgstrom and Hellstenius contended that their categorization is useful in helping to identify problems and tensions when teaching knowledge in a particular way.

Such heuristics are necessary at present given that knowledge has been a focal point of an intense debate among academics, leading some to claim that there is now a 'curriculum crisis' (Priestley & Sinnema, 2014; Wyse, Hayward, Livingston, & Higgins, 2014; Young, 2014). On this, Priestley and Sinnema (2014), together with Scott (2014), have argued that one major problem is that decisions on what knowledge to promote in the curriculum is often decided on narrow considerations and that conceptualization of learning and knowledge are often not taken into account.

Relatedly, Young (2014) claimed that power and politics, as opposed to epistemology of knowledge, regularly dictate the nature of the curriculum in many settings. He also commented that curriculum designers frequently frame curricula for economic goals rather than for emancipatory purposes. Thomson, Lingard, and Wrigley (2012, p. 2) equally have noted that many school reforms in the world are driven by a "determinist view of a knowledge society" and "dystopic visions of a borderless market". Hence, they say, schools place less emphasis on equity. 'Reconstructivist' knowledge, it can be inferred, is also missing as notions of equity and social justice are excluded. On this, Wyse et al. (2014) and Kelly, Andreasen, Kousholt, McNess, and Ydesen (2018) have lamented that politicians in England are prioritizing performance in global league tables as a basis for curriculum content and assessment, hence also prioritizing an 'essentialist' form of knowledge.

Yates and Collins (2010) have argued that in Australia there has been an emphasis on a combination of two types of curricula, namely, a curriculum that focuses on a utilitarian and progressivist child-centered approach ('progressivist'), and one that takes into account evidence yielded by benchmarking and global league tables ('essentialist'). Hence, they hold, not as much emphasis is placed on other forms of knowledge in curriculum discussion, including disciplinary/'perennial' and social justice/'reconstructivist' knowledge. Other academics have also maintained that additional essential elements are missing from various curricula (Mayes & Holdsworth, 2020; Subedi, 2013). Subedi (2013) has argued that, ironically, important facets of global knowledge are missing from many curricula today despite global discourses on its importance. Further, she has claimed that while schools highlight important global events, a narrow national curriculum with a lack of emphasis on global aspects of citizenship, and the limited experience teachers have in teaching global knowledge, have contributed to this vacuum in the curriculum. In addition, Mayes and Holdsworth (2020) have argued that current curriculum can be improved in terms of its ethical underpinning. They believe that students are currently not given enough support in recognizing pressing issues in the world that they are living in, nor given the opportunity to learn the required knowledge and skills for remodeling the world and overcoming current challenges.

Curriculum work involves multiple agents (Westbury, 2016). On the national level, curriculum planners have to deal with political, public and professional interests, while curriculum enactment at the local level involves school leaders, teachers and students, all with beliefs and understandings that they draw upon in interactions. Westbury (2016) maintained that as result of this situation groups with different agendas and competing views may end up clashing. This means that there is

often a desire that the various interest groups be brought together to negotiate in decision-making (Levin, 2008). Hence, the curriculum that eventuates may be the product of 'recontextualization' in a variety of ways.

It is important also to consider curriculum policies in relation to other education policies so that various agendas of schooling are met (Ball, 1994; Yates, 2012). One way of looking at schools in the light of this is as a conduit for knowledge and learning. Currently, however, authorities in various jurisdictions also place a lot of emphasis on competition in the twenty-first century (Dunn, 2018; Yates, 2012). Rizvi and Lingard (2010) detailed Bernstein's three message systems in the twenty-first century to highlight the symbiotic relationship that exists between curriculum, pedagogy and assessment. They also added a fourth dimension, namely, high-stakes testing, because of its role as a form of education accountability in contemporary times. This, of course, is not surprising given that the emphasis on such testing with its narrow focus can have a profound impact on curriculum and pedagogy (Karseth & Sivesind, 2011; Rodwell, 2019). Further, Yates (2012) claimed that all education systems face a conundrum in balancing the message systems noted above.

Curriculum is also a channel for global and national identity building (Green, 2019; Yates & Grumet, 2011). Relatedly, Yates and Grumet (2011, p. 13) have stated that the "relationship between nation and curriculum is reciprocal; nations construct curriculum and curriculum constructs nations." Equally, while curriculum policies might appear to be similar across the world due to globalization, there are 'vernacular' differences in the approaches taken to pedagogy and curriculum based on the unique characteristics of local contexts (Thomson et al., 2012). These characteristics include political, social and cultural challenges that can serve to differentiate countries from one another (Green, 2019). Hence, having an understanding of how curriculum policies are configured and reconfigured amidst local, national and global influences is important (Rizvi & Lingard, 2010; Vidovich, 2013; Yates & Grumet, 2011).

The Concept of a 'C21 Curriculum'

The construct of a 'C21 curriculum' is influenced both by the forces of globalization and by changing perceptions of policy and curriculum, as outlined in the previous three sections. Such a curriculum reflects a strong global discourse, the OECD having been the first to initiate it, in 2003 (Halasz & Michel, 2011). Other transnational organisations, including the World Bank and UNESCO, have also called for curricula in schools to be designed such that they meet the demands of the twenty-first century. In advocating along such lines, those promoting curriculum reforms in many parts of the world, including the UK, the USA, China and Singapore (as considered in Chap. 2) have been engaged in strong policy borrowing and convergence.

Similarly brokers, such as the Royal Society of Arts Opening Minds and P21, exhibit neo-liberal influences in their contribution of knowledge and expertise in the

implementation of a 'C21 curriculum' in England and the USA. Other knowledge-brokers, including such multi-national organisations as CISCO, Microsoft and Pearson, are also involved in developing 'C21 curricula', thus demonstrating the existence of a strong link between corporate interests and C21 skills. While this can lead to the development of valuable resources being made available for schools, especially when faced with reduced funds from government, the twenty-first century learner can also be seen, as Williams, Gannon, and Sawyer (2013) have put it, as an 'economic subject' and associated policies can be seen as a form of 'corporatization'. This, in turn, has implications for economic justice since expertise and funding from multi-national organisations are usually channeled into the Global North, with the Global South being marginalized.

Other education issues relating to neo-liberalism include the role of private enterprises in the development of a 'C21 curriculum'. On this, Takayama (2013) raised equity issues with regard to the teaching of competencies in Japanese schools. In a bid to reduce social inequalities, the Japanese government encouraged schools to form a partnership with different organisations in communities to develop students' sense of selfhood along with their motivation and positive attitudes. However, students who come from low socio-economic communities can experience associated compromised services from their local communities due to the lack of resources. The outcome is cases of economic injustice.

The commodification of knowledge can also play a part in the developments of a 'C21 curricula.' This is because students are often encouraged to acquire 'relevant' knowledge, skills, values, attitudes and ethics in order to be equipped for a global and technologically driven future. Certainly such an emphasis can serve to meet one of the functions of education. Moreover, it can lead to imbuing students with different types of knowledge, including specialized knowledge and everyday knowledge that can serve to enlighten (Young, 2013). However, linking knowledge with economic progress may also mean they end up viewing knowledge as a commodity (Karpov, 2013). On this, Karpov (2013, p. 87) argued that such a link can result in a stifling of "creative participation and deprives education of its generative power". It can also promote a view far removed from that of UNESCO (2005) that promotes knowledge as a common good. In elaborating on its position, UNESCO argued that seeing knowledge as 'codifiable', 'exchangeable' and 'saleable' in the information age has implications for local and indigenous knowledge due to its lack of marketability. This again is to highlight the importance of the need to consider cultural justice.

Policy borrowing across different jurisdictions, which is often associated with a'C21 curriculum', can also pose problems. For one thing, while intended 'C21 curricula' are becoming more similar across countries, enacted curricula are not necessarily internally consistent (Anderson-Levitt, 2008; Burdett & O'Donnell, 2016). Elliott (2014), amongst others, also argued that 'importing' teaching practices and 'exporting' learner-centred teaching to developing countries are usually ineffective and that this situation can be reflected in poor student outcomes on standardized tests. This observation is particularly noteworthy because of the challenges it

presents to the assumption that learner-centred pedagogy is an effective form of teaching and a panacea for achieving learning outcomes in a 'C21 curriculum'.

Winter (2012) has argued that curriculum problems can also emerge in contemporary times that can be due to the teaching of outdated knowledge and an underemphasis on skills required by students to function effectively as adults in the twenty-first century. Further, the international emphasis on promoting curricula built on the concept of 'competencies' (OECD, 2012; UNESCO, 2005) has resulted in a debate on the value of promoting subject knowledge versus skills (Apple, 2006; Winter, 2012; Young, 2013). Often it is the case that traditional disciplinary knowledge is deemed less relevant than it was previously as the knowledge economy is seen to require the development of a workforce well-equipped with skills and competencies that could help them deal with uncertainty (OECD, 2012; UNESCO, 2005). Yet, some academics have continued to champion the notion that students need to acquire disciplinary knowledge because of its "established tradition of thought and method" (Winter, 2012, p. 307). Thus, debates on a 'C21 curriculum' give rise, in turn, to ideological debates on the relative roles of knowledge and specific skills in the twenty-first century.

Debate of the type noted above led to education authorities in England giving schools choices in deciding if a subject-based curriculum or a skill-based one best meets the needs of their students (Harris & Burn, 2011; Harris & Reynolds, 2018). This means, for example, that schools that are not performing well in subject-based teaching might opt for a skill-based curriculum and remove certain subjects from its curriculum offering. In addition, some comprehensive schools and academies have removed history as a subject due to poor performance and they focus instead on a skills-based curriculum (Harris & Burn, 2011). However, there is not enough empirical evidence to date demonstrating that skills-based knowledge divorced from subject-based knowledge can bring about the level of critical thinking deemed necessary for one to make progress in a knowledge-based society (Winter, 2012). Winter also argues that there is a danger that there could be a narrowing of a curriculum resulting in a dichotomy between what is skills-based and what is subject-based. Arguably, this in turn could exacerbate the existence of equity issues across schools in different socio-economic contexts.

The selection of knowledge in a 'C21 curriculum' is also contentious when it comes to the role of technology. According to Voogt and Roblin (2012), various frameworks for the development of twenty-first century competencies, including those developed by the OECD, P21 and ATC21S, tend to be similar when it comes to the domains of communication, collaboration, ICT-related competencies and social/cultural awareness. However, they also pointed out one main difference, namely, that while the OECD considers that teachers should integrate ICT with the other twenty-first century competencies, P21 and ATC21S see it as a domain requiring separate attention. Additionally, academics such as Acedo and Hughes (2014) have stressed the importance of taking account of academic honesty, health and mindfulness, as well as service learning, into the curriculum as useful twenty-first century competencies. These, they argue, are valuable as they have the potential to

help students deal with the challenges of a technological and productivity driven society, as well as with inequities in the twenty-first century.

Academics have arrived at two main conclusions with regard to the selection of knowledge within a 'C21 curriculum' policy. First, as Halasz and Michel (2011) and Voogt and Roblin (2012) have argued, there are considerable differences between personnel and organisations when it comes to identifying notions of what exactly are C21 competencies and to applying them within different national contexts. Secondly, as Acedo and Hughes (2014) have highlighted, discussions and negotiations with different education stakeholders to define and articulate C21 skills that are relevant to the contemporary world are insufficient.

There are also debates pertaining to the extent of the use of technology in the classroom in 'C21 curricula'. On the one hand, proponents of a 'C21 curriculum' with a strong technological focus have argued that digital media in education can encourage the development of other C21 skills, including problem-solving, creative thinking and critical thinking (P21, n.d.; Henriksen, Mishra, & Fisser, 2016; Scott, 2015; Trilling & Fadel, 2012; Voogt, Erstad, Dede, & Mishra, 2013). Some academics also argue that, along with teaching C21 skills, teachers could use digital platforms to assess C21 skills (Trilling & Fadel, 2012; van Laar, van Deursen, van Dijk, & de Haan, 2017). In contrast, others are skeptical about the high priority given to technological skills within certain curricula. On this, Greenlaw (2015), holding that today's society is a 'totalitarian technocracy', argued that an overemphasis on using the interactive platform, as opposed to direct teaching, devalues the role of a teacher in helping students sift through information and knowledge meaningfully. He also argued that the emphasis in 'C21 curricula' on technology in teaching and learning is not a balanced one as it leads to a neglect of such important dimensions of learning as wisdom.

A framework entitled the Technological Pedagogical Content Knowledge Framework has emphasized what it sees as the importance of integrating technology, pedagogy and content. Adopting such an approach, it holds, is the best one for developing C21 skills among students (Goradia, 2018; Voogt et al., 2013). This view has brought further complexity to the debate about the extent to which technology should be part of 'C21 curricula' and contributes to contestation around the matter.

Academics have also highlighted pedagogical challenges in enacting a 'C21 curriculum'. On this, Saavedra and Opfer (2012) have claimed that C21 skills are not emphasized sufficiently in classrooms, partly because high-stakes testing gives priority to content knowledge over creativity and to proficiency in basic cognitive skills over problem-solving skills (Elliott, 2018; Schoen & Fusarelli, 2008). Furthermore, some argue that learning in the twenty-first century should be more personalised than generic (Scott, 2015). However, McPhail and Rata (2018) maintain that personalised learning runs the risk of devaluing actual learning which emphasises students' key learning competencies. In other words, they argue against a tendency to emphasise a 'one-size-fits-all' learning approach in the classroom (Acedo & Hughes, 2014).

Young (2013) and Mockler (2018) emphasize a long-accepted position, namely, that teachers should be central in the delivery of effective pedagogy, including in relation to a 'C21 curriculum'. In this regard, Kereluik, Mishra, Fahnoe, and Terry (2013) have stated that teacher preparation needs to take place in three areas in order to equip them for developing a 'C21 curriculum'. That is, preparation should involve equipping teachers with foundational knowledge (core content, digital literacy and cross discipline), strategies on activating that knowledge (creativity and innovation; problem solving and critical thinking and communication and collaboration) and values (life/job skills; ethical/emotional awareness and cultural competence).

According to Voogt et al., (2013), however, teachers are not adequately prepared to teach C21 skills in the classroom. UNESCO (2015) also has acknowledged that the provision of teacher support, training and education are some of the challenges involved in implementing a twenty-first century education in schools. Tensions on these matters show that several barriers can present themselves when it comes to the enactment of a 'C21 curriculum.' These pertain not only to curriculum, pedagogy and assessment, but also to teacher-related issues.

Academics have posed additional potential problems regarding the enactment of a 'C21 curriculum.' Rizvi and Lingard (2010) state that amongst their four dimensions of curriculum, the fourth one, 'high-stakes testing', can have a major negative influence on the nature of a 'C21 curriculum' and associated pedagogy. They identify high-stakes testing, exemplified by measurement of students' literacy and numeracy levels, as a form of accountability (Klenowski & Wyatt-Smith, 2012). The problem with this, they hold, is that it contrasts with the view that educationists should base a 'C21 curriculum' on a competency-based or standards-referenced model (Binkley et al., 2012; Halasz & Michel, 2011; OECD, 2005). This involves outlining education goals that are "structured to discover and support the unique abilities and learning styles of individuals, thereby facilitating the achievement of their potential" (Chehayl, 2010, pp. 132–133).

There is a view, then, that high-stakes and competency-based testing goals contradict each other. Moreover, some consider that the combination of knowledge, skills, attitudes, values and ethics (Binkley et al., 2012; Halasz & Michel, 2011) outlined in many descriptions of a 'C21 curriculum' are seen to support developmental learning, higher order thinking skills and improved transparency in assessment practices (Adie, 2014). At the same time, Acedo and Hughes (2014) have argued that current assessment practices are often not devoted to a developmental view of learning since their originators often do not take aspects of metacognition and mindfulness into consideration. Hence, assessment approaches can pose a significant challenge for a 'C21 curriculum' developer as there can be tensions between balancing accountability and aligning students' personalized learning experiences within a 'C21 curriculum' policy.

The Australian Curriculum – A 'C21 Curriculum'?

While the Australian Curriculum is purported to be a 'C21 curriculum' (see Chap. 2), tensions exist within it because of the influence of the dynamic forces of globalization and 'new localism'. The former in particular has contributed to the evolution of contestation in this domain. Instructive on this is consideration of the fact that while education policies in Australia are tied to standardization, marketization, privatization, and accountability (Rizvi & Lingard, 2010), the nation faces an increase in ethnic diversity, unsettled issues with Indigenous people, and a rising gap in the education outcomes between students of high and low socio-economic backgrounds (Luke, 2008, 2018). As a result, the national government is finding it challenging to balance a curriculum that meets the economic goals of the nation with one that embraces an equitable curriculum promoting relevant global citizenship skills.

The *Donnelly-Wiltshire Review* (2014) of the Australian Curriculum by the Coalition (Conservative) Government reflects the 'vernacular globalization' identified by Lingard (2000) as being a combination of homogenization and heterogenization of global trends. In other words, both convergences and divergences are evident in curriculum policy. Further, mediated curriculum policies are recontextualized due to the presence of localized forces.

Education federalism plays a major role in the shaping of the Australian Curriculum since policies are developed from a mediation between national goals of schooling and the nation's Federal Government structure (Lingard, 2000), with States having the predominant set of legal responsibilities for education. The fact that the national curriculum has been implemented at different times in different States across the nation and to varying degrees (Lingard & McGregor, 2014) reflects this situation. Lingard (2014) drew attention to this in indicating that the *Donnelly-Wiltshire Review* of 2014 highlighted the influence of education federalism since it acknowledged the role of the (national) Ministerial Council in using evidence-based findings to determine the extent to which the various authorities should implement it. Thus, he argued, it should not be surprising to find gaps between the intended national curriculum and the enacted national curriculum.

Due to the situation depicted above, then, policy-makers associated with the Australian Curriculum have to deal with competing interests. As is known from the experience in other constituencies, such situations can result in struggles over the interpretation and enactment of policies (Ball, 1994), a matter made stark by the debates on the *Donnelly-Wiltshire Review* (2014). These resulted because the original Australian Curriculum developed under the Labor Federal Government of 2007–2012 was criticized for its purported under-emphasis on Christian traditions (Bita, 2015). This view, promulgated by the Coalition (Conservative) Government that succeeded the Labor Government, resulted in the revisions of the Australian Curriculum through the *Donnelly-Wiltshire Review* that placed more emphasis on a Judeo-Christian civilization. The elements of a 'C21 curriculum' embedded in the Australian Curriculum are also not static. Curriculum authorities will continue to negotiate between those holding competing views. Equally, they will continue to change the curriculum.

The selection of what constitutes relevant knowledge to select for the Australian (National) Curriculum – as a 'C21 curriculum' – is another point of debate generated by the *Donnelly-Wiltshire Review* (2014). Its recommendation on removing four of the seven general capabilities deemed to be essential (critical and creative thinking; ethical understanding, intercultural understanding; and social and personal capacity) for all reflects the tension that arose in relation to identifying and interpreting what are deemed to be the 'ideal competencies' for the nation. Further, the recommendation that Australian students should focus more on aspects of Judeo-Western civilization and less on Indigenous and Asian history, has raised questions about the type of knowledge that is deemed important in the modern globalized and technologically-driven world (Lingard, 2014). Lingard (2014) has also argued that the *Donnelly-Wiltshire Review* adopts more of a 'liberal humanist' perspective towards education, than a 'utilitarian' one where education tends to be seen as a means to achieve economic goals.

There have also been other forms of debate on the selection of knowledge within the Australian Curriculum. The accusation has been made that it does not sufficiently emphasize notions of "equity, social justice and individual responsibility" in its focus on civic and social responsibility (Williams et al., 2013, p. 799). Reynolds, Macqueen, and Ferguson-Patrick (2020) claimed that these values were also missing from the teaching of active citizenship in schools. Debates over knowledge are also worth analyzing because they suggest that there is a lack of alignment between the four aspects of learning espoused by Acedo and Hughes (2014). On this, these authorities have further argued that if competencies for the future are not agreed upon, there may be negative consequences in relation to "assessment, pedagogy, curriculum content and institutional and cultural discourses" that may lead to the emergences of "systemic contradictions" (Acedo & Hughes, 2014, p. 505).

In addition to the tensions demonstrated regarding the intended curriculum and the written curriculum, tensions are also evident in relation to the 'taught' or 'enacted' curricula in Australia. On this, Acedo and Hughes (2014) as well as Lowe and Galstaun (2020) have argued that some educators have preconceived notions about C21 skills. In particular, Acedo and Hughes (2014) claimed that while some educators associate creative thinking more with the arts, others believe that it is associated primarily with mathematics and some humanities subjects. However, they asserted that it is important to develop students' creative and critical thinking in *all* subject areas in order to try to strengthen their C21 skills. In relation to the teaching of the Australian Curriculum, Lowe and Galstaun (2020) have claimed that teachers lack a 'pedagogic narrative' in some areas, such as the important cross-curricular priority relating to Aboriginal and Torres Strait Islanders. Furthermore, in a study of 12 schools in the State of Western Australia, which reported a positive development in the enactment of the Australian Curriculum, notwithstanding the existence of some differences between subject areas (Paynter & Bruce, 2014), professional support is necessary for staff to help them come to an understanding of global challenges linked to 'C21 curricula' (Paynter & Bruce, 2014). The results also lead the researchers to conclude that while teachers should be equipped with relevant knowledge to teach 'C21 curricula', currently the existence of a clear gap between the 'intended' curriculum and the 'enacted' curriculum is evident.

Conclusion

Education policies, including curriculum policies, are often complex and contested due to the many influences that shape them. On the one hand, in recent times globalization and accompanying neo-liberalism have resulted in the advent of an emphasis in many countries including Australia on policies of marketization, privatization, corporatization and enhanced accountability in education. On the other hand, policy makers are also often keen to ensure that they address issues to do with quality and equity.

Furthermore, there is frequently contestation in relation to curriculum policies in many national settings. Considering the ideological debate on knowledge and the curriculum in Australia and its effect on pedagogy, instruction and learning is revealing on this. The *Donnelly-Wiltshire Review* (2014), for example, revealed the pressure than can exist when creating a curriculum to prepare students for the global world while simultaneously trying to inculcate a sense of nationhood and personhood. It also argued that the Australian Curriculum under the Labor Government of 2007–2012 was devoid of a liberal-humanist perspective and it called for the placing of a greater emphasis on discipline learning. A full embracement of this critique, however, would be problematic. In particular, while a 'C21 curriculum' aims to equip students with multiple literacies, the removal of the general capabilities from the Australian Curriculum and the emphasis on a Judeo-Christian curriculum in accordance with the recommendations of the *Donnelly-Wiltshire Review* are not consistent with a vision of exposing students to the multicultural and complex twenty-first century world.

Finally, with "life worlds of teachers and students blurring the virtual and real" (Luke, 2008) within schools, the enactment of a 'C21 curriculum' policy can be accompanied by major challenges. In particular, assessment, pedagogical and teacher-related concerns are potential enablers and constrainers. It is also increasingly apparent that it is difficult to align the four facets of curriculum – the intended, written, taught/ enacted and hidden – within a 'C21 curriculum' policy. Cognizance of such concerns highlights the importance of tracing the influences, policy texts, practices (enactment) and outcomes of 'C21 curriculum' policy in Australia. To this end, Chap. 4 will now detail the theoretical and methodological frameworks that were used to structure the analysis presented in later chapters on the production and enactment of a 'C21 curriculum' policy at national, State and school levels in Australia, with potential thought-provoking consideration in other jurisdictions.

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Chapter 4
Theoretical and Methodological Considerations

Abstract This chapter details theoretical and methodological considerations that informed the conduct of the research reported in later chapters on '21st century (C21)' curriculum policies and practices in Australia, within the broad context of globalization. It commences by outlining specific theoretical underpinnings of the study. Vidovich's (Educ Rev 59(3): 285–298, 2007; Theory and method in higher education research (international perspectives on higher education research, volume 9). Emerald Insight, Bingley, 2013) policy analysis framework, which is a modification of Ball's (Discourse Stud Cult Polit Educ 13(2): 10–17, 1994) original concept of a 'policy trajectory', is detailed as it guides and structures the empirical research. An outline of the aims and research questions of the study follows. The fourth section of the chapter describes the data collection methods used in this qualitative study and the fifth section focuses on the methods employed for data analysis. Further sections contain: a discussion on the use of case study schools for engagement in research at the 'local' level of the policy trajectory; the positionality of the researchers; steps taken to try to ensure the trustworthiness of the research; and ethical considerations.

> *"To make sense of a world in which rapid change and globalization create genuine insecurity, we need benchmarks by which we can judge our actions and their long-term impact."*
>
> – David Blunkett (a former British Labour Party MP), 2009

Introduction

This chapter details theoretical and methodological considerations that informed the conduct of the research reported in later chapters on '21st century (C21)' curriculum policies and practices in Australia, within the broad context of globalization. It commences by outlining specific theoretical underpinnings of the study. Vidovich's (2007, 2013) policy analysis framework, which is a modification of Ball's (1994) original concept of a 'policy trajectory', is detailed as it guides and structures the empirical research. An outline of the aims and research questions of the study follows. The fourth section of the chapter describes the data collection methods used in this qualitative study and the

Z. Kunhi et al., *Twenty-first Century Curriculum Policy*,
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fifth section focuses on the methods employed for data analysis. Further sections contain: a discussion on the use of case study schools for engagement in research at the 'local' level of the policy trajectory; the positionality of the researchers; steps taken to try to ensure the trustworthiness of the research; and ethical considerations.

Theoretical Underpinnings of the Research

The researchers conceptualized the design of the study in relation to two research paradigms, namely, interpretivism and critical theory. These are consistent with the qualitative research approaches deemed appropriate for addressing the central research questions. The view taken of qualitative research is that it constitutes "a way of knowing in which a researcher gathers, organizes, and interprets information obtained from humans using his or her eyes as filters" (Lichtman, 2010, p. 5). Unlike quantitative research, which focuses on numbers and measurements, qualitative research focuses on "presenting or interpreting people's views, interactions or values" (Atkins & Wallace, 2016, p. 22). In other words, it involves the use of a naturalistic approach to data collection to assist understanding of a phenomenon from the point of view of participants in context-bound situations.

A set of epistemological, ontological and methodological considerations guide qualitative research approaches. On this, it is important to take account of views on what is acceptable knowledge of the social world, the nature of social entities, and how we gain knowledge. Academics address these considerations in different ways in relation to different research paradigms or ways of interpreting the world (Lichtman, 2010, 2016). Each of the research paradigms that informed the study reported here, namely, interpretivism and critical theory, are now considered in turn.

Interpretivism guided data collection throughout the research and also guided the first stage of data analysis. According to Bryman (2016, p. 27), the interpretivist paradigm refers to the following notion:

> Social reality has a meaning for human beings and therefore human action is meaningful – that is, it has a meaning for them and they act on the basis of the meanings that they attribute to their acts and to the acts of others.

In order to provide more clarity on this, it is helpful to consider that there are several differences between the positivist and interpretivist paradigms. First, according to Atkins and Wallace (2012), the positivist paradigm involves conducting an investigation using scientific measures with the assumption being that there is only one single reality, and that there can be a generalization of results to different cases and situations. In other words, in the positivist paradigm, a well-designed study using statistical measures can enable the researcher to produce knowledge deemed 'objective'.

For the researcher who embraces the interpretivist paradigm there are, by contrast, multiple realities to observe. This is because he or she seeks to carry out investigations by studying the perspectives of people and their interactions to uncover how they view the world. In other words, the main purpose of the interpretivist paradigm is to develop a contextual understanding of specific cases rather than trying to produce results generalizable to other settings (Atkins & Wallace, 2012, 2016).

The research reported in this book adopted an interpretivist paradigm in the first instance. There was an embracement of the epistemological perspective that understanding human action is subjective. Furthermore, we assumed the constructionist position. This is an ontological perspective, holding that "knowledge is constructed by mutual negotiation and it is specific to the situation being investigated" (O'Donoghue, 2018, p. 9). This was because the researchers themselves hold that there is more than one way of interpreting social interactions and that their role is to understand and clarify them.

At the same time, the researchers recognize that it would be unwise to have adopted our position without acknowledging that it has its critics. According to Bryman (2008, 2016), there are three main areas of contention regarding interpretivism. First, it has been said to be "impressionistic and subjective" (Bryman, 2008, p. 391) because it is reliant on the researcher's views. This leads to the second perceived problem, which relates to replication. True replication is not possible in interpretivist research as the researcher's primary observations and thought processes, upon which investigations are based, do not 'stand still'. The third issue relates to generalizability, which is not possible in the positivist sense because of the relatively small numbers of participants usually involved in qualitative research. The response of interpretivists, however, is that what needs to be considered are Lincoln and Guba's (2013, 2016) two main criteria for qualitative research, namely, trustworthiness and authenticity.

A critical theory approach informed the second stage of analysis during which a qualitative meta-analysis of the results along the whole policy trajectory from global to local (schools) levels was undertaken. This has its roots in Marxist ideology and is part of a modernist school of thought (Vidovich, 2013). According to Robertson and Dale (2015), there are two main purposes of critical theory. First, it offers an understanding of knowing and of knowledge. In this regard, it hinges on the assumption that while one can interpret reality by using particular sensory and mental abilities, in essence it is a social structure based on a certain classification. Critical theory unravels this classification to provide an in-depth understanding of the relationship between the knowing and knowledge.

Secondly, critical theory is concerned with 'critique' as a force of social change. On this, the World Science Report (2016) claimed that many of the issues found in today's globalized world have power and inequality dimensions. Relatedly, scholars have argued that the formation of policy can become embroiled in an ideological struggle between power and equality and that the "agendas, values and positionalities" underpinning these power relations need to be understood (Hyatt, 2013, p. 43). Critical theory is based on the assumption that these values are only worth embracing if notions of social justice are integrated within them (Robertson & Dale, 2015; Strunk & Betties, 2019). Accepting a critical perspective then, scholars hold, can help to unravel power imbalances and expose the limits of social justice. Thus, it can play an empowering role for people who are limited by these struggles (Creswell, 2007; Creswell & Poth, 2017).

Within the field of education, the critical theory paradigm can play a significant role in analyzing education policy. Academics have argued that there is a need to take a critical approach towards such policy because it can often represent

competing interests (Ball, 2008; Jessop, 2010; Robertson & Dale, 2015). In drawing attention to this matter, Singh (2015) has contended that critical theory has been effectively used to examine such globalizing education policy issues as teacher professionalism, health and physical education, citizenship education curriculum, the learning society, the knowledge society, lifelong learning, international testing regimes, and the impact of research on policy. The scholarly literature on globalization also acknowledges the complexity and contradiction that the phenomenon can bring to education that uses economic, critical and post-modernist theories as theoretical lenses to analyze economic, political and cultural impacts (Stromquist & Monkman, 2014). In light of this, the current authors deemed it appropriate to adopt a critical theory approach in conducting the meta-analysis of the research results along the whole policy trajectory, as reported in this book.

At the same time, as with interpretivism, the view was adopted by the present authors that it would be unwise to have applied critical theory without acknowledging its weaknesses. Apple (2006), for example, has claimed that much critical theory research over the years has tended to focus on the dominant role played by a neo-liberal ideology while neglecting other influences. Others have argued that novice critical theory researchers may confine their analysis only to matters of oppression, power and resistance (Denzin & Lincoln, 2011). However, many researchers have focused on the possibilities of enhanced depth of scholarship attainable through the application of critical theory, including in the field of curriculum which is the focus of this study. Yates (2010) and Strunk and Betties (2019), for example, reveal the advantages of applying critical theory to expose the social effects of curriculum work in order to help promote equitable forms of education. Yates (2010, p. 498) sums up its strengths as being able to work on "the big picture of how a particular curriculum configuration is an effect of particular historical traditions and purposes and interests", and it can also work on the micro/local level of particular groups of students and teachers.

In conclusion, critical theory sits well with the policy trajectory framework which is elaborated in the next section of this chapter, and which was applied in the study reported later. Critical theory is adopted to investigate power relationships associated with influences, policy text production, policy practices and effects (enactment), as well as longer-term outcomes of a 'C21 curriculum' policy. It assisted the authors not only in addressing the hegemony of certain influences (Pitman & Vidovich, 2012), but also to examine the social effects of 'C21 curriculum' policy on teachers and students, and to potentially inspire social change and better education outcomes. In summary, the use of interpretivism and critical theory at different points in the study, and in complementary fashion, was useful in helping to unravel the perspectives of multiple players in education, to illuminate their struggles, and to suggest transformational changes in education.

A Policy Trajectory Framework

The authors used Vidovich's (2007, 2013) policy trajectory framework as the principal tool for analysis of 'C21 curriculum' policies within Australian contexts throughout all aspects of the research. This framework extends the seminal work of

Ball (1994), and of other policy theorists including Rizvi and Lingard (2010). Ball's original policy trajectory featured five contexts: the context of influences, the context of policy text production, the context of practices/effects (more recently referred to as 'enactment'), the context of longer-term outcomes, and the context of political strategies. For the purposes of the study conducted by the present authors, however, the 'context of longer-term outcomes' and 'the context of political strategies' were merged (Rizvi & Lingard, 2010; Vidovich, 2007, 2013).

The policy trajectory was particularly valuable in providing a framework for considering and analyzing the voices of multiple players involved in policy processes. These extend from those active in global organizations to those in local school settings. Additionally, due to the analysis leaning towards the "descriptive rather than the numerical" and being "concerned as much with process as with product" (O'Donoghue, 2007, p. 131), the trajectory sits well with qualitative research approaches.

Vidovich (2007, 2013) expanded on Ball's (1994) policy trajectory framework to facilitate its empirical application, in particular by adding 'levels' that extend between global and local settings. In the case of the research reported in this book, the authors conducted the analysis at three levels of the curriculum policy trajectory under investigation, namely, the national level (Australia), the State (WA) level, and the local school level (comprising three case study schools). Thus, the study was designed in accordance with Vidovich's (2013) emphasis on the importance of taking into account the impact of globalization as well as 'new localism'. She highlighted that while globalization is growing in influence in the twenty-first century, at the same time policy actors in local settings often transform the original intentions of policy, resulting in a reconceptualization of policy processes within individual educational institutions.

Some authors, such as Atkinson (2002) and Cole (2003), have argued that the policy trajectory model might be too postmodern because, as they see it, the focus is too heavy on policy practices at the micro or local level. Nonetheless, the advantage of using the concept of a 'trajectory' is that it allows "the linkage of theoretical framings with practical possibilities for empirical policy studies" (Vidovich, 2007, p. 292). Overall, then, for the research reported in this book on 'C21 curriculum' policy, the policy trajectory offered a comprehensive framework for analysis of policy processes and two-way interactions along complex networks extending between global and local levels.

Research Questions

The policy trajectory framework provided the structure for the formulation of research questions and for the collection and analysis of data, as well as for reporting results. As previously indicated, the approach to curriculum policies being analyzed in this research is that they can be seen to operate at three levels: the national (Australia), State (WA) and local school levels of the policy trajectory (Vidovich, 2013). Within the broad context of globalization, the national level refers to the

national policy that steered the movement towards the development of 'C21 curriculum' in Australia. WA's curriculum policy was the State level focus, while the local level refers to a selection of private schools in WA specifically chosen as cases for investigation.

The authors engaged in analysis in relation to the four policy contexts. These are the context of influences, the context of policy text production, the context of practices and effects (or enactment) and the context of longer-term outcomes. The research questions were designed specifically in relation to these contexts. They were as follows:

Context of Influences
What are the **influences** that led to the introduction of 'C21 curriculum' policies in Australian contexts?

Context of Policy Text Production
What is the **nature** of the 'C21 curriculum' policy text at national and State (WA) levels in Australia and how was it **constructed**?

Context of Practices/Effects
What are the **practices/effects** resulting from the enactment of 'C21 curriculum' policies in case-study schools?

Context of Longer-term Outcomes
What are the anticipated longer-term **outcomes** of 'C21 curriculum' policies in Australia and internationally?

The first research question (that related to influences) addressed the factors that influenced the initiation of the policy. These consist of reasons that lead to curriculum policy change and the involvement of interest groups, along with the historical evolution of the policy. The second research question (that related to policy text production) refers to the written policy. Thus, we needed to focus on such matters as who constructed the text, who the intended audience of the text was, when the text was constructed, and what the purpose of the text was. It also involved a focus on the use of language in the text, on how it affected the tone of the text and on how it portrayed the dominant ideology. The third question (that concerned with the policy context of practices and effects) relates to the enactment of the policy at the school sites. It involved examining the interpretation and translation of the policy by

the school level actors, the reception given to the policy, the constraints and enablers for the policy enactment, and the positive and negative effects of the policy in the school. Finally, the last question (concerned with the context of policy outcomes) led to an examination of the potential longer-term impact of the policy in practice, with a focus on 'bigger picture' issues of equity and social justice.

Data Collection Methods

Two major sources of data were used, namely, interview-generated testimony and documents. The researchers collected data at three levels: national (Australian policy), State (WA policy) and local (school policy). Specifically in relation to the local level, three non-government secondary schools constituted the case studies.

Table 4.1 below summarizes the data sources.

Interview data were valuable in describing the context of policy enactment within the case study schools. The researchers conducted qualitative interviews during which they asked "one or more participants general, open-ended questions" (Creswell, 2007, p. 214) that allowed them the freedom to express their perspectives. They also took cognizance of Creswell's (2007) argument that the recording of answers should involve audiotaping followed by transcribing.

The researchers conducted both one-on-one interviews and focus group interviews. To identify perspectives and recalled experiences in relation to the organizational processes, objectives and perceived outcomes, and teaching choices and responses (Rubin & Rubin, 2012) to the enactment of the 'C21 curriculum', one-on-one interviews were carried out with representatives of school leadership personnel, curriculum developers and teachers. Moreover, as participants were located at different levels in the hierarchies of power in the schools, it was deemed that by conducting individual interviews, there would be a higher probability that more fulsome

Table 4.1 A summary of the data sources

Levels	National	State	Local (school)	
Sites	Australian policy	State (WA) policy	Three case study schools across the Perth (WA) region	
Data sources	Documentary data – Melbourne declaration on educational goals for young Australians (MDEYA) – Shape of the Australian curriculum – Donnelly-Wiltshire review ACARA website	Documentary data – WA's response to the draft pre-primary – Year 10 Australian curriculum for English, mathematics, history and science – WA jurisdictional response to the Australian Government's review of the Australian curriculum SCSA website	Documentary data	Curriculum documents, school websites, promotional materials
			Semi structured interviews	One school leader, one curriculum developer and three teachers per school
			Focus group discussions	Five students per school

responses would be forthcoming than if group interviews had been conducted, as the latter might result in silence on the part of less powerful voices (Bryman, 2008, 2016). Finally, engagement in semi-structured interviewing was also required to facilitate the conduct of cross-case analysis at the local (school) level of the policy trajectory.

The researchers used an interview guide (Bryman, 2008, 2016) to enable them to address a range of topics. On this, attention was paid to Kvale's (1996) recommendation about the use of a schedule that researchers should give to participants well prior to conducting the interview. In this way, they would have time to think about their responses and not just iterate them in a spontaneous manner, thus compromising the authenticity of the study.

The researchers also conducted focus group interviews with middle school students to investigate their perspectives on the impact of their school's 'C21 curriculum' policy. According to Creswell (2007, p. 215), a focus group interview is a "process of collecting data through interviews with a group of people, typically four to six". Using this approach allowed the researchers to save some time. It was also valuable in fostering interaction and cooperation and was particularly useful when speaking to shy students. Another benefit of the focus group discussions was that they allowed the interviewers to gain access to the values and group norms of students and sub-groups (Kitzinger, 1995; Mishra, 2016).

The researchers anticipated and addressed some of the regular drawbacks associated with focus group discussions. They attempted to counter the possibility that some students would be shy by attending to Kitzinger's (1995) advice to prepare a series of statements on large cards. Students were then able to use these cards to present their levels of agreement. This activity was successful in shifting the attention of members of the group away from the interviewer. This, in turn, seemed to lower students' inhibitions in responding.

According to Bryman (2008, 2016), another criticism of focus group discussions is that the group dynamics can encourage 'group think'. This then can lead to an undermining of individual perspectives. Hence, he proposed tracing the patterns of group interaction as a means to counter this issue. The researchers employed this strategy.

We decided on the venue and timing of the interviews by considering what would be most convenient for the participants. As school staff members and students tended to be busy, individual interviews did not last more than 45 minutes and focus group discussions did not last more than 40 minutes. All interviews were audiotaped with the permission of participants and were then transcribed verbatim.

We analyzed documents to help us grasp the context of influences and the context of policy text production (Ball, 1994; Vidovich, 2013). By documents is meant "public and private records that qualitative researchers obtain about a site or participants in a study and they can include newspapers, minutes of meetings, personal journals and letters" (Creswell, 2007, p. 219). The advantage of using such sources is that words and ideas are usually thoughtfully portrayed (Creswell, 2007; Creswell & Poth, 2017).

Macdonald (2008) categorized documents as sources in public records, media texts, private papers and visual documents. For our study the documents used were primarily public records and media texts. Furthermore, they were documents

produced at the national, the State and the school level. We evaluated all of these before analyzing them. The evaluation process involved checking the materials for authenticity, credibility, representativeness and meaning (Macdonald, 2008).

Documents generated at the national level and then analyzed were policy texts pertaining to *The Melbourne Declaration of Educational Goals for Young Australians* (MDEYA), the Australian Curriculum, and media texts in the form of such websites as that of the Australian Curriculum, Assessment and Reporting Authority (ACARA), along with press releases and ministerial speeches. Those generated at the State level and analyzed included the WA school curriculum and media texts detailed in the website of the School Curriculum and Standards Authority (SCSA). Finally, those documents generated and analyzed at a local level included schools' websites and visual materials, such as school promotional materials and posters indicating the image of the new curriculum policy being projected to the school community and wider public.

Data Analysis

We analyzed the data by engaging in data reduction, data display, and verification, and by the drawing of conclusions (Miles, Huberman, & Saldana, 2004). We used pseudonyms to protect the identity of the schools and the participants. We also established an audit trail to ensure that they conducted all steps of the analytic process in a credible and trustworthy manner. In addition, we drew upon the policy trajectory framework to ensure there was a unified approach to data collection and analysis across all sites. Each of the three stages of data analysis is now detailed below.

Stage 1

In the first stage we reduced the data, by analyzing and coding it to generate themes (Miles et al., 2004; Miles & Huberman, 1994). All written transcripts and documentary data were examined separately and coded. This coding was informed by the literature associated with a 'C21 curriculum' policy. Themes generated were refined, some were then discarded, and others were developed as data collection progressed (O'Donoghue, 2007, 2018). Concept mapping was regularly undertaken to help to provide a visual summary of the analysis (Kinchin, Streatfield, & Hay, 2010). Using this strategy also provided us with a way of focusing on hierarchical linkages, instead of just a linearity of ideas (Pegg, 2007).

Stage 2

Once the process of identifying key themes was complete, a critical discourse analysis (CDA) was undertaken to analyze the language in documents and in interview transcripts within their historical, political, social and cultural contexts (Hyatt, 2013; Taylor, 2004). CDA is concerned with examining the relationship between language conventions and power, as well as other social meanings (Hyatt, 2013). It makes use of the approaches and theories of Foucault to analyze the relationship between discourse and reality and it gives priority to the social and cultural contexts of texts rather than to their linguistic features (Taylor, 2004). To this end, Fairclough

(1995) combined a variety of theories from different disciplines to create a useful interdisciplinary discourse analysis approach.

The CDA undertaken by us was in accordance with Fairclough's (1995) three tiers of discourse analysis namely, description, interpretation and explanation. The analysis initially involved constructing a description of the documents and the interview data. Secondly, the methods of meaning making that were evident were analyzed in relation to Fairclough's (2003) three major types of meaning making, namely, actions and social relations, representation of the world, and identification of persons. Thirdly, we interrogated the data in search of power relationships, social effects and ideology represented. The use of this textual analysis approach overall was also inspired by systemic functional linguistics which necessitates that one engages in an internal analysis using grammar and vocabulary to try to unravel the meanings of texts (Fairclough, 2003).

Stage 3

In the final stage of analysis, we engaged in a qualitative meta-analysis during which we compared results from the national (Australia), State (WA) and local (school) levels along the policy trajectory and across case study schools. These are outlined in detail later on in Chap. 9. To arrive at them, we drew upon a critical theory perspective, paying particular attention to issues of power, equity and social justice. We proceeded to generate propositions about policy and practice related to 'C21 curriculum.' We then went on to make recommendations about how policy and practice in this domain might be improved.

The Use of Case Study Schools

Reflecting on the results of qualitative case studies is useful in helping a researcher come to understand how policies are enacted in real contexts. Thomas (2010) referred to the use of this knowledge-generation approach as 'phronesis' as it is context-dependent and allows acquisition of practical understanding of a situation. Specifically, in relation to policy, Marginson (2007) identified such 'situated studies' as being useful in focusing on the interactions that can exist between global influences and those with national and local dimensions.

Adopting a case study approach was particularly useful in relation to the study reported later in this book. In particular, it allowed us to hear the voices of those involved in leadership and curriculum development as well as teachers and students. Since it is widely recognized that there can be a gap between the intention of policies and what actually takes place (Ball, 1994), the case studies also allowed us to trace the enactment of policies in local settings in order to try to identify any unintended consequences (Braun, Ball, Maguire, & Hoskins, 2011).

While results from case studies cannot be generalized to other settings, they can be useful in that they can assist with generating propositions to guide thinking (Yin, 2014, 2018). Thus, we analyzed the case studies generated to uncover similarities and differences in the enactment of 'C21 curriculum' policies in different schools.

The results in this regard warrant careful consideration in relation to other settings. To assist in trying to achieve this end, the contexts of each of the case studies were clearly described so that policy players in other jurisdictions can make appropriate comparisons with their own settings.

We paid particular attention to Braun et al.'s (2011) assertion that it is important to take cognisance of a variety of settings, including those of a situated, professional, material and external nature. They argued that examining such settings can be of help to a researcher trying to explain influences on certain policies and practices. Hence, descriptions of the settings of the three case study schools are presented in the next three chapters of this book. In structuring these institutional descriptions, particular attention was paid to Braun et al.'s (2011) point that 'situated factors' refers to aspects of history, location and intake. Further, they described 'professional factors' as referring to teachers' values as well as their commitment to their school, and 'material factors' as related to tangible aspects of schooling such as staffing, budget, quality of building and availability of technologies and infrastructure. Finally, they defined 'external factors' as relating to "pressures and expectations from broader local and national policy matters" (p. 594) such as league tables.

Participant Selection

Constructing multiple case studies enables one to generate data for engaging in comparison. This can increase the authenticity of research as it can sharpen evolving propositions (Santos & Eisenhardt, 2004). We selected three secondary schools as case-studies. Each had a different demographic profile. We employed purposive selection to identify the schools. This kind of selection process is "based on the assumption that the investigator wants to discover, understand, and gain insight" (Merriam, 2009, p. 77) and therefore must select situations from which the most can be learned.

We used a number of criteria in order to select the schools (Merriam, 2009; Merriam & Tisdell, 2015). The most important criterion was that a school saw itself as championing a 'C21 curriculum'. We carried out a web search to this end. Influenced by the ideas of Bryman (2008, 2016) and MacDonald (2008), we also deemed that the content of the websites identified constituted a particular and relevant type of documentation in itself to be analyzed.

Private schools were chosen because their school leaders tend to exercise greater autonomy in curriculum construction than their State or government school counterparts. This is possible as they are not as accountable to system authorities for adopting the details of all policies specified by government. Private schools that 'advertised' they had additional programs for teaching such 'C21' skills as technological or media competencies, of the type already mentioned in the literature review, qualified as well.

Conversations with principals of schools also helped in determining if they were personal advocates of a 'C21 curriculum'. Through this and the other approaches detailed above, it was possible for us to narrow the range of schools available for study. From the number available the researchers chose schools that were clearly

seeking to translate their policies into 'C21 curriculum' practices. This eventually led to the identification of three cases that fulfilled all of the criteria and the authorities were prepared to provide access to researchers.

Within each school we selected participants involved with the teaching of pupils in the middle years (Years 7–10) as this tends to be the level at which students are exposed for the first time to a range of different types of programs and at which there is little emphasis on preparation for high stakes testing. We selected five staff members for individual interviews at each school. These included one principal or member of the school leadership team, one curriculum developer, and three classroom teachers. We chose teachers from a variety of learning areas to try to ensure that maximizing the possibility of unearthing diversity in perspectives would be possible. Each participant was identified by using the 'snowball' selection approach advocated by Rubin and Rubin (2012). Five students enrolled at the middle school level in each school were selected by using the same approach to partake in group interviews. In total 18 interviews were conducted (15 individual staff interviews and three student focus groups) were conducted across the three cases.

Position of the Researchers

Qualitative studies are sometimes criticized for being heavily dependent on the researcher's point of view (Lichtman, 2010). To counter this, Rizvi and Lingard (2010) recommended addressing positionality in terms of the role of the researcher, the form of theoretical framework adopted by him or her, and the location of the researcher in time and space. Together, these can reflect the researcher's stance and values.

Describing the researcher's setting can help readers to compare it with that of their own and thus generate a good understanding and appreciation of it. Lincoln and Guba (2013, 2016) referred to this as 'ontological authenticity' and advised that it be adopted as a means of ensuring authenticity and rigor in qualitative research. This is why our positionality has already been outlined in Chapter One.

Trustworthiness

We paid heed to Lincoln and Guba's (2013, 2016) criteria for engaging in qualitative research in order to try to maximize 'trustworthiness'. These are credibility, transferability, dependability and confirmability. Some academics consider credibility to approximate the positivist notion of internal validity (Bryman, 2008, 2016). One way of achieving this, it is held, is through triangulation (Yin, 2014, 2018). Two methods of triangulation were used in the study, namely, data source triangulation and methodological triangulation (Yin, 2018). Data source triangulation was achieved through selecting more than one school, and also more than one source of data, whereas methodological triangulation was achieved through using both interviewing and document analysis techniques.

Transferability is sometimes seen as relating to the positivist notion of external validity as it relates to the notion of transferring results to other contexts (Lincoln & Guba, 2013, 2016). One way of doing this is to provide 'thick description' (Geertz 1973, as cited in Bryman, 2008, 2016) or detailed accounts of school contexts. On this, Braun et al.'s (2011) typology for analysing institutional settings, as detailed in the section above on 'the use of case study schools', proved to be very useful. Great care was taken in describing the settings of each selected case study institution to try to ensure that readers could identify with them.

Some scholars also consider 'dependability' to be similar to reliability (as embraced by positivists) since both concepts indicate seeing if when the research is repeated in the same situation with the same methods and the same participants, the same results surface (Shenton, 2004). In qualitative research, however, since contexts change, processes proposed by Shenton (2004) were adopted. Finally, confirmability is concerned with "recognising that while complete objectivity is impossible in social research, the researcher can be shown to have acted in good faith" (Bryman, 2008, p. 379). To this end, an audit trail was constructed. Such a trail "allows any observer to trace the course of the research step-by-step via the decisions made and procedures described" (Shenton, 2004, p. 72).

Ethical Approach

There are four main ethics matters that should be considered in any research project (Bryman, 2008, 2016), namely, ensuring there is informed consent, that there is no harm to participants, that there is no invasion of privacy, and that there is no deception. These four principles are embedded in The University of Western Australia's (UWA) ethics requirements (UWA Human Ethics Research, 2014).

Permission was sought from the school principal at each of the case study schools, and from parents, to conduct the study. All participants were given detailed information and consent forms. Participation was on a voluntary basis (Lichtman, 2010). Participants were also told that they had the opportunity to withdraw from the research at any time. They were further assured that records of their involvement would then be removed from the data analysis process if this happened. No participants, however, opted to withdraw.

One way of ensuring participants' safety is to give them and their schools' pseudonyms. Even then, the provision of a rich description of a school context could still lead to identification. Great care therefore was taken to minimize the possibility of this happening (Bryman, 2008, 2016). In addition, all records of the research have been stored in a safe place, under lock and key. Further, those stored in the computer have a password known only to the researcher. All records will be kept for a minimum of 7 years upon completion.

The researchers placed great importance on honoring privacy, including where it related to participants' requests not to answer certain questions. They also took care to ensure that all questions were considered carefully beforehand lest matters of

sensitivity be overlooked. Finally, to safeguard against deception, there was no concealment of any information (Bryman, 2008, 2016).

Conclusion

This chapter has described the methodology that informed the conduct of the research reported in this book. Two research paradigms – interpretivism and critical theory – informed the study. A policy trajectory framework, as originally conceived by Ball (1994) and later developed for empirical studies by Vidovich (2007, 2013) was used. It consists of four contexts, namely, those of influences, policy text production, practices/effects (or enactment) and longer-term outcomes. These dimensions guided the generation of the research questions posed.

The chapter outlined the research questions and explained the methods used to collect data. Data analysis involved the analysis of documents and interview transcripts to generate themes. These were then subjected to CDA. A meta-analysis of the results was carried out to reveal power relationships along the policy trajectory from global to national (Australia) to State (WA) and finally to local (school) levels.

As the adoption of a policy trajectory framework called for the use of a qualitative research approach, great effort and care were taken to ensure the quality of the research. Rizvi and Lingard's (2010) three levels of positionality were drawn upon to help to indicate the researchers' stance within this research. Further, close attention was paid to Lincoln and Guba's (2013) criteria of trustworthiness: credibility, transferability, dependability and confirmability. Finally, care was taken to ensure that the research was carried out in an ethical manner, and was aligned with the requirements laid out by the UWA Human Ethics Research. The results of the research are now presented in the next three chapters.

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Chapter 5
First Set of Results – National (macro) and State (meso) Levels

Abstract This chapter is the first of four chapters of results on the study undertaken on 21st century curriculum' policies and practices in Australia within the broad context of globalisation. It is based on document analysis. It presents the results that relate to the national (Australia) and State (WA) levels. It addresses only two sets of research questions, namely, those related to policy influences and those related to policy text production. The results are reported without reference to the literature. Rather, this occurs in Chap. 9, which presents and discusses a meta-analysis. Themes generated are illustrated with quotations from documents and participants' voices. Pseudonyms are used for schools, and codes are used to identify both individuals and focus groups in order to protect their anonymity.

> *Schooling should also support the development of skills in areas such as social interaction, cross-disciplinary thinking, and the use of digital media, which are essential in all 21st century occupations.* – Melbourne Declaration of Educational Goals for Young Australians (MDEYA), 2008

Introduction

Three documents were selected as being the most significant policy texts relating to a 'C21 curriculum' at the national level of the policy trajectory in Australia. These are as follows: the *Melbourne Declaration of Educational Goals for Young Australians* (the *Melbourne Declaration*) (MCEETYA, 2008), the *Shape of the Australian Curriculum* (ACARA, 2012),

Three documents were selected as being the most significant policy texts relating to a 'C21 curriculum' at the national level of the policy trajectory in Australia. The three documents are as follows: the Melbourne Declaration of Educational Goals for Young Australians (MDEYA) (MCEETYA, 2008), the Shape of the Australian Curriculum (ACARA, 2012), and the *Review of the Australian Curriculum-Final Report* (Donnelly & Wiltshire, 2014). The first two of these provided the foundation for the construction of the Australian Curriculum that took place under the guidance

Z. Kunhi et al., *Twenty-first Century Curriculum Policy*,
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Format of Chaps. 5, 6, 7 and 8
Chapters 5, 6, 7 and 8 present the results on three levels of the policy trajectory – the macro (national), the meso (State) and the micro (school) levels – regarding the Australian context. All chapters follow a similar format. Each begins with an introduction. This is followed by a brief outline of the national (Australia), State (WA) and local school levels. Themes generated during the policy trajectory analysis are then presented. Finally, each chapter ends with a discussion.

The rest of this chapter, Chap. 5, which is based on document analysis, presents the results that relate to the national (Australia) and State (WA) levels. It addresses only two sets of research questions, namely, those related to **policy influences** and those related to **policy text production**. Chapters 6, 7 and 8 address the first three research questions, focusing on three case-study schools. For each case, interviews and focus groups were the primary data sources, with documents playing a secondary role.

The results in relation to each of the four chapters are reported without reference to the literature. Rather, this occurs in Chap. 9, which presents and discusses a meta-analysis. Themes generated are illustrated with quotations from documents and participants' voices. Pseudonyms are used for schools, and codes are used to identify both individuals and focus groups in order to protect their anonymity.

of a national authority entitled 'The Australian Curriculum, Assessment and Reporting Authority' (ACARA).

As the initial version of the Australian Curriculum was seen as being important to "*prepare students for the 21st century*" (ACARA, 2012, p. 4), it was deemed that it can be deemed to be a 'C21 curriculum'. After the change in 2013 from a Labor national government to a Coalition national government, Donnelly and Wiltshire (Donnelly & Wiltshire, 2014) undertook a review of it. While the approach they took actually challenged the concept of a 'C21 curriculum', the report they produced can still be viewed as being integral to the ensemble of policy texts forging a 'C21 curriculum' policy in Australia during the second decade of the 21st century. Hence, we used the term 'C21 curriculum' throughout the analysis undertaken of the national (Australia) and State (WA) levels of the policy trajectory investigated.

Results from the National (Australia) Level Data

Context of Policy Influences (National Level)

Two major sets of influences were identified during the analysis of the data about the policy trajectory, namely, **global influences** and **national influences**. These are detailed in the subsections below.

Global Influences

Four major global influences were identified: ***increasing competition in the global world; drive for quality; policy borrowing;*** and ***aligning with the OECD agenda.*** An explication on each is now provided.

Increasing Competition in the Global World

The Australian Curriculum, initiated at the national level in 2008, was presented as being a 'C21 curriculum', with the underlying rationale being that it would address ***increasing competition in the global world*** that, it was deemed, came in the form of accelerating global economic and education competition. The notion of economic competition in particular was prevalent in both the *Melbourne Declaration* and the *Shape of the Curriculum* documents. In the latter, for example, it was stated that *"in the 21st century Australia's capacity to provide a high quality of life for all will depend on the ability to compete in the global economy on knowledge and innovation"* (MCEETYA, 2008, p. 4). Additionally, it was stated that "*India, China and other Asian nations are growing and their influence on the world is increasing"* (MCEETYA, 2008, p. 4) and that there was a need for "*Asia literacy*" (ACARA, 2012, p. 18) as it "*provides students with the skills to communicate and engage with the peoples of Asia so they can effectively live, work and learn in the region*" (ACARA, 2012, p. 18). The implication was that burgeoning economies in the Asia-Pacific Region had intensified competition in the global arena and that, as a result, its national curriculum would allow Australia to remain competitive.

Competition also came in the form of a drive to improve education attainment. This notion was reflected in stated desires to perform well in international education league tables. The key documents in this regard referred to such international testing as that conducted by the OECD's Programme for International School Assessment (PISA). Relatedly, the *Melbourne Declaration* reported as follows:

> *Australia ranked among the top 10 countries across all three education domains assessed. Over the next decade, Australia should aspire to improve outcomes for all young Australians to become second to none amongst the world's best school systems* (MCEETYA, 2008, p.5).

The *Donnelly-Wiltshire Review* also argued that international competitiveness was important:

> *The desire to ensure Australia was performing well in the International context as measured by tests such as Trends in International Mathematics and Science Study (TIMMS); Programme for International School Assessment (PISA); and Progress in International Reading Literacy Study (PIRLS) was also an important part of the motivation for the Donnelly-Wiltshire Review* (Donnelly & Wiltshire, 2014, p. 1).

Further, while the *Melbourne Declaration* highlighted Australia's high position in international league tables, the *Donnelly-Wiltshire Review* was less laudatory, indicating there had been a "*slippage*" (Donnelly & Wiltshire, 2014, p. 37) in Australia's standing in the intervening years, and that, as a result, the Australian Curriculum had to be revised.

Education competition was also emphasised in a drive to achieve equity in education provision so that 'the tail' of low performing students might be raised. On this, it was stated:

> *By comparison with the world's highest performing school systems, Australian students from low socioeconomic backgrounds are under-represented among high achievers and overrepresented among low achievers* (MCEETYA, 2008, p.5).

The overall desire was that the Australian economy would not be left behind while other economies accelerated. This, in turn, provided a motivation for developing a 'C21 curriculum' policy.

Drive for Achieving Quality

Along with addressing economic and education competitiveness, the introduction of the Australian Curriculum as a 'C21 curriculum' was also seen as being a ***drive for achieving quality*** at the national level. Indeed, the word 'quality' is mentioned 20 times in the *Melbourne Declaration*. In addition, that document also impressed that it is imperative that a "*world-class curriculum and assessment*" (MCEETYA, 2008, p. 10) be developed. Further, it stated:

> *Australia has developed a high quality, world-class schooling system, which performs strongly against other countries of the Organisation for Economic Cooperation and Development (OECD). In international benchmarking of educational outcomes for 15-year-olds in the 2006 OECD Programme for International Student Assessment, Australia ranked among the top 10 countries across all three education domains assessed. Over the next decade Australia should aspire to improve outcomes for all young Australians to become second to none amongst the world's best school systems* (MCEETYA, 2008 p.5).

Relatedly, the discourse of quality is also evident through references in the *Melbourne Declaration* to 'high quality', 'world-class', 'top 10', 'second-to-none', and 'best'. Further, it influenced wording in the following extracts from the *Shape of the Australian Curriculum*:

> *The commitment to develop a national curriculum reflects a willingness to work together across geographical and school-sector boundaries, to provide a world class education for all young Australians* (ACARA, 2012, p. 7).

> *For Aboriginal people and Torres Strait Islanders, the Australian Curriculum promotes the importance of pursuing excellence within education settings that respect and promote their cultural identity* (ACARA, 2012, p. 7).

It was claimed that this drive for quality could be achieved "*by setting out the knowledge, understanding and skills needed for life and work in the 21st century*" (ACARA, 2012, p. 5).

A desire to achieve excellence was also echoed in the *Donnelly-Wiltshire Review*, through its focus on teacher quality, as in the following:

> *A first-rate curriculum without first-rate teachers serves little purpose in the drive to achieve the best educational goals for the benefit of the student, society, the economy. It is clearly the key ingredient in all of the top performing countries, and Australia needs to make every effort to raise the status and capacity of our teachers* (Donnelly & Wiltshire, 2014, p. 242).

Policy Borrowing

Related policy documents held that advancement towards having an Australian Curriculum based on a 'C21 curriculum' policy could be achieved through ***policy borrowing*** from "*leading nations*" (ACARA, 2012, p. 28). On this, it was stated that the Australian Curriculum was "*benchmarked against international curricula*" (ACARA, 2012, p. 11) because "*education systems are benchmarking their curriculums against those of nations that perform well in international testings"* (Donnelly & Wiltshire, 2014, p. 4). In other words, there was a strong view that engagement in benchmarking was important as part of a strategy of trying to achieve a competitive edge. To this end also, borrowing aspects of international curricula in terms of their content, skills and assessment was recommended. The following quote summarises the thinking there was on this:

> *The Working Group also drew on a range of international literature and particularly benefited from the United Kingdom Qualifications and Curriculum Authority's Futures In Action: Building a 21st century curriculum, which informed the drafting of Goal No. 2* (MCEETYA, 2008, p. 20).

In addition, such terms as 'international research', 'international practice', 'international bench marking' and 'international comparisons' were used several times in the *Donnelly-Wiltshire Review* to emphasise the importance the authors attached to policy borrowing. Particular attention was paid in the same review to developments in England because, in the view of its authors, it shared a "*similar context*" with Australia (Donnelly & Wiltshire, 2014, p. 37) of facing a "*slippage in international ratings in educational performances*" (Donnelly & Wiltshire, 2014, p. 37) and undergoing a "*comprehensive review of the national curriculum"* (Donnelly & Wiltshire, 2014, p. 37).

A further aspect of policy borrowing relates to quality assurance. On this, Donnelly and Wiltshire argued:

> *As indicated in our report the international research we have conducted has revealed that quality assurance is a basic determinant of a top performing education system. In all the countries we have analysed external evaluation of schools in some form is used* (Donnelly & Wiltshire, 2014, p. 250).

In other words, they held that borrowing in this domain would contribute to an effective enactment of the Australian Curriculum.

Aligning with the OECD's Agenda

The development of a 'C21 curriculum' policy in Australia can be seen also as having been an attempt to ***align with the OECD's agenda***. The State saw the OECD as a source of credibility and legitimacy. Indeed, it used the views of the organisation to justify education decisions in the construction of the Australian Curriculum along 'C21 curriculum' lines. On this, all three key policy documents under consideration drew attention to PISA, the international comparative testing programme carried out by the OECD, and argued that obtaining excellent results across the nation in this test would be one of the goals of a 'C21 curriculum.' It was also explained further that Wiltshire of the *Donnelly-Wiltshire Review* "*held extensive discussions with representatives from the OECD Directorate for Education and Skills*" (Donnelly & Wiltshire, 2014, p. 11) to learn the "*OECD perspective*" (Donnelly & Wiltshire, 2014, p. 33). Indeed, the OECD was mentioned 73 times in the review document. This highlights its instrumental role in the development of Australia's 'C21 curriculum' policy.

The OECD also influenced the development of a 'C21 curriculum' policy in Australia because of the role played by Professor Barry McGaw, an Australian, in its policy-making. McGaw held the position of Director of Education at the OECD from 1999 to 2005. He was also a member of its working group responsible for the writing of the *Melbourne Declaration* in 2008, following his return to Australia. In 2009, while he held a position at the University of Melbourne, the Assessment and Teaching of 21st Century Skills (ATC21S) academic unit was set up under the jurisdiction of the University's Assessment Research Centre. This is a project steered by Australia, Finland, Portugal, Singapore and the UK, where the emphasis is on the teaching and learning of C21 skills.

National Influences

The term ***'in the national interest'*** also emerged as a most important discourse influencing the development of national policy relating to 'C21 curriculum' in Australia, as explained below. It was understood as referring to the importance of promoting the enhancing of national competitive advantage in a context of

accelerating globalisation. It was particularly evident in the following statement in the *Melbourne Declaration*:

> *Global integration and international mobility have increased rapidly in the past decade. As a consequence, new and exciting opportunities for Australians are emerging. This heightens the need to nurture an appreciation of, and respect for social, cultural and religious diversity, and a sense of global citizenship* (MCEETYA, 2008, p. 4).

The *Shape of the Australian Curriculum* documents took a stance in arguing thus that globalisation has a major impact on society:

> *Complex environmental, social and economic pressures, such as climate change, that extend beyond national borders pose unprecedented challenges* (emphasis added)*, requiring countries to work together in new ways. To meet these challenges, Australians must be able to comprehend and use scientific concepts and principles, and approach problem solving in new and creative ways* (ACARA, 2012, p. 6).

Additionally, it was stated that as the future is "*distant and difficult to predict*" (ACARA, 2012, p.7), emphasis in the National Curriculum should be placed not only on the defined learning areas, but also on teaching such 'general capabilities' as "*critical and creative thinking*", "*personal and social capability*", "*ethical understanding*", and "*intercultural understanding*" (ACARA, 2012, p. 16). These 'general capabilities' are what are commonly known as C21 skills.

Other cross-curriculum priorities were also emphasised. These include "*Aboriginal and Torres Strait Islander histories and cultures*", "*Asia and Australia's engagement with Asia*", and "*Sustainability*" (ACARA, 2012, p. 17). The view overall was that these should be seen to be "*the basis for a curriculum designed to support 21st century learning*" (ACARA, 2012, p. 4). Additionally, it was explained that globalisation has an impact on employment due to the associated changing nature of jobs. On this, the following was stated:

> *Globalisation and technological change are placing greater demands on education and skill development in Australia and the nature of jobs available to young Australians is changing faster than ever. Skilled jobs now dominate jobs growth and people with university or vocational education and training qualifications fare much better in the employment market than early school leavers. To maximise their opportunities for healthy, productive and rewarding futures, Australia's young people must be encouraged not only to complete secondary education, but also to proceed into further training or education* (MCEETYA, 2008, p.4).

Further in the following extract from the *Shape of the Australian Curriculum* document, the existence of a link between changing employment and the need for changes in education was claimed to exist:

> *Globalisation and technological change are placing greater demands on education and skill development in Australia, and the nature of jobs available to young Australians is changing faster than ever. Skilled jobs now dominate jobs growth, and people with university or vocational education and training qualifications fare much better in the employment market than early school-leavers. To maximise their opportunities for healthy, productive and rewarding futures, Australia's young people must be encouraged not only to complete secondary education, but also to proceed into further training or education* (ACARA, 2012, p. 6).

In similar vein, it was stated as follows that globalisation can have an impact on the need for the development of technological skills,

> *Rapid and continuing advances in information and communication technologies (ICT) are changing the ways people share, use, develop and process information and technology, and young people need to be highly skilled in ICT. While schools already employ these technologies in learning, there is a need to increase their effectiveness significantly over the next decade* (ACARA, 2012, p.6).

Related concerns were raised in the *Donnelly-Wiltshire Review*. These revolved around a perceived need for Australians to have a good understanding of themselves amidst the growing influence of globalisation, so that there would be more "*moral and spiritual*" growth across the nation (Donnelly & Wiltshire, 2014, p. 155).

Consideration of the latter position led to a recommendation that stress in the curriculum should be placed on the "*importance of Western traditions and knowledge*" (Donnelly & Wiltshire, 2014, p. 138) and the "*Judeo-Christian heritage of Australia*" (Donnelly & Wiltshire, 2014, p. 138). The underlying rationale offered was that an "*active*" (Donnelly & Wiltshire, 2014, p. 53) citizenry would evolve if there was less of focus on improving society's skills for the future. What is required instead, it is held, is more of an emphasis on improving the moral and spiritual values of those that make up Australian society.

Policy Text production (National Level)

The policy texts about 'C21 curriculum' at the national level revealed that there was **contestation about knowledge for the 21st century** as the relevant documents highlighted tensions over the ***definition of 21st century knowledge*** and the ***selection of 21st century knowledge*** for the curriculum. In addition, it was revealed that 'C21 curriculum' policy in Australia was an **evolving policy text** characterised by **tensions in political ideology** and underpinned by **economic discourses.** These themes and sub-themes are elaborated upon below.

Contested knowledge for the 21st Century

Contested knowledge for the 21st century was a major theme influencing the policy text production of a 'C21 curriculum' in the form of the Australian Curriculum. The first aspect of conflict was over the ***definition of 21st century knowledge***.

Definition of 21st Century Knowledge

Regarding the ***definition of 21st century knowledge***, the *Melbourne Declaration* stated that "*all young Australians* [should] *become successful learners, confident and creative individuals, and active and informed citizens*" (MCEETYA, 2008, p. 8). This emphasis on creativity and global citizenship reflected the emphasis placed by the OECD (2015) and UNESCO (2015) on what constitutes C21 skills. Additionally, this notion as expounded upon in the *Australian Curriculum* document was summarised in the statements that "*the Melbourne Declaration emphasises the importance of knowledge, understanding of skills of learning areas, general capabilities and cross-curriculum priorities as the basis for a curriculum designed to support 21st century learning*" (ACARA, 2012, p. 4) and that "*the Australian Curriculum has a three-dimensional design – discipline-based learning areas, general capabilities as essential 21st century skills and contemporary cross-curriculum priorities"* (ACARA, 2012, p. 15). These statements indicated that the Australian Curriculum was regarded as being a 'C21 curriculum' in policy texts formulated by the ACARA under the national Labor Government of 2007–2012.

By contrast, the tone adopted in the *Donnelly-Wiltshire Review* with regard to the advisability of embracing a 'C21 curriculum' was one of scepticism and criticism. Indeed, in cynical tone, the notion was referred to as a "*so-called*" curriculum on eight occasions. The following quotes illustrate the associated disapproving tone:

> *Closely allied with a liberal–humanist view of education is a commitment to a particular set of values and dispositions, including civility, tolerance, truth telling, morality, rationality, objectivity, freedom and creativity. Such values and dispositions are not add-ons, abstract general capabilities or transitory cross-curriculum priorities* (Donnelly & Wiltshire, 2014, p. 23).

In these quotations, the use of such adjectives as 'abstract', 'transitory', 'generic', and 'so-called' in a negative sense also suggested a view of the authors that the concept of 21st century knowledge was artificial and arbitrary and that emphasising it did not enhance the credibility of the Australian Curriculum. In other words, there was a move away under the leadership of the national Coalition Government that took office in 2013 from the positive notion of a 'C21 curriculum' advocated by the national Labor Government of 2007–2012.

The national Coalition Government also challenged the view of a 'C21 curriculum' advocated in the *Melbourne Declaration* that referred to the associated notion of general capabilities as being "*utilitarian*" (Donnelly & Wiltshire, 2014, p. 28). The following demonstrates how this was seen in negative terms:

> *Such a utilitarian view of education, while important, fails to deal with the reality that what is often most rewarding and beneficial in education – especially related to the emotional, moral, spiritual and aesthetic development of students – might not be immediately practical and utilitarian* (Donnelly & Wiltshire, 2014, p. 28).

What was advocated instead was that there was a "*need for a holistic approach to school education*" where there should be "*more emphasis on knowledge and fundamentals in all learning areas*" (Donnelly & Wiltshire, 2014, p. 44). Added to this,

and in a tone that indicated a clear desire for disciplinary-based and nationalistic school programmes, was a call to respect Australia's "*cultural history and traditions of the past*" in any national curriculum (Donnelly & Wiltshire, 2014, p. 116).

Selection of 21st Century Knowledge

The ***selection of 21st century knowledge*** was identified as the second sub-theme associated with tensions in Australia embedded in the discourse around the concept of 21st century knowledge. This was primarily reflected in debates over the content, skills and values associated with a 'C21 curriculum'. First, the policy texts reflect a conflict over the balancing and integrating of content and skills. On this, the *Melbourne Declaration* and the Shape of the Curriculum documents emphasised the teaching and learning of skills for practical purposes that would help students "*maximise their opportunities for healthy, productive and rewarding futures*" (MCEETYA, 2008, p. 4). These skills include ICT skills deemed *"central to Australia's skilled economy and provide crucial pathways to post-school success*" (ACARA, 2012, p. 14); and "*generic and employability skills*" (ACARA, 2012, p. 14) to help young people to "*develop the capacity to think creatively, innovate, solve problems and engage with new disciplines*" (ACARA, 2012, p. 14).

By contrast, the belief promoted in the *Donnelly-Wiltshire Review* was that knowledge should be sought for less practical purposes and that it should be "*less concerned with utopian visions about future society*" (Donnelly & Wiltshire, 2014, p. 22). As the future was deemed to be "*uncertain*" (Donnelly & Wiltshire, 2014, p. 18), it was argued, the curriculum should be based "*on the established disciplines*" (Donnelly & Wiltshire, 2014, p. 22) and a "*liberal-humanist*" (Donnelly & Wiltshire, 2014, p. 21) approach should be adopted. This was expressed as follows:

> *Existential questions about life and death, what constitutes truth and wisdom, how we should relate to one another, the broader community and the wider world, and what constitutes happiness and the good life should be included"* (Donnelly & Wiltshire, 2014, p. 21).

A second tension that emerged in relation to the selection of 21st century knowledge is concerned with the identification of a set of values that it was deemed best represent an Australian identity. On this, it was stated in the *Donnelly-Wiltshire Review* that the "*aims and values underpinning the curriculum are not clear, especially as to moral and spiritual values*" (Donnelly & Wiltshire, 2014, p. 237). While it simultaneously recommended "*more emphasis on morals, values and spirituality"* by focussing more on "*religions and belief systems, especially Christianity*" (p. 117), ACARA, the body responsible for the Shape of the Australian Curriculum, also considered that the teaching of moral and spiritual values should be included in such content areas as history, civics and citizenship learning. Concurrently, debate on the selection of moral and spiritual values became contentious because of the different interests represented by the two main political parties in the nation.

There was also a debate about global citizenship being potentially in tension with building Australian identity and citizenship. For example, while the *Melbourne*

Declaration and the *Shape of the Curriculum* documents emphasised such cross-curricular priorities as "*Aboriginal and Torres Strait Islander histories and cultures*", "*Asia and Australia's engagement with Asia*", and "*Sustainability*", as features that would facilitate building Australian identity in the future (ACARA, 2012, p. 18), the *Donnelly-Wiltshire Review* criticised this view. Additionally, it criticised the *Melbourne Declaration's* focus on global citizenship on the grounds that it was "*arbitrary and haphazard*" (Donnelly & Wiltshire, 2014, p. 201).

Donnelly and Wiltshire went on to state that the outline of cross-curricular themes left the Australian Curriculum open to both "*confusion and ridicule*" (Donnelly & Wiltshire, 2014, p. 241). To this they added that the curriculum was "*simplistic*" (Donnelly & Wiltshire, 2014, p. 247), "*educationally unsound*" (Donnelly & Wiltshire, 2014, p. 247) and "*politicised*" (Donnelly & Wiltshire, 2014, p. 247). A way to address the situation, they argued, was to emphasize strongly Australia's "*Western cultural, social and economic heritage*" (Donnelly & Wiltshire, 2014, p. 112), especially since the cross-curricular priorities identified had resulted in a fear "*that to emphasise Asia and indigenous cultural and knowledge means that the key elements of Australia's foundation and knowledge base are being neglected*" (ACARA, 2012, p. 138).

Evolving Policy Text

The publication of the *Melbourne Declaration*, the *Shape of the Australian Curriculum* and the *Donnelly-Wiltshire Review* indicate that 'C21 curriculum' policy in Australia was an **evolving policy text**. Further, the evidence outlined above with regard to the contestation of the concept by representatives of the Labor Government of 2007–2012 and the Coalition Government that took office in 2013, suggests that 'C21 curriculum' policy texts are likely to continue to be resisted and compromised in various ways. At the same time, there was some degree of agreement with the values presented in the *Melbourne Declaration*. For instance, the *Donnelly-Wiltshire Review* stated that it was in agreement with the emphasis *"on morals, values and spirituality as outlined in the Melbourne Declaration*" (Donnelly & Wiltshire, 2014, p. 246). However, it was disparaging of what it saw as the National Curriculum's "*single-minded adherence to the prescriptions of the Melbourne Declaration*" (Donnelly & Wiltshire, 2014, p. 3).

A further indication that 'C21 curriculum' policy in Australia would continue to evolve was suggested by a recommendation that the *Melbourne Declaration* document be updated or amended rather than replaced. The following observation illustrates this:

> *The learning areas and the disciplines from which they are drawn provide a foundation of learning in schools because they reflect the way in which knowledge has, and will continue to be, developed and codified. However, 21st century learning does not fit neatly into a curriculum solely organised by learning areas or subjects that reflect the disciplines. Increasingly, in a world where knowledge itself is constantly growing and evolving, students need to develop a set of knowledge, skills, behaviours and dispositions, or general*

capabilities that apply across subject- based content and equip them to be lifelong learners able to operate with confidence in a complex, information-rich, globalised world (ACARA, 2012, p. 15).

Tensions in Political Ideology

The discourses around 'C21 curriculum' policy also demonstrate that **tensions in political ideology** existed. The *Melbourne Declaration* and the *Shape of the Australian Curriculum* documents were formulated in 2008 and 2012 respectively under the auspices of ACARA and the leadership of the Australian Labor Government (2007–2012). The Donnelly-Wiltshire Review, however, was produced later, under the jurisdiction of the Coalition Education Minister in 2014. The significance of this is that the two sets of policy texts were created by governments with different ideologies. In particular, the political values of the Labor Government of 2007–2012 were very much social democratic in orientation, with an emphasis on students attaining both quality and equity through the Australian national curriculum as a means for trying to ensure that the nation would remain competitive in the global world. By contrast, the values of the Coalition government that came to power in 2013 have been much more neo-liberal in orientation.

At this point, it is apposite to relate some detail on the authors of the *Donnelly-Wiltshire Review* of 2014. At the time of its publication, Kevin Donnelly was a senior research fellow at The Australian Catholic University, having back in 2004 been chief-of-staff to the Liberal Party. The other author, Ken Wiltshire, held an academic position at the University of Queensland Business School and had been openly supportive of the of the Liberal Party Coalition (the dominant political party in the coalition government that came to power in 2013) in an opinion piece he wrote for the *The Australian* newspaper (Wiltshire, 2010), that had nationwide circulation.

The Liberal Party ideology of the Coalition Government after it came to power suggested that there would be a greater emphasis than previously on freedom, experimentation and individualism in the government's approach towards education policies, including those to do with the national curriculum. Relatedly, the importance of a 'liberal-humanist' orientation was raised several times in the *Donnelly-Wiltshire Review* as were comments like there is a "*failure to include liberalism as a progressive doctrine*" in the national curriculum (Donnelly & Wiltshire, 2014, p. 121). The following quote further emphasises the tension in political ideology "*…adopting a politically correct approach in areas like sustainability, Asia and Indigenous histories and cultures, and in subjects like history and civics and citizenship compromises the integrity of a liberal–humanist vie*w (Donnelly &Wiltshire, 2014, p. 30). To recap then, the tension in question is the ideological emphasis on 'neo-liberalism' in the Donnelly-Wiltshire Review (2014) as opposed to social-democratic ideology evident in the original Australian Curriculum initiated in 2008.

Economic Discourses

Economic discourses prevailed in the Australian Curriculum, notwithstanding the differences in ideologies between the successive governments providing oversight. The social-democratic ideology promoted by the Labor Government of 2007–2012 resulted in a 'C21 curriculum' focus geared towards trying to ensure that Australian citizens would have the necessary skills to be competitive in the world. At the same time, it highlighted the importance of equity. The following quotes illustrate this.

> *In the 21st century Australia's capacity to provide a high quality of life for all will depend on the ability to compete in the global economy on knowledge and innovation. Education equips young people with the knowledge, understanding, skills and values to take advantage of opportunity and to face the challenges of this era with confidence* (MCEETYA, 2008, p. 4).

> *In striving for both equity and excellence, there are several areas in which Australian school education needs to make significant improvement. First, Australia has failed to improve educational outcomes for many Indigenous Australians and addressing this issue must be a key priority over the next decade. Second, by comparison with the world's highest performing school systems, Australian students from low socioeconomic backgrounds are under-represented among high achievers and overrepresented among low achievers. Third, there is room for improvement in Australia's rate of Year 12 completion or equivalent* (MCEETYA, 2008, p. 4).

Additionally, the word 'employment' is mentioned several times in the *Melbourne Declaration* in a manner that links it to learning and curriculum. It is also stated in the *Shape of the Australian Curriculum* document that a 'C21 curriculum' could boost the country's economy. Other indications of this economic discourse are as follows:

> *As a foundation for further learning and adult life, the curriculum will include practical knowledge and skills development in areas such as ICT and design and technology, which are central to Australia's skilled economy and provide crucial pathways to post- school success* (ACARA, 2012, p.14).

> *The curriculum will support young people to develop a range of generic and employability skills that have particular application to the world of work and further education and training, such as planning and organising, the ability to think flexibly, to communicate well and to work in teams* (ACARA, 2012, p. 14).

Overall, then, the strong link posited above and also in the *Melbourne Declaration* and the *Shape of the Australian Curriculum* document as existing between curriculum and employability by the Labor Government, clearly demonstrates a mindset that saw strong economic discourses in 'C21 curriculum' policy texts as being compatible with a goal to enhance equity in education.

Notwithstanding what has been said so far regarding the critique within the *Donnelly-Wiltshire Review* of the Australian Curriculum for being utilitarian and the proposal that instead it should have a more 'liberal-humanist' orientation, concerns raised regarding students' relatively poor performance in such international benchmark testing as that of the OECD and PISA testing group, and implications for the future health of the nation, were not overlooked. Indeed, it was stated that concern

was warranted because of the "*demand for new knowledge and skills associated with economic transformations, changing socio-demographics and the impact of technology, including information and communication technologies"* (Donnelly & Wiltshire, 2014, p. 32). This line of argument indicates that while the differences in political ideologies between the two main political parties noted already are not open to question, economic justification influenced both in their thinking about curriculum policy text production. This, in turn, meant than an emphasis on economic discourses in Australia's 'C21 curriculum', as manifested in the form of the Australian Curriculum, prevailed at all times.

Results in Relation to the State (WA) Level

From considerations so far it is clear that the Australian government has become more powerful than previously in determining national education policy in the 21st century. In particular, the national government uses financial policy levers to forge its agendas within the seven States and Territories. Nevertheless, legal responsibility for education still remains with the States.

Introduction

Two State level documents produced in WA were chosen in relation to unearthing a 'C21 curriculum' policy emphasis within the Australian Curriculum. The particular documents selected were influenced by the fact that they were instrumental in helping policy makers translate national 'C21 curriculum' policies into curriculum policies at the State level. In other words, they are documents that marked the WA response to the Australian Curriculum developments, both when it was first unveiled and later when the Donnelly-Wiltshire Review critiqued them. These two State documents are *Western Australia's Response to the Draft Pre-Primary – Year 10 Australian Curriculum for English, Mathematics, History and Science;* and the *Western Australian Jurisdictional Response to the Australian Government's Review of the Australian Curriculum.* The authorities that were responsible for these documents were the WA Curriculum Council and the School Curriculum and Standards Authority (SCSA) respectively.

The SCSA, which replaced the WA Curriculum Council in 2012, is responsible for the development of the Australian Curriculum in WA. As discussed earlier, the Australian Curriculum was constructed as a 'C21 curriculum' with an emphasis on such general capabilities as digital skills (ICT), learning skills (creative and critical thinking), and career and personal skills (intercultural understanding and ethical behaviour). Due to WA's approach to adopting and adapting the Australian Curriculum, it could be said to be following the general thrust of 'C21 curriculum' policy, although with context-specific variations. However, there was little mention

of a 'C21 curriculum' in these State (WA) level documents. This suggests that there was a disconnect between what was intended by the MDEYA document at the national level and what was interpreted by the SCSA's development of the national curriculum. Nevertheless, as the next section demonstrates, the two key State level documents can be, and have been, analysed as part of the evolving 'C21 curriculum' policy texts.

Context of Policy Influences (State Level – WA)

National Influences

A major theme relating to State-level curriculum policy in WA is that of **national** influences. The sub-themes of ***standardisation*** and '***in the national interest'*** were generated in relation to this from the data relating to national influences on WA curriculum policy. These are now elaborated upon below.

Standardisation

Analysis of 'C21 curriculum' policy at the State level in WA indicated a commitment to ***standardisation*** of curriculum across the country due to the concerted effort made to meet the objectives of the Australian Curriculum. Such concepts as 'learning areas', 'general capabilities' and 'cross-curriculum priorities' appropriated from the national curriculum documents, were deemed to be "*appropriate*" (WA Curriculum Council, 2010, p. 2), "*consistent*" (WA Curriculum Council, 2010, p. 3), and "*comprehensive and well-articulated*" (WA Curriculum Council, 2010, p. 5), and were used to show the level of agreement between WA and the Australian Curriculum. It was also mentioned that WA had *'already invested significant effort and funding towards adopting and adapting the Australian Curriculum*" (SCSA, 2014, p. 8), that general capabilities and cross-curriculum priorities had been included to "*maintain the spirit and intent of the Australian Curriculum*" (WA Curriculum Council, 2010, p.6), and that WA was "*retaining and reflecting* [its] *commitment to a national, Australian Curriculum*" (SCSA, 2014, p. 8). All of this made very clear that State policy makers in WA were intent on adopting and adapting 'C21 for the State level, curriculum' policy designed at the national level. At the same time, there was also a desire to make some changes to suit the particular circumstances of the WA context.

'In the National Interest'

State level policy members considered that the adoption of a 'C21 curriculum' policy in WA would be ***'in the national interest'*** because of the national education agenda aimed at promoting quality and equity in schooling (Melbourne Declaration Goals). Indeed, it was specifically stated that if a 'C21 curriculum' approach was embraced then the Australian Curriculum would be one of quality. A particularly cogent quotation in this regard is that a *"focus on the inquiry approach* [in the Australian Curriculum] *provides the 21st century element to the curriculum"* and that *"if this is prioritised in the curriculum, this is what would make it first class*" (WA Curriculum Council, 2010, p. 31).

Additionally, it was argued at the State level in WA that advances in ensuring equity would be made if the needs of minority groups and students with disabilities and learning needs were clearly provided for within in the national curriculum. On this, there was a submission from the Aboriginal Advisory Committee of WA calling for schools to play a role in the preservation of Indigenous cultures. The urgency of taking heed to this was highlighted by emphasising that the history curriculum throughout the nation, including in WA, was not culturally inclusive. It was recognised that some changes had been made as a result of consultation, but that the overall result was negligible as the Australian curriculum, as it was put, *"still remains a monocultural, Eurocentric document* (WA Curriculum Council, 2010, p. 7). A solution proposed by the WA Curriculum Council, was that "*the contemporary focus on Asian and Indigenous perspectives needs to be strengthened to support student understanding of how historical understandings relate to their immediate world*" (WA Curriculum Council, 2010, p. 4).

The needs of students with disabilities and learning difficulties, as noted already were also highlighted in State level documents in WA. On this, the term 'inclusivity' was used on numerous occasions in both the documents released by the WA Curriculum Council and those released by the SCSA. The overall effect of this was to emphasise that WA's stance in having an inclusive curriculum would mean that it would be aligned to one of the education goals of the Melbourne Declaration documents, namely, that "*all young Australians become successful learners, confident and creative individuals and active and informed citizens"* (MCEETYA, 2008, p. 8). Indeed, it was stated in a crystal clear fashion in the WA Curriculum Council's document that the "*Australian Curriculum must explicitly embrace the principle of inclusivity*" (WA Curriculum Council, 2010, p. 1).

The Equity Advisory Group of WA also made recommendations to the WA education authorities pertaining to equity. These found expression in the WA Curriculum Council's document where it was stated that the "*needs of a range of students were considered*', including those of "*students from linguistically diverse backgrounds*" and "*students with disabilities and learning difficulties*". Additionally, 'inclusivity' was also emphasised in the following statements related to providing appropriate professional support for teachers:

> *Foundational statements need to be provided that are age appropriate and relevant to the needs of students with disabilities. Support needs to be provided to assist teachers to adapt the curriculum to cater for the diversity of needs of all students in their care* (WA Curriculum Council, 2010, p. 12).

> *Further work, however, needs to be undertaken in regard to the development and provision of additional curriculum resources to support the teaching and learning of students with disabilities and additional needs* (SCSA, 2014, p. 6).

Clearly comments of this nature indicate in relation to 'C21 curriculum' policy at the State level in WA that there was a major desire to ensure that matters of quality and equity would be emphasised in order to try to meet the national goals expounded in the Melbourne Declaration.

Policy Text production (State Level)

The nature of the State level policy texts produced in WA reveals the existence of a dominant theme, namely, that of **contested knowledge for the 21st century**. We now elaborate on this theme.

Contested knowledge for the 21st Century

As with the documents produced at the national level, the documents produced at the State level in WA reflected a view that what should constitute knowledge for the 21st century is a contested matter. Although the contestation was not as intense as that which took place at the national level, certain similarities existed, including the insufficient priority given to C21 skills and selecting the skills and values that best represent WA's curriculum. The balancing and integration of cross-curricular priorities were a challenge seen from the following statement:

> *Further work is needed by the ACARA* [Australian Curriculum, Assessment and Reporting Authority] *on the explicit inclusion of Indigenous perspectives throughout the document. The Draft does not clearly define what Indigenous perspectives means. By encouraging students to compare modern Science with that of a traditional ancient culture, there is a danger that Indigenous Science and perspectives may be seen by students as unsophisticated* (WA Curriculum Council, 2010, p. 6).

Further, content and skills were seen to be competing with one another as it was also stated that "*caution should be exercised to ensure that the general capabilities do not become a de facto curriculum at the expense of specific content knowledge*" (SCSA, 2014, p. 6). At the same time, applicability and integration of these cross-curricular priorities were highlighted as issues not to be taken for granted; "*cross-curriculum priorities must not be 'force-fitted' to subject curriculum content, where in reality, there is no pre-existing condition"* (SCSA, 2014, p. 6). For example, it was stated that "*not all of the cross-curriculum dimensions fit into the mathematics curriculum* (WA Curriculum Council, 2010, p. 12).

Two implications can be drawn from both documents. First, it can be implied that disciplinary knowledge was seen to have priority over skills and global knowledge. Secondly, the indications are that it was difficult to integrate C21 skills in certain learning areas. This suggested that C21 skills should be taught as a separate domain, rather than in an integrative manner across the curriculum.

Another contention around 'C21 curriculum' policy refers to the selection of skills, behaviours and dispositions that would best represent students' needs. While the WA Curriculum Council and SCSA's documents acknowledged the importance of general capabilities that were reflected in the MDEYA document, data revealed that the selection of "skills, behaviours and dispositions" were not always relevant and applicable to students of different learning needs (SCSA, 2014, p. 6). It was also stated that "*the Declaration sets an expectation that an Australian Curriculum must explicitly embrace the principle of inclusivity*" (WA Curriculum Council, 2010, p. 1). The submission by the Equity Advisory Group of WA reinforced this 'inclusivity' agenda by stating that "*Australian schooling promotes equity and excellence*" (WA Curriculum Council, 2010, p. 12).

It was revealed at the State level, however, that the needs of students with learning difficulties and special needs were not prioritised in the Australian Curriculum. The subsequent quote demonstrates this gap:

> *For students with special educational needs, a framework is required to allow teachers to readily identify clear and consistent guidance with regards to explicit differentiation of the curriculum, particularly for students with significant special educational needs* (WA Curriculum Council, 2010, p. 13).

In similar vein, the WA jurisdictional response to the national Donnelly-Wiltshire Review of 2014 was that the general capabilities were still seen to exclude students with disabilities and special educational needs. This was reflected in the statement below: "*Further work, however, needs to be undertaken in regard to the development and provision of additional curriculum resources to support the teaching and learning of students with disabilities and additional needs"* (SCSA, 2014, p. 6). The selection of 21st century knowledge is seen here to have been a challenge because C21 skills seemed to be more personalised for the general Australian population, compared to students with disabilities and learning difficulties. This shows that there can be tension in integrating these skills to meet the needs of all Australian students, especially disadvantaged students.

Along with content and skills, the selection of values in 'C21 curriculum' policy was in contention because the interests of all multicultural groups in Australia were not represented. In the response to the Australian Curriculum submitted by the WA Curriculum Council in 2010, the submission made by the Aboriginal Committee of WA indicated that there was insufficient Aboriginal content in the history curriculum: "*there is a general lack of Aboriginal Content, particularly in the Years 6-8. The curriculum has a very Eurocentric perspective*" (WA Curriculum Council, 2010, p. 10). In the second submission by the SCSA in 2014 it was indicated that the "*cross-curriculum priorities have been included in the Year 11 and 12 syllabuses*" (SCSA, 2014, p.6). However, there was no submission made by the

Aboriginal Committee of WA this time. Since the selection of values is dependent on the representation of interest groups in the policy production process, this could potentially be a source of conflict in the policy processes associated with a 'C21 curriculum'.

Conclusion

In conclusion, an analysis of 'C21 curriculum' policy processes at the national level in Australia revealed that there were significant **global** and **national** influences at play. Global influences at the national level reflected pressures to meet ***increasing competition in the global world*** and to pursue a ***drive for quality***. Increasing economic competition was seen to be exacerbated by accelerating economic development in neighbouring Asian countries in particular. Education competition was also foregrounded as there was pressure to perform well in international comparative testing as well as in providing equity for students. There was also a trend towards international ***policy borrowing*** and an ***aligning with the OECD's agenda***. Documents indicated comparisons with international research and practice in terms of the scope of 'C21 curriculum' and quality assurance. The dominant role of the OECD was also reflected where directions recommended by the OECD, especially in terms of achieving quality and equity, were highlighted.

Due to increasing globalisation the rationale for having 'C21 curriculum' policy in Australia was stated to be that it was '***in the national interest'*** to enhance the nation's competitive positioning in comparison to other countries. Under the national Australian Labor Government (2007–2012), it was believed that globalisation had resulted in an urgent need to prepare Australian citizens to cope with the changing nature of jobs by having the necessary skills, and that these could be developed through a 'C21 curriculum' policy. However, under the Australian Coalition Government (2013-), the focus shifted somewhat to equipping students with moral and spiritual values as a means of coping with the effects of globalisation.

While the three 'C21 curriculum' policy texts at the national level refer to the MDEYA document as being instrumental in forming the foundation of 'C21 curriculum', different approaches are recommended. This indicates that 'C21 curriculum' texts can be complex, contested and **evolving**. The policy texts also reflect **economic discourses** because under the Labor Government (2007–2012) there was a strong focus on equipping students with skills for employment purposes.

While the Coalition Government's (2013 -) version of a 'C21 curriculum' had a smaller emphasis on employment rationales, its focus on education competition reflected economic discourses as well. Furthermore, the policy texts are characterised by **tensions in political ideology** and **contested knowledge for 21st century**. Tensions in political ideology are apparent as the 'C21 curriculum' under the Labor Government (2007–2012) reflects strands of liberal economic ideas due to its emphasis on skills and employability. On the other hand, the ideology adopted by

the Liberal Government was more 'liberal-humanist'. This triggered contestation over the selection of 'C21 curriculum'. This ranged across knowledge, skills and values on global citizenship.

At the State level in WA, a 'C21 curriculum' policy was adopted due mainly to **national** influences. Analysis undertaken at the State level revealed the **national** agenda of ***standardisation*** and a policy that would be ***'in the national interest'***. The documents submitted in 2010 and 2014 highlighted WA's motivation for adopting the Australian Curriculum. This involved enhancing Australian students' understanding on the impact of globalisation, and aligning the Australian Curriculum to the national goals of quality and equity. In terms of policy text production, documents at the State level reflected **contested knowledge for the 21st century**. This involved a challenge in balancing detailed specification of content and C21 skills, as well as integrating C21 skills successfully across all learning areas.

The next three chapters present results that relate to the local (three case-study schools) level, based on the research questions on policy influences, policy text production and policy enactment.

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Chapter 6
Results Relating to the Micro (School) Level – Case Study 1

Abstract This chapter is the first of three chapters that present the results of the research undertaken at the school level of the policy trajectory under examination and each has a similar structure. What is reported here are the results from the first case study, 'Pepper' School, on the three main contexts of the policy trajectory – policy influences, policy text production and policy practices/effects (enactment) – analysed. Data were generated through engagement in five individual interviews; one focus group discussion with five students and two school documents entitled the *Teaching and Learning Framework* and *21st Century Learning Design*. The 'C21 curriculum' adopted there, a secondary school, was spoken about as being based on the school's '21st century learning design professional development model.'

> *"I see 'C21 curriculum' as almost a political term. It has become the latest education theory and really it's just a new name for what we were doing."*
> –Teacher, 'Pepper' School (2016)

Introduction

This chapter is the first of three chapters that present the results of the research undertaken at the school level of the policy trajectory under examination and each has a similar structure. What is reported here are the results from the first case study, 'Pepper' School, on the three main contexts of the policy trajectory – policy influences, policy text production and policy practices/effects (enactment) – analysed. Data were generated through engagement in five individual interviews; one focus group discussion with five students and two school documents entitled the *Teaching and Learning Framework* and *21st Century Learning Design*. The 'C21 curriculum' adopted there, a secondary school, was spoken about as being based on the school's '21st century learning design professional development model.'

The teacher participants consisted of one member from the school leadership team and four from a range of learning areas who had various lengths of teaching experience. Interviewing with these personnel took place also because they all had close involvement with the enactment of 'C21 curriculum' in the school. Similarly,

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students who engaged in focus group discussions were drawn from those in Year 10 and Year 11 who were involved in specific programs relating to the 'C21 curriculum'. Further, we selected the two documents named above because of the rationale and direction they provided in relation to the school's 'C21 curriculum.'

Code names were given to the different sets of data. The school leader interviewed was labelled PL1 (i.e. 'Pepper' School Leader) and the other four teacher participants were labelled as PT2, PT3, PT4 and PT5 (PT referring to 'Pepper' School Teacher). Data from the focus group discussion were labelled as PSF6 ('Pepper' School Students Focus-Group) and documents were labelled as PD7 ('Pepper' School Documents).

We generated three major themes with regard to policy influences, three with regard to policy text production, and six with regard to policy practices/effects (or enactment). We then have labelled the themes in bold and the sub-themes in bold italics. Finally, given the focus of the next section of this chapter, it is apposite to state that we were assisted in making sense of the policy enactments within the school setting through a description of the school background that drew on the work of Braun, Ball, Maguire, and Hoskins (2011).

Background to 'Pepper' School

According to the school website, 'Pepper' School is an inner-city school that has been in existence for more than 50 years. It is also a single sex school and has consistently been ranked in the top 20 schools on State league tables. It attracts students from the upper middle-classes and there are many international students in attendance. It has established a 'sound' reputation for itself in terms of academic accomplishments and boasts of having several alumni members who are well-known in the national and international spheres.

The school invests in the professional development of its teachers through providing and financing internal and external training programs. Further, according to the school leaders, it has a large financial budget that they can draw upon for these purposes. In terms of material conditions, the school building is located on an eight-hectare site and has excellent facilities, including a 750-seater theatre room and a heated swimming pool. It also has teaching rooms in which such modern technology as that for video-conferencing has been installed. Additionally, a resource centre that teachers use widely exists, while the authorities have established a partnership with Microsoft Office, the latter being responsible for the technological services provided throughout the campus.

The cost of school fees is on the high end of the spectrum. Furthermore, there is immense pressure on staff from parents to ensure that performance in State and national examinations is excellent. We were cognisant of all of these features of the school when we selected it as a case study. Additionally, we were influenced by the fact that it emphasises on its school website that it incorporates C21 skills in its curriculum.

Context of Policy Influences

We generated three themes from the data in relation to influences on the development of 'C21 curriculum' at 'Pepper' School. These are global, national and local influences highlight them in bold below. Furthermore, each theme is sub-divided into sub-themes. These are represented below in bold italics.

Global Influences

We identified two global policy influences in relation to Pepper School's 'C21 curriculum' policy. These are ***increasing competition in the global world*** and a ***move towards a knowledge-based economy***. They are now elaborated upon in the two sections that follow.

Increasing Competition in the Global World

We identified ***increasing competition in the global world*** as a prominent sub-theme. On this, a strong view at the school was that its 'C21 curriculum' constitutes an attempt to improve performance and positioning in national and international league tables. Relatedly, a participant noted that international testing such as that conducted by the OECD has demonstrated that Australia is not "*perhaps as strong as other countries in Mathematics*" (PL1). This, however, was not said in a manner that indicated concern. Rather, as with others, what that participant added was criticism about a perceived push to keep pace with education developments powered by global competition. On this, it was stated:

> *I see 'C21 curriculum' as almost a political term. It has become the latest educational theory and really, it's just a new name for what we were doing. A new generation of people or politicians come in and they say, 'oh we see that there's a gap, we're falling behind Finland for instance, so we've got to do a catch up'* (PT3).

Move Towards a Knowledge-Based Economy

A ***move towards a knowledge-based economy*** was identified as another important influence in forging a 'C21 curriculum'. On this, a school leader maintained: "*Globally there's a push for a recognition of the knowledge economy*" (PT1). This view it was claimed arose out of an emphasis on building human capital, with an associated upgrading of skills also deemed by a number of participants to be important in increasing economic productivity: "*jobs are going to be changing*" (PSF6); "*there is quite a shift in terms of the types of skills that are valued in the*

marketplace" (PT5); and a 'C21 curriculum' is "*an attempt to look at the skills that people need in the workplace and what they really need in the modern environment*" (PT2).

An emphasis internationally on the importance of technological skills was also noted by participants. Typical comments on this were that "*technology is a huge driving force*" (PT4), technology is "*always evolving*" (PSF6), and the world is increasingly becoming "*digital*" and "*interconnected*" (PD7). Hence, it was held, the emphasis in a 'C21 curricula' on technological skill being essential to "*navigate*" technology (PT4) and on "*a compelling need to develop transferable learning-how-to-learn capabilities in student learners*" (PD7) was embraced.

National Influence

A push for curriculum reform ***'in the national interest'*** was identified as the main sub-theme within the theme of national influences.

'In the National Interest'

Most of the participants in the study stated that there was concern surrounding the Australian economy due to the impact of globalisation, particularly in relation to what they termed inadequate job skills. A 'C21 curriculum' was seen by them as providing a way to address this gap ***'in the national interest'***. On this, a school leader noted that the current Australian economy is lacking in "*people to fill the jobs that the government would like us to have*" (PL1). This participant also argued that "*the deficit is a weakness that drives national policy to address those particular skills. I think that's partly what's driving the push for more STEM* [Science, Technology, Engineering and Mathematics] in schools *at the moment*" (PL1).

Others argued that the changing employment landscape requires that appropriate relevant work skills be taught in schools. One participant commented on this thus:

> *I think there's an increasing rise of unemployment in white collar careers. So, in a school such as ours where the majority of students go to university, that impacts on them greatly. There's has been quite a shift in terms of the types of skills that are valued in the marketplace and the workforce and we are not always providing them* (PT5).

The rise and fall in the fortunes of certain industries, including the mining industry, also led some to cogitate the importance of relevant work skills. Another participant in commenting on this, stated:

> *I think particularly in WA* [the State where the study was conducted]*, we're probably going through a shift from the mining boom where a lot of jobs were operating machinery and so forth. Now, probably those workers will have to upskill and find different positions, seeing as that's all over now. This situation poses new challenges for us in the school.* (PT4).

Local Influences

Two major sub-themes were identified in relation to local influences. They are the school's ***stance on knowledge and learning;*** and ***fulfilling and adding depth to the Australian Curriculum***.

Stance on Knowledge and Learning

A sub-theme identified as a school level influence was its **stance on knowledge and learning**. On this, the development of a 'C21 curriculum' in 'Pepper' School was strongly influenced, it was held, by both instrumental purposes and by a motivation to meet students' diverse needs. Regarding the first of these, there was a strong focus on the instrumental purposes of education, with both teachers and students emphasising the importance of aligning learning to employment opportunities that will exist in the future.

A majority of the students identified a shift to problem-solving skills in their learning areas, especially in the science, technology, engineering and mathematics (STEM) subjects. Comments such as "*they're looking for more women in STEM*" (PSF6), "*that's where the jobs are*" (PSF6) and there is a need to "*broaden views on what we can do when we leave school*" (PSF6) also revealed pragmatic discourses. On this, a teacher posited that "*increasing competition means that kids need to be able to have very transferrable skills*" (PT5). Views like this, it would appear, further reinforced the link between 'C21 curriculum' and increasing employment opportunities. Students also shared similar views about the importance of technology for the future, with one student participant noting: "*When we leave school by the time we're in the workforce, all the jobs are going to be changing and we're going to need to learn how to use technology in certain ways*" (PSF6).

Meeting students' diverse needs was identified as another reason for the 'C21 curriculum' policy at 'Pepper' School. Two teachers and one student commented that the existence of this curriculum was an acknowledgement that there are many different types of students. Accordingly, it was stated, it could address their different needs as it aims to be student-centred rather than teacher-focused. As one put it: "*Because people learn differently and they're trying to cater to more learning styles, the practical stuff*" (PSF6).

A desire was also expressed as follows for a change to a more 'robust' curriculum in terms of incorporating technology within it:

> *From an evaluation we did on the use of ICT in the college, it indicated that staff were using ICT very well for teaching. However, students had limited opportunities to use ICT for learning which indicated that they didn't have the opportunity to make many choices around how they learnt or what they learnt or what path to take through that learning because ICT can provide a multitude of ways to be able to do that* (PT5).

This view was supported by another, who stated:

> *We've got different types of learners than we've had in the past. Students can access information. They don't need the teacher to be the disseminator of information anymore. They can Google something and find out more than teachers know in thirty seconds. So I think that's really driven a shift for, or a recognition of, the fact that students actually need skills more than they need content or specific facts that are irrelevant to them* (PL1).

In summary, a belief was expressed that a 'C21 curriculum' supports the achievement of multiple education goals, including equipping students with content knowledge and skills to help them succeed in the work force and to address their different needs.

Fulfilling and Adding Depth to the Australian Curriculum

With respect to the Australian Curriculum, teachers at the school acknowledged that aspects of the Australian Curriculum contain features of a 'C21 curriculum' because of its inclusion of statements within it emphasising the importance of promoting general capabilities and cross curriculum priorities. Hence, those at 'Pepper' School did not regard the existence of its 'C21 curriculum' as being an aberration. Rather, they saw it as a means of ***fulfilling and adding depth to the Australian Curriculum*** by adopting a particular learning design. On this, a teacher participant stated that "*there's no concrete policy* [that is labelled as a 'C21 curriculum' policy] *that's actually in place but obviously with the general capabilities and looking at those skills, there are certain related programs in place*" (PT2). This perspective was also articulated by another teacher:

> *We were kind of ahead of the game in implementing the Australian Curriculum and they dedicated time for each department to work on the Australian Curriculum before it had to be implemented. So, I guess then, the general capabilities and the cross-curriculum priorities had to be all mapped across each subject area in that time. So 21st century learning skills kind of came into being for that* (PT4).

Further, document analysis revealed that at 'Pepper' School, teachers taught C21 skills in accordance with the proposals on the teaching of general capabilities as outlined within the Australian Curriculum. On this, information communication technology (ICT) is one of the seven general capabilities listed in that curriculum. Thus, it is not surprising that statements from school documents include one that states that one should "*use available technology tools, to transform the learning process and demonstrate C21 skills*" and that "*these 21CLD* [Century Learning Design] *program materials were relevant to our Australian context and aligned with the directions of the Australian Curriculum*" (PD7).

Participants also saw a 'C21 curriculum' not only as a mere avenue for achieving the objectives of the Australian Curriculum, but also as a concerted effort to provide extra depth to it. On this, a school leader had the following to say:

> *The policies that they* [the government] *put forward should be followed, and not just be given lip service. I think that's what the general capabilities run the risk of being given by some schools because if you can fit what you've always been doing into this new curriculum, you just kind of change a few headings on your program* (PL1).

Context of Policy Text Production

Three themes were generated on the 'C21 curriculum' policy at 'Pepper' School that demonstrated the existence of views on **contested knowledge for the twenty-first century** and on the existence of **powerful knowledge actors,** including ***consultants***. In addition, the theme of the predominance of **economic discourses** was also generated in relation to policy text production.

Contested Knowledge for the Twenty-First Century

The existence of **contested knowledge for the twenty-first century** was, it appears, an issue that arose during the construction curriculum policy at 'Pepper' School. On this, there was a general understanding that technology should play a primary role in delivering C21 skills. According to the school's 'Teaching and Learning Framework', the aim was to "*deliver available technology tools to transform the learning process and demonstrate C21 skills*" (PD7). This suggested a view that there was a direct positive relationship between using technology and acquiring C21 skills.

Relatedly, one teacher participant elucidated the importance of technology in saying that

> *Technology is not a requirement in every single class but it definitely needs to be embedded on a regular basis where it's meaningful – whether it's used to Skype with somebody or whether it's used for collaboration. The Office 365 has fantastic collaboration tools* (PT5).

By contrast, another voiced a view that some teachers were "*confused between 21st century learning skills and Office 365 tools*" (PT5) and that this resulted in the emergence of a "*disconnect*" (PT5) and an understanding that C21 skills might not necessarily require having a technological focus in the school. In similar vein, another teacher challenged the school's definition of a 'C21 curriculum' in making the following comment:

> *The impression that I got from what we were being presented was that it was something to do, and primarily to do, with technology. That didn't sit comfortably with me because I kept thinking it's actually more than technology. So, to me, essentially it boils down to really good teaching. It's making the student the centre of the learning process* (PT3).

Powerful Knowledge Actors

The 'C21 curriculum' at 'Pepper' School was strongly characterised by the influence of **powerful knowledge actors**. These included academics and particular international organisations. Regarding the latter, the Microsoft Company, which acted as a knowledge broker, introduced a model of a '21st Century Learning

Design' in the school that, a participant stated, was created by "*undertaking a global research project in partnership with Stanford Research Institute (SRI) International and Langworthy Research*" (PD7). In addition, the Microsoft Company, it was claimed by another, consulted Australian researchers to ensure that its materials would be "*relevant to the Australian context and aligned with the directions of the Australian Curriculum*" (PD7). It was also claimed that efforts were made to obtain related feedback from "*each State and Territory in Australia*" (PD7) in order to try to ensure that the '2lst century learning design model' would be credible and applicable locally. References like these to a structured '21st century model', to partnerships with research institutes, and to the involvement of local researchers, were made time and again by participants at 'Pepper' School and served to reinforced the view that matters of knowledge credibility and authority in education played a major role in the development of its curriculum policy.

Use of Consultants

The ***use of consultants***, and particularly the Microsoft Company as a knowledge broker, was also another key characteristic of the knowledge authority appealed to by 'Pepper' School in the production of its 'C21 curriculum' policy text. Indeed, the company had had a prior relationship with 'Pepper' School, having provided it with such technological support as Office 365. Further, it provided technological knowledge deemed complementary to that required to acquire C21 skills:

> *Rather than bringing in* [a consultant on C21 skills] *that's different, bringing in Microsoft fits with what teachers are already familiar with. Teachers have laptops that run Microsoft Office. We are using Office 365 as our platform for our online OneNote's and online PowerPoints and all of those things. It kind of fits in with where we were already headed in terms of technology use as well* (PL1).

Additionally, Microsoft provided direction in terms of the selection of five other C21 skills. These were identified by one participant as"*skillful communication, collaboration, self-regulation, real world problem solving, and knowledge construction*" (PD7).

Known as a '21st century learning design' model, teachers considered it would enlighten peers on the general capabilities to be taught through the Australian Curriculum, a matter on which some uncertainty existed nationally. On this, one teacher commented:

> *It's provided us with a framework. There's something very difficult about the general capabilities of the Australian Curriculum and it's so hard to measure. You can map how you're using it but it doesn't really give you any kind of process to follow and to see if you are actually really using collaboration for the students* (PT5).

In addition, the majority of teachers considered that the adoption of the '21st century learning design' model would act to enhance their knowledge of C21 skills by providing evaluation tools for teachers. The following statement on this was made by one teacher participant:

> *The advantage of the 21st Century Learning Design that we liked over other 21st century learning skill paradigms including the one that's in the Australian Curriculum, was that it has the rubric that enables teachers to be able to actually use it* (PT5).

Microsoft also provided training services that informed teachers about C21 skills.

Members of school staff closely involved in training to use the '21st century learning design' model had to attend at least one full day of training conducted by a trainer provided by Microsoft. They had to then form 'professional learning communities' and became involved in at least 12 sessions, during which they discussed strategies on improving the teaching of C21 skills. The school leader applauded this and the associated training as a means of providing "*substantial support*" (PL1) for the teachers. Not all responses, however, indicated that the training was welcomed by all teachers. Indeed, one teacher criticised the training as being "*restricted*" and being the "*antithesis*" of what twenty-first century learning was about. On this, she claimed in particular that she and fellow teachers were not allowed to be "*creative, collaborative and reflective*" (PT3).

Economic Discourse

Economic discourse was identified as another dominant theme within the curriculum policy of 'Pepper School'. On this, the need to orient the school to be prepared for the knowledge-society and the change to an Australian Curriculum highlighting twenty-first century learning were associated major influences that triggered leaders at the school to construct a 'C21 curriculum'. One associated view was that the "*assistant dean of teaching and Learning* [in the school] *and four teachers who were representatives of the four MESH subjects of maths, English, society and humanities*" (PL1) were responsible for introducing the school's 'C21 curriculum' policy. Another teacher, who was also the head of the technology learning area, was encouraged to "*approach*" (PT5) Microsoft for advice because of the existing relationship that the school had with the organisation.

The Microsoft model eventually became the mandatory model adopted by the school.

Nevertheless, one teacher considered that the leadership given by the organisation proved to be an obstacle in the execution of individual leadership in relation to the 'C21 curriculum' policy. On this, she stated that the notion that Microsoft was directing a single model of 'C21 curriculum' in the school compromised her professional ability to make choices. The associated constraints, she felt, were shared by others, thus indicating the existence of some level of resistance towards the production of an authentic and owned 'C21 curriculum' policy in the school. She elaborated, saying:

> *I've said to her* [a member of the school leadership team] *'look my whole idea is quite different* [to that of Microsoft] *and I've done the reading and here are some articles that I've found'. She's willing to listen but there isn't that negotiation at all. It's top down. The approach is one of 'this is what we're doing and you will do it'* (PT3).

Context of Policy Practices/Effects (Enactment)

Six themes were generated with regard to the enactment of the curriculum policy at 'Pepper' School. They were related to **the complex nature of C21 skills, the complex role of teachers' professional experience**, **the contestation about C21 skills in different learning areas, the constraints of testing, contestation about teachers' professionalism;** and **the generous budget available.** These themes are now developed in the sections below.

The Complex Nature of C21 Skills

Issues associated with the **complex nature of C21 skills** were revealed during the enactment of a 'C21 curriculum' policy in the classroom. C21 learning, it was held, was particularly evident in extension activities engaged in by students of high ability. This was an example, it was held, of "*gifted and talented programs being seen as vehicles to extend those students in C21 skills* (PT4). Students also deemed that aspects of a 'C21 curriculum' were evident more in extension activities compared to what took place within regular classes in specific learning areas. On the one hand, some even claimed that particular aspects of a'C21 curriculum' were not evident at all in particular regular classes. On the other hand, others, as one put it, "*said that they were starting to do that type of thing, in the extension program – critical and creative thinking.*" (PSF6) *The person in question also concluded by saying:* "*This I think is good*" (PSF6). Additionally, when first asked if they had heard of the six skills found in the '21st Century Learning Design' model adopted by the school, quite a few said they had not, yet they then went on to list a series of extended activities, including one who mentioned "*Harry Perkins*, *Lego*, *High Flyer* and *Maths Mentor*" (PSF6). These are all programs that focus on critical thinking and problem-solving skills that have been identified as C21 skills.

The Complex Role of Teachers' Professional Experience

Another major theme, the **complex role of teachers' professional experience,** was also generated by participants with regard to the enactment of a 'C21 curriculum' policy in the classroom. The school leader in fact shared her vision of an ideal education as being not only "*content specific*" (PL1), but also one that includes "*skills* and *cross-curriculum priorities*" (PL1). As a result, she said, she made efforts to "*embed skills within assessment tasks*" (PL1) in her area of focus, namely, the middle school years. Her associated professional values on knowledge and learning, she claimed, resulted in her being supportive of the stance taken on 'C21 curriculum' policy at 'Pepper' School. Another participant, one who coordinated the use of

technology in the whole school, spoke about the "*absolute necessity of being able to use technology in the 21st century*" (PT4) and, to this end, of embracing "*a blended learning approach and a view of the digital environment being an extension of the physical environment*" (PT4). Thinking like this in her professional capacity, she said, led to her steering the IT program at Pepper School in a manner that contributed to an enactment of 'C21 curriculum' in the classroom.

Students also spoke about the teaching ideology of their teachers and how a seemingly 'dated' teaching method could limit the enactment of 'C21 curriculum' policy in the classroom. One student drew attention in this regard to one specific incident involving a particular teacher:

> *He is quite reluctant to follow the new ways of teaching like the use of technology and the use of learning intentions. He wants to use his old chalkboard back where he can just write notes and everyone can copy them down* (PSF6).

This and similar sentiments expressed by others indicated a perception amongst students that teachers' prior professional experiences led to different levels of commitment to enacting the curriculum policy reforms at 'Pepper' School.

Contestation About C21 Skills in Different Learning Areas

This theme was also generated. On this, according to some teachers, the various characteristics of different learning areas sometimes made the teaching of C21 skills difficult. For example, it was argued by the school leader that the new integrated HASS (humanities, arts and social sciences) curriculum prescribed by the State Education Department is very "*content driven*", resulting in it "*involving very much a rote-learning of content*" (PL1). Hence, she concluded, "*there's very little 21st century learning* taking place in the school" (PL1). In fact, mathematics was identified as being a subject in which where "*there is no 21st century learning*" (PT3) taking place since "*pre-defined targets need to be hit by students when in in Year 11 and 12*" (PT3). "Targets" here refers to specific test scores that students are expected to attain in the last two years of their senior secondary schooling. Further, what was implied is that 21st century learning is avoided lest it impedes the achievement of high examination scores in the subject.

Students did cite "*media photography-based subjects*" (PSF6) as a learning area that incorporates twenty-first century learning. This, they held, is due to the focus in the subject on "*communication and relevance to real life*" (PSF6). Observations like this, indicating that teachers of some subjects support the teaching of C21 skills while others oppose it, indicate that the area can certainly be contested and not just at the macro level but also at the micro level.

Constraints of Testing

Constraints of testing was another theme generated in relation to the enactment of a 'C21 curriculum' at 'Pepper' School. On this, one teacher pointed out that "*in the current education environment, the end goal for most of the students in the school is quite traditional and it is quite university focused*" (PT2). What was being indicated here was a belief that performing at a standard that would make entrance to university possible was the most important education objective of students. This belief was echoed by another teacher who stated:

> *In Years 11 and 12, you're hitting those syllabus points because there is the Semester 1 exam, Semester 2 exam and then you've got the WACE* [Western Australian Certificate for Education] *in Year 12, for which you have to prepare the students. So there's no room for that flexibility and the students do not expect any* (PT3).

Yet another commented that the enactment of a 'C21 curriculum' policy is difficult as the priority of school authorities is to try to ensure that Year 11 and 12 students do very well and that the school, as a result, obtains "*a high position on the education league tables*" (PL1). "*Bringing in practices to do* with C21 curriculum", she held, "*might mess what is being done to help in that*" (PL1). In others words, a general suggestion of teachers was that because there was an emphasis in the State and nationally on high stakes testing, such as that conducted through WA's WACE (Western Australian Certificate for Education) examinations in Years 11 and 12, the teaching of C21 skills was given little priority. Furthermore, a view was expressed that this should continue to be the situation if it might hinder the process aimed at trying to ensure that students obtained high scores for public examinations.

Another perceived constraint of testing for teachers was the nature of the assessment of C21 skills. One teacher drawing attention to this noted that C21 skills are "*difficult to assess*" (PT5) and another asserted that these skills have no measurable outcomes, thus resulting in difficulties in prioritising them in the classroom. He went on to say that "*we are not assessing the students in terms of how good they are at collaboration and similar skills, so why should we spend a substantial amount of our time focusing on them.*" (PT2).

Contestation About Teachers' Professionalism

Deliberation on the nature of a 'C21 curriculum' also led teachers to engage in **contestation about teachers' professionalism**. While some said on this that they benefitted from the professional development associated with efforts to introduce elements of such a curriculum', others declared they were sceptical regarding its impact on their professionalism. Indeed, one challenge identified in the latter regard was "*change fatigue*" (PT1). Relatedly, some did not see a 'C21 curriculum' as being innovative and fruitful. Rather, as one put it, it was yet another amendment to an ever-changing and over-crowded curriculum and thus a distraction. She went on:

> *Whenever they come out with something new now, I don't get excited. I just wait until the very last minute when they say you've got to do it and you go 'okay' because if you get on the bandwagon right at the beginning, it goes through 7000 changes. You waste all this time and then the outcome is totally different* (PT3).

In addition, there was a view that experience with the enactment of a 'C21 curriculum' had contributed to the growth of at least two perspectives amongst teachers on their professional development. First, as one teacher put it, there is a perspective that discussion in the school on a 'C21 curriculum' led to robust engagement with one another that promoted reflection. She went on:

> *The focus on 21st century learning skills is a 'ground roots' type of approach rather than a policy being inflicted on everyone. This whole process has given people a chance to talk about it, reflect on their practice and help one another* (PT5).

Secondly, there was a perspective that while the professional dialogue and discourse is really helpful, a twenty-first century learning design curriculum model with its pre-ordained objectives, often stated in outcomes form, "*should not be driving everything, because then creativity and collaboration get stifled quite a lot*" (PT3).

Generous Budget

Many acknowledged that they enjoyed the possibilities offered by the school's **generous budget,** which was drawn upon to provide assistance for them in their efforts to develop their ability to teach C21 skills. Almost all of the teachers explained that one area that benefited from this budget was the sophisticated infrastructure that supported technological learning. This, it was argued, was a great help, as it allowed the school to get "*expertise from a Microsoft consultant*" (PT4) and "*additional school administrative staff to help in implement processes*" (PT4). It was also drawn upon to allow staff to avail of training opportunities recommended by the school's dean of professional learning development and growth. Furthermore, it was used to fund the purchase of journals and articles on education.

Conclusion

The analysis of the data generated at 'Pepper' School resulted in the identification of policy influences on a 'C21 curriculum' there as originating at the **global**, **national** and **local** level. The global influences having an impact on the development of 'C21 curriculum' included ***increasing competition in the global world*** and a ***move towards a knowledge-based economy.*** These influences were mainly seen to originate in drives for efficiency and competitiveness due to Australia's desire to improve economically in the world.

Due to pressures of globalisation, the national impetus for a 'C21 curriculum', it was argued, was because of a ***'national interest'***, and mainly to address the existence of inadequate job skills. The view was that by having a 'C21 curriculum' at 'Pepper' School it was playing its part in ***being faithful and adding depth to the Australian Curriculum*** by attempting to shift curriculum and pedagogical practices to a new and higher level. At the same time, there was also an effort to reflect the school's own ***stances on knowledge and learning*** and especially in assisting students become more competitive in the workplace and addressing their different needs.

The construction of the 'C21 curriculum' policy text at 'Pepper' School was linked to **powerful knowledge actors** informed by the use of the Microsoft model on C21 skills made available to them by consultants. However, 'C21 curriculum' policy at the school was also contested. This was particularly evident in relation to divergent responses to the use of external consultants from the Microsoft Company. Tensions were also revealed as having arisen in relation to **contested knowledge for the twenty-first century** due to differences in perspectives pertaining to the priority given to technology in the school. Further, **economic discourses** in the policy text were privileged to a certain extent because of the decision to adopt the Microsoft model of a 'C21 curriculum' and arguments about the importance of providing students with work-related skills.

A number of themes were also generated in relation to the context of 'C21 curriculum' policy enactment. Specifically with regard to teachers, these included the **complex role of teachers' professional experience**, their perspectives on the **'complex' nature of C21 skills**, and **the contestation of C21 skills in different learning areas**. Relatedly, many teachers expressed a belief that the professional dialogue that emerged from having a 'C21 curriculum' led to increased professionalism.

Nevertheless, some held that the use of the mandated Microsoft model had led to a reduction in their professional creativity. Added to this was the perspective of certain teachers and students that such particular higher-order twenty-first century thinking skills as creative thinking were only promoted in the school's programme for gifted students, thus suggesting that C21 skills were seen in certain quarters to be complex and best suited to being taught only to the school's 'elite'.

There were also **constraints of testing** that affected practices in the classroom. These included constraints of assessing C21 skills and the constraints of high-stakes testing. Additionally, the indications are that the 'C21 curriculum' at 'Pepper' School contributed to **contestation about teachers' professionalism** amongst the school's teachers, while at the same time providing both growth opportunities and challenges for teacher professionalism. Furthermore, the **generous budget** available to school staff facilitated the enactment of a 'C21 curriculum'.

The next chapter reports results from 'Mint' School. In constructing its specific 'C21 curriculum' this school took a different approach to that taken at 'Pepper School'. In particular, it focussed on creative and critical thinking, which are widely believed within the school to be C21 skills, and to relate broadly to requirements of

policy at national and State (WA) levels, as well as those coming from the international arena.

Reference

Braun, A., Ball, S., Maguire, M., & Hoskins, K. (2011). Taking context seriously: Towards explaining policy enactments in the secondary school. *Discourse: Studies in the Cultural Politics of Education, 32*(4), 585–596. https://doi.org/10.1080/01596306.2011.601555

Chapter 7
Results Relating to the Micro (School) Level – Case Study 2

Abstract This chapter is the second of three chapters that present the results of the research project reported here on individual schools. It follows a similar structure to Chap. 6. Further, it relates to the second case study school, 'Mint', where the three main policy contexts – policy influences, policy text production and policy practices/effects (enactment) – were examined. Seven sets of data were analysed. These were based on five individual staff interviews, one focus group interview with five students, and documents on school websites. The latter included leadership messages as well as vision and mission statements. The 'C21 curriculum' adopted and adapted at 'Mint' School was primarily based on its 'thinking skills program' that was informed by Bloom's Taxonomy (2001).

> *"It* ['C21 curriculum'] *has probably got to do with advertising and trying to sound on the edge because we are a society that's very much concerned with 'next thing', 'next thing', 'next thing'".*
>
> –Teacher, 'Mint' School (2016)

Introduction

This chapter is the second of three chapters that present the results of the research project reported here on individual schools. It follows a similar structure to Chap. 6. Further, it relates to the second case study school, 'Mint', where the three main policy contexts – policy influences, policy text production and policy practices/effects (enactment) – were examined. Seven sets of data were analysed. These were based on five individual staff interviews, one focus group interview with five students, and documents on school websites. The latter included leadership messages as well as vision and mission statements. The 'C21 curriculum' adopted and adapted at 'Mint' School was primarily based on its 'thinking skills program' that was informed by Bloom's Taxonomy (2001).

The staff participants consisted of one member from the school leadership team and four teachers who taught in different learning areas and with various lengths of teaching experience. All were chosen because of their close involvement in the

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enactment of a 'C21 curriculum' in their school. Students in the focus group were in Years 10 and 11 classes involved in programs relating to a 'C21 curriculum'. Code names were given to participants, with the school leaders labelled ML1 ('Mint' School Leader) and the other four teacher participants labelled MT ('Mint' School Teacher) 2, MT3, MT4 and MT5 respectively. Data from the focus group discussion were labelled as MSF6 ('Mint' School Students Focus-Group) and those from documents were labelled MD7 ('Mint' School Documents).

Three major themes were generated with regard to the policy influences, three with regard to policy text production and six with regard to policy practices/effects (or enactment). Each is indicated in **bold** and sub-themes are labelled in ***bold italics***.

Background of 'Mint' School

As in the account in the previous chapter, the four contexts delineated by Braun, Ball, Maguire, & Hoskins (2011) to describe the setting of a school, namely, its situated, professional, material and external contexts, were used to outline the background of 'Mint' School. This school is located within a natural bush setting in the eastern part of Perth, the capital city of Western Australia. It has been in existence for about 30 years. It is a co-educational school and has two campuses: the primary school campus and secondary school campus. Students are primarily from middle-class families. School fees are considered relatively affordable and the school operates to cater to the needs of parents and students of the local area.

'Mint' School has been working towards creating a strong academic culture in the last decade. This is evident in the way it has gone about building its professional and material capacity. Traditionally, only classes from Kindergarten to Year 10 existed, but in recent years Year 11 and 12 classes were added. A school leader with high academic qualifications and international experience was hired to improve teaching policies and practice in the institution. School sites have been expanded, with the newly built secondary school campus boasting contemporary facilities that incorporate collaborative learning and academic engagement.

The use of modern technology is encouraged in the teaching of design and fine arts' subjects. Material conditions include the 110-acre site that has natural tracks for physical activities. The school was selected as a case study school because it was stated on the school website that it was "future focused", with aims to instil such thinking skills as critical thinking and creativity, as well as collaboration, all of which have been identified as C21 skills.

Context of Policy Influences

Global Influences

The two major global influences associated with a 'C21 curriculum' – ***increasing competition in the global world*** and a ***move to a knowledge-based economy*** – are explicated in the section below.

Increasing Competition in the Global World

A major sub-theme of global influences is ***increasing competition in the global world***. On this, a school leader referred to an article entitled '*Australia's students fall behind in Mathematics and Science*' (MD7) located on the school website in order to make a point about what he saw as the need to promote thinking skills related to STEM (Science, Technology, Engineering and Mathematics) in the modern world. He drew particular attention to the claim within it that the reason Australia has been falling behind in the results in the international Trends in Maths and Science Study tests is due to the emphasis on *"mathematics content rather than mathematics concepts"* (MD7). This view was echoed by a teacher, who went on to argue:

> *There are all of these comparisons with other countries so we want to make sure that we are doing our best all the time. So, there's a benchmark there, that's a bit harder for us to live up to rather than just trying to live up to our own standards, whatever they are* (MT4).

In addition to such pressures arising out of the advent of benchmarking and league tables, concern was also expressed that a perceived gap in achievement in education between first world and particular third world countries was narrowing. This, it was contended, presents another challenge for Australia. On this, a member of the school leadership team shared the following:

> *For the last two generations, Australia has coasted by on the fact that we just expect to have a certain lifestyle because we're in the first world. They'll lose a job to a middle-class Indonesian who has been to university and worked hard and got a couple of languages under their belt, got computer skills and knows how to be adventurous* (ML1).

Move to a Knowledge-Based Economy

Another major global influence identified by participants and revealed also in documents was a ***move to a knowledge-based economy*****.** Most stated it is important to ensure there is a relationship between education and skills for later employment, especially in relation to higher-order skills. On this, a member of the school leadership team remarked that people may *"either change jobs about five times in their life or their jobs may change significantly"* (ML1). Thus, he concluded, *"the need*

for Australian kids to have good marketable education-driven skills and capacity is vital for their livelihood (ML1).

Unpredictability of employment was also noted by other teachers, with one stating: "*We do have the problem that we are preparing students for future occupations that will no longer be around by the time they leave university"* (MT2). Another yet again stated it is important to emphasise that

> *A 'C21 curriculum' should be about learning how to learn. It should not be about learning content. So, when you go into another country, another culture or another career or business area you will have the skills to adapt to that situation* (MT4).

Students at the school, however, also specifically identified the teaching of technological knowledge as being essential for their future:

> *The future is going to involve so much technology compared to previously, where there was not much computers. Now it is all just data based and that sort of stuff for the companies* (MSF6).

National and Local Influences

One student highlighted the perceived interconnectivity arising from globalisation as having a major impact on Australia:

> *Because Australia is also very far away from anywhere else, especially Western Australia, so a lot of the stuff that we do is starting to interconnect with the rest of the world and that's very technology based* (MSF6).

Additionally, in relation to the local level, three sub-themes were generated. These relate the school's ***stance on knowledge and learning***, ***fulfilling and adding depth to the Australian Curriculum,*** and ***marketing*** the school to prospective students.

Stances on Knowledge and Learning

Regarding this sub-theme, many acknowledged the importance of both content and thinking skills in preparing students for the future. The school leader remarked that he has *"to make sure that there's a culture of learning and creativity because associated skills are going to be their salvation in the future"* (ML1). Students took a similar view, with one stating: "*The school's skills program helps you think outside of the box. It opens up new ways of thinking"* (MSF6). Similarly, one teacher commented: "*The skills program gives us a way to facilitate engaging with our students in learning and when we engage with them that's when we can get them to think and be inspired to learn and think laterally"* (MT3).

There was, however, variation in views on whether the 'thinking skills program' is primarily aimed at preparing students for the future or whether it was embraced by the school's authorities in the hope that it might help students to achieve highly

in State-certified examinations. Some also maintained that they saw both forces in operation and that they considered this appropriate. As one teacher put it: "*It* [the thinking skills program] *is purely to help students improve in tests but we don't want it just to be for testing. It should also be about helping them to lead rich lives* (MT2).

Fulfilling and Adding Depth to the Australian Curriculum

Several participants did not see the school's 'C21 curriculum' as being something separate from the Australian Curriculum. Rather, they deemed the former to be an extension of the latter. On this, it was highlighted that 'Mint' School was not *"presenting a new curriculum but presenting the Australian Curriculum with the additional rigorous kind of thinking that there accompany it"* (ML1). This thinking also revealed itself in school documents in phrases like in *"meeting requirements of the Australian National Curriculum agenda. This school aims to raise education standards and gain consistency to ensure that Australian students are globally competitive"* (MD7). Such statements served to reinforce a belief amongst staff members that in pursuing a 'C21 curriculum' aligned to the national agenda meant they were not presenting parallel curriculum policies. Rather, they were seeking to add value to the prescribed Australian National Curriculum.

Marketing

Another local factor that participants stated was an influence on the school when deciding to adopt a "future focused" curriculum was ***marketing***. It was pointed out that having a curriculum that is future oriented has ensured that the school has remained competitive in the eyes of its 'customers.' Comments on this were as follows: "*If the school wants to make it sound like they're on the edge of things and not just schools, but also companies and businesses, they'll go 'yeah, we do this'"* (MT4) and "*I reckon a school would be silly not to be seen educating for the 21st century because you need to promote your school"* (MT5).

Context of Policy Text Production

Three themes generated in relation to the context of policy text production are **contested knowledge for the twenty-first century**, **powerful knowledge actors** and a **top-down approach to decision-making**.

Contested Knowledge for the Twenty-First Century

The term 'C21 curriculum' was seen to be contentious, with participants highlighting **contested knowledge for the twenty-first century**. One area of contestation that revealed itself related to how C21 skills were defined by various participants in the school. The school leader, for example, identified *"independent learning"*, *"creativity"* and *"character"* (ML1) as concepts that characterised the 'C21 curriculum' in the school. He also identified the school's 'thinking skills program' as being designed to foster independent learning and creativity. However, several teachers stated that they did not see a link between 'the thinking skills program' and a 'C21 curriculum'. When first asked if the school had a 'C21 curriculum' in place, replies included the following: *"it's hard to say as a school"* (MT3); *"I'm not sure we've actually sat down and actually defined it"* (ML1), and *"I thought there might have been more"* (MT5). Some teachers also had different interpretations as to what a 'C21 curriculum' entailed. Responses were as followed: *"it's just not all knowledge and content based but it's about teaching them skills that will equip them for the future* (MT3), and *"thinking more about engaging students in a deeper understanding of the curriculum and getting to know the technology that's available and how to use it to the best of their advantage"* (MT2). Additionally, the gap between what was established by the school leadership team and what was understood by some of the teachers reinforced a view that there were different interpretations about what constitutes knowledge for the twenty-first century.

Students also had a different interpretation as they mainly identified technological skills as being a key element of a 'C21 curriculum'. On this, they identified *"computer based learning or online sort of learning rather than pen and paper"* (MSF6). Further, when asked if the school had a 'C21 curriculum' they identified technology-based lessons as being a part of this, offering comments such as *"business involves the use of technology and computer science as well"* and *"regardless of one's subjects, there are skills you need to be computer literate* (MSF6). Overall, however, there was uncertainty amongst teachers as to what a 'C21 curriculum' represents in their school.

Knowledge for the twenty-first century to some teachers, was not only about skills for employability but also about 'soft' skills that might enable people to handle diversity and personal challenges. On this, one teacher emphasised the importance of intercultural understanding: *It* [C21 skills] *involves the ability to get along with people, the ability to communicate, and the ability to make wise choices which is different to smart choices*" (MT5). Another teacher said she preferred adopting a more values-based teaching approach to the emphasis on thinking skills. This alternative view is reflected here:

> *My opinion is that there's a lot more to preparing students for the 21st century than getting them thinking. I think a lot of education is actually a heart thing and that's probably just as important. I think the skills that a student needs to get through life are far, far broader than just how smart they are. Although having said that, there's a lot of adults that get along fine through their life just working at a C level, so sometimes I wonder is it really necessary to*

have kids working up at the B and A levels but it's good to try to give them that opportunity (MT4).

Overall, then, the range of definitions expressed, from future related skills to technology and from intercultural skills to emotional skills, signalled that knowledge for the twenty-first century is contested at 'Mint' School.

Powerful Knowledge Actors

The 'C21 curriculum' in the school was strongly driven by particular **powerful knowledge actors**. On this, the inclusion of expert knowledge was a key characteristic of the school's policy text for a 'C21 curriculum' aimed at making the school's curriculum more future focused. Responses, such as *"*[The school leader] *has done a PhD in educational research"* (MT4), and *"the school keeps abreast of research* (MT4) and "[The school leader] *has a national and international reputation"* (ML1), revealed the accolades that are given to specialised knowledge and to authority. Other instances that demonstrated this focus on knowledge was noted by another participant: *"*[The school leader] *had done a lot of work with a guy called John Hattie* [an internationally renowned educational researcher]*"* (MT2). In addition, the school's website stated that 'Mint' School *"incorporates the latest research in learning space design"* (MD7) to facilitate collaboration, which is seen as a twenty-first century skill.

'The thinking program' at the school was informed by close adherence to 'Bloom's Taxonomy of Educational Objectives'. Indeed, intense training was offered to ensure that there was consistent application of the model across the curriculum. This involved every teacher partaking in weekly professional learning team activities focused on helping other teachers to apply 'the thinking program' in the classroom. Examples of comments on this included *"we worked together as a team to work it out together"* (MT3) and *"we have weekly professional learning team meetings where we talk about assessment, good assessment"* (MT5). Overall, the suggestions were such that it was clear there had been a concerted effort by the school leader, who was seen as a knowledge expert, to ensure that teachers were strongly informed by scholarly research in the field.

Top-Down Approach to Decision-Making

A **top-down approach to decision-making** was another key theme in relation to the 'C21 curriculum' policy text production at 'Mint' School. On this, responses by participants suggested that the approach was directed by the school leadership in implementing a 'C21 curriculum' and it resulted in only limited involvement by other staff members in defining such a curriculum for the school. However, while

the school leader interviewed asserted that there were avenues that allowed one to provide feedback, this did not involve active negotiation with teachers or with the school community. The suggested that there was a lack of active exchange of information between all parties. In addition, teachers regularly made references to one individual (the school leader) as being the most powerful policy actor and driver of school initiatives. Responses such as *"it's purely initiated by* [the school leader]*"* (MT3), and *"she's certainly come in and driving that"* (MT5), indicated that not all policy actors were actively involved in the production of 'C21 curriculum' at the school.

Teachers also reported not having much autonomy in expressing their professional creativity during in-school professional training on the new curriculum policy text. They made several references to this, such as *"training assessments have to go through* [the school leader*] and they have to be approved by her* [the school leader] (MT3) and *"all assessments need to be approved by her* [the school leader]*, get checked and then you redo them, rework them"* (MT5). Another teacher elaborated: *"there's not a lot of input from the staff. A lot of it comes straight down from the leadership"*; and *"the door is open but this is the policy that they've decided on, so this is how we have to do it"* (MT3).

Context of Enactment

Several themes were generated in relation to the context of enactment of a 'C21 curriculum' policy at 'Mint' School. They are the **'complex' nature of C21 skills, complex role of teachers' professional experience, contestation about C21 skills in different learning areas, pedagogical constraints, challenges to teachers' professionalism, and use of new physical space**. These themes are now expanded upon in the section below.

'Complex' Nature of C21 Skills

Teachers expressed feelings of inadequacy due to what they saw as the **'complex' nature of C21 skills**. On this, one teacher said she felt that she needed to develop her understanding of twenty-first century learning in terms of the breadth of its meaning as the training she had received on creative and critical thinking had not been sufficient to make clear the spectrum of C21 skills. She went on: *"We've had lots of training in Bloom's Taxonomy and we do a lot in professional learning teams but I think that's just where it stops with our 21st century thinking"* (MT2). Another teacher could not identify with the concept of metacognition as it was not familiar for him: *"I'm not very good at it. As an adult, I'm probably not used to thinking about thinking or metacognition"* (MT4). Students also stated that their understanding of Bloom's Taxonomy was not "*established*" (MSF6) because, as one voiced it,

"*we are in transition and we haven't had it during the whole education system*" (MSF6), thus suggesting that C21 skills were unfamiliar and lacked clarity for them. Comments like this suggest that the concept of twenty-first century skills was also unclear to them.

Complex Role of Teachers' Professional Experience

The **complex role of teachers' professional experience** was identified by them as being a feature of the enactment of a 'C21 curriculum' policy in the classrooms at 'Mint' School. Teaching ideologies, they pointed out, came in different forms in both supportive and detrimental ways. It was stated on this that the school leadership team had a data-driven approach in spearheading 'C21 curriculum' and believed that teachers should teach thinking skills to complement standardised testing:

> *The approach that she's* [the school leader] *taking in developing teachers and developing good learning is that it's data driven, like explicitly data driven. So, teachers are taught how to mine the data that they're getting from their kids and especially NAPLAN data. We're not scared of that. We think it's quite a useful tool. It's quite a useful way of us gauging improvement in the school* (ML1).

Some teachers also stated that they subscribed to the importance attached by their school leaders to staying abreast of the latest research in education, stating: "*I think it's so exciting that I work in a school where people are on top of the research and incorporating that into teaching. I've been in schools where that doesn't happen and it's depressing"* (MT4).

Another teacher stated that student-centred learning is a key aspect of her teaching ideology and that this has helped her in enacting the 'C21 curriculum' in the classroom. She went on:

> *I like to do a lot of things that are not paper based. I'll go out in the bush and we'll do measuring. I'll do algebra out there. I do lots of things with manipulatives and being outside. But that's me as a teacher. Not everyone wants to do that or feels confident in doing that. There are a couple of teachers that are quite happy just to have the basic content taught as it always has been* (MT2).

Some other teachers, however, revealed that the nature of their teaching ideologies challenged the enactment of the new curriculum. On this, one said:

> *We've got one teacher on the staff who's from overseas and English is his second language so he's got a bit of a problem with that* [thinking skills]. *He's been taught that when you teach, you just take the information that's in here and you give it to students and they listen, write it down and repeat it back to you. So, it's completely the opposite of what we do here* (MT2).

Staff at the school also indicated they possessed various types and levels of professional knowledge. This, some claimed, resulted in variation in the form and rate of enactment of a 'C21 curriculum' in classrooms.

A teacher who had had experience teaching in classrooms in other Australian states claimed she was able to use her knowledge to compare and contrast her current and previous experience, adding that this helped her in enacting a 'C21 curriculum' in her present classroom. She went on to make the following point:

> *It* [Bloom's Taxonomy] *really does help the students to understand where they're at, what they're learning and how to get to the next level. I was using rubrics in my other school but New South Wales dictated the assessment and they gave you rubrics for Years 9 and 10 but for Years 7 and 8, it was so vague. 'Outstanding' is an A, 'thorough' is a B, 'sound' is a C, and so on. But it was so vague. It was not clear what each meant* (MT5).

There was also a clear recognition amongst the staff that some teachers had insufficient background knowledge and experience to deliver the school's 'C21 curriculum'. New teachers came in for special attention in this regard: *"We have new staff, they don't have the background information that maybe the other staff and I have received in previous years. They come in teaching their style and how they're used to doing it"* (MT3). Even experienced teachers stated that they did not necessarily feel confident to enact the school's 'C21 curriculum', with one giving the following quite nervous response: *"When I did my Diploma in Education all we did was play with the science toys and we didn't really talk about how kids think. So, the teaching of thinking skills is quite new for me and I don't know whether I do it very well"* (MT4).

Contestation About C21 Skills in Different Learning Areas

Contestation about C21 skills in different learning areas is another theme in relation to the enactment of a 'C21 curriculum'. On this, the idea that certain subject areas provide more opportunities than others when it comes to teaching C21 skills was echoed by quite a few. One student, for example, identified 'English' and 'humanities' as learning areas that fostered thinking skills because *"there's no clear line between right and wrong, unlike maths where you're either right or you're either wrong."* Another stated: *"In my area where I teach humanities, arts and social sciences, I'll also teach them research skills and how to google properly and how to find reliable and useful websites and really teach that explicitly. It is really good for teaching C21 skills"* (MT3).

Pedagogical Constraints

Pedagogical constraints, it was held, exist with regard to the enactment of a 'C21 curriculum'. The school leader claimed that teachers should have autonomy in planning lessons so that assessment targets could be met. On this, he said: *"Pedagogy isn't king. The biggest driver of good learning I think is good assessment of that*

learning and good understanding by the kids of what's required from them" (ML1). This view was reinforced by a teachers who offered that he and his colleagues use *their "professional sense of what is pedagogical knowledge"* (MT3) and that, as a result, there is *"a lot of freedom in teaching and learning"* (MT5) in their classrooms.

Students did not identify their preferred pedagogical approach for the classroom. They did, however express a view that their learning *"doesn't involve much use of technology apart from with e-books"*. Some clarified by adding that *"it depends on the subject"* (MSF6). Others expressed a view that pedagogy in general is an area in much need of improvement. Responses on this included *"the next thing we probably would move to is good pedagogical practice"* (ML1), and *"so far it's mainly been identifying what level the assessment questions are set at, not so much how to teach it."*(MT4). One student also, while stating that *"Bloom's Taxonomy is sort of an opportunity to link all subjects together, that link has to be made clear by our teachers because right now we're still viewing all subjects as being very separate from each other"* (MSF6).

Challenges to Teachers' Professionalism

Challenges to teachers' professionalism, it was claimed, presented themselves as a consequence of the enacting of a 'C21 curriculum' policy in the classrooms. The school leader acknowledged that there were "*constraints of working with human beings who come with a variety of skills and capacities*" (ML1). However, almost every teacher placed a greater emphasis on the perceived constraints of time and workload. As one put it: "*the biggest one is the amount of work, the workload and the time it takes*" (MT3), while another added: "*it's quite a steep learning curve*" (MT2); and "*paperwork was quite onerous*" (MT4).

Use of New Physical Space

The **use of new physical space** is seen to facilitate the enactment of the school's 'C21 curriculum'. The school leader, together with a majority of the teachers, applauded the design of the school building that they claim facilitates collaborative learning and twenty-first century learning. Responses included "*collaborative learning spaces and the design of this new building helps us greatly in trying to teach kids to work together as a team*" (MT3) and "*arrangements, bringing the outdoors in and going outside and doing a lot of work promote that deeper learning*" (MT2). The use of open spaces was also mentioned on the school's website, where it was stated that the latest research was incorporated "*in learning space design, and the features we have built in the first stage of this school are designed to develop community engagement"* (MD7).

Conclusion

The analysis of data for 'Mint' School identified policy influences at the three different levels of the **global**, **national** and **local** levels. Regarding the global level, a 'C21 curriculum' was stated by participants to be necessary to meet ***increasing competition in the global world***, and to ***move to a knowledge-based economy***. Policy influences at a national level were mainly seen as existing to support the government's push for changes ***'in the national interest'***, and especially to increase understanding of its citizens about the impact of globalisation on their lives. Local or school influences were seen to be related to the school's particular ***stances on knowledge and learning***.

While many participants said that they saw a link existing between thinking skills and employment opportunities, others claimed that the overall aim was to improve test scores and enhance competitiveness. Additional school-related intentions for having a 'C21 curriculum', it was claimed, included a commitment to ***fulfilling and adding depth to the Australian Curriculum***. It was said that 'the thinking skills program' in the school has its place and plays a complementary role to the Australian Curriculum. Some teachers also stated that a 'C21 curriculum' is a tool to assist schools to meet the need of ***marketing*** aimed at attracting students.

The 'C21 curriculum' policy text at 'Mint' School says it values the input of particular **powerful knowledge actors** as a source of authority. The curriculum leader there who initiated the Bloom's Taxonomy model is highly qualified academically and possesses international experience. The policy text also highlights **contested knowledge for the twenty-first century** as there are various interpretations there as to what twenty-first century knowledge entails. A **top-down approach to decision-making** is also a theme, with school leadership personnel exercising more power than teachers over curriculum policy.

The context of enactment featured several themes. The **complex role of teachers' professional experience** contributed to different levels of enactment of a 'C21 curriculum' policy at 'Mint' School. While some teachers said they have used their inter-State experience to facilitate the introduction of a 'C21 curriculum' in the classroom, others said that they have not received adequate teacher preparation to teach C21 skills. There is also a claim of **contestation about C21 skills in different learning areas** with some teachers holding that certain subjects are better suited to teaching a 'C21 curriculum' in the classroom than others. In addition, it was claimed that **challenges to teachers' professionalism** have arisen due to a perceived barrage of administrative work involved in producing and enacting a 'C21 curriculum'.

Teachers and students also highlighted what they say are the **pedagogical constraints** and the **'complex' nature of C21 skills** that hinder the enactment of a 'C21 curriculum'. Some teachers claim that C21 skills are new entities and are very difficult to teach. This, they said affects the choice of pedagogy for the classroom**.** At the same time, a major perceived enabler of the curriculum, is the **use of new physical space** that has been made available at the school with many teachers and

students claiming that the lay-out of the new buildings facilitates collaborative learning in particular.

The next chapter now reports the results from the third case study school, namely, 'Sage' School. This school has a more 'open' approach to 'C21 curriculum' policy than the others. Indeed, neither the school authorities nor individuals there clearly articulate what C21 skills entails.

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Chapter 8
Results Relating to the Micro (School) Level – Case Study 3

Abstract This chapter is the third of three chapters that present the results of our research as it is related to the school level of the policy trajectory under examination. It is concerned with 'Sage School'. As with the other schools, the three main contexts – those of influences, policy text production and policy practices/ effects (or enactment) – were examined. Participant selection and document selection also mirrored that undertaken in relation to the other schools. Three major themes were generated with regard to policy influences, four themes were generated with regard to policy text production and seven themes were generated with regard to policy effects/ practices (or enactment).

"I have understood 21st century learning in terms of Microsoft and technology and those sorts of things, not in terms of the Australian Curriculum."
–Teacher, 'Sage' School (2016)

Introduction

This chapter is the third of three chapters that present the results of our research as it is related to the school level of the policy trajectory under examination. It is concerned with 'Sage School'. As with the other schools, the three main contexts – those of influences, policy text production and policy practices/ effects (or enactment) – were examined. Participant selection and document selection also mirrored that undertaken in relation to the other schools.

Three major themes were generated with regard to policy influences, four themes were generated with regard to policy text production and seven themes were generated with regard to policy effects/ practices (or enactment). These themes are labelled in **bold** and the sub-headings are labelled in ***bold italics***.

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Background of 'Sage' School

As with the previous two chapters, the four influences outlined by Braun, Ball, Maguire, & Hoskins (2011) – situated, professional, material and external contexts of schools – was helpful in providing the background to 'Sage' School, which is located within the outer northern suburbs of Perth and has been in existence for about 33 years. Students are predominantly from middle-class backgrounds. School fees are considered to be relatively affordable and the school operates to cater to the needs of the community, who are primarily from fundamental Christian backgrounds. It is a co-educational school and has expanded in the last twenty years.

At the point at which the study reported in this book was conducted, 'Sage' School had various campuses. According to the school website, it also has many teachers with postgraduate qualifications and is committed to developing teachers' professional development in terms of conducting education research and conferences, as well as seminars. The school's expansion is also evident in terms of its material conditions. It boasts a 100-acre site for outdoor education and claims to value global learning, which includes taking students on humanitarian tours to witness projects being conducted.

In line with global learning, partnerships have been formed with local universities and other institutions of education and they often connect with each other by using live internet streaming. The school has also invested in such state-of-the-art technology as 'wearable technology' and virtual reality helmets. Further, it constantly places high in the 'top 100 ranking' of schools published annually which is based on the results in the Western Australian Certificate of Education examination. It also claims it is at all times driven to improve its place in these ranking. It was selected as a case study school because it stated on its official website that it was "embracing twenty-first century pedagogy" (SD7).

Context of Policy Influences

Three major themes were generated from the data in relation to influences on the development of a 'C21 curriculum' at the school and at the **global**, **national** and **local** levels. These are identified in **bold**. Each theme is further divided into subthemes and is identified in ***bold italics***.

Global Influence

One global influence, ***increasing competition in the global world,*** was identified as a sub-theme. This is elaborated upon below.

Increasing Competition in the Global World

Increasing competition in the global world is one sub-theme that was generated. The school leader stated as follows the need to conduct benchmarking with schools in other countries, having claimed that this conviction of his was a major influence on him in deciding there was value in embracing a 'C21 curriculum':

> *I guess they wanted to benchmark themselves in terms of global education standards so that the Australian students are graduating with at least a benchmark that equates to other countries. I think globalised economy and globalised humanity require that we have some compatibility with other parts of the world* (S1).

Another teacher took a different line, stating that the priority given to a 'C21 curriculum' in the school was primarily due to economic influences. He also criticised economic competitiveness: *"We put too much emphasis on business success and economic success and that's the worry – everything needs to be measured from a business and economic success"* (ST2).

Along with benchmarking and measurement, a third form of competition, namely, that between developed and developing countries, was also identified as being a global challenge. In particular, Australia's position in the Asian region was seen by some to be under threat due to the increasing performance and competitiveness of developing nations. The school documents reflected this, stating:

> *A region of growing economic significance, the Indian Ocean Rim is a group of nations located around the Indian Ocean, including burgeoning powerhouses such as India, Indonesia, and the emerging economies of East Africa. So what will this mean for Perth? Well, this means new opportunities for local students who are innovative, inspired, global-minded and ready to accept new challenges* (SD7).

A 'C21 curriculum', both teachers and school documents went on to claim, is being proposed as a solution to equip students with skills to address the various types of competition posed by the global world.

National Influence

A belief was expressed at the school that the national agenda of having a 'C21 curriculum' is because it is ***'in the national interest'***, especially to address pressures of globalisation. Global changes are seen to have had an impact on society and to have led to an increase in the expectations of employers and in increased pressures because of the advent of multiculturalism. Regarding the former, a teacher noted that employers expect to be able to employ workers who are not just 'job ready' with good results in State examinations, but who also possess such work-related generic skills as effective team building, problem-solving and technology competence. She stated:

> *We hear from employers that just because a student has a high ATAR* [Australian Tertiary Admission Rank] *score, it doesn't mean that they know how to solve problems and work*

collaboratively with colleagues and use of technology would come into that as well. It's not just about playing games and accessing the internet, but you actually need to be able to create content and solve problems with technology (ST5).

This matter of employers' expectations of workers being technologically adept was also raised not only by teachers, but also by students. Indeed, as at 'Pepper' School and 'Mint' School, students acknowledged that there are *"new developments in technology in society"* (SSF6) and there are *"lots of pressure on our generation to respond to all of the advances that have taken place"* (SSF6).

The perceived challenges of multiculturalism were also discussed by some of the teachers. On this, according to the school leader, there is a necessity to cultivate a strong sense of self within the local community amidst global changes: *"We're growing up in a fragmented family and the question arises – how will your social community support you in the future?" "How",* she went on*, "is a person with fragmented communities and multiculturalism raise children who understand the need to be tolerant but also firm in their own beliefs?"* (SL1).

Local Influences

Two sub-themes generated are ***stances on knowledge and learning*** and ***fulfilling and adding depth to the Australian Curriculum.*** These are now elaborated on below.

Stances on Knowledge and Learning

A variety of views were expressed in relation to possible school level influences in implementing a 'C21 curriculum' in 'Sage' School. Relatedly, it was claimed that different ***stances on knowledge and learning*** had had a significant impact there. Indeed, all teachers were of the view that a 'C21 curriculum' was instrumental in cultivating an approach to knowledge for work purposes in the school. Additionally, one group expressed a perspective that a 'C21 curriculum' is necessary not only to satisfy instrumental needs but also to promote engagement in learning.

The school leader explained that the purpose of a 'C21 curriculum' is to *"focus on the individual - the student and what will it take for her/him to survive in the future"* (SL1). To this, one teacher added that the purpose of twenty-first century skills is to seek to prepare students to cope in an economically competitive society; "*the reality is those skills are designed for students to be functional in a business environment"* (ST2). The school's online magazine identified pressures and potential opportunities for current students in the twenty-first century and argued that certain skills should be taught to students to further the progress of the region in which they live. It added: *"service-learning tours not only support our students to*

develop a world-view, they build an acute awareness of the economic and humanitarian challenges and opportunities present in our own region" (SD7).

Returning to the mentioning of an instrumental or utilitarian stance on knowledge and learning by all participants, a general view is that a direct relationship exists between the function of a 'C21 curriculum' and the progress of economy and society, based on notions of current and future needs and a view that the nature of the education a child receives is central in meeting those needs. Overall, a 'C21 curriculum' is seen as being a type of 'survival kit' to help students fix potential problems and improve their skills' set throughout the twenty-first century. This, in turn, it was held, would help in the progress of the nation.

Another stance on knowledge and learning was also identified. On this, both the school's online magazine and the teachers expressed a view that a 'C21 curriculum' in a school can help to *"promote engagement"* (SD7). Another teacher went on to state that having a 'C21 curriculum' can encourage teachers to think about how to teach subject matter content in a manner that will help students to *"find it more enjoyable and engaging and then they will become more willing to actually participate so there's a higher chance that they'll actually remember the things that they're being taught"* (ST3). This perspective on learning was echoed by another teacher, who claimed that a 'C21 curriculum' should involve students' in *"engagement on a real basis and in them having that sense of curiosity and exploration of the world"* (ST4). The online school magazine also drew attention to the idea that a *"rote learner is unable to adapt to an ever-changing world"* and *"21st century learning is underpinned by teaching methods and spaces that are engaging and motivational"* (SD7).

Fulfilling and Adding Depth to the Australian Curriculum

Another intention of having a 'C21 curriculum' at 'Sage' School that was highlighted related to how it can help to ***fulfil and add depth to the Australian Curriculum***. Responses pertaining to this, at the same time, were not as persuasive as the responses that were forthcoming at 'Pepper' and 'Mint' School. One teacher indicated his view that the Australian Curriculum was an attempt to incorporate '21st century learning' as it involves *"cross curricular priorities to do with the environment, engagement with Asia and indigenous Australia, so there's an attempt there to apply the subject knowledge to bigger issues"* (ST5). Another stated that *"it has markers that indicate that it should include 21st century learning but I also think it's quite possible to meet a lot of the criteria without addressing 21st century learning"* (ST4). However, this use of such tentative-suggesting words as "attempt" and "but" indicated the existence of a not very convinced attitude that a 'C21 curriculum' is solidly linked to the Australian Curriculum.

Policy Text Production

Four themes were generated in relation to 'C21 curriculum' policy at 'Sage' School. These are **contested knowledge for the twenty-first century, powerful knowledge actors**, an **'open' policy text** and a **top-down approach to decision-making**.

Contested Knowledge for the Twenty-First Century

The 'C21 curriculum' policy at 'Sage' School indicated a certain amount of contestation there on what constitutes **knowledge for the twenty-first century**. All agreed that a 'C21 curriculum' operates in the school. Many said that this is evidenced by the strong role played by technology there. Responses included *"we have received an interpretation from Microsoft – the interpretation of C21 skills"* (ST1); *"the only parts that I've have anything to do with on the 21st century stuff is just in terms of the technology"* (ST2); *"I have understood 21st century learning in terms of using Microsoft and technology"* (SL1), and *"regarding 21st century skills, we're on that journey so technology would be one"* (ST5). One exception was a teacher who said that along with technology, there are other dimensions to a 'C21 curriculum' that are evident in the school, such as *"global awareness"*, *"engagement in learning"*, *"having a sense of exploration"* and *"adapting to change"* (ST4). In addition, the online school magazine highlighted *"creativity"* and *"ICT"* (SD7) as being the main properties of *"global learning"* (SD7).

At the same time, there was a group of individuals who, while they initially highlighted technology as the only property of a 'C21 curriculum', later, on reflection, also identified non-technology aspects to the '21st century learning' they say takes place in the school. They arrived at this position when drawing attention to the promotion of *"cross-curricular"* learning (ST2) and the use of *"collaborative spaces"* (ST5). Relatedly, a school leader, added 'personal skills' to this. On this she claimed:

> *I would say technology, but I honestly think that technology is a tool. I think it's the focus on the individual, the student. It's requiring us to be empathetic, it's requiring us to look into the future and say what sort of world are you going to go into. So it's developing teachers who look forward to what it will take for him or her to survive in the future* (SL1).

This, she concluded, would involve *"pouring energies into teacher training and teacher development so that they are genuinely future focused."*

Powerful Knowledge Actors

Rather than being the product of the work of a specific organisation or an individual, participants claimed, the C21 curriculum' policy at 'Sage' School was produced due to the work of several **powerful knowledge actors**. One teacher claimed to have recognised this after attending a school professional development session on what using twenty-first century pedagogy entails. Specifically, he stated, *"We ended up identifying from this PD what C21 skills were. But actually we only came to a conclusion on them after Microsoft had endorsed them."* As a result, he voiced, we came to *"realise that there are 6 key skills for the twenty-first century – ICT skills; knowledge construction; self-regulation; problem-solving and innovation; collaboration; and skilled communication"* (ST2).

To this, other teachers also identified an equally strong influence coming from the school's leadership team. Members of the team, they recalled, had *"conducted two or three professional development sessions each term"* to examine different education theories and explore different pedagogies by *"trying to look at different topics and finding the best thing in that particular topic"* (ST3). To this they added that members of staff worked to arrive at accepting the views, especially on twenty-first century learning, being promoted by the team members.

The school leader who led the way said that he had seen the importance of advancing the development of a 'C21 curriculum' at the school through conducting specially designed professional development sessions. These, he claimed, were *"very intentionally designed to make sure that teachers upskill to be able to teach a 21st century curriculum." "Our mentoring process",* he added*, "also ensures that our staff members are thinking about quality pedagogy and 21st century skills and how to put them into practice in the classroom* (SL1). This notion of the importance of "*promoting a culture of professional development"* (SD7), was also highlighted on the school website, with parents being informed that teachers there *"embrace twenty-first century pedagogy"*, and conduct *"education research and evidence based practice that informs their teaching and learning"* (SD7).

'Open' Policy Text

The 'C21 curriculum' policy at 'Sage' School was revealed to be an **'open' policy text,** because the selection of C21 skills was not influenced by any single curriculum or pedagogical model or framework. Thus, teachers could decide on the C21 skills on which they wished to focus in their classrooms. A summary of how some put it is that the school's 'C21 curriculum' policy was encouraged by the school leadership in a *"general"* (ST4) way and the teachers had the flexibility to interpret the related texts in *"specific"* (ST4) ways. As one school leader put it: *"we, the school leaders, promote new initiatives on 21st century curricula regularly and staff members are free to take them on or not"* (SL1). This, as a peer commented, means

that there is the adoption of a collaborative style in encouraging twenty-first century learning *"through a layered approach so all of those amongst whom I work come to have shared learning opportunities for professional development meetings and we attend them together"* (SL1). To this he added: *"We read similar material then we develop the next layer down."*

A senior teacher put it in similar vein *"My job as a leader in the Maths department is to encourage all of the teachers to grow in their knowledge about and skills in pedagogy"* (ST5). He also made it clear that *"there's no blanket rule that everybody must follow the same pedagogy in every lesson"* (ST5). To a certain extent, this was made clear also on the school website, with the statement that *"21st century learning is underpinned by teaching methods and spaces that are engaging and motivational"* (SD7) suggesting that no one curriculum or pedagogical model or framework was driving the institution's 'C21 curriculum'. Teachers also indicated that they appreciate it that this is the position, with one commenting: *"There's usually two or three professional development meetings a term and part of what we do is focus on certain subject topics, consider good ways to teach it, but not impose any one approach"* (ST2).

Top-Down Approach to Decision-Making

The theme of a **top-down approach to decision-making** was also identified in relation to the school's 'C21 curriculum' policy, with it being identified as having been a brainchild of the school leadership team. This was clear from comments such as *"it's a three-year strategic plan by the Principal and the executive"* and it was *"pushed by the Head of Secondary"* (ST2); (ST3). Related comments were *"it has been driven from the top in the school"* (ST4) and "*the C21 skills we identified in PD sessions were those presented to us by the school leadership*" (ST3), reflected this top-down leadership.

Context of Enactment

Seven themes were generated in relation to the enactment of the 'C21 curriculum' policy at 'Sage' School. They are the **'complex' nature of C21 skills**, the **complex role of teachers' professional experience, contestation about C21 skills in different learning areas, constraints of testing, growth of teachers' professionalism, competing priorities,** and **staff hiring process.**

'Complex' Nature of C21 Skills

The **'complex' nature of C21 skills** was a major theme and several issues arose around it. For one thing, twenty-first century skills were perceived to be complex and difficult to teach and to learn. On this, one teacher explained that C21 skills are *"quite high level"* (ST4). Students also stated that the 'advanced' nature of the C21 skills resulted in some teachers becoming *"nervous"* about teaching them (SSF6). They further suspected that some of their teachers did not possess the necessary knowledgeable and approaches equipped to *"handle the teaching of these skills."* As one stated: *"The teachers would need to have a very deep understanding of the subject to be able to take it to the next level and guiding our thinking in new ways as well, rather than just teaching the basics and the facts"* (SSF6).

Students also claimed in somewhat condescending fashion that learning twenty-first century skills would present too much of a challenge for some of their peers because, as one expressed it, *"their capability levels might not be good enough and they might not be able to handle that sort of thing"* (SSF6). They were reinforced in this view by the fact that some C21 skills classes were taught only in, as it was put *"extension classes for kids who are at the top of their year in that subject."* There were also some rumblings amongst students that this was *"unfair"* and *"quite biased"* (SSF6).

A number of teachers also expressed concern that they had not been provided with any clear guidance on how to assess student achievement in relation to C21 skills. In particular, one teacher drew attention to this. He said he had to resort to *"make judgments on learning in the area during regular interaction"* (ST4) as opposed to being able to conduct formal assessment on the learning of C21 skills.

Complex Role of Teachers' Professional Experience

Participants pointed to what we term the **complex role of teachers' professional experience** as being instrumental in fostering a culture that led to the enacting of a 'C21 curriculum' in the school's classrooms. All agreed that it was important that they commit to engaging in activities that would lead to they being well-equipped to be able to teach such a curriculum' effectively. They added that those recruiting new teachers should share their view. Comments offered on this were *"we must attract really quality educators. We have to attract people who think about education and who can engage in rigorous discourse about it and about what works and what doesn't"* (SL1) and *"we need to recruit educators who understand processes and trajectories of learning"* (ST5).

One participant argued that a professional teacher is one who is accountable to herself or himself in relation to being up-to-date on the latest education theories and debates, and that this should, as a result, reduce the burden on schools in provide professional development. This view highlighted the importance given to

professional development. He went on: *"I think as a teacher, as well as an educator, it is part of the job to identify your own needs and professional development."* (ST5). This, he concluded *"is not the case of waiting for other people to tell you that you should be doing this. That should be part of the ongoing reflective process."* The same view was expressed on the school website, where the teaching ideology of 'lifelong learning' was stressed in statements on the school philosophy and purpose. Here the following was stated:

> *Central to what we do at 'Sage' School is to engender a passion for teaching and learning, therefore education at Sage's is about Commitment to Culture, Competency in Pedagogy, and Mastery of Curriculum. It is these three fundamental criteria that define our understanding of what it means to be a professional educator at 'Sage' School* (SD7).

Two teachers in the school who had previously had other occupations claimed that they had benefited greatly by way of gaining experiences back then that now helped them in their teaching of C21 skills. One, who had been a business consultant, stated that problem solving and the use of IT skills had been most important in his previous workplace. Now, he said, he seeks to carry out *"collaboration"*, *"IT"* and *"communication"* (ST3)-based activities in the classroom by drawing upon his prior experience. Another teacher, who used to work as an engineer, stated that applying problem solving skills in his previous job had led him to consider becoming a teacher as he realised he could promote this area amongst students to great effect.

Teachers also claimed that another aspect of their professional learning is that they engage in higher degree studies. On this, one of the teachers said that during her studies for a Master of Education degree, *"engaging in research and conversing with like-minded educationists"* (ST5) resulted in her deciding to try out *"alternative"* pedagogical approaches such as the *"flipped classroom"* approach, while ensuring she did not neglect to continue to draw upon her *"very good traditional model of teaching"* (ST5). In similar vein, one of the school leaders argued that what is needed is *"intuitive teachers"* (SL1) who incorporate such C21 skills as creative and critical thinking skills into their teaching repertoire alongside collaboration and problem-solving skills. They also suggested that the use of tacit knowledge is important and that it should be drawn upon by teachers and shared with peers They made clear that what they were referring to is internalised professional knowledge that can differ from teacher to teacher since it develops as a result of experience in various work settings, interacting with one's knowledge from gaining education qualifications and one's personal values.

Contestation About C21 Skills in Different Learning Areas

Contestation about C21 skills in different learning areas is another theme related to the enactment of a 'C21 curriculum' in the classrooms. One teacher when asked if he experienced challenges when enacting the school's 'C21 curriculum' expressed

a view that it *"depends on the subject"* (ST3). He went on to maintain that his own decision to place C21 skills high on a priority list had been an easy one to make. This, he said, was that business studies, the subject he taught, involved teaching *"some real-life experience of running a little business and then developing real life skills that are required in a business environment"* (ST3). By contrast, he argued, *"within English and the Humanities, Arts and Social Sciences subject, I don't see much of problem-solving taking place, but then these leaning areas require students to engage in debate, which is arguably important in the twenty-first century."* (ST4).

Constraints of Testing

The **constraints of testing** were seen to be a factor hindering the effective enactment of a 'C21 curriculum' at the school. One experienced teacher lamented in this vein: *"Students in Years 11 and 12 have to study such a jam-packed curriculum with the external examinations all the time on their mind, and therefore even when they are being taught twenty-first century skills they are not greatly focused"* (ST4). Another commented in like manner, illustrated well the constraints of high states testing, stating:

> *I have to tell my students I can teach them all sorts of 21st century skills but at the end of the day, I'm afraid that until the external examinations are changed you cannot ignore that they will be assessed in three hour-long tests in a cold room in silence, sitting at a desk with pen, pencil, ruler and paper at hand* (ST3).

Nevertheless, one of the school leaders felt that the effort involved in getting them to think otherwise would be worth it, arguing in particular that teachers should not become too bogged down by testing. Indeed, she argued that investment by the school in teacher professional development in 'C21 pedagogy is better than investing in preparing teachers in assessment methods.

Growth in Teachers' Professionalism

It was stated by school personnel that the encouragement they received on the enactment of a 'C21 curriculum' resulted in a growth in their own professionalism. On this, one school leader expressed how pleased he is at how teachers have engaged with twenty-first century pedagogy, and especially beginning teachers. He added:

> *Our beginning teachers are open to the notion that learning can take place in multiple ways. They themselves learn by watching what others are doing and what they are experimenting with. They learn through engaging in professional dialogue. They learn by inviting some of the more experienced teachers to come and team-teach with them* (SL1).

One such beginning teacher added that he really appreciated the community of practice that has been established amongst the staff with regard to sharing ideas on

innovative pedagogy and claimed that this had a positive impact on his professional development.

Competing Priorities

A number of experienced teachers claimed that they stress over what they experience as pressure to address many ***competing priorities*** in the school, one of which is to be able to focus on providing a 'C21 curriculum' while also having to meet other demands. A result, they suggest, is that their performance in the classroom is not as good as it used to be. One staff gave voice to this when stating: *"There are so many initiatives, think tanks, ideas and theories floating around the school, it is difficult to deal with them all simultaneously"* (ST3). Further, the school leaders are not oblivious and unsympathetic to the fact that these are pressing realities for staff. They also suggested that the problem does not lie with the teachers, with one commenting that the many rules and accountability processes that are associated with the WA Curriculum contribute to making it difficult for the essence of 'C21 curriculum' to be realised:

> *It* [WA Curriculum] *adds so many layers in where it doesn't need to. It has legislated far too much. By the time you tick off everything including graduation, there is so little freedom available regarding what you might actually explore in terms of expanding our students' education. By the time teachers find that compliant with all government curricular requirements, they have very little energy left for being innovative.* (SL1).

To this he added that they also have very little energy for *"preparing students for an unknown future."*

Parents' expectations were also highlighted as contributing to the competing priorities making it difficult for teachers in the school to enact a 'C21 curriculum'. It was explained that, as 'customers' of a private school, parents' choices actually sometimes be quite different from what the school identifies as its priorities. One teacher expressed the situation:'

> *This is a fee-paying school so parents are paying good money for us to show them how their child is progressing in relation to maximising the possibility they will do well in the public examinations. So, there's that tension between doing business with consumers regarding their priorities for their child and the school's commitment to a broader education* (ST5).

"Therefore", he concluded, *"we have to keep the parents happy, of course, because otherwise they'll send their children to another school."*

Staff Hiring Process

The nature of the **staff hiring process** was identified as another influence that facilitated the enactment of a 'C21 curriculum' in the school. On this, statements in school documents included one indicating that 'Sage School' employs *"more than 200 teaching staff, with 300 educators waiting for a teaching vacancy. The school boasts a number of highly qualified experts including those with doctorates and those with vast experience honed in professional industries"* (SD7). This self-image the school authorities promote regarding how it selects its teachers very carefully was restated by the school leaders, who also stressed they consider it vital that the school invests in its staff members. Their emphasis, they said, is on making sure they have the best educators in the classroom. These, they hold, are those who are able to integrate C21 skills into their teaching without being unduly under pressure because they have to simultaneously teach a specific 'C21 curriculum'.

Conclusion

The analysis of data in relation to 'Sage' School identified policy influences at the **global**, **national** and **local** levels. Regarding the global level, it was believed by participants that the primary purpose of a 'C21 curriculum' was to meet ***increasing competition in the global world***. The national agenda of having such a curriculum was to support changes ***'in the national interest',*** especially to produce students who could deal with pressures of globalisation. Local or school influences were deemed to be related to the school's particular ***stances on knowledge and learning***. However, the notion that a 'C21 curriculum' was an attempt at ***fulfilling and adding depth to the Australian Curriculum*** was contested among teacher participants.

In terms of policy text production, the 'C21 curriculum' at 'Sage' School was on the one hand, not informed by the use of consultants or by the adoption of a particular model, as well as not being focused on specific C21 skills. On the other hand, there were various **powerful knowledge actors,** such as Microsoft and school leaders, being used in professional development activities to provide guidance on the understanding of C21 skills. The theme of a **top-down approach to decision-making** showed that despite having a top-down leadership, all policy actors within the school had some decision-making powers in relation to the enactment of 'C21 curriculum' policy in the classrooms. Thus, it was a relatively **'open' policy text**. At the same time, the policy demonstrated **contested knowledge for the twenty-first century** as many participants had their own personal interpretations of 'C21 curriculum'.

The enactment of a 'C21 curriculum' in the classroom can be considered in relation to a number of themes. These themes include **competing priorities**; **constraints of testing;** the **'complex' nature of C21 skills**; and **contestation about C21 skills in different learning areas**. The **complex role of teachers'**

professional experience which emphasised knowledge pursuit, together with a targeted **staff hiring process**, it was said, facilitated 'C21 curriculum' at 'Sage' School. It was also believed that there was **growth to teachers' professionalism** due to the various discussions held during professional development.

In summary, the policy of a 'C21 curriculum' in 'Sage' School was a relatively 'open' policy which led to multiple ways of interpreting and enacting it in the classroom. The strategy of hiring teachers and investing in their professionalism was seen by participants as enabling teachers to address the challenges of enacting a 'C21 curriculum'. However, the 'C21 curriculum' at 'Sage' School also revealed internal and external factors that resulted in different opportunities and consequences for the school. The next chapter, Chapter Nine, now provides a meta-analysis of the results along the whole policy trajectory along the national (Australia), State (WA), and school levels.

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Chapter 9
Meta-analysis Along the Policy Trajectory and Discussion

Abstract This chapter compares and contrasts the results of the study along the whole policy trajectory, beginning with the global context and extending through national (Australian) to State (Western Australian) and to local school levels in order to generate a meta-analysis. The results are also discussed in relation to the relevant academic literature, including drawing on critical theory to illuminate the patterns of power relations along the whole policy trajectory (Rizvi and Lingard, Globalizing education policy. Taylor & Francis, Hoboken 2010; Vidovich, Theory and method in higher education research (international perspectives on higher education research, Vol. 9). Emerald Insight, Bingley 2013). The chapter also includes a discussion related to the final context of the policy trajectory, namely, the context of potential longer-term outcomes of the curriculum policies under investigation.

"The 21st century is the century of knowledge."
– Narendra Modi (14th Prime Minister of India), 2013

Introduction

Results were presented in the previous four chapters based on data drawn from documents, individual interviews and focus group discussions at three levels of the policy trajectory (national, State and school) and relating to the emergence of the concept of 'C21 curriculum' policy in particular Australian contexts. The Australian Curriculum, originating in the first decade of the twenty-first century, claimed to be a 'C21 curriculum' as it includes "learning areas, general capabilities and cross-curriculum priorities that together support 21st century learning" (Australian Curriculum, 2015, "F-10 curriculum," para. 2). Documents used related primarily to the national (Australia) and State (WA) levels as they yielded insights on the contexts of influences and policy text production in relation to 'C21 curriculum' policies. In relation to the case-study schools at the local level of the policy trajectory, documents, individual interviews and focus group discussions were analysed to

Z. Kunhi et al., *Twenty-first Century Curriculum Policy*,
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generate themes pertaining to influences, policy text production and practices/ effects (or enactment) of curriculum policy.

The *Melbourne Declaration of Educational Goals for Young Australians* (MDEYA) (2008) was identified as being influential at all levels of the policy trajectory (national, State and school) as it laid the foundations for a 'C21 curriculum' in Australia. Additionally, it is important to highlight that the authors were aware that policy related to the concept of a 'C21 curriculum' had not been static. Rather, we recognized that it had been rapidly evolving over time, especially as different political parties came to power.

This chapter now compares and contrasts the results of the study along the whole policy trajectory, from national (Australia) to State (WA) to local school levels in order to generate a meta-analysis. We also discuss these in relation to the relevant academic literature. To this end, we drew upon critical theory to illuminate the broader patterns of power relations along the whole policy trajectory (Rizvi & Lingard, 2010; Vidovich, 2013). The chapter also includes a discussion related to the final context of the policy trajectory, namely, the context of potential longer-term outcomes. We discuss these separately.

The research questions of the study, it will be recalled, were generated from the components of the policy trajectory, namely, influences, policy text production, practices/ effects (or enactment) and potential longer-term outcomes. The analysis of the data led to the generation of themes and sub-themes in relation to each research question. We then engaged in a meta-analysis with themes and sub-themes from the first three policy contexts which were compared and contrasted to identify similarities and differences along the policy trajectory from the national level to the State level and to the local school level. Finally, we produced a series of propositions from the analysis.

Three Tables (9.1, 9.2 and 9.3) summarise the results about influences, policy texts and enactment at the three levels of the policy trajectory (national, State and school), respectively. The column titled 'meta-analysis' indicates that the overarching themes we had deduced dominated the policy trajectory across all levels. We express these in more abstract, conceptual terms and they form the foundation of 'propositions' we generated.

The meta-analysis illuminates the wide power relations along the policy trajectory in relation to 'C21 curriculum' policy processes in Australia. It does so by offering a synthesis of dominant themes. For example, for the context of influences, themes of 'increasing competition in the global world', 'moves towards a knowledge-based economy', and 'drive for quality' have been integrated into the meta-theme of 'neo-liberalism'.

Table 9.1 Summary of themes and meta-themes identified from data analysis for the context of policy influences

	Themes					
	National – (Australia) Chapter 5	State (WA) Chapter 5	Local (Private case-study schools) 'Pepper' Chapter 6	'Mint' Chapter 7	'Sage' Chapter 8	Meta-analysis (Meta-themes) Chapter 9
Sources of data	*Documents*	*Documents*	*Documents, interviews & focus groups*			
Influences (RQ1)	**Global** – Increasing competition – Drive for quality – Policy borrowing – Aligning with OECD's agenda		**Global** – Increasing competition – Move towards a knowledge-based economy	**Global** – Increasing competition – Move towards a knowledge-based economy	**Global** – Increasing competition	**Global** – Neo-liberalism
	National – 'In the national interest'	**National** – Standardisation – 'In the national interest'	**National** – 'In the national interest'	**National** – 'In the national interest'	**National** – 'In the national interest'	**National** – Nationalism
	Local – Stances on knowledge & learning	**Local** – Stances on knowledge & learning	**Local** – Stances on knowledge & learning – Fulfilling & adding depth to the Australian Curriculum	**Local** – Stances on knowledge & learning – Fulfilling & adding depth to the Australian Curriculum – Marketing	**Local** – Stances on knowledge & learning – Fulfilling & adding depth to the Australian Curriculum	**Local** – Competing educational perspectives

Table 9.2 Summary of key themes & meta-themes identified from data analysis for the context of policy text production

	Themes					
	Macro – National (Australia) Chapter 5	Meso – State (WA) Chapter 5	Micro – Local (private schools)			Meta-analysis (Meta-themes)
			'Pepper' Chapter 6	'Mint' Chapter 7	'Sage' Chapter 8	Chapter 9
Sources of data	*Documents*	*Documents*	*Documents, individual interviews, focus group discussions*			
Policy text (RQ2) (Processes)	– Contested knowledge for C21 – Evolving policy texts – Tensions in political ideology – Economic discourses	– Contested knowledge for C21	– Contested knowledge for C21 – Powerful knowledge actors – Economic discourses	– Contested knowledge for C21 – Powerful knowledge actors – Top-down approach to decision-making	– Contested knowledge for C21 – Powerful knowledge actors – 'Open' policy text – Top-down approach to decision-making	– Contested knowledge for C21 – Powerful knowledge actors – Economic discourses

Context of Influences

Research Question 1:
What are the influences that led to the introduction of 'C21 curriculum' policies in Australian contexts?

Table 9.1 indicates the dominant themes and meta-themes (final column) generated on the three different levels – national, State and local – relating to policy influences. Three meta-themes were also generated from the data analysis and relate to significant influences on 'C21 curriculum' policies in Australia. These are **neo-liberalism**, **nationalism**, and **competing educational perspectives**. Each will now be discussed. In the process, they will also be linked back to relevant literature.

Influence: Neo-liberalism (Meta-theme)

Neo-liberalism is a powerful ideology identified along the policy trajectory as influencing the introduction of 'C21 curriculum' policies in Australia. The data revealed a prevalence of related discourses on competition, quality and standardization. These were identified in the literature as characterising neo-liberalism (Benze & Carter, 2011; Saunders, 2010; Zajda & Rust, 2016). The sub-themes of 'international policy borrowing' and the 'dominant role of the OECD' have also been

Table 9.3 Summary of key themes & meta-themes identified from data analysis for the context of policy enactment

	Themes			
	Micro – Local (Private schools)			Meta-analysis (Meta-themes)
	'Pepper' Chapter 6	'Mint' Chapter 7	'Sage' Chapter 8	Chapter 9
Sources of data	*Documents, individual interviews, focus group discussions*			
Practices/ effects (or enactmet) (RQ3)	– 'Complex' nature of C21 skills – Complex role of teachers' professional experience – Contestation about C21 skills in different learning areas – Constraints of testing – Contestation about teachers' professionalism – Generous budget	– 'Complex' nature of C21 skills – Complex role of teachers' professional experience – Contestation about C21 skills in different learning areas – Pedagogical constraints – Challenges for teachers' professionalism – Use of new physical space	– 'Complex' nature of C21 skills – Complex role of teachers' professional experience – Contestation about C21 skills in different learning areas – Constraints of testing – Growth of teachers' professionalism – Competing priorities – Staff hiring	– Tension between teachers' ideologies & principles of 'C21 curriculum' – Pressures from high-stakes testing – Importance of school settings

identified as characteristics of neo-liberal views (Lingard, 2010; Small, 2011; Vidovich, 2013). Hence, neo-liberalism was a meta-theme along the 'C21 curriculum' policy trajectory investigated.

The neo-liberal ideology associated with evolving curriculum policies has been linked to globalization, especially due to the role of such international actors as the OECD and the World Bank, in steering education policies in the twenty-first century (Appadurai, 2013; Apple, 2006; Ball, Junemann & Santori, 2017; Bottery, 2006). One key example of this is the Programme for International Student Assessment (PISA) testing carried out every three years by the OECD since 2000 as a form of international comparative testing to rank countries according to the education performance of samples of 15-year olds. For an individual country, impressive standing in the league tables is seen to validate 'quality' outcomes of their education systems.

A 'C21 curriculum' policy was identified by a majority of participants in the study reported in this book as a means to improve Australia's international standing in education as its ranking had been declining in the PISA league tables ever since testing began in 2000. The apparent weakness in Australia's education performance revealed by the test results supported Masters' (2016) claim that Australian students lack the ability to apply literacy and numeracy skills to real life situations and that, as a result, the introduction of a 'C21 curriculum' is justified. Further, a neo-liberal ideology is consistent with the focus on competitiveness that was evident as a

pervading influence at all levels of the policy trajectory in the study. Concurrently, the OECD was quoted numerous times at the national level in Australia to justify certain education decisions taken regarding 'C21 curriculum' policy. By contrast, there are arguments that constructing a curriculum to produce internationally competitive outcomes in the OECD's testing regime, which is often taken as a *de facto* measure of national educational 'quality', could mean that "more fulsome constructions of equity such as equal opportunity and social equality are elided or recast according to productivity and efficiency" (Anagnostopoulos, Lingard, & Sellar, 2016, p. 346).

Along with seeing education competitiveness as being promoted to enhance quality and excellence, *economic* competitiveness was also seen by participants as being a concern for Australia that could be addressed by promoting a'C21 curriculum' policy as a 'solution' for a knowledge-based economy. This was in line with positions taken in the academic literature holding that the twenty-first century is an era in which advanced science, technology, engineering and mathematics (STEM) specialists are required. Thus, many countries have turned to the use of knowledge in such domains as being central to driving the national economy (Masters, 2016). At the same time, one cannot overlook the arguments of those who decry the tendency to view students as 'human capital' (Apple, 2007; Marginson, 2019; Muller & Young, 2019) and knowledge as commodified (Ball, 2012; Ball et al., 2017; Karpov, 2013). This suggests one might conclude that 'C21 curriculum' policy has been associated with steering the Australian nation's economy towards being knowledge-based and that C21 skills have been promoted as a form of commodification of knowledge. Such a narrow economic rationalist view of education could run the risk of it being valued solely for utilitarian purposes, thereby excluding such wider purposes as ethical and philosophical appreciation (Apple, 2012).

Other influences related to neo-liberalism include pressures from those who argue that there is a need for the standardisation of education to improve the quality of national educational outcomes (Doherty, 2007; Green, 2019; McNeil & Klein, 2011). The associated 'standardisation movement' in Australian education was clearly enacted through the introduction of the National Assessment Programme – Language and Numeracy (NAPLAN) testing regime in 2008. This was based on the assumption that "quality and efficiency" could be achieved through the use of data (Lingard, Thompson, & Sellar, 2015, p. 1). Some also promoted the push for a 'C21 curriculum' policy as a component of the standardisation movement. For instance, at a national level, it was revealed in the *Donnelly-Wiltshire Review* (2014, p. 3) that "education systems are benchmarking their curriculums against those of nations that perform well in international testings." Arguments like this were being mounted to underpin Australia's rationale for standardising its 'C21 curriculum' policy in the form of the Australian Curriculum and thus to aim to achieve excellence.

At both State (WA) and school levels, standardisation was observable through the implementation of the Australian Curriculum. Standardisation, in conjunction with a neo-liberal ideology was being used as a tool to improve education outcomes without much input being forthcoming from the State (Doherty, 2007; Turner & Yolcu, 2014). It could be argued that the prevailing neo-liberal ideology has

succeeded in capturing the equity agenda as PISA testing has been used not only to ascertain the quality outcomes of education systems, but also to determine the equity of their education systems (Agasisti, Longobardi & Regoli, 2017; Anagnostopoulos et al., 2016). For example, Finland was applauded by the OECD for doing well in PISA not only because there were impressive performance outcomes, but also because a high level of equity and a balanced expenditure on education resources were evident (Sahlberg, 2011).

Influenced by the OECD, many countries, including Australia, incorporated both quality and equity in their national goals of schooling and in subsequent national curriculum policies. For example, Australia's MDEYA had called for "equity" and "excellence" (ACARA, 2009, "Educational goals", para. 1) in relation to the production and enactment of 'C21 curriculum' policy. At the State level in WA, however, data became available that prompted the Equity Advisory Board (WA) to call for more inclusivity in relation to a 'C21 curriculum.' This, the Board argued, was necessary because standardising knowledge and skills for the future meant that schools were not catering adequately for the needs of students from various linguistic backgrounds and those with disabilities and learning difficulties (WA Curriculum Council, 2010). This has implications for equity, a matter elaborated upon in the later part of this chapter.

In relation to the influence of neo-liberalism, the education authorities implemented Australia's 'C21 curriculum' in a bid to enhance quality so that the nation would become more competitive in global comparisons. That, however, could have a reductionist outcome through being focused overly on productivity while at the same time excluding the needs of certain groups of students. This, then, in turn, could have negatives implications for equity.

Influence: Nationalism (Meta-theme)

A second meta-theme generated during the analysis of the curriculum policy trajectory under investigation is **nationalism**. The existence of a clear belief was evident from national to State to school levels, that a 'C21 curriculum' policy can be a panacea for the survival and growth of the nation in light of globalization and rapid technological changes. To a certain extent, this is not surprising given the extent to which there is recognition in the academic literature of the impact of globalization. For example, Ferguson (2014, p. 136) has written that "globalization has geographical scope, volume, density of transactions, and a direction and pace of change". In education, he has added, this rapid pace of change has resulted in a feeling of fear that Australia's future will be threatened if steps are not taken to overcome the dangers of an unpredictable future.

The academic literature has also highlighted a view that the national governments of many countries are increasingly articulating the necessity of linking curriculum with the discourse of globalization (de Saxe, Bucknovitz, & Mahoney-Mosedale, 2020; Spring, 2015; Yates & Grumet, 2011). Authors of related

studies claim to have demonstrated that an investment in upgrading students' skills can have a positive impact on national economies, including a society's monetary growth (OECD, 2015, 2019). It is likely that cognisance of such results are partly why national policy actors, including those in Australia, have emphasised investing in a curriculum that could develop students' skills for the twenty-first century (Rizvi & Lingard, 2010; Sellar & Lingard, 2013; van Laar et al., 2017).

At the same time, a word of caution has been voiced by several commentators who have argued that the values of some multicultural groups in liberal-democratic societies are sometimes excluded from statements on national purposes in relation to school curricula (McDonough & Cormier, 2013). For example, in the UK, there were calls for a more diverse curriculum to reflect that nation's multicultural population amidst a backdrop of globalization. Particular concern was expressed that the national curriculum for history represented a "largely exclusionary, monochrome and defended 'Britishness'" (Alexander & Weekes-Bernard, 2017, p. 490).

An examination of documentary data at the national level within Australia demonstrates that 'C21 curriculum' policies have prioritised certain social values over others in relation to nationalism. This was exemplified in the debate between the Labor (2007–2012) and Coalition (Conservative) Governments (2013-) over specific cross curricular priorities in 'C21 curriculum' policy. For example, the Donnelly-Wiltshire Review (2014, p. 117) produced under the Coalition Government called for a greater focus on "religions and belief systems, especially Christianity" and a reduced emphasis on Aboriginal and Asian perspectives, thus prioritising the values of Anglo-Saxon Australians over other groups in society. Some citizens expressed concern that such an emphasis would have negative implications for multiculturalism in Australia and had the potential to threaten social cohesion and national identity relating to long-held beliefs about 'egalitarianism' and a 'fair go'.

There is the likelihood that issues of national identity could also have an impact on the direction in which Australia aspires to travel in the future. This, in turn, could influence the nature of 'C21 curriculum' policy. On this, Peterson (2016) stated that students' futures in the twenty-first century are shaped by such factors as trade and technology. Hence, he advocated for increased engagement with Asia for pragmatic purposes. Additionally, he argued, the tension over the selection of cross-curricular priorities has implications not only for matters of inclusivity but also for the formation of Australian identity "as a nation within a globalised world" (Peterson, 2016, p. 40).

Such a globalization/nationalism tension is not unique to Australia. Indeed, various academics have recognised its existence in many parts of the world (Law, 2014; Halikiopoulou & Vasilopoulou, 2013; Tett & Hamilton, 2019; Yates & Grumet, 2011). Halikiopoulou and Vasilopoulou (2013), for example, have explained the issue clearly in pointing out that while nationalism emphasises the independence of the nation, globalization highlights the interconnectedness of countries in the international arena. Relatedly, accelerating globalization has resulted in tensions being embedded in 'C21 curriculum' policy in Australia. This is because, on the one hand, globalization has triggered the perceived need for 'C21 curriculum' policies with more of a global orientation, while on the other hand, what is conceived as 'national

interests' can vary according to political parties in power. A possible implication is that Australian identity could be compromised in the future (Peterson, 2016).

Influence: Competing Educational Perspectives (Meta-theme)

Data generated with respect to national and school levels in relation to the policy trajectory under investigation pointed to the purpose of a 'C21 curriculum' policy as being instrumental. In other words, it has come to be seen to be necessary in order to prepare students to meet the economic needs of the nation. While other reasons were also given, including meeting the diverse needs of students, improving test scores and increasing students' engagement, the main rationale was to enhance economic success. This reflects a major trends reported in the academic literature that 'C21 curricula' are seen in many countries as being necessary to equip students with competencies and skills for the future in a globalized world (Deng, 2015; Fadel & Groff, 2019; UNESCO, 2015; Voogt, Erstad, Dede, & Mishra, 2013; Young, 2014).

Notwithstanding the point made above, the emphasis on instrumental purposes of education has varied in Australia depending on which political party is in power. Thus, **competing education perspectives** were identified as another meta-theme relating to policy influences. On this, the data indicated that both the Labor (2007–2012) and Coalition (Conservative) Governments (2013–) supported the view that the utilitarian purposes of education, especially in an era of accelerating global competition, should be promoted. However, while the Labor Government (2007–2012) was explicit on this and its relationship to the use of C21 skills in the first decade of the twenty-first century, the Coalition Government (2013–) challenged the very concept of C21 skills, referring to them repeatedly and in cynical tone as 'so-called 21st century skill'. This was repeated in the *Donnelly-Wiltshire Review* (2014), which called for a more 'liberal-humanist' (Lingard, 2014) approach towards education than what existed. That review also claimed it had the power and authority to redefine 'C21 curriculum' policy in accordance with its views, thus serving to support the claim that dominant voices have the "power to establish 'legitimate' definitions of social needs" (Lim & Apple, 2016, p. 5).

A particular thrust in the related academic literature claims that there is a link between political ideology and curriculum (Ball et al., 2017; Lim & Apple, 2016; Yates & Grumet, 2011). On this, Ball (2015) has stated that apparently similar education policies can be represented by different actors in different ways in different contexts. Similarly, Westbury (2016), as well as Fleury and Bentley (2020), have argued that approaches to state-based curricula making can be entrenched within governments and that, relatedly, so can the concerns of politics, political stakeholders and their interests. Specifically in the case of Australia, the construction of two differing education perspectives, presented by the two major political parties in government during the decade prior to this study, indicated that the nature of 'C21 curriculum' policy had become a site of political struggle. This, in turn, had implications for the articulation and enactment of 'C21 curriculum' policy in Australia.

Propositions Relating to the Context of Influences

The three propositions below about 'C21 curriculum' policy influences were generated from the results of the study.

Propositions About Policy Influences

Proposition 1: Neo-liberalism: A 'C21 curriculum' policy in Australia has been strongly influenced by a globally predominant neo-liberal ideology and discourses of competition, quality and standardisation, but these have implications for equity. Quality and equity are potentially in tension within 'C21 curriculum' policy.

Proposition 2: Nationalism: The evolution of 'C21 curriculum' policy has been significantly influenced by accelerating globalization, resulting in individual countries, such as Australia, increasingly steering curriculum policy 'in the national interest' within the competitive global arena. However, what is construed as 'national interest' varies according to the major political party in power and, in turn, this could influence the direction of 'C21 curriculum' policy.

Proposition 3: Competing educational perspectives: Instrumental learning, with its focus on skills for the workforce, has been a dominant influence on the conceptualisation of 'C21 curriculum' policy in Australia. However, the extent and nature of instrumentalism varies with the competing perspectives of different political parties in power and within different schools at different times, which in turn, impacts on 'C21 curriculum' policy.

Context of Policy Text Production

Research Question 2:
What is the nature of the 'C21 curriculum' policy texts at national, State (WA) and local (school) levels in Australia and how was it constructed?

Table 9.2 outlines the themes and meta-themes (final column) that apply to the three different levels – national (Australia), State (WA) and local (schools) – regarding the context of policy text production.

Three key meta-themes were associated with curriculum policy text production. They are **contested knowledge for the twenty-first century**, **powerful knowledge actors**, and **economic discourses**. Each will now be discussed.

Contested Knowledge for the Twenty-First Century (Meta-theme)

One major meta-theme for policy text production is **contested knowledge for the twenty-first century**. This was identified because at all levels there was either contestation over the definition of C21 skills or contestation over the selection of twenty-first century knowledge that should be included in 'C21 curriculum' policy.

A particular definitional contestation over 'C21 curriculum' was observed at the national level in Australia. Both the Labor (2007–2012) and Coalition (2013–) governments had argued for the introduction of a contemporary and 'world class curriculum' (ACARA, 2009; Donnelly-Wiltshire Review, 2014) based on the principles of the MDEYA (Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA, 2008). What the Coalition Government (2013–) appeared to be pursuing was a continuation of the conceptualisation of the original 'C21 curriculum' concept espoused by the Labor Government (2007–2012), albeit to a lesser degree. Further, the Coalition Government (2013) did not call for the removal of the 'general capabilities' (which had been labelled as C21 skills) (Donnelly-Wiltshire Review, 2014) dimension of the 'C21 curriculum'. It did, however, as indicated already, refer to them less emphatically, labelling them with the derogatory term of 'so-called twenty-first century skills' in its policy text, and concurrently emphasising of the importance of the curriculum having a 'liberal humanist' perspective. The view on the latter was that there should be a greater emphasis than was currently the case on "moral and spiritual values" (Donnelly-Wiltshire Review, 2014, p. 237). The latter, it was added, was missing in the Labor Government's (2007–2012) conceptualisation of 'C21 curriculum' policy.

Regarding the State level, it was revealed that there was a lack of content on Aboriginal culture in the 'C21 curriculum' policy endorsed by the Labor Government (2007–2012) of WA (WA Curriculum Council, 2010). Equally, at the local level, while participating schools implemented programs that were mainly aligned to cognitive and digital skills, some teachers expressed a belief that other emotional skills were excluded from the school's construction of 'C21 curriculum.' Others yet again expressed a belief that a 'C21 curriculum' should consist of more than technological skills.

The national Australian Labor Government's (2007–2012) focus on C21 skills was in the form of general capabilities. These included 'ICT capability', 'critical and creative thinking', 'personal and social capability', 'ethical understanding' and 'intercultural understanding.' These C21 skills were in line with those identified in the international policy and academic literature (European Communities, 2007; OECD, 2012; P21, n.d.; UNESCO, 2015). Further, while the term '21st century competencies' was highlighted as being commonly used in Europe, 'C21 skills' had already been identified as the preferred term for use in the USA and in academia (Voogt, Erstad, Dede, & Mishra, 2013). Equally, while there were many frameworks to facilitate the teaching of skills for the twenty-first century (European Communities, 2007; OECD, 2019; P21, n.d.; UNESCO, 2005, 2015), scholars were

generally in agreement that the specific skills related to learning for the twenty-first century are 'collaboration', 'problem-solving', 'creativity', 'critical thinking', 'digital literacy', 'communication' and 'citizenship' (Voogt et al., 2013; Voogt & Roblin, 2012). Additionally, academics have argued that these 'higher-order skills' (Scott, 2015) or cognitive, intrapersonal and interpersonal skills, are not new (Mishra & Kereluik, 2012; Nehring & Szczesiul, 2015; Voogt et al., 2013). Indeed, only 'creativity' and 'digital skills' were acknowledged as being less familiar to educationists compared to other C21 skills (Voogt et al., 2013).

Notwithstanding a great degree of agreement on fundamental matters, divisions over the type of knowledge deemed necessary for the twenty-first century is reflected in different strands of work in the literature (Barrett & Rata, 2014; Gilbert, 2019). Some hold that C21 skills do not cater for a variety of important aspects of education and life, including wisdom (Greenlaw, 2015). Equally, Elgstrom and Hellstenus (2011) identified reconstructivist knowledge being accorded less emphasis than other types of knowledge. They also argued that having this type of knowledge is crucial because it can assist in developing a critical view of society and working towards changing it. Further, they argued that having reconstructivist knowledge is relevant for the twenty-first century as it can help individuals to deal with change and problems in society. Similarly, Mayes and Holdsworth (2020, p. 101), in critiquing the current Australian Curriculum, proposed a 'curriculum of critical hope' where students are encouraged to engage with world issues so that they become activists and trigger change in society.

An area in which there was contestation over knowledge for the twenty-first century within Australia was in relation to the role that content knowledge and skills should play in 'C21 curriculum' policy. Both the Labor Government of 2007–2012 (MCEETYA, 2008) and the Coalition Governments since 2013 (Donnelly-Wiltshire Review, 2014) acknowledged that the learning of content and disciplines of knowledge, along with acquiring set skills and competencies, are important in developing the child both for the present and for the future. However, conflict emerged pertaining to the priority given to content knowledge and general skills or general capabilities. On this, while the Labor Government (2007–2012) championed the promotion of C21 skills, the Coalition Government (2013–) supported a stronger emphasis on literacy and numeracy in the early years of schooling and downplaying C21 skills, more than had been the case (Donnelly-Wiltshire, 2014).

The debate on the latter matters also took place within academic circles. Carlgren (2020) outlined the debate by stating that proponents of a discipline-based model of curriculum argued that one needs knowledge of content before one can meaningfully acquire concepts and cognitive skills and that, as a result, acquisition of these should not be promoted until later stages in student learning. By contrast, she stated that defenders of a skills-based model of curriculum asserted that students need to acquire intellectual skills from an early stage so that they can be prepared appropriately for the knowledge-based economy. Deng (2018) deemed this schism in knowledge as 'knowledge-as-an-end-in-itself' versus 'knowledge-as-a-means-for-cultivation-of-human-powers'. Further, and specifically regarding Australia, Masters (2016) argued that existing curricula were primarily based on factual and disciplinary knowledge

instead of on the application of such knowledge to real life problems. One consequence, according to Young and Muller (2015), is that conflict embedded in curriculum has resulted in the emergence of a 'curriculum crisis' in education.

There is also concern some could exacerbate contestation about knowledge for the twenty-first century by having a strong instrumental focus on education. According to the OECD (2012, 2019), a 'C21 curriculum' consists of knowledge, skills, character (including 'appropriate' behaviours, values and attitudes), and a meta-layer of competencies comprised of 'learning how to learn', an interdisciplinary focus, systems thinking and personalisation. On this, however, Young (2013, p. 106) claimed that one of the constraints facing curriculum has been a shift in emphasis on learning for "internal ends" (for intrinsic purposes) to learning for "external ends" (for employability purposes). Similarly, Peacock, Lingard, and Sellar (2015) acknowledged that while the Australian Curriculum - with its combination of learning areas, general capabilities and cross-curricular priorities – was the outcome of compromise between these two goals, they also claimed that the cross-curricular priorities reflected an instrumentalist rationale. Furthermore, Sellar (2015) raised a concern about the selection of knowledge within contemporary curricula in Australia. On this, he argued that there may be 'non-cognitive skills' within the curriculum (skills that refer to personality traits which were subjective in nature) and if so they are likely to have been selected not only to improve academic scores but also to perpetuate the economic prosperity of a nation.

While Sellar's (2015, p. 201) views are, in his own words, "primarily theoretical", they do raise questions about what he calls the "cruel optimism" (Sellar, 2015, p. 213) of having a curriculum adhering to human capital theory, where knowledge is viewed as a commodity to be used primarily to help progress the economy. Considering such a view serves to remind us again that the instrumental purposes of education could serve as a constraining rather than an enabling factor in the construction of 'C21 curriculum' policy. Arguably, however, it could also be possible to reduce disputation over the selection of knowledge in a 'C21 curriculum' if the internal and external purposes of learning were balanced (Young, 2013).

Powerful Knowledge Actors (Meta-theme)

Powerful knowledge actors were identified as a meta-theme relating to the context of policy text production at all levels of the policy trajectory where non-state actors played a role in providing advice, direction and expertise on 'C21 curriculum' policy. At the national level in Australia, the OECD played a major role in the construction of the 'C21 curriculum' policy with its advice for education in the twenty-first century being highlighted in all three texts analysed, namely, the MCEETYA (2008) text, *The Shape of the Australian Curriculum* (n.d.) and the *Donnelly-Wiltshire Review* (2014).

Knowledge production can be seen to be crucial to a knowledge-based society. The adoption of this view resulted in education policy being increasingly linked to knowledge as a commodity (Grek & Ozga, 2010; Spring, 2015). Along with the rise of neo-liberal influences in policy-making, this resulted in the ascendancy of consultants in education policy production (Ball, 2012; Gunter & Mills, 2017). Academics like Gunter and Mills (2017) have tended to view these personnel as knowledge actors hired to exchange their knowledge and expertise in return for a fee. This role of consultants in education policy-making can also be seen to represent the influence of private sector rationalism because of the outsourcing of services from the public sector to the private sector (Gunter, Hall, & Mills, 2015; Sjoberg, 2017).

In the specific case of the 'C21 curriculum' policy text within Australia, an associated evaluation of it in its form as the Australian Curriculum was conducted by Donnelly and Wiltshire, and their product became known at the national level as the *Donnelly-Wiltshire Review* (2014). This reinforced further the paradoxical role that the state plays in relation to education policies and the notion of education being a public good. Relatedly, Lapsley, Miller, and Pollock (2013), urging caution, argued that while the use of consultants as tools of validation for the activities of governments can be very powerful, there are implications in terms of public expectations about the ability of such consultants to address the needs of the public.

References by participants in this study to Microsoft as a dominant policy actor at 'Pepper' School and as a minor player at 'Sage' School also reinforced the strong role of consultancy in the sphere of 'C21 curriculum' policy making. More broadly, Ball (2015) referred to Microsoft as being an 'edu-business' since transactionally it has provided technical expertise and various forms of knowledge deemed essential for the twenty-first century to schools. Such edu-businesses, of course, are not new to Australia, as evident by the awarding of contracts relating to NAPLAN tests to Pearson by most States in Australia (Hogan, 2016).

Ball (2015) referred to the role of such companies in new 'policy spaces' as providing 'solutions' to gaps in knowledge about education. Further, their activity has a number of implications. First, what takes place symbolises a neo-liberal encroachment within education because of profit-making pursuits on the part of consultants (Ball et al., 2017; Exley & Ball, 2014; Williamson, 2020). On this, Lapsley et al. (2013) have argued that consultancies have 'colonised' the IT sector due to the shortage of IT skills in the market. Secondly, a perspective that contemporary and modern approaches in education depend on consultancy can be constructed. This has the potential to dominate work culture and services provided to consumers (Lapsley et al., 2013). Thirdly, there are implications for social justice as consultancy services are expensive. Particularly alarming on this is that not everyone may end up having access to them (Ball, 2012; Ball et al., 2017).

The above implications can also be considered specifically in relation to 'C21 curriculum' policy development in Australia. For example, the role of Microsoft as an edu-business in constructing a 'C21 curriculum' represented an increase in corporate interests in 'C21 curriculum' policy in the nation. Specifically, the consultations that took place with external knowledge actors suggested the existence of a

view that additional support was required to teach twenty-first century knowledge. This then resulted in the outsourcing of twenty-first century knowledge generation, an activity that in turn had implications for the professionalism of teachers. In addition, the reliance on edu-businesses constructed a perspective within Australia not only that a strong dependence on technology indicated the adoption of a progressive approach towards embracing knowledge for the twenty-first century but that this could potentially become a dominating force. Finally, there was an indication of a belief that 'C21 curriculum' policy had the potential to widen an existing gap between public and private schools in the country.

Economic Discourses (Meta-theme)

A third meta-theme generated is that there was a prevalence of **economic discourses** in education policy texts in Australia. On this at the national level, the Labor Government (2007–2012) had used an economic rationale to justify the production and enactment of a 'C21 curriculum' policy and the associated discourses became evident in the MDEYA (2008). For example, it was stated in it that the emphasis it placed on students developing C21 skills was to prepare them for the workforce (MDEYA, 2008).

Furthermore, even though the *Donnelly-Wiltshire Review* (2014) had called for a 'liberal-humanist' approach to 'C21 curriculum' policy, there was also an underlying economic rationale in its orientation. This was due partly to its focus on competitive positioning. Relatedly, and in view of the lack of any explicit objection to the teaching of general capabilities or C21 skills, the State government in WA can be said to have complied with these rationalist underpinnings of the 'C21 curriculum' policy.

At the school level in the study being reported here, economic discourses underpinned 'C21 curriculum' policy and triggered a top-down approach to decision-making in relation to it. In each of the three case study schools, the policy elite (school leadership) had decided to focus on C21 skills as they regarded them to be imperative for the good of the nation. Here it is helpful to recall Ball's (2016) argument made in relation to societal developments more widely that amidst the backdrop of policy reforms at national or school levels, the discourse of 'necessarian logic' has emerged. According to this logic, reforms tend to start off small and be innovative and then evolve into something that is more established before culminating into something that is common sense and obvious. Similarly, in the case of 'C21 curriculum' policy in Australia, the discourses of change that eventually came to dominate include those to do with 'unpredictability', 'rapid changes' and 'technological advancements'. This left little opportunity for negotiations to take place at the school level. Further, within the case study schools there was general acceptance that 'C21 curriculum' policy was rational and necessary, and that this was sufficient justification for the stakeholders having constructed a 'C21 curriculum'.

Propositions Relating to the Context of Policy Text Production

Propositions About Policy Text Production

Proposition 4: Contestation over the selection of C21 knowledge and the relative priority given to content and skills in the curriculum, was revealed as a prominent characteristic of 'C21 curriculum' policy text in Australia. This contestation was potentially exacerbated by C21 skills being selected for primarily instrumental reasons, with potential neglect of liberal-humanist orientations.

Proposition 5: Powerful knowledge actors, especially external (and often international) consultants, have emerged as important non-state players (for profit) who are responsible for the production of 'C21 curriculum' policy texts in Australian contexts. Consequently, the neo-liberal intentions of 'C21 curriculum' policy are reinforced, with implications for equity and social justice, as well as the professionalism of teachers.

Proposition 6: Economic discourses of change have characterised 'C21 curriculum' policy texts in Australia which, in turn, contributed to a top-down approach to curriculum decision-making, thereby reinforcing the embedded neo-liberal orientation of 'C21 curriculum' policy.

Three propositions were generated pertaining to the context of policy text production.

Context of Enactment

Research Question 3:
What are the practices/effects resulting from the enactment of 'C21 curriculum' policies in case-study schools?

Table 9.3 outlines the themes and meta-themes (final column) that apply to the three different levels – national (Australia), State (WA) and local (school) – with regard to the context of enactment.

There are three meta-themes about the context of policy enactment across the whole policy trajectory. These are as follows: **tension between teachers' ideologies and principles of 'C21 curriculum' policy**, **pressures from high-stakes testing**, and the **importance of school settings**. Each will now be discussed.

Tension Between Teachers' Ideologies and Principles of 'C21 Curriculum' Policy (Meta-theme)

Teachers said that their philosophy, experiences and knowledge affected their enactment of 'C21 curriculum' in the classroom. Further, they said that they consider that these teaching philosophies, experiences, and knowledge bases are part of their 'teachers' ideologies.' Further, they indicated that there was **tension between their teachers' ideologies and the principles of 'C21 curriculum' policy**. On the one hand, some teachers said they believed that their teaching ideology resonated with what a 'C21 curriculum' policy is meant to stand for. On the other hand, some teachers felt apprehensive because they believed that the complexity of twenty-first century knowledge is incompatible with their teaching ideology.

It is important that policy makers take account of teachers' views as outlined above. This position is taken by Hardy (2015) who argues that a critical approach to policy enactment involves making sense of policy actors' experiences. Further, it resonates with the position taken by those who argue that teachers need to be recognised at any time of education change because of the extent to which school micropolitics and successful curriculum enactment are linked (Ball, 1994; Fasso, Knight & Purnell, 2016).

The two polar positions outlined above - the optimistic voice versus the critical voice - are not unusual. Indeed, they reflect the stances that policy actors often adopt in relation to education policy enactment in general (Golding, 2017; Wilkinson & Penny, 2020). On this, Braun et al. (2011) have emphasised the ways in which policy enactments are 'peopled' by policy actors identified as 'defenders' and 'enthusiasts' (supporters of policy enactment) or as 'critics' and 'copers' (opponents of policy enactment).

Some of the 'defenders' and 'enthusiasts' of a 'C21 curriculum' policy in the study reported here mentioned that the competencies outlined in 'C21 curriculum' policy resonated with their teaching philosophy; they did not see the notion of C21 skills as being an extraordinary concept in any way. This reflects views in the literature. Kereluik, Mishra, Fahnoe and Terry (2013), for example, offered a possible explanation for an apparent paradox in the different levels of empowerment associated with 'C21 curriculum' policy. They argued that there are two ways of thinking pertaining to twenty-first century knowledge, namely, 'nothing has changed' versus 'everything has changed'. By this they mean that some educators believe that 'nothing has changed' in the twenty-first century because required knowledge and skills are not novel. They argue that what is involved is common knowledge that should be taught in schools. They tend to adopt an agreeable attitude towards 'C21 curriculum', thus making them the 'defenders' and 'enthusiasts' of associated education policy.

On the other hand, as Kereluik et al. (2013) argued, there are educators who believe that 'everything has changed' because technological modernisation and globalization have resulted in different ways of teaching. This has led to feelings of being overwhelmed and lacking confidence to teach a 'C21 curriculum'. As a result,

such teachers become the 'critics' or the 'copers'. Certainly, this position was reflected in the views of a group of participants in the study being reported here on 'C21 curriculum' policy in Australia.

Continuing in relation to the school level within the study reported here, teachers also indicated they had various views pertaining to the role of technology in 'C21 curriculum' policy. For some, while the role played by Microsoft at 'Pepper' School and the investments by the school in the state-of-the-art technology underscored the importance of technology in its 'C21 curriculum' policy, some critics questioned the importance attached to this development. Once again, the debate that ensued is reflected within the academic literature. For example, Choi and Kim (2017) as well as Prensky (2012) maintain that technologically driven 'C21 curriculum' policy has the potential to be a great enabler in knowledge construction. Others maintain that technology has the potential to offer support in the development of students' C21 skills, and particularly in relation to the development of creative and critical thinking and communicative and collaborative skills (P21, n.d.; Scott, 2015; Trilling & Fadel, 2012; van Laar et al., 2017; Voogt et al., 2013). On the other hand, there are critics of a technologically focused 'C21 curriculum' policy who have argued that an over-emphasis on digital tools to cultivate C21 skills can devalue the role of teachers and of teaching with face-to-face interaction. As they see it, the latter are vital since they play a major role in helping students to be discerning with information and to be able to find patterns in data in order to be able to function effectively and efficiently in this information age (Greenlaw, 2015).

The resistance displayed by some teachers in this study towards technology seemed to stem not only from their preconceived notions about twenty-first century learning but also from social circumstances. First, they argued, the emergence of newer forms of technology has complicated the process of teaching with technology in the classroom. This calls to mind the position of Koehler, Mishra, and Cain (2013) who hold that the newer technologies can be viewed to be 'protean' (could be used in multiple ways), 'unstable' (constantly evolving) and 'opaque' (internal functioning), and this situation can make it challenging for teachers in trying to cope with the pace and scope of associated change.

Some academics also draw attention to the possible influence of contextual factors (Koehler, Mishra, and Cain, 2013; Mishra & Mehta, 2017). On this, they point to the fact that many teachers underwent their initial teacher preparation at a time when the application of educational technology was more limited than is currently the situation, and this can now have a significant impact on the pedagogical choices they make in relation to their classrooms (Koehler, Mishra, & Cain, 2013). It has also been pointed out that a gap has grown for many teachers between the intended and the enacted 'C21 curriculum' (Voogt, Erstad, Dede, & Mishra, 2013) because of the complexity of using technology, and therefore they are resistant.

The academic literature is also revealing in a number of other ways in relation to the study being reported here. Kereluik et al. (2013), for example, identified three types of knowledge with which teachers should be equipped to teach a 'C21 curriculum'. The first type consists of foundational knowledge (what teachers should know) and includes content knowledge, information literary and cross-disciplinary

knowledge. The second type is meta-knowledge (how teachers should act on the knowledge) and being able to use such C21 skills as problem-solving and creative and critical thinking, as well as collaboration skills. The last type is focused on humanistic knowledge (what values are important), and relates to forms of cultural, global and ethical awareness.

Academics, in taking account of these distinctions, have argued that at present teachers in many constituencies are not sufficiently prepared to teach a 'C21 curriculum' (Lowe & Galstaun, 2020; Scott, 2015). Masters (2016) has gone further in recommending the provision of 'sound' courses of initial teacher education aimed at strengthening teachers' levels of preparedness for teaching a 'C21 curriculum'. In similar vein, Scott (2015, p. 14) has suggested that particularly tailored professional development programmes should be offered involving "purposeful interaction between individuals at all levels." In addressing the gap in teachers' pedagogic narratives of teaching, in the particular cross-curricular priority of *Aboriginal and Torres Strait Islander Histories*, Lowe and Galstaun (2020) propose that teachers should be involved in creating whole-school programs that emphasise integrating Indigenous perspectives in an authentic manner rather than embedding it in a superficial and forced manner.

Koehler, Mishra and Cain (2013) also proposed an integration of technological, pedagogical and content knowledge so that the teaching of technology can occur in a meaningful manner. On this, they argued that for teachers to be convinced of the relevance and application of technology within a 'C21 curriculum', they should first understand the possible influence of the use of technology on teaching practices in terms of improving content mastery and as an effective pedagogical tool. They elaborated on this, stating that teachers need to know which technological tools have the potential to enable or constrain building on students' prior knowledge and creating new knowledge. This also requires, they hold, having the ability to make effective pedagogical choices in terms of using or excluding technology when teaching students to master challenging concepts. Hence, according to them, technology needs to be viewed as a method for helping students to enhance their learning. Further, they add that the technological, pedagogical and content knowledge (TPACK) framework should be used within a 'C21 curriculum' to facilitate narrowing any gap that may exist between the intended curriculum and the enacted curriculum. Moves to this end, they held, could be carried out not only by promoting understanding of the reasons behind resistance to technology, but also by addressing it through the provision of appropriate professional development programmes (Chai, Koh & Teo, 2019; Koehler, Mishra, & Cain, 2013).

Another area of conflict in relation to teachers' ideologies and the principles of 'C21 curriculum' policy in relation to the study reported here centred on the belief of some teachers that their professional creativity was stifled because of the 'standardised' modes of 'C21 curriculum' mandated by their school leaders. In the case of 'Pepper' School and 'Mint' School, teachers were instructed to follow the Microsoft model and Bloom's Taxonomy when preparing to teach specific C21 skills. However, some teachers indicated that as a consequence they were left with little room for professional creativity and autonomy. In comparison, the experiences

related by the teachers at 'Sage School' indicated they had more opportunities to make their own decisions about the selection of C21 skills to be taught in the classroom. The indications also are that they were more favourably disposed towards the curriculum because it was strongly recommended rather than mandated.

The latter point serves to recall Hardy's (2015) analysis of the enactment of a new State curriculum in Queensland (Australia) early this century. He indicated that having it highly prescriptive compromised the professional autonomy of all policy actors. On the same curriculum, Rizvi and Lingard (2010) argued that having compulsory policies specifically in relation to pedagogy can lead to a dissociation of pedagogies from epistemological and knowledge concerns and work against teacher professional mediation of policy. It is possible that in the study reported here, the use of a prescribed model/framework for a 'C21 curriculum' policy in several case study schools could have contributed in like fashion to a compromising of some teachers' professional autonomy.

Several other points of contention have emerged pertaining to the enactment of 'C21 curriculum' policy more generally in Australia. This situation can be attributed to the multifarious logics of policy actors or to put it another way, the multiple views about how 'C21 curriculum' policy should be enacted based on their teaching ideology. In particular, it appears as if the difficulty in aligning teachers' professional beliefs about the twenty-first century and technology to the school's vision of the twenty-first century and the use of technology, together with the resistance displayed in adhering to a prescriptive model for the enactment of 'C21 curriculum', resulted in translating policy into practice being messy and contested.

Pressures of High-Stakes Testing (Meta-theme)

Teachers at 'Mint' School expressed a belief that its 'C21 curriculum' policy in the form of critical thinking (as articulated in Bloom's Taxonomy) is a means to improve students' test scores. At 'Sage' School, by contrast, teachers claimed that the emphasis there on students doing well in the tertiary entrance examinations limited them in emphasising 'C21 curriculum' in Years 11 and 12. In both cases, however, high-stakes testing was a major influence.

The academic literature once again clarifies that the situation portrayed above is not unusual. Further, it identifies a range of strong criticisms of high-stakes testing in contemporary times (Ball, 2016; Rizvi & Lingard, 2010; Winter, 2017). Drawing from Bernstein's three message systems – curriculum, pedagogy and assessment – Rizvi and Lingard (2010), for example, claimed that in current times, with a focus on an 'audit culture' and 'datafication', a fourth system - high stakes testing – has emerged to reconfigure 'productive' knowledge. This is knowledge that could lead to an improvement in a nation's economic productivity. In critical tone, they (Rizvi & Lingard, 2010) also indicated that changes in one or more of the message systems, including high-stakes testing, could trigger changes in the others.

There are also those who point out that the combination of knowledge, skills, attitudes, values and ethics (Binkley et al., 2012; Fadel & Groff, 2018; Halasz & Michel, 2011) outlined in a 'C21 curriculum' are sometimes seen to support developmental learning and higher order thinking skills (Adie, 2014). They then highlight, however, that high stakes testing, rather paradoxically, is usually focused on achievement and numerical outcomes. For Rizvi and Lingard (2010) the problem with this is that the outcome is rarely the production of creative and critical thinkers. In similar vein, Braun et al. (2011) argued that confusion in focusing both on developmental and numerical outcomes can mean that enactment of 'C21 curriculum' policy can be compromised by competing policies and values.

The Importance of School Settings (Meta-theme)

At this point Braun et al.'s (2011) argument that having a deep understanding of policy enactment is instructive. They held that such understanding can be in relation to four different dimensions, namely, situated, material, professional, and external, and that these can influence policy enactment in schools. Regarding the first of these, namely, material conditions, the present study revealed that they had a major positive influence on the enactment of 'C21 curriculum' policy in the case study schools. For example, all shared the advantage of significantly high levels of financial resources, albeit with the amounts varying from school to school. 'Pepper' School had a generous budget that facilitated its consultation with Microsoft for its enactment of 'C21 curriculum' policy. 'Mint' School had invested in building its physical landscape to create creative and collaborative spaces for its enactment of 'C21 curriculum' policy. 'Sage' School had devoted professional development to ensure that it had well-qualified staff to enact its 'C21 curriculum' policy.

In all three cases state-of-the-art technological resources, consultancy services, creative physical spaces and professional development were provided and were appreciated as being highly influential in enabling the enactment of a 'C21 curriculum' policy. Additionally, participants considered that these were two major implications. First, these were implications relating to equity and social justice (a matter that will be addressed later). Secondly, implications for policy-making were highlighted that accorded with the view that policy makers ignore taking cognisance of contexts at their peril (Braun et al., 2011; Molla & Gale, 2019). To put it another way, both they and our participants came to realise that making assumptions from the outset that schools already possess the ideal conditions for policy implementation can lead to all kinds of difficulties later on. The solution, according to Braun et al. (2011), is that such 'idealism' should be 'disrupted' by taking contexts seriously.

Propositions Relating to the Context of Policy Enactment

The two propositions below about 'C21 curriculum' policy enactment were generated from the results.

Propositions About Context of Policy Enactment
Proposition 7: Tensions were evident in the enactment of 'C21 curriculum' policy in schools in the following ways:

(a) Teachers had contradictory professional interpretations of the concept of 'C21 curriculum' policy, especially the extent to which technology should play a key role, which resulted in varying levels of uptake.
(b) Creativity, as one of the tenets of 'C21 curriculum' policy, was seen to be compromised as pressures to comply with 'standard' approaches and high stakes testing potentially reduced both teachers and students' creativity.

Proposition 8: Importance of school settings: School settings, especially in terms of material conditions, shaped 'C21 curriculum' policy enactment, such that a generous budget, abundant infrastructure and professional development facilitated the effective enactment of a 'C21 curriculum'.

Context of Outcomes

Research Question 4:

What are the anticipated longer-term outcomes of 'C21 curriculum' policies in Australia and internationally?

Table 9.4 below identifies meta-themes across the three different levels – national (Australia), State (WA) and local (school) – for the context of potential longer-term outcomes. Two major meta-themes were generated for the context of longer-term outcomes of a 'C21 curriculum' policy. The first of these is **continual changes to 'C21 curriculum' policy** and the second is **equity and social justice.** Each will now be considered in turn.

Table 9.4 Summary of key meta-themes identified for the context of outcomes

Themes	
	Meta-analysis (Meta-themes)
Context of outcomes (RQ4)	– Continual changes to 'C21 curriculum' policy – Equity and social justice

Continual Changes to 'C21 Curriculum' Policy (Meta-theme)

The first meta-theme pertaining to the context of longer-term policy outcomes is **continual changes to 'C21 curriculum' policy**. The associated theme of 'contested knowledge for C21' and 'tension between teachers' ideologies and the principles of 'C21 curriculum' policy', along with the sub-theme of 'competing educational perspectives' suggest that knowledge will continue to be a site of contention among different stakeholders in the long term. Relatedly, the result may well be that 'C21 curriculum' policy will be constantly changing and evolving. This brings to mind Young's (2013, p. 115) view that "the struggle over schooling has always been a struggle for knowledge" as well as Muller and Young's (2019) view that some forms of knowledge are more powerful than others.

When our participants were asked about what was likely to happen regarding 'C21 curriculum' in the future, many commented that while they foresaw that the associated policy would continue to evolve, this would take place slowly. On this, one teacher from 'Pepper' School commented as follows: *"I think it's going to take a very long time. I think the idea of C21 skills, of 'C21 curriculum', is currently a little bit of a 'pie in the sky.'"* Others were more apathetic, claiming that they were not enthusiastic about the phenomenon but were resigned to the fact that it would continue to be highlighted as part of constant change in education. Others yet again, like the school leader from 'Mint' School, were rather cynical about the future of 'C21 curriculum' policy. In this regard, he said that "*education can be pretty disappointing because there's a lot more talk about school improvement than there actually are schools improving.*" There is again nothing novel about the latter observation. Indeed, in a study they conducted at a high school in WA, Lyle, Cunningham and Gray (2014) discovered that there was a perception amongst teachers not only that there would be continual change in the school but that this would be ideal practice.

Equity and social justice (meta-theme)

The second meta-theme pertaining to the context of longer-term policy outcomes is that of **equity and social justice.** At the national level, neo-liberal influences on 'C21 curriculum' policy, which some academics have argued is overly focussed on productivity (Greenlaw, 2015; Peacock, Lingard, & Sellar, 2015), might result in equity being viewed as less important. This, in turn could lead to a deepening of inequalities in education. Zajda and Rust's (2016) analysis of this is revealing. While it is based on higher education patterns, the link they indicated exists between economic competitiveness and the knowledge-based economy (Zajda & Rust, 2016) justifies consideration in relation to 'C21 curriculum' policy because of similar economic discourses revealed within it. In similar vein, Gale and Molla (2015) asserted that while such an education policy is justified in terms of its value to the economy might improve an individual's opportunities for gaining a high-paying job, it can

also reduce the individual's scope for learning and thriving and playing a part in addressing inequalities in society. This, they concluded, can constitute "a deprivation of agency and reinforce injustice" (Gale & Molla, 2015, p. 820). The same might be said regarding 'C21 curriculum' policy within Australia in so far as it has an instrumentalist link.

At the national and State levels, 'C21 curriculum' policy has not operated to ensure equal education outcomes for students with special educational needs and possibly for other disadvantaged students. One of the goals of the policy is to ensure equity by enabling "*all* young Australians (to) become successful learners, confident and creative individuals, and active and informed citizens" (MDEYA, 2008). However, there has been no framework to guide teachers in differentiating the curriculum to accommodate the needs of students with learning difficulties (WA Curriculum Council, 2010). In this regard, it is helpful to recall Gale and Molla's (2015) point that social justice in education involves incorporating values of fairness and equity within pedagogy and curriculum.

At the school level 'Pepper' School, 'Mint' School and 'Sage' School introduced what they referred to as 'C21 curriculum' policies that aim to meet the learning needs of all students. Some students at 'Pepper' School and 'Sage' School, however, argued that the main emphasis on C21 skills there was evident when students were in extension classes reserved for the brightest. The rationale for this being the case, they said, was that these skills are highly challenging and thus better suited for higher-ability students.

Some of the teachers in the study also perceived C21 skills to be 'complex'. A problem with this is that a 'C21 curriculum' could come to be seen to promote intellectual elitism that, in turn, could have implications for equity. On this matter more generally, Heuser, Wang, and Shahid (2017) maintained that extension programs aimed at more intellectually able students are often perceived to be effective in nurturing these students so that they can play a future role in developing their nation's progress and prosperity. This then, however, could make it difficult to harmonise the education aims of student excellence with student equity.

The involvement of private edu-businesses such as Microsoft at 'Pepper' School and to some extent, also, corporate involvement at 'Sage' School, highlights how the privatisation of education can equally raise issues of equity. On this more generally, Au and Ferrare (2015) have argued that increasing corporate interests in education could not only undermine the professionalism of teachers, but could also lead to inequality in the distribution of resources for students. For example, because consultancy services tend to be expensive, not all students will necessarily have access to what is provided and because the knowledge consultants provide is often specialised and niche, many may not be able to avail of it, thus perpetuating a degree of inequality. Such a conclusion resulted in calling for improvement in 'epistemic access', epistemic injustice, or access to the 'best' knowledge available as a means to stem inequality in education (Kidd, Medina, & Pohlhaus, 2017; Walker, 2019; Young, 2013, p. 115). Furthermore, it could be that increasing corporate interests in 'C21 curriculum' policy in Australia could signal not only an increasing erosion of

professionalism among teachers, but could also highlight inequitable access to knowledge that should be available to all.

Propositions Relating to the Context of Longer-Term Outcomes

The two propositions below about 'C21 curriculum' policy outcomes were generated from the results of our study.

Conclusion

Propositions About Policy Outcomes

Proposition 9: Continual Changes to 'C21 Curriculum' Policy: Given patterns in Australia to date, there is a high possibility that there will be continual changes to 'C21 curriculum' policy in the longer term due to knowledge being an ongoing site of contention for stakeholders in education.

Proposition 10: Tensions Were Evident in Relation to Equity and Social Justice in 'C21 Curriculum' Policy Within Australia in the Following Ways:

(a) Owing to a strong focus on competitive economic productivity, 'C21 curriculum' policy could limit goals of equity and social justice.
(b) Insufficient attention to curriculum adaptations for students with special educational circumstances could exacerbate issues of equity.
(c) The notion of C21 skills being cognitively superior, as well as the priority afforded to them in extension classes for the higher-ability students, could potentially exacerbate tensions between achieving student excellence and student equity in the long term.
(d) The increasing corporate interests within 'C21 curriculum' policy production and enactment could result in inequitable access to knowledge for all students.

This chapter has compared and contrasted our results in relation to the policy trajectory from the national (Australia), State (WA) and local (school) levels. A critical theory perspective was drawn upon to reveal power dynamics and overarching patterns in policy processes in a meta-analysis. Major meta-themes in this regard are summarised below in Table 9.5.

Table 9.5 Summary of key meta-themes identified from meta-analysis along the policy trajectory

Context of influences	Context of policy text production	Context of enactment	Context of outcomes
– Neo-liberalism – Nationalism – Competing educational perspectives	– Contested knowledge for the twenty-first century – Powerful knowledge actors – Economic discourses	– Tension between teachers' ideologies & principles of 'C21 curriculum' – Pressures from high-stakes testing – Importance of school settings	– Continual changes to 'C21 curriculum' policy – Equity & social justice

The next and final chapter suggests possible recommendations for policy and practice and outlines possible areas of research for the future based on the results overall.

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Chapter 10
Conclusions, Implications and Recommendations

This chapter recalls how the construct of 'C21 curriculum' policy emerged and how Australia has not been immune to associated trends. It also recalls that the aim of the study reported in this book was to analyse 'C21 curriculum' policy processes within Australia, in national, State and school contexts, revealing the perspectives of policy actors at different levels and sites. It indicates that this was achieved through the use of a policy trajectory framework that enabled the development of a deep understanding of the policy intent, processes and practices, with results demonstrating both a gap between what was intended and enacted, and also that policy work is complex and contested. It then points to how the results from the research suggest a variety of recommendations for policy stakeholders along with possibilities for future research. These are now offered as 'food for thought' for those working in other policy settings.

> *"The future* [twenty-first century] *is not there waiting for us. We create it with the power of imagination."*
>
> – Vilayat Inayat Khan, (a former Head of the Sufi Order International), 1916–2004.

Introduction

As the world becomes increasingly characterised by a knowledge-based society, there are strong calls to enact a curriculum in schools that would meet its demands. Hence, the emergence of the construct of a 'C21 curriculum' policy. Australia has not been immune to this trend. The aim of the study reported in this book was to analyse 'C21 curriculum' policy processes within Australia, in national, State and school contexts, revealing the perspectives of policy actors at different levels and sites. This was achieved through the use of a policy trajectory framework that enabled the development of a deep understanding of the policy intent, processes and

Z. Kunhi et al., *Twenty-first Century Curriculum Policy*,
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practices, with results demonstrating both a gap between what was intended and enacted and relatedly that policy work is complex and contested.

The 'policy trajectory', as initially conceived by Ball (1994) and later modified by Vidovich (2007, 2013) was the conceptual framework used to analyse 'C21 curriculum' policy. The focus was on four main contexts of policy processes – influences, policy text production, policy enactment and potential longer-term outcomes. Research questions were generated in relation to this conceptual framework. Data analysis was of documents, individual interviews and focus group discussions and it took place in two stages. The first stage drew on the interpretivist lens to reveal perspectives of participants and facilitate the identification of key themes. The next stage, or meta-analysis stage, involved the use of critical theory to examine the power dynamics between policy actors. The meta-analysis of the results yielded in stage one, took place in relation to the policy trajectory from the national (Australia) to State (WA) to school levels.

Three case study schools formed the basis of the study. These were entitled 'Pepper School', 'Mint School' and 'Sage School'. They are private schools and are located in different regions in WA.

Data collected related to the years between 2009 and 2013, during which the conception of a 'C21 curriculum' policy rose to ascendance after the MDEYA of 2008. In 2013, a Coalition Government (2013-), that replaced a Labor Government (2007–2012), was responsible for several education policy reviews, including the Donnelly-Wiltshire Review (2014) and the *Report of the Review to Achieve Educational Excellence in Australian Schools* (2018). While the Donnelly-Wiltshire Review proposed suggestions for the 'refinement' of 'C21 curriculum' policy, it remains to be seen what further developments will take place.

While this book was being written, the *Report of the Review to Achieve Educational Excellence in Australian School*s (2018), also known as 'Gonski 2.0', was submitted in March 2018. The purpose of this second Gonski review that related to the schooling sector was to offer advice to the Turnbull administration of the Coalition Government (2013-) in a bid to improve the achievement of students and performance of schools by examining areas of assessment, curriculum and accountability (Department of Education and Training, 2018).

The contents of the review revealed three priorities: improve learning for every student; ensure that every child is creative, connected and engaged; and provide a flexible, innovative and continuously improving educational system (Department of Education and Training, 2018). Recommendations were made based on these priorities. Two recommendations in particular could potentially have an impact on the development of 'C21 curriculum' policies within Australia. First, there were recommendations for the establishment of online learning assessment tools to manage students' formative learning. This could signal the advent of more technologically based edu-businesses in school settings that could in turn have implications for equity. Secondly, the review recommended that there should be more emphasis on the learning of such general capabilities as critical and creative thinking and personal and social capability, and that their "status" should be "raised" and "integrated" across learning areas (Department of Education and Training, 2018, p. 41).

To create this elevated status, however, would be to act in opposition to the recommendation of the Donnelly-Wiltshire Review (2014) just a few years earlier, where it was stated that it was hoped that the "general capabilities do not become a *de facto* curriculum at the expense of specific content knowledge" (Donnelly-Wiltshire, 2014, p.6). Accordingly, it is likely that the matter of 'general capabilities' or C21 skills will continue to be a point of debate within curriculum policy discourses in Australia for the foreseeable future.

In the aftermath of the publication of the Gonski 2.0 Review, it was announced that ACARA was going to draw upon its insights to establish a "radical redesign of the national curriculum" in order to ensure that "Australian students are set to be taught fashionable but contentious twenty-first century skills" (Urban, 2018a, p. 1). What was envisaged was deemed radical as a Charles Fadel, a leading player in the C21 skills movement, was given a contract to redesign the mathematics curriculum. Further, it was deemed 'contentious' because responses to the initiative by major curriculum players involved with the Australia Curriculum were negative. For example, Prof. Steven Schwartz, the former chairman of ACARA, was critical of the increased move towards having a 'C21 curriculum' because he believed the learning of C21 skills such as critical thinking can only be fostered if there is a sound understanding of discipline content (Urban, 2018a). Equally disapproving of the new initiative was Fiona Mueller, the previous ACARA curriculum director, who felt that what was envisaged if implemented would lead to an undesirable "radical shift in teaching and learning" (Urban, 2018a, p. 1). Not only were academics concerned about this move, the Federal Education Minister was also opposed to it. He had commented that "we [Australians] will not be dictated to by the OECD" and that "the Australian curriculum will be written by Australians for Australians" (Urban, 2018b, para. 9–10). At the time of writing, it is not at all clear if the associated debate over the role of knowledge within a 'C21 curriculum' will be resolved.

Nevertheless, the results from the research reported in this book suggest a variety of recommendations for policy stakeholders along with possibilities for future research. These are now offered 'food for thought' for those working in other policy settings.

Recommendations for Policy and Practice

The following eight practical recommendations for policy and practice suggest themselves from the results of the study.

Recommendation 1 Formal dialogue should take place among policy actors in education to reconceptualise a 'C21 curriculum' policy underpinned by both quality and equity to imagine the future (twenty-first century) that is best for Australia. This nature and extent of this dialogue should remain consistent regardless of which political party is in power.

Recommendation 2 Given the importance of particular settings, as reflected in the results pertaining to 'C21 curriculum', funding should be provided in establishing material conditions that facilitate 'C21 curriculum' policies in the wide array of school contexts across both the government and non-government school sectors.

Recommendation 3 Policy makers should take into account international 'good practices' that are related to equity and intercultural education to ensure that a 'C21 curriculum' policy does not undermine the development of an egalitarian society. Of particular interest, is the *Signpost* document (Council of Europe, 2014) – released by the Council of Europe – that advances suggestions on intercultural education and potentially could offer possibilities for 'policy learning'.

Recommendation 4 Due to the contested role of knowledge in 'C21 curriculum' policy, consultation should take place with curriculum theorists to establish a greater understanding of the role of knowledge – for example, content knowledge and skills - in 'C21 curriculum' policy at the national level.

Recommendation 5 Given that interpretation of 'C21 curriculum' policy is highly subjective, educational authorities should consider increasing professional learning for teachers to improve their understanding and to also improve their professionalism in enacting such policy in the classroom.

Recommendation 6 To improve education outcomes for all students, education authorities should establish formal and differentiated guidelines on teaching general capabilities and cross-curricular priorities to reduce reliance on external consultants and increase access to C21 knowledge for students with learning disabilities and with other education disadvantages.

Recommendation 7 Given that technological knowledge is under the spotlight in the twenty-first century and that there are contentious views on the role of technology in 'C21 curriculum' policy, effective teaching in the classroom requires that associated practices be underpinned by evidence-based research. Of particular interest is the theoretical framework entitled the technological, pedagogical and content (TPACK) model that advances suggestions on how to integrate technological knowledge in a meaningful and holistic manner.

Recommendation 8 At the local level, school leadership teams should conduct discussions with teachers in order to assist them in finding a balance between establishing a mandatory framework for 'C21 curriculum' on the one hand and allowing for a level of professional autonomy and creativity on the other, without compromising underpinning principles.

Implications for Future Research

The research project reported in this book identified gaps and tensions embedded in the concept of 'C21 curriculum' policy and has contributed to the expanding base of literature in the field. Several issues also emerged that point to the need for further research. Four areas have been identified that should serve to trigger interest in this respect.

Future Research 1 Following the Donnelly-Wiltshire Review (2014), research should be conducted on future enactments of 'C21 curriculum' policy in Australia in order to track changes as 'C21 curriculum' develops policy over time.

Future Research 2 Research should be conducted on 'C21 curriculum' policies in government schools in Australia as well as in non-Government schools (which were the focus of the study reported here) so that comparisons and contrasts can be made.

Future Research 3 Research should be conducted with a wider pool of teachers in WA than those investigated in the current study, along with teachers in other Australian jurisdictions, to further deepen and widen knowledge on their perspectives on'C21 curriculum' policy and hopefully arrive at suggestions for improving preparation for the production of 'C21 curriculum-ready' teachers.

Future Research 4 Research should be conducted beyond Australia so as to create a knowledge base for engagement in comparative analyses of rapidly evolving 'C21 curriculum' policy developments internationally and in critical policy learning across jurisdictions as opposed to uncritical policy borrowing.

Conclusion

The results outlined in this book have increased understanding of the influences, policy text production and practices involved in the enactment of 'C21 curriculum' policy in specific Australian settings. Further, they have raised important questions that are relevant not only to WA, but to other Australian and international contexts. Additionally, they have revealed that because policy work is messy and complex, it can be constrained in its efforts aimed at fully addressing challenges of the future. Nevertheless, as the following quotation from Wilde (1891) proposes, a 'visionary' curriculum like that central to '21st century curriculum' policies is worth striving for.

> A map of the world that does not include Utopia is not worth even glancing at for it leaves out the one country at which Humanity is always landing. And when Humanity lands there, it looks out, and, seeing a better country, sets sail. Progress is the realisation of Utopias.

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Index

Z. Kunhi et al., *Twenty-first Century Curriculum Policy*,
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