Wilf Malcolm Institute
of Educational Research
Te Pūtahi Rangahau Mātauranga o Wilf Malcolm
THE UNIVERSITY OF WAIKATO

Title of Issue/section Teachers and Curriculum, Volume 17, Issue 1, 2017

Editor/s Kerry Earl and Carrie Swanson

NEW TEACHERS RESPOND TO CURRICULUM POLICY IN A MASTER OF TEACHING AND LEARNING PROGRAMME: A COLLECTION OF WORKING PAPERS

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NEW TEACHERS' RESPONSES TO *THE NEW ZEALAND CURRICULUM*

PHILIPPA HUNTER

How do new teachers in a Master of Teaching and Learning [MTchgLn] programme read, make sense of, and reflect on *The New Zealand Curriculum* [*NZC*] as policy intent, implementation and outcomes? (Ministry of Education (MoE), 2007). Why is scrutiny of educational policy an essential dimension of pedagogy in teacher education? And, what can new teachers' analyses and responses to the *NZC* teach us in light of the profession's powerful discourse of experience? This collection of working papers is shared by a group of Waikato University MTchgLn (2017) new teachers of primary and secondary curriculum. The writing evolved from an assignment to a publication opportunity. When we discussed the group's professional identity as writers for the journal, it was agreed that the identity of 'new teachers' felt like a comfortable naming of initial teacher positioning and role. My involvement in introducing this collection of papers is grounded in the co-ordination and design of an MTchgLn curriculum paper, and my professional identities as teacher, assessor, researcher, mentor, professional colleague and advocate (Alsup, 2006; Britzman, 2003; Danielewicz, 2001; Hunter, 2013; Kincheloe, 2003). My work in teacher education in the fields of history, social sciences, and curriculum studies is shaped by a critical pedagogy stance (Apple, 1982, 1990; Giroux, 1988, 1996; Kincheloe, 2003, 2004). I am interested in problematising pedagogy and asking questions of why we do the things we do as teachers (Hunter, 2013).

The MTchgLn programme and curriculum thinking as 'work in progress'

Through January–late March 2017, MTchgLn participants were immersed in an intensive programme that included the summer school paper Teaching in the New Zealand Context, and introductory work in the Diversity and Inclusion paper. They completed a module in the Curriculum 1 paper that focused on theorising the political nature and purpose of curriculum design and decision making; curriculum envisioning; citizenship aims; curriculum alignment with learning theories; examining the influence of key curriculum thinkers, and identifying discourses in policy intent. An introduction to the *NZC* structure was woven through this learning. Along with the guidance of their school-based associate lecturers and mentor teachers, participants also experienced a few weeks of the 'start-up' of their partner schools to observe the national curriculum 'in action' through school-wide intentions and classroom-based decision-making.

As part of the Curriculum 1 paper's pedagogy and assessment programme, a Curriculum Working Paper assignment common to primary and secondary student cohorts, was facilitated to extend and challenge curriculum thinking. A working paper might be viewed as a preliminary piece of work to share ideas and elicit feedback. As a mode of communication suited to curriculum writing, the working paper supported the new teachers' articulation of thinking and ideas in a professional space. Working papers as 'works in progress' can be subsequently modified and edited as published works. So what learning was the Curriculum Working Paper assignment designed to assess, and what criteria guided the process? The following section details the assignment's learning outcomes and alignment with the Graduating Teacher Standards (GTS) (Education Council New Zealand, n.d.), the task description, a suggested sequence of approach, and criteria.

Curriculum working paper assignment

Learning outcomes and alignment with Graduating Teacher Standards:

- Understand and critique the nature, purpose, structure and key elements of *The New Zealand Curriculum* and *Te Marautanga o Aotearoa*.

- Develop a critical understanding of, and engagement with, learning theories and their implications for curriculum decision-making and pedagogy.

- Engage with educational influences and contemporary research that shape curriculum decision-making and implementation.

- Develop a critical understanding of curriculum policies, initiatives and discourses that underpin and influence professional learning.

The learning outcomes align with the GTS Professional Knowledge Standards (1–3) in terms of the assignment's purpose and processes. This is apparent in relation to e.g., knowledge of curriculum documentation, pedagogical content knowledge, knowledge of theories and research about pedagogy, selection of curriculum content, knowledge of educational contexts (e.g., Māori tikanga, bicultural, political, economic, social etc. …)

Assignment description

The Curriculum Working Paper is designed to inform an educational readership of your personal, professional and researched responses to *The New Zealand Curriculum* (Ministry of Education, 2007) **or** *Te Marautanga o Aotearoa (TMoA) (*Ministry of Education, 2008). The assignment builds on your conceptions of contemporary educational influences, curriculum discourses, and learning theories that underpin and shape contemporary curriculum policy, decision-making, and implementation in schooling. The assignment takes the form of a working paper, whereby you will demonstrate research-informed thinking about the nature, purpose, structure and elements of the *NZC* or *TMoA*. Be prepared to reflect on and discuss challenges the national schooling curriculum presents at this initial stage of your teaching experience. As an adaptive and independent beginning teacher, consider the elements of curriculum that you need to follow up on to advance your thinking.

Assignment criteria and possible approach to the writing sequence:

- Introduce your understandings of the *NZC* or *TMoA* nature, purpose, vision, place, contexts (political, cultural, economic etc.). Consider notions of curriculum as educational policy, citizenship ideals, and the national schooling vision for twenty-first century learners.

- Examine the language of the *NZC* **or** *TMoA* curriculum principles, values, and learning areas' statements to communicate your developing sense of the discourses conveyed (implicit/explicit). Discourses and learning theories might be identified as, for example, political/democratic/social justice/traditional scholar traditional/ecological/ sociocultural/learner-centred/constructivist/social efficiency, reconstructionist etc. … (Also refer to the *Teaching in the NZ Context* paper and the introduction to the *Inclusion and Diversity* paper.)

- Discuss your initial thinking about the curriculum purpose of learning areas' knowledge claims, constructions, skills, values: Consider the nature of key competencies for twenty-first century learners as young citizens.

- Demonstrate your understandings of the *NZC* or *TMoA* as outcomes-based curriculum models. Consider the nature and purpose of achievement levels and achievement objectives.

- With reference to the *NZC* **or** *TMoA*, consider ways curriculum policy shapes pedagogies (e.g., aspirations, teaching and learning, pedagogical content knowledge, relationships).

Policy documentation, literature, and referencing:

- Access in print or online Aotearoa New Zealand (AONZ) curriculum policy documentation.

- Access AONZ and wider (if relevant) curriculum-oriented journal articles, media commentaries, public domain curriculum materials.

- Communicate accurate (APA 6) referencing of all materials in text and the reference list.

- **Note:** Format the writing with headings and subheadings to assist communication.

Meeting assignment criteria

In their writing most class members responded to the assignment's criteria as guidance for sequencing the task. Some sought clarification about the nature of discourse and ways learning theories might be discerned in the *NZC*. Support was needed for literature searching and for APA referencing accuracy. Whilst individuals wrote to the criteria, the assignment enabled personalised inquiry and opportunity for creative and/or critical writing. All participants chose to work with the English-medium *NZC*. To meet the assessment criteria, task requirements largely focused on examining the first half of the policy (Ministry of Education, 2007, pp. 1–37). The assignment was submitted for assessment at the end of March following an intensive three months of MTchgLn programme involvement.

New teachers' contextual shaping

Wrapped around the assignment writing, wider contextual factors contributed to new teachers' developing knowledge of curriculum policy. Private theorising of what it means to be a teacher influenced their writing. This thinking is informed, for example, by curriculum socialisation (Priestly & Minty, 2013), preferred pedagogies, discourses of subject constructions' value and status, conceptions of culture and diversity, and success as learners. The context of the MTchgLn programme, initiated by the political direction of the cabinet paper *Quality Teaching Agenda* (Parata, 2013), also shapes new teachers' work and their motivations to engage in curriculum analysis and writing. The 2013 cabinet paper focused on strengthening initial teacher education by "introducing new post graduate qualifications for future teachers by testing new exemplary post graduate teaching programmes from the start of 2014" (Section 19). The Waikato MTchgLn programme is now in its fourth year. Its conceptual framing embeds the intent of the 2013 cabinet paper's agenda for quality teaching: "Teachers themselves need to be adaptive experts who are responsive to diversity in a complex and changing environment" (Section 17). The context of outcomes-based professional knowledge is further layered with the Education Council's GTS. Participants' degree qualifications and disciplinary knowledge supported their confidence (or otherwise) to undertake analyses of curriculum discourses and identify learning theories. The context of teaching experience and observation of curriculum decision-making in partner schools also influenced new teachers reading of curriculum policy because of perceptions of null and/or hidden curriculum or what's activated as priority curriculum experience. Initial university-based teacher education, described by Gunn, Berg, Haigh, and Hill (2016) as a "complex intersection of activity systems, policy, and practice" (p. 3), is the wider educational context new teachers are situated within. Likewise, the powerful context of pedagogical and professional relationships also influences ways new teachers approach analysis and critique of the *NZC*.

'Works in progress' shift to publication opportunity

As the curriculum paper's co-ordinator and teacher, I read and assessed the working papers. This was not the chore I had anticipated. The writing proved insightful—a great opportunity to engage with new teachers' reading of, making sense of, and critiquing curriculum text in light of policy intent, implementation and outcomes. Class participants responded to the challenge of the assignment processes in a serious and adaptive manner. It was heartening to find the assignment's processes closely aligned with the learning outcomes and selected GTS. The working papers demonstrated individual's abilities to make the task their own, and to bring something of their professional learning to the writing. As working papers offer the opportunity for further review, editing and publishing, I made the decision to invite new teachers to share their papers as a collection of edited papers in the *Teachers and Curriculum* journal. Whilst there were many well-conceptualised and well-written papers across the MTchgLn primary and secondary cohorts, five of the new teachers' working papers showed strong evidence of research-informed thinking, personalised approaches to the assignment specs and writing, and critical and reflective curriculum thinking.

I tentatively approached Kelly Davis and Josh Martelli from the primary cohort, and Ben Deane, Pascale Prescott and Shirin White from the secondary cohort to ascertain their willingness to share their curriculum writing as a collection of papers. This meant the assessed papers needed further review and modification for publication purposes. Consequently, my teacher education role shifted from assessor to identities as a colleague, reviewer and editor (Gunn et al., 2016). I was genuinely surprised by the new teachers' enthusiasm for sharing their papers as published works. When we met to discuss revisions for publication, the group's excitement was palpable, and each writer recounted that they'd contacted someone close to let them know they were going to be published. Such was their sense of accomplishment and anticipation of shared focus and collaboration. In my view this is all about teacher agency. So I felt encouraged about the possibilities for dialogue and teacher agency generated by the assignment's pedagogical purpose that included research and academic writing (1998). The subsequent review process involved restructuring of text, attention to repetition in the writing and review of initial critique given the journal's focus and audience. The five participants generated new titles for their work and gave scholarly attention to accurate referencing.

New teachers' curriculum writing

The writers' biographies are provided at the end of the collection. The group comprises a range of ages and experiences, qualifications and motivations to teach. Kelly, a wife, mother and accountant, brings sustained professional experience to primary teaching. Josh, a psychology major, is keen to teach in the primary sector based on his success and enjoyment of teaching swimming, and his skills of collegial interaction. Pascale enjoyed a successful career in the IT industry culminating in her role as a web designer. Her career switch to teach in the secondary curriculum is based on her enjoyment of working with people, and her instruction of, and competition success in, pole dancing. Ben has a geography degree to support his social sciences teaching in secondary schooling. He has worked as a landscaper and is widely travelled and attuned to the environment. Shirin is a young Pasifika poet and writer bringing an aesthetic approach to English pedagogy in secondary curriculum.

A collection of working papers

The writers established new titles to best reflect the intent of their papers to a professional and curriculum-related audience. In her paper 'The Curriculum and the Equity Myth', Kelly Davis shows critical reflection in her questioning of the place of schools to be teaching children who they should be. She reflects on the tension around the *NZC* Equity Principle when people and groups in society may not fit the curriculum vision for success. Ben Deane's 'The Interjection of Politics in the Curriculum' asserts that the *NZC* is a complex foundational document—a top-down model of policy that embeds political control. Ben draws on his own experiences of, and his initial teaching in, secondary schooling to query pedagogy as curriculum implementation based on pre-determined outcomes. Against his understandings of curriculum as policy intent, Ben considers *NZC* discourses of inclusion and recognises diversity and disparities of achievement. In viewing the *NZC's* spaces for teacher interpretation, Ben seeks more guidance of how to work with the values and principles in his 'start-up' teaching. Pascale Prescott's writing 'Creating Well-Rounded Learners or Code Monkeys? is grounded in her 'clichéd epiphany' to change careers and pursue teaching. Pascale's curriculum analysis of curriculum through the lens of the IT industry is quirky and thought-provoking. She sees possibilities for young future-focused citizens' critical thinking, and a sense of community as supported through the *NZC* Vision, and Learning Areas. Josh Martelli offers his developing thoughts about the *NZC* in 'My Ten-Cents: A New Teacher's Interpretation of the New Zealand Curriculum'. Josh's commitment to the assignment's purpose and learning is supported by his interest in researching curriculum-oriented literature. He offers an interesting table of the interrelationships between learning areas, key competencies, attitudes, skills and values embedded in the *NZC*. Josh looks at pros and cons of outcomes-based curriculum and impacts on pedagogy. His professional approach as a new teacher makes reference to the work of MTchgLn mentors and partner schools. Shirin White's 'Mindful Implementation of Curriculum as Construct' highlights the discursive influences on the language of the *NZC*. She offers a critique of English "prioritised as the first learning area", and perceives superficiality of the English learning area's discourse around process superseding ideas. Shirin also views the *NZC* as offering guidance to educators in their efforts to empower learners to reach their potential. She reminds us that we grow in our "understanding of the kind of education we are delivering" and the influence we wield as teachers via the *NZC*.

Closing thoughts

The collection of papers stem from a MTchgLn curriculum paper's pedagogy and assessed outcomes of learning. It shows something of what university-based teacher educators do to shape opportunities for new teachers' learning (Gunn et al., 2016) The papers need to be read as " works in progress" because they embody new teachers' responses to curriculum policy intent, implementation and outcomes in the first three months of a post-graduate programme. The collection indicates curriculum documentation and research literature that participants accessed for making sense of assignment criteria. The problematising of curriculum policy meant identifying and thinking about, for example, citizenship aims, discourses and learning theories, foundational principles, and learning areas' knowledge claims. Such pedagogy aims to strengthen teacher 'knowing' about learning. The collection of working papers brings new teachers' voices to a professional audience that is shaped by powerful discourses of sustained experience and expertise. The profession can learn much from new teachers' scrutiny of curriculum policy and their curriculum interest and agency as practitioners.

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THE CURRICULUM AND THE EQUITY MYTH

KELLY DAVIS

The Foreword of the *New Zealand Curriculum* (*NZC*) (Ministry of Education, 2007) boldly declares: "The New Zealand Curriculum is a clear statement of what we deem important in education. It takes as its starting point a vision of our young people as lifelong learners who are confident and creative, connected, and actively involved" (p. 4). The nature of the *NZC* is political, and its tone from the Foreword to the Learning Areas is around the notion of creating citizens of New Zealand who are desired and needed for the future of our country. Therefore the "curriculum needs to be read as a politically motivated process, and interpreted as a statement of policy decisions that signal desired educational outcomes" (Hunter, 2011, p. 6).

While the context of citizenship is not a defined curriculum learning area or subject, "the notion of 'education for citizenship' is covered in both an aspirational manner through visions, values, goals and principles, and in a practical manner through the key competencies and recommended pedagogical approaches" (Mutch, 2009, as cited in Mutch, 2011, p. 183). The *NZC,* as defined in its Foreword, is "a framework designed to ensure that all young New Zealanders are equipped with the knowledge, competencies, and values they will need to be successful citizens in the twenty-first century" (p. 4). And with this twenty-first century focus, the *NZC* is positioned as "more appropriate for a diverse range of learners because it enables teachers to connect to and access the different experiences, interest and understandings of a wider range of learners than those in the dominant culture" (Collins & Clarke, 2008, as cited in Boyd, 2013, p. 5).

Abbiss (2013) states that twenty-first century learning is synonymous with "visionary thinking and desirable educational goals" (p. 6). The words in the *NZC* used to portray what is desirable for the twenty-first century learner, and therefore shape what is believed to be important and needed in our society, are lifelong learning, confident, connected, actively involved, critical thinking, collaborative and enterprising. These twenty-first century learners are defined as inclusive, future focused, diverse and able to "seize the opportunities offered by new knowledge and technologies to secure a sustainable social, cultural, economic, and environmental future for our country" (Ministry of Education, 2007, p. 8). The *NZC* Vision notes being "international citizens" with a strong theme of participation and contribution, integrity and excellence (p. 8). Are all of these things attributes that can be grown, built upon and practised? Or do some of them come down to who we are at our core, our nature-born dispositions? Can we really expect all learners to have these qualities and dispositions?

The curriculum's placing of importance on who the learners need to be to enable them to be successful citizens for the future of our country rather than what they need to know "is seen by some to be sinister, with overtones of indoctrination and totalitarianism" (Priestley & Sinnema, 2014, p. 52). Is it the place of the government and schools to be teaching our children who they should be? Along this line of thought, I draw on Foucault's (1991) view that "political, economic and social government operates continuously and invisibly through … administration and management in institutions such as schools" (cited in O'Neill, 2016, p. 598), as some form of population management control. Who has the power in determining what is important for our future? Mutch (2013) raises some important questions around knowledge by asking, "What knowledge is worthwhile? What are the current and future needs of society and how should we meet these? How are knowledge, skills and attitudes best transmitted to the next generation? Different ideological positions produce different responses" (p. 55). So who has the final say?

With the *NZC* there will always be questions around political agenda, power, motives and influence, what the hidden and null curriculum are, and questions around oppression and marginalisation. But it may be argued that despite all of these factors, the overall intention of the *NZC* is for the good of our students and therefore our country. However, two main areas of concern echo in my mind. Firstly, what about the people in our society who do not seem to fit the criteria for success? Does that make them any less valuable learners and citizens? Secondly, I believe there will always be issues around implementation and interpretation by individuals who have their own, as well as collective,

motivations, aspirations, life views and value systems. This leaves a great deal of room for variation that will lead to deviations away from what was originally intended. How is that equity?

NZC discourses, language and learning areas

Constructivist theory can be seen in the national curriculum's commitment to building upon the learner's prior experiences and culture(s) to reinforce that a student's knowledge is constructed (Hunter, 2011; Lin, 2015). This theory is seen expressed in the curriculum by the scaffolding of the Achievement Objectives and also in statements such as "students learn best when they are able to integrate new learning with what they already understand" (Ministry of Education, 2007, p. 34). The curriculum is constructivist in the way it is encouraging "the development of deep understandings of concepts" (Priestley & Sinnema, 2014, p. 54). This is evidenced by repeated emphasis placed on inquiry learning whereby students are encouraged to have real-life experiences to reinforce and bring depth to the learning through being invested in the process (Barron & Darling-Hammond, 2008, as cited in Boyd, 2013).

The influence of sociocultural theory is seen in ways the curriculum is designed to use the social context(s) of the learner, taking into account the child's historical background and experiences, including cultural and economic. This theory sees children as bringing funds of knowledge with them, that learning is a social process and that social interaction and context is a vital component (Barnard & Campbell, 2005; Hogg, 2011; Vygotsky, 1978). This theory can be seen in the conceptual framework that "gives schools the scope, flexibility, and authority they need to design and shape their curriculum so that teaching and learning is meaningful and beneficial to their particular communities of students" (Ministry of Education, 2007, p. 37). As well as the learner's own funds of knowledge, the involvement of both their whānau and the wider community is seen as an important aspect in the successful education of our twenty-first century learners (Ministry of Education, 2007, 2012).

While constructivist and sociocultural theories are, I believe, two main theories that influence and shape the *NZC*, there is also a strong foundation of the learner-centred pedagogical approach. The learner-centred approach can be seen throughout the *NZC* and links to both constructivist and sociocultural thinking in that students are recognised as bringing a wealth of knowledge and experience with them and should be met where they are at. There are also strong tones of social justice with statements such as "all New Zealand students, regardless of where they are situated, should experience a rich and balanced education that embraces the intent of the national curriculum" in the *NZC* (Ministry of Education, 2007, p. 37). This is further reinforced by the values and principles that speak to diversity, inclusion and multiculturalism.

While the *NZC* is a discourse for education and society in and of itself, it also provides insight into the many discourses that are at play inside the New Zealand educational system "as language and voices that compete noisily with each other" (Hunter, 2011, p. 7). I believe the language is conceptual rather than prescriptive, it is emotive rather than factual and it is persuasive rather than dictatorial. While the principles are described in the *NZC* as foundational in the planning and "all school decision making" p. 9), the values are "to be encouraged, modelled, and explored" (p. 10). The language used on the Values page of the curriculum positions them as flexible, open to school interpretation and fluid. However, by listing a set of values and stating that they "enjoy widespread support because it is by holding these values and acting on them that we are able to live together and thrive", the curriculum appears to be allocating values for society (Ministry of Education, 2007, p. 10).

This kind of implicit communication is seen further in the Learning Areas where I believe bias comes through in what is seen as politically valuable. The *NZC* explicitly states: "All learning should make use of the natural connections that exist between learning areas and that link learning areas to the values and key competencies" (Ministry of Education, 2007, p. 16). However, a conflict can be seen in the curriculum: "A tension exists between curriculum policy that supports learning across a range of learning areas, including social sciences, and educational policy that places strong emphasis on generic skills, which includes core literacy and numeracy skills in primary schooling" (Abbiss, 2013, p. 13). In my own experiences, I have seen this played out in the classroom many times as literacy and numeracy are given the main stage time and again.

While analysing the Learning Areas, I noticed that the only area that uses the word 'success' is English, in stating that "Success in English is fundamental to success across the curriculum" (Ministry

of Education, 2007, p. 18). I also noticed that while they are not ranked explicitly in order of importance, English is the first of the Learning Areas which, in my view, reinforces its tacit status. English is the only Learning Area that uses strong language about being a successful citizen: "Literacy in English gives students access to the understanding, knowledge, and skills they need to participate fully in the social, cultural, political, and economic life of New Zealand and the wider world" (Ministry of Education, 2007, p. 18). The other two areas I felt used stronger language, although not as robust as the English area, were technology and science, with maths not too far behind. I found that the Arts, health and physical education, social sciences and languages all use gentle more emotive language that stay well away from notions of success and entrepreneurialism. For me this was evidence of the "discursive and political regimes" that position the STEM (science, technology, engineering and maths) subjects as "more relevant for industry, employment and national economic prosperity" (Abbiss, 2013, p. 12).

Curriculum structure and key competencies

I suggest that the *NZC* is the hands of the Education Act 1989, and the National Education Goals (Ministry of Education, 2004) the 'how to' of the education policy. They do not determine the exact *what* but instead provide a framework intended to guide conceptual, learner-centred, inquiry-focused education that is to be tailored by each school to fit the needs of its learners and the community it operates within (Ministry of Education, 2007).

To understand the structure of the curriculum, I liken it to a quilt. The Vision would be identified as the foundational backing that the quilt is built upon, holding all the parts together and providing strength and unity. I see the Principles as being the batting, also foundational but built on top of the vision and providing texture and depth. The Learning Areas and the Achievement Objectives are fabrics that are varied and many, every learner taking a different path, learning different things, choosing different fabrics that all result in an individualised and unique pattern, vibrant and alive with colour. The values I believe to be the thread that is woven throughout, binding the parts together as one. The key competencies are the border for the quilt. They frame the learning, highlighting knowledge and providing the anchor on which the learning is based. While this may be an overly simplistic view of the structure of the curriculum, it is one that helps me make sense of the complex interwoven parts that make the whole.

Key competencies are learner-centred and constructivist in nature and viewed as the "key to learning in every learning area" (Hunter, 2011; Ministry of Education, 2007, p. 12). They are the overarching skills, attitudes, dispositions and capabilities that might be seen as politically, socially and economically essential to success in learning and life (Hunter, 2011). The message that is clear from the language used around the key competencies is that in order to be a successful citizen and active member of the community here in New Zealand and globally, a student needs to be competent and capable in these five key areas of thinking: using language, symbols and texts, managing self, relating to others, and participating and contributing (Ministry of Education, 2007, p. 12). Their place of importance is made explicitly clear by statements such as "People use these competencies to live, learn, work, and contribute as active members of their communities" and "successful learners make use of the competencies" (Ministry of Education, 2007, p. 12). I suggest the key competencies are the bones of the curriculum, positioned as vital for successful learning across all areas as "an end in itself (a goal) and the means by which other ends are achieved" (Ministry of Education, 2007, p. 12). The government expresses its expectations of our students through the key competencies that position students as intellectually curious, seeking, creating, and using knowledge through reflection and questioning. Students are conceived as confident and self-motivated, open and aware and collaborative communicators who are actively involved connectors (Ministry of Education, 2007). These words are powerful, aspirational and inspiring, and somewhat overwhelming! I ask: What of those who do not have the natural dispositions that are in line with these? What of those students who do not fit with or who do not believe in these competencies?

Outcomes and pedagogy

The *NZC* is an outcomes-based curriculum with Achievement Objectives that are measurable, as well as the added National Standards for literacy and numeracy for the first eight years of schooling

(Ministry of Education, 2010), and the National Certificate of Educational Achievement (NCEA) for Years 11–13 (New Zealand Qualifications Authority (NZQA), n.d.). While the 2007 *NZC* seemed to bring a mostly applauded freedom to our education system, this was then countered by the constraints of a national standards system (Priestley & Sinnema, 2014). I believe the influence of the growing importance of international assessments in education has been significant in the revised *NZC* as the government is "under constant pressure to operate at the international level, to justify their national decisions against the background of international assessments" (Martens, Niemann, & Teltemann, 2016, p. 517). Therefore it has become increasingly important to have an outcomes based curriculum to be a respected member of the global community (Priestley & Sinemma, 2014). Understandably, assessment is positioned in the *NZC* as a valuable tool in the learning process by stating that "assessment is integral to the teaching inquiry process" and its "primary purpose … is to improve students' learning and teachers' teaching as both student and teacher respond to the information that it provides" (Ministry of Education, 2007, p. 39).

Does the *NZC* shape pedagogies? Ongoing curriculum revision continues to work on the premise that any changes in the curriculum are immediately followed by changes in the classrooms. However, "classrooms have their own inherent structures composed of interactions between teachers and students" (Doyle, 1992, as cited in Carr et al., 2010, p. 38). So perhaps the power of curriculum policy on pedagogies is not as influential as it is believed to be. Not surprisingly, the influence of nationalised assessment on pedagogy has proven to be significant and "often contrary to the spirit of the curriculum or the assessment" (Carr et al., 2010, p. 55). In my own experiences, as mentioned earlier, I have witnessed the impact of the National Standards with literacy and maths predominantly featuring to the detriment of the other learning areas in the *NZC*. I have also experienced, through my children's education, the secondary school tendency to teach to the test for the NCEA, rather than the conceptual inquiry based learning the *NZC* promotes.

I suggest that assessment practices more than curriculum policy influences pedagogy as well as the significance of the implemented classroom curriculum. My concern is that because of the subjective nature of the interpretation and implementation of the curriculum framework, it seems as though it will be virtually impossible to achieve consistent learning for all students in New Zealand. Some students will be advantaged, while others will be disadvantaged. This goes against the very purpose of the *NZC* conceptual framework. Boyd's research (2013) reinforced my concern by showing an inconsistent approach to how the *NZC* is implemented, and that some schools and teachers are "more aligned than others with the characteristics of 21st-century learning" (p. 10).

Teachers are human and therefore influenced by their own values, ideals and experiences. Their pedagogies are shaped by differing and conflicting discourses. As individuals and colleagues, teachers' "discourses are maintained by ideas and beliefs about knowledge, pedagogy, and cultural notions" (Hunter, 2011, p. 7), which are further reinforced through day-to-day practices and classroom curriculum. The somewhat frightening reality is that as teachers "what we do [or do not do] in response to policy developments and in everyday pedagogy ... is instrumental in either legitimating the status quo and its consequences, or challenging it" (Penney, 2011, p. 10). So the question has to be asked: Is it even possible for the *NZC* to achieve equity in the New Zealand education system given it deals with living and breathing teachers and students? And more importantly for me is how will I reconcile the differences and stay true to who I am as a person, and who I want to be as a teacher? The only answer I have right now is that I do not know.

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THE INTERJECTION OF POLITICS IN THE CURRICULUM

BEN DEANE

The *New Zealand Curriculum* (*NZC*) (Ministry of Education, 2007) expresses the Ministry of Education's aims for learners in English medium schools. The curriculum document is the foundation of what is expected of schools, teachers and learners in the New Zealand school system. It draws on political motivations and promotes ideals of 'desired citizens' for New Zealand's future society. The curriculum policy establishes a set of guidelines as a national vision for schools to refer to. Although this is an educational policy, within schools it can be difficult to measure the implementation of the front half of the curriculum that focuses on ideology. The back half of the document that focuses on Achievement Objectives for students working at different levels is the measurable area of the curriculum that is implemented through national levels' assessments. Throughout the curriculum the ideal of the twenty-first century learner is incorporated as a theme. This creates the space for technology in modern education, using technological tools available to improve success in learners. The curriculum attempts to prepare students for continued learning outside of the official education system. The notion of an outcomes based curriculum is important. It is clear, through my school experience, that discourses of achievement are based on commonly pre-determined assessment outcomes.

Understandings of the NZC

Citizenship ideals relate strongly to the political influences of the curriculum. The *NZC* presents a space for politics to have an influence through the ideologies portrayed in the *NZC*. The curriculum asserts the notion of the 'desired citizens' of New Zealand's future society. The Foreword, written by the Secretary of Education, describes the curriculum as "a framework designed to ensure that all young New Zealanders are equipped with the knowledge, competencies, and values they will need to be successful citizens in the twenty-first century" (Ministry of Education, 2007, p. 4). This statement reflects the curriculum's aim of shaping what is deemed a productive society in the future. These underlying ideals are constructed through political motives for social, economic and cultural growth as a nation, and reiterated through the *NZC's* discourse of citizenship.

The *NZC* Vision incorporates four key attributes that view the youth of New Zealand as "confident, connected, actively involved and lifelong learners" (Ministry of Education, 2007, p. 8). These attributes are then broken down to sub-attributes, such as resourcefulness, relatability, and critical and creative thinking, in order to contribute towards New Zealand's wellbeing. Within this section of the *NZC,* ideals of citizenship are made clear as the document attempts to influence those attributes students will leave school with and bring into society. Educators have referred to curriculum shaping (Hunter, 2011; O'Neill, Clark, & Openshaw, 2004), recognising curriculum decision-makers' ability to instil their judgements on what are considered important values to be encouraged and modelled within the schooling system.

This political influence is represented in Figure 1, The Education Act and the curriculum (Ministry of Education, 2007, p. 43). The diagram shows the top down flow of government policy to the school curriculum and reinforces the political underpinning of the *NZC* starting with The Education Act of 1989. The *NZC* is a complex foundational document that covers curriculum in schools in New Zealand's education system. The Figure 1 top-down model builds on the political control implemented within education through curriculum. The model is tiered and shows hierarchy in curriculum decision-making. Thus, the *NZC* can be seen as having a political nature in an attempt to instil desirable traits to shape students as they flow through the New Zealand education system.

Figure 1:   The Education Act and the curriculum (Ministry of Education, 2007, p. 43)

Koh (2015) recognises twenty-first century learners as anyone using the tools and technologies available in the present day for learning. A twenty-first century learner embodies the constant advances in technologies and the ever-growing space for technology in modern society. Technology surrounds our everyday lives through social media, communication and information gathering, and the demand for technology skills in the New Zealand workforce is a prominent aim. The *NZC* recognises the importance of technology and the way in which it can be used to improve education. Koh (2015) recognises the importance of technologies in education but also notes the challenges imposed by (and in) the pedagogy. Creating a space where students can distance themselves from the entertainment provided in technology and shifting their mindset to use it for education can be difficult. The aim here is of effective implementation of the twenty-first century learner concept and developing effective pedagogical practices to use technology in schools. I have witnessed these challenges during my time in a secondary school, and keeping track of students' learning whilst they use technology can be difficult. The *NZC* dedicates a page to e-learning in pedagogy (p. 36) and suggests what is desired from e-learning, but fails to give direction. This lack of direction leaves room for interpretation and implementation because the intended curriculum is really enacted by teachers. Technology in curriculum is a complex new field, as teachers experiment with new tools for successful outcomes.

Discourse and learning theory

Within the Purpose and Scope of the *NZC* (Ministry of Education, 2007, p. 6), a paragraph is constructed around the breaking down of the marginalisation of groups and individuals within the schooling system. This refers to identities built around sexuality, gender, ethnicity, disability and social and cultural backgrounds. Although there is strong discourse around inclusion within the *NZC*, barriers remain to meeting this ideal in New Zealand schools. The idea of an acceptance of diversity is noted in the Vision, Principles and Values of the policy, but there is continual disparity in achievement for groups from diverse ethnicities and disabilities. Literature focusing on culture and disability in New Zealand education constantly refers to the historical marginalisation of Māori and the lack of inclusion of disabled students (Berryman, Nevin, SooHoo, Ford, 2015; Giovanni & Hilary, 2016; Stace, 2007; Teese, 2013). The *NZC* attempts to break down social disparity and the impact of historical marginalisation. Still today, Māori students make up a large proportion of students who are underachieving, and disabled students continually face inclusion difficulties. A recent Education Review Office (ERO) report (2016) recognises that "there are not enough schools where Māori students' achievement is comparable to that of non-Māori, or where schools can demonstrate that they are making a difference for these students" (p. 30). This displays the parallels of the intended and implemented curriculum. The intention of breaking down the ideals of colonial domination in education is present in the *NZC,* but systematic reform is slow. Discourses of inclusion, recognition of

diversity and disparities in achievement show the importance of schools implementing the front half of the curriculum to allow for equity in achievement. Apple's (2015) analysis of scholarly work by Bernstein (1977), Teese (2013) and Bourdieu (1984) around curriculum notes the way curriculum can be a force behind social inequality. This conception of curriculum being a producer of inequality is influenced by the problematic idea of creating a one size fits all curriculum in a diverse society.

Discourses of student-centred learning are thoroughly integrated into the *NZC*. Drawing on notions of Vygotsky's (1978) social constructivist theory, themes of student-centred collaborative learning are found throughout the *NZC* (Ministry of Education. 2017), specifically comments within the Principles such as "students should be put at the centre of teaching and learning" (p. 9), the Values—"students will learn about … their own values and the values of others" (p. 10), and within the entire document. The idea of putting the student at the heart of the teaching and learning model shows progression from old ways of teacher domination and creates a more holistic space. This learning theory allows students to be active participants in the learning process as their ideas are validated and supported through good pedagogy. Breaking down of the power relations of the classroom allows the teacher and students to all learn from each other as a cohort. The *NZC* creates the space for students to share their opinions and values, and aims to create spaces for diversity to thrive. This can be seen as a collaborative approach to teaching and learning.

The Learning Areas

The Learning Areas' statements hold different discourses, as this section of the curriculum begins to specify learning. Although the Learning Areas are compartmentalised, the *NZC* aims to allow secondary schools to create integrated programmes aligning with Achievement Objectives and Achievement Standards. Priority subjects become apparent as the learning areas indicate the importance of literacy and English in education. Although literacy skills can be developed in a range of learning areas, a major priority is put on English studies. The New Zealand Qualifications Authority (NZQA) recognises this and in the context of New Zealand university entrance regulations, students are required to study English up to Year 12 (NZQA, n.d.). The priority of literacy and numeracy in the curriculum can lead to other Learning Areas being deemed less important. The Learning Areas of technology, the Arts, social sciences and health and PE might be considered less desirable subjects as schools stress the importance of literacy and numeracy. Although all subjects incorporate literacy and numeracy, often these skills are not valued in other subjects. This may restrict student choice, as many schools put a major focus on achievement in the subjects of English, mathematics and the sciences.

The aim of the *NZC* is to create connection between the taught subject areas and the Values and Key Competencies through pedagogy. My specialised area is the social sciences, particularly geography. The social sciences learning statement expands on the notion of citizenship, as the focus is put on students understanding the world that surrounds them. The language used in the statement reciprocates the political influence of the importance of economic growth. Words such as active, informed and responsible are used to indicate how students will participate as citizens (Ministry of Education, 2007). The statement further develops the importance of identity as a concept for understanding self and recognising New Zealand as a bi-cultural society building on the values of the *NZC*. Social sciences allow students to explore and show all five of the key competencies of *thinking*, *using language, symbols and texts*, *managing self*, *relating to others* and *participating and contributing*. This builds on understanding of how we function as a society and allows for students to explore a range of ideas around modern living, society and environment.

Curriculum and pedagogy

The *NZC* Achievement Objectives present direction for specified learning intentions within a learning area. These are a result of what knowledge and skills the Ministry of Education deems important for students to learn in each subject. In this space, curriculum meets assessment. The Achievement Objectives allow the tracking of students' learning outcomes through schooling. At the secondary level, this is monitored through internal and external assessment. Assessment is an interesting field when it comes to curriculum and involves a range of unforeseen issues. Restrictions such as teaching to assessment, and students only wanting to learn what is required for assessment, creates challenges in pedagogy and learning opportunities. The amount of assessment also creates issues around timing.

Teachers are often restricted by assessment in terms of the ability to explore topics outside of what will be assessed. Much is lost. This comes back to the outcomes-based model of curriculum in education. New Zealand schooling, specifically at the senior level, is based on this model of measuring learning through assessment. This can influence school decision-making as achievement goals are determined by achievement standards' results.

The *NZC* states: "The flexibility of the qualifications system also allows schools to keep assessment levels that are manageable and reasonable for both student and teachers" (Ministry of Education, 2007, p. 41). This suggests the MoE sees all students as having capability and that a measurable qualification platform has been designed that everyone can meet. Through my initial teacher education, we have explored issues of a one size fits all education and the challenges this brings. The achievement objectives within the *NZC* reflect an outcomes-based model of educational achievement. With the introduction of the National Certificate of Educational Achievement (NCEA), schools focus on meeting the Achievement Standards and this can create inter and intra-school competition. Secondary schools' NCEA results are seen to represent learning, and assessment results can influence ways teachers perceive students and act towards them. The results of NCEA assessment also influence a student's acceptance to study at a tertiary institution. Issues surrounding assessment may create a stressful and competitive space for secondary students. While some students excel under this style of measuring educational achievement, all students are different and for some, standards-based assessment creates stress, and results may not show a student's true learning. NCEA results are related to money, in terms of school funding and scholarship funds. Assessment conflicts, such as stopping students from sitting an external exam to maintain school averages is not unheard of. The NCEA assessment process can be a restrictive force on teaching practice and the learning of students.

Conclusion

The *New Zealand Curriculum* is a complex document filled with the government's aspirations for students through teaching and learning. The underlying ideals of the curriculum become clear through breaking down the sections, and key themes become apparent. Citizenship aims are conveyed as the *NZC* portrays the Values, Key Competencies and learning to be acquired by students by completion of their schooling. The *NZC* aims to instil in students desirable learning dispositions to enable entry into the workforce and further their studies. Political influences are intertwined throughout the document and can be seen in the discourse that always comes back to that idea of 'desired citizens'. This discourse covers social, cultural, economic and environmental concerns. The *NZC* also recognises New Zealand as a multi-cultural society that is continuing to grow in its diversity. The growth and importance of technology is made apparent through the ideal of the twenty-first century learner. The space for these curriculum tools is growing as a response to the demands of work and employment. Although the messages of the *NZC* are clear, and there is room for teacher interpretation of its delivery, guidance for pedagogy seems limited. The policy can be referenced for ideas, but there is little information about techniques for implementation of its ideals.

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CREATING WELL-ROUNDED LEARNERS OR CODE MONKEYS?

PASCALE PRESCOTT

Before having a very clichéd epiphany on the Inca Trail that I should change careers and pursue teaching, my experience of New Zealand's education system and curriculum was all from within, and I hadn't given much thought to the structure or aims of it all. While I was a software engineer I'll admit that I held the somewhat arrogant viewpoint that schools weren't doing enough to teach kids how to code. It didn't even occur to me that there might be loftier goals that education would want to reach for. What follows is more than an assignment. It's a documentation of how I've transformed from a very segregated, industry-focused way of thinking, to a deeper appreciation of *The New Zealand Curriculum for English-medium teaching and learning* (*NZC*) (Ministry of Education, 2007), and how the Principles, Values, and Learning Areas all work together to create a cohesive framework to build up our children for the challenges (and joys) the future is bringing us all.

Curriculum through the lens of industry

From around intermediate school, I slowly started to become aware of education as a tool for the country's economic growth. The questions began rolling in from the teachers: "What are you going to do for a job when you leave school?" The questions started to come in from the students as well: "Why are we learning this?" And the answers were almost always to do with being able to make money when you were older. At the time I mostly took it from a capitalist point of view that we were being primed for our own individual success. But after maturing and entering the IT industry (a high growth area), and hearing the constant cries of "We need more students coming through", I began to realise that IT was being sold to students as a way for individual success, when really it was the businesses that needed students for greater growth and as you could argue, the greater economic good.

From inside the IT industry you would have thought that web and software development was the second coming of Jesus. Learn it and you'll be #blessed for the rest of your life! Why isn't everyone studying it? Look at all this money and all you need is a computer and an Internet connection. Kids love those things! What's happening? Ian McCrae, founder of Orion Health (healthcare software), a man who is undoubtedly a tech giant in our small land, has been quoted saying: "You should be looking at this as a great career opportunity. The jobs are very well paid" (CIO New Zealand article about how the tech industry wants the MoE to step up its game when it comes to IT), (as cited by Paredes, 2017). This isn't necessarily a case of IT vs. MoE though; Orion Health is one of many IT companies walking the talk and providing extra education and resources to schools in the hopes that this will increase the output of future developments from the education system.

In most situations you expect the curriculum to gently flirt with industry and give small nods to industry concerns in policies. The 2002 stocktake of the previous national curriculum mentions that it's reviewing the curriculum in the context of the current economic climate. Even though the stocktake has a heavy focus on cultural issues, it still recommends that the achievement objectives should reflect the future-focused theme of enterprise and innovation (Ministry of Education, 2002). It's not explicit, but it's there. What's happening now with IT though is the other way round as a full-on courtship of the curriculum by industry. As part of the New Zealand Government's *Curious Minds* plan, and after months of review with industry, Minister Hekia Parata announced her intention to introduce Digital Technology as a strand within the Technology Learning Area (New Zealand Government, 2016). Industry leaders think this is too little, and it took too long. In an open letter to the Minister, our friend Ian and a couple of other IT moguls, suggested that Digital Technology should actually be moved out of the Technology Learning Area and be treated as an academic subject on a par with maths and science. They have a genuine concern that a lack of students coming through will stunt New Zealand's tech sector growth (McCrae, Valintine, & Taylor, 2017). While it may be naive to think that industry has never courted curriculum before, I haven't been able to find any evidence of such a blatant and direct play for the curriculum as taken by IT in New Zealand.

What is a twenty-first century learner?

> If we're not just trying to teach factual recall like we often did in the past, what are we trying to do? Well I guess we're trying to teach higher level skills. We're trying to teach critical thinking. We're trying to teach synthesis, analysis. We're trying to raise a generation that are cleverer than we are (Parsons, 2013).

There's a great clip of Dr. David Parsons introducing the notion of teaching twenty-first century learners. The development of the Internet and increases in processing power has reduced the need to memorise information, seeing as we are now almost never without a world of experts in our pockets. There's a not at all academic funny video of Eddie Izzard talking about life before Wikipedia, and how if no one around you knew the answer to a question, then instead of going to a library and looking it up you would probably just forget about finding the answer all together. When you take out the need for rote-learning, what do you replace it with? In order to create this generation of world-changers we need to teach them analytical skills, the ability to work with and relate to others, and how to use all the tools available to them.

This move towards a more connected and empowered citizen is well represented within the Values, Principles and Vision of the *NZC*. In the Vision section of the curriculum, the Ministry of Education (2007) states that it wants to create young people "who will seize the opportunities offered by new knowledge and technologies to secure a sustainable social, cultural, economic, and environmental future for our country" (p. 8) and "who will be confident, connected, actively involved, and lifelong learners" (p. 8). A Future Focus is listed as a principle underpinning curriculum decisions, which involves encouraging students to explore "sustainability, citizenship, enterprise, and globalisation" (MoE, 2007, p. 9). And in terms of what we want students to value, we have "innovation, inquiry, and curiosity, by thinking critically, creatively, and reflectively" (Ministry of Education, 2007, p. 10) and "community and participation for the common good" (p. 10). It seems there are two key traits that we are trying to instil in learners—critical thinking and connection to the community.

Dealing with the outbreak of pseudoscience

There are all kinds of issues facing the global community alongside all the benefits gained by the rise of the Internet. One just needs to look at the recent US election and how Facebook went from a website to share pics of your cats, to a site where you can spread misinformation and propaganda. All of which has prompted Facebook to develop measures to avoid fake news (Hunt, 2017). But the damage is done, and now we're all stuck wondering when Ashton Kutcher is going to jump out and tell us all that we've been punk'd (if only). We need to prepare our students to deal with the mass of information available to them.

As well as the spread of fake news, the Internet has also facilitated easier distribution of pseudoscience. Before, if we wanted to keep things civil when socialising, people would say, "Never talk about politics or religion." These days though, you should probably add vaccinations to the list! In 1998 Andrew Wakefield and his colleagues published a study with a small sample size of 12 that suggested that the MMR (Measles, Mumps, and Rubella) vaccine caused autism. Afterwards, studies were published that refuted the study, and Wakefield and his colleagues were found guilty of fraud in regard to falsifying data used in their study. Despite all this, scientists have still ended up spending huge amounts of time and money conducting studies to prove that vaccines do not cause autism (Sathyanarayana Rao & Andrade, 2011). 'Anti-vaxxers' is the colloquial name given to people, who despite all the overwhelming evidence against it, believe that vaccines cause autism or some combination of illness and death, and so refuse to vaccinate either themselves or their children. All of which has serious consequences for those relying on herd immunity. This rise of vaccine refusal is associated with a higher risk of contracting measles amongst both the non-immunised and fully immunised individuals (Phadke, Bednarczyk, Salmon, & Omer, 2016).

I know it seems that we are getting way off the beaten track here. What part does the curriculum play in all this? This is a very real thing that our children have to face; sure it's the adults who make the decisions, but it's the children who get caught up in the quarantines, outbreaks and bans throughout our play centres and schools. And then once they've grown up, depending on how this plays out, they'll be the ones trying to make the best decisions for their children. For arguments sake, let's think about how a child raised through the New Zealand curriculum might tackle this issue as a young

parent, raising a child in amongst the controversy. The Mathematics and Statistics Learning Area teaches students to interpret statistical information, evaluate data-based arguments, and deal with uncertainty and variation, as well as giving them the opportunity to design an investigation of their own (Ministry of Education, 2007, p. 26). So if our hypothetical parent had looked at the original study and seen how poorly it was designed and how it had such a small sample size, right off the bat she would have introduced some scepticism about the validity of the study. The job of teaching critical thinking shouldn't rest solely on subjects like maths and science. A study was done to see if explicitly teaching critical thinking in a tertiary level history course would reduce belief in pseudoscience. The students already had a pretty low belief rate in pseudoscience before taking the course, but it dropped further for students after the course; the honours students with some background in science experienced a greater drop (McLaughlin & McGill, 2017). Which just goes to show that when you take a multidisciplinary approach to teaching critical thinking you'll get the best effect.

Lucky for us, the Ministry of Education's 2007 *NZC* has weaved critical thinking throughout the Learning Areas. Through the English Learning Area, students will "understand the ideas within language contexts" (p. 10). Through Learning Languages students will gain "the cognitive tools and strategies to … increase their understanding of their own language(s) and culture(s)" (p. 24). Through Science, students learn "how science ideas are communicated and to make links between scientific knowledge and everyday decisions and actions" (p. 28); and through the Social Sciences Learning Area the student will have learned about past events and experiences, as well as how to use a Social Inquiry approach to gather and process information. The Social Inquiry part of the social sciences is key here, as its aim is to enable a deeper understanding within students of the community around them (Wood, 2013). All of these statements reflect the key competency of Thinking that enables students to "reflect on their own learning, draw on personal knowledge and intuitions, ask questions, and challenge the basis of assumptions and perceptions" (Ministry of Education, 2007, p. 12). For our theoretical student navigating the vaccination controversy, it is through a combination of the Learning Areas' knowledge and skills that they would be well equipped to make sense of all the information flying at them, as well as then effectively communicating their findings to peers and fellow parents, perhaps themselves acting as a vaccine against pseudoscience.

Fostering community in a digital world

Aside from critical thinking, there is a strong focus on community in the front of the *NZC*. Again, along with all the treasures the Internet has introduced to our modern lives, we've gained new challenges. A study of how Internet use related to happiness, social support, and introversion showed that heavy Internet use in the entertainment domain (gaming etc.) was related to a decrease of a person's perceived social support, as well as a higher likelihood of introversion (Mitchell, Lebow, Uribe, Grathouse, & Shoger, 2011). Youths with depressive like symptoms are two and a half times as likely to use the Internet at school compared to home use, which might suggest that these individuals are choosing to spend time on a computer instead of interacting with their peers (Ybarra, Alexander, & Mitchell, 2005). To further that, even when we are having face-to-face conversations, the presence of a mobile device during the conversation results in less fulfilling conversations as well as the participants in the conversation experiencing less empathetic concern (Misra, Cheng, Genevie, & Yuan, 2014).

If that wasn't depressing enough, we have a new breed of bullying. There has always been bullying in our playgrounds, it's often just viewed as a part of growing up. Now though, you don't need to be face to face with your bully or at school to be harassed, thanks to the Internet you can now be antagonised 24/7. The Internet is lauded as a social equaliser, the idea being that everyone's voice has the same weight, and that the anonymity of it can empower those who have no power in traditional society. This is lovely to think about, but humans use the Internet, and so the landscape of the online world is still a very human place to be. The 'empowering' nature of the Internet is having an interesting effect on the demographics in relation to cyber bullies compared to traditional bullies. Victims of traditional bullying are "significantly more likely to harass others in online environments" (Ybarra & Mitchell, 2004, p. 332). They may be powerless in the physical world so they use the online world to gain that power back.

Schools have domain over their playgrounds but not the Internet. Policies aren't going to save these kids. There is a lot of support in the curriculum, however, that when enacted, could contribute greatly to providing students with a framework and state of mind to maintain a real sense of community on and offline. The key competencies are full of skills that will help students maintain their respect of others no matter the forum. Under the Using Language, Symbols, and Texts competency, students "recognise how choices of language, symbol, or text affect people's understanding and the ways in which they respond to communications" (Ministry of Education, 2007, p. 12). Within the Relating to Others competency students become "aware of how their words and actions affect others" (Ministry of Education, 2007, p. 12). The *NZC* also recognises that students "who participate and contribute in communities have a sense of belonging and the confidence to participate within new contexts" (p. 13). Across all Learning Areas there is great opportunity to teach and demonstrate those key competencies. An education in the Arts "explores, challenges, affirms, and celebrates unique artistic expressions of self, community, and culture" (Ministry of Education, 2007, p. 20), through health education students will learn to "contribute to healthy communities and environments by taking responsible and critical action" (Ministry of Education, 2007, p. 22); through studying the social sciences students develop the skills to "better understand, participate in, and contribute to the local, national, and global communities in which they live and work" (Ministry of Education, 2007, p. 30), and in technology students will "come to appreciate the socially embedded nature of technology" (Ministry of Education, 2007, p. 32).

The future is here, but it's not all depressing news

Coming back to Dr. Parsons' optimism for the next generation, sure there are a whole lot of new challenges facing our children, but we have a curriculum that not only combats these issues, but makes use of our new global village. Ian McCrae (Orion Health) thinks that what students need to develop the skills necessary to face the future is locked within IT. While yes, IT is a big player in our economic and social futures, the ability to code is just a small bit of it. Ian isn't an educator or educational theorist, which makes his desired influence over the curriculum a little bit worrisome. Rather than Ian, John Dewey and Paulo Freire are a couple of theorists whose ideas we see reflected in the curriculum. Both believed that education could be used to create social change, although Freire takes it a bit further than Dewey by believing that educators should also address inequalities in the classroom as well as in wider society (Singer, & Pezone, 2003). Historically throughout the Aotearoa New Zealand education system, there have been disparities of treatment and achievement between Māori and Pākehā. In light of this, the *NZC* acknowledges The Treaty of Waitangi as a founding document of the nation and lists it as a principle that contributes to the foundations of curriculum decision making, along with the Cultural Diversity Principle which states the curriculum "…values the histories and traditions of all its people" (Ministry of Education, 2007, p. 9). To complement this, teachers are required to be proficient in the cultural competencies laid out in *Tātaiako: Cultural Competencies for Teachers of Māori Learners* (Ministry of Education, 2011). If educators themselves are addressing these inequalities that are unique to us locally, and their students themselves are part of using education to address issues, then it puts young citizens in good stead to take those same principles to the global stage.

The educational theorist Vygotsky appears to have influenced the *NZC* decision-making. Vygotsky believed that sociocultural processes have a key part in individual development, and coined the term 'zone of proximal development' that relates to a child's current development and the distance to potential development as determined by working with a peer of a higher ability level (Penuel & Wertsch, 1995). Facilitating shared learning is listed under the Effective Pedagogy section of the *NZC* and explains that students "learn as they engage in shared activities and conversations with other people, including family members and people in the wider community" and that as "they engage in reflective discourse with others, students build the language that they need to take their learning further" (Ministry of Education, 2007, p. 34).

Before I started studying education, I would have completely backed Ian McCrae in his opinions. Vygotsky, Dewey, and Freire be damned! The big picture would have been lost on me. Had I been given the platform, I would have passionately advocated for computer science to become a subject in its own right, with little to no thought about the kind of citizen we might be creating. I do see where Ian McCrae's coming from, and by no means do I mean him to be held up as an example of what's

wrong with the current relationship between education and industry. There are some good ideas from his camp that should be explored. In actual fact, I admire him for actively pursuing what he thinks will benefit kids, and I've seen first-hand the difference he's made in people's lives. So Mr. McCrae, if you do by some crazy chance end up reading this, I apologise for using you as a backboard for my ideas to push off from, and I hope you keep campaigning for what you believe is right, because I think we can count ourselves lucky to live in a country where entrepreneurs and industry are concerned about our future, and act on those concerns.

Walking around with the world's libraries in their hands is only going to take our young people so far when it comes to dealing with the issues we've left them. But with the pedagogies supplied to our teachers reflecting the ideas of Vygotsky, Dewey, and Freire (among others I'm sure), I think we're in a good position to bolster our students with critical thinking, a sense of community, the ability to collaborate with each other to develop further, and a respect for others' cultures and values. I think the future's looking bright for our young people, and for the rest of us as well, because let's face it—everyone's future is on the line when it comes to education.

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MY TEN CENTS: A NEW TEACHER'S INTERPRETATION OF THE *NEW ZEALAND CURRICULUM*

JOSHUA MARTELLI

The *New Zealand Curriculum* (*NZC*) (Ministry of Education, 2007) is a statement of official policy pertaining to teaching and learning in English-medium New Zealand schools. This working paper delineates my understandings of the *NZC* as follows. Firstly, I introduce my understandings of the *NZC* as an educational policy, and as a document that allocates values and conveys citizenship ideals in the twenty-first century. Following this, embedded discourses and learning theories are unpacked. I then reflect on knowledge claims in the Learning Areas. Fourthly, I indicate my understandings of the *NZC* as an outcomes-based curriculum model. Finally, I consider ways curriculum policy shapes pedagogies.

Educational policy, allocation of values and citizenship ideals

Educational policy

The Education Act 1989 (the Act) allows for the politicisation of the *NZC*. Section 60A of the Act relates to the *National Education Guidelines* and sets out the Minister of Education's power to publish foundation curriculum policy statements and national curriculum statements (New Zealand Government, 1989). The former refers to statements of policy concerning teaching and learning, whilst the latter refers to statements specifying specific knowledge, understanding, and skills to be learned (Ministry of Education, 2007, p. 43). The Minister of Education wields significant policy-making power as a member of the Cabinet, a body separate from the Executive Council and charged with making policy decisions on behalf of the Government as a whole (New Zealand Government, 2008). Typically, the Prime Minister selects party colleagues to serve as Ministers of Education. As such, educational policy statements may be influenced by the ruling party's political agenda (New Zealand Government., 2008). The foundation curriculum policy and national curriculum statements inform the content of the *NZC* (Ministry of Education, 2007, New Zealand Government, 1989). By virtue of the Minister of Education's authority over these statements, the *NZC* (Ministry of Education, 2007) is political in nature.

However, as Levin (2007) states, governments ultimately try to please voters to improve their prospects for re-election. In reflecting this, the *NZC* (Ministry of Education, 2007) was influenced by a variety of stakeholders including the Ministry of Education, teachers, principals, parents, academics, and the wider community, among others (Ministry of Education, 2007, p. 4; Rutherford, 2005).

Allocation of values

Embedded in the *NZC* are Values "to be encouraged, modelled, and explored" in schools (Ministry of Education, 2007, p. 10). Schools must integrate these in their philosophy, structures, curriculum, classrooms, and relationships. Thus, the *NZC* allocates a set of Values to be adhered to. However, it also encourages students to explore values, including their own, others, and those that influence New Zealand's cultural and institutional traditions (Ministry of Education, 2007, p. 10). This notion of exploration indicates the nature of the policy as "ever-evolving" (p. 37). That is, the *NZC* is designed to be able to adapt to changing values in our society. Consistent with this democratic ideal, the *NZC* Values were determined via a consultative process, reflecting values that teachers, principals, students, and others around New Zealand think are most important (Keown, Parker, & Tiakiwai, 2005).

Citizenship ideals

Broadly, the *NZC's* conceptions of citizenship ideals in the twenty-first century reflect the transformation of New Zealand from a pastoral economy into a knowledge-driven economy (Wood & Sheehan, 2012). The five Key Competencies in the *NZC* reinforce 'knowing how' rather than 'knowing what' (Wood & Sheehan, 2012). This fits with research suggesting that thinking in this way,

and developing competencies such as problem solving and critical thinking, are important for citizens in the twenty-first century (Ananiadou & Claro, 2009; Kennedy, 2008).

The *NZC* also emphasises exploration of links between Learning Areas. This implies that twenty-first century citizens require a deep, integrated knowledge base. This idea of holistic learning is recognised by global policy and research as being important for the new knowledge economy (Ananiadou & Claro, 2009; Wood & Sheehan, 2012). Lifelong learning is central to the vision of the *NZC*. Citizens sought in the twenty-first century are those who think critically and creatively; are literate and numerate; desire, use, and create knowledge, and are informed decision makers (Ministry of Education, 2007, p. 8). This notion of developing lifelong learners in the twenty-first century is also supported by research (Sitthisak, Gilbert, & Davis, 2007; Wood & Sheehan, 2012).

Discourses and learning theories

Several discourses influence the *NZC*. However, to give fair treatment to this section, I will focus on two: human capital theory (Olaniyan & Okemakinde, 2008), and social constructivist discourse (Berger & Luckmann, 1966).

Human capital theory

Human capital theorists argue that an educated population is a productive population (Olaniyan & Okemakinde, 2008). The theory emphasises how education buffers the productivity and efficiency of workers by promoting and investing in their increasing cognitive stock (Olaniyan & Okemakinde, 2008). Brown and Lauder (1996) assert that human capital theory is a powerful discourse that shapes contemporary educational thinking and policy-making in New Zealand. Its influence can be traced to New Zealand's structural reform towards economic liberalisation and the push to compete in an ever-changing, technology-driven and interconnected global market (Brown & Lauder, 1996; Fitzsimons & Peters, 1994). Many of the *NZC* Learning Areas reflect the theory's central tenet that education mediates productivity. For instance, English is promoted as enabling students' "access to the understanding, knowledge, and skills they need to participate fully in the social, cultural, political, and economic life in New Zealand" (Ministry of Education, 2007, p. 18). Similarly, the Technology Learning Area endeavours to equip students with a broad technological literacy that will enable them to "participate in society as informed citizens and give them access to technology-related careers" (Ministry of Education, 2007, p. 32). Consistent with human capital theory, these examples suggest that the *NZC* conceives of education as tools used to prepare students for working lives, and to ultimately contribute to the New Zealand economy.

Social constructivist discourse

Social constructivism is a sociological theory of knowledge which argues that human development is socially situated and that knowledge is constructed via interaction with others (McKinley, 2015). Hunter (2011) posits that, in the context of curriculum, social constructivism involves thinking about social issues, social justice and social change. This implies the development of self-managing and socially skilled students who can "interpret and reconstruct society" (Schiro, 2008, pp. 143–145). Notions of social constructivism are threaded through the *NZC*. The Vision, for instance, conveys a desire for young people who are "able to relate well to others" (Ministry of Education, 2007, p. 8). Moreover, some of the *NZC* values, such as 'community and participation' and 'respect,' are recognised by researchers and in other national policies as being particularly important for learning via interaction with others (Berryman, Nevin, SooHoo, & Ford, 2015; Ministry of Education, 2007).

Many of the Learning Areas also support students' thinking about social issues, justice and change. For example, the social sciences aim to equip students with knowledge and skills that will help them to contribute positively to society and engage critically with societal issues (Ministry of Education, 2007, p. 30). Students will learn about the organisation and functioning of societies and the contextual factors that shape diverse perspectives and values (Ministry of Education, 2007, p. 30). This focus on engaging with social issues and social change fits with social constructivism. Despite this, there are few explicit references to pedagogy regarding interacting with others in the learning areas. However, in a separate section, Effective Pedagogy, the *NZC* strongly implies support for peer interaction in the

learning process (Ministry of Education, 2007, p. 34). Therefore, consistent with social constructivism, the *NZC* implicitly supports learning about social issues in an interactive way.

Knowledge claims in Learning Areas and ties to the key competencies

The *NZC* Learning Areas make up a "broad, general education" and lay the foundation for later specialisation (Ministry of Education, 2007, p. 16). They signal key areas of 'knowing' and knowledge, and are to be linked to the Values and Key Competencies (Ministry of Education, 2007, p. 16). I will set out the Learning Areas' knowledge claims and how they relate to the Key Competencies' expectations of students' learning and dispositions. To give this fair treatment, I will use only the Science Learning Area as an example. The table at the end of this section summarises my developing thoughts on all of the Learning Areas. Learning Areas' knowledge claims can be found in their opening statements that convey what the Learning Area is about and provides a rationale of why it is important to learn about. Science, for instance, claims that knowledge is developed by "generating and testing ideas" and "gathering evidence" (Ministry of Education, 2007, p. 28). Science is conveyed as being able to "inform problem solving and decision making in many areas of life" and as being necessary for many "challenges and opportunities" in our world (Ministry of Education, 2007, p. 28). Specific knowledge and skills that students will develop include developing an understanding of the world based on current scientific theories, and using scientific knowledge and skills to problem solve and develop further knowledge (Ministry of Education, 2007, p. 28). Thus, the Science Learning Area indicates that knowledge involves a process of accumulating evidence, and that this may yield benefits for our world. Learning Areas' knowledge claims imply the development of certain attitudes, skills and values. For instance, in the case of science, deriving sense out of the world calls for students' open-mindedness to scrutinise assumptions about knowledge (Siegel, 1989). This process of sense-making also stipulates the development of critical thinking (Siegel, 1989). This skill is entrenched in the *NZC's* Values as underpinning 'innovation, inquiry, and curiosity' (Ministry of Education, 2007, p. 10).

Science knowledge claims typically relate to several Key Competencies. *Thinking* is about making "sense of information" and involves "using creative, critical, and metacognitive processes" (Ministry of Education, 2007, p. 12). To "generate" and "test" ideas that precipitate scientific knowledge, as well as being able to develop understanding and construct knowledge, students must develop this competency (Ministry of Education, 2007, p. 28). *Managing self* also seems pertinent. Reliability underwrites this competency, and its relation to science is conveyed in the statement that emphasises that scientific progress results from "systematic work" (Ministry of Education, 2007, p. 28). This implies students' dispositions towards academic rigour, whereby a "respect for evidence" is pivotal (Ministry of Education, 2007, p. 28). Finally, *Participating and contributing* is also integral to science in terms of being able to "contribute appropriately as a group member" (Ministry of Education, 2007, p. 13). In order for students to develop their scientific knowledge and understanding, the Science Learning Area reinforces students "communicating and debating with others" (Ministry of Education, 2007, p. 28).

Table 3:   Interrelationships Between *NZC* Learning Areas and Key Competencies, Attitudes, Skills and Values Embedded in the *NZC* (MoE, 2007)

	7	The Arts	Health + P.E	Learning Languages	Mathematics & Statistics	Science	Social Sciences	Technology
KCs	Thinking LST RO P & C	Thinking LST MS RO P & C	Thinking MS RO P & C	Thinking LST RO P & C	Thinking LST MS	Thinking LST MS RO P & C	Thinking LST MS RO P & C	Thinking LST MS RO P & C
Attitudes	Open-minded Considerate Thoughtful Tolerant	Open-minded Confidence Courage Enthusiastic Flexible Humble Thoughtful	Positive Responsible Respect Care Consideration Open-minded	Confident Motivated Perseverance Humble Respect	Thoughtful Motivated Flexible Open-minded Curious	Curious Open-minded Thoughtful Humble Respect Flexible	Thoughtful Accepting of others' views Caring Open-minded Respect	Open-minded Curious Humble Respect Flexible Perseverance
Skills	Communication Critical thinking Receiving info	Creativity Communication Collaboration Critical thinking Practical knowledge	Movement Critical thinking Relationships Practical knowledge	Communication Relationships Language knowledge	Logic Strategy Creativity Critical thinking	Critical thinking Collaboration Logic Scientific method	Critical thinking Evaluation	Enterprise Creativity Practical knowledge
Values	IIC C & P	IIC Diversity ES	IIC Diversity Equity C & P ES Integrity Respect	Diversity Equity C & P Respect	IIC Integrity	IIC Diversity C & P ES Integrity	IIC Diversity Equity C & P ES Integrity Respect	IIC C & P ES Integrity Respect

Note:

1. 'KCs' refers to the Key Competencies. "LST" refers to the competency, 'Using language, symbols and texts'; 'MS' refers to 'Managing Self'; 'RO' refers to 'Relating to others'; 'P & C' refers to 'Participating and Contributing.'
2. 'IIC' refers to the value 'innovation, inquiry, and curiosity'; 'C & P' refers to 'community and participation'; 'ES' refers to 'ecological sustainability.'

The NZC as an outcomes-based curriculum

The *NZC* is an outcomes-focused curriculum. This means it is student-centred and sets out what the Government wants students to know and to be able to do (Ministry of Education, 2007, p. 4). In other words, it is organised for results (Spady, 1988). The outcomes envisaged by the *NZC* are entrenched in the Learning Areas section. The Achievement Levels set out the desirable levels of knowledge, understanding and skills needed at a particular level in order to progress to a higher level (Ministry of Education, 2007, p. 39). The Achievement Objectives are contained within each Learning Area and across all Achievement Levels. They are designed to set out learning processes, knowledge, and skills pertaining to eight progressive levels of learning. Advantages of an outcomes-focused curriculum include the provision of transparent goals for learners and teachers, and encouragement of a rigorous approach by teachers (Popham, 1987). An unambiguous structure allows students and teachers to be aware of the goals they are working toward and to subsequently enjoy a sense of direction (Spady, 1988). It also encourages teachers to be clear about the selection of relevant content, methods, resources and assessment for their students (Popham, 1987). Another positive aspect of the *NZC* is that it is suited to a variety of modes of learning. Because it is primarily concerned with outputs rather than inputs (Donnelly, 2007), the Achievement Objectives are not concerned with the process by which these outcomes are achieved (Burke, 1995). Thus, whilst the *NZC* encourages pedagogical approaches, such as reflection and shared learning (Ministry of Education, 2007, p. 34), teachers are effectively able to determine what pedagogical approaches to use in order to achieve these outcomes.

The downside of having discrete, prescribed learning outcomes is that it ignores the possibility of exploring "unanticipated and unpredictable" learning avenues (McKernan, 1993). McKernan (1993) argues that this ignores the "liberal notion of education as induction into knowledge" (p. 343). The *NZC* addresses this criticism in several ways. Primarily, it encourages the development of *thinking* as a Key Competency. This involves students questioning their assumptions and perceptions, and encourages intellectual curiosity (Ministry of Education, 2007, p. 12). Secondly, the language used in many Learning Areas' Achievement Objectives supports the notion of *thinking* in order to achieve unique and novel interpretations. For instance, at the higher levels of achievement, and across the Learning Areas, terms such as *understand*, *explore* and *investigate* frequently apply to statements of Achievement Objectives. Furthermore, the Effective Pedagogy section implicitly supports students' and teachers' exploration of ideas (Ministry of Education, 2007, p. 34).

How curriculum policy shapes pedagogies

One of the ways that curriculum policy can influence pedagogies is through legislation. The Education Act of 1989 sets out how the Ministry of Education can influence the *NZC*. This Crown Agency makes decisions about statements of policy concerning teaching and learning. Because the *NZC* must align with these statements, the Education Act 1989 represents a powerful mechanism through which to shape pedagogies in New Zealand classrooms. Curriculum policy may also influence pedagogies via recommendations. The *NZC* specific approaches to teaching and learning are not mandated. However, in the Effective Pedagogy section, several approaches are outlined that have been shown to "consistently have a positive impact on student learning" (Ministry of Education, 2007, p. 34). These include creating a supportive learning environment, encouraging reflective thought and action, and using the 'teaching as inquiry' strategy (Ministry of Education, 2007, pp. 34–35). Because these pedagogical approaches carry favour with the Government, they influence pedagogical approaches prescribed by schools and teachers.

The type of curriculum model prescribed by policy may influence pedagogies. Outcomes-focused models may influence teaching and learning in various ways. For instance, one of the criticisms levelled at outcomes-based curriculums (McKernan, 1993) is that assessments often focus on what the student does not know, rather than on what they do know. This is because stating outcomes as "a comprehensive form of intellectual scaffolding" (McKernan, 1993, p. 347) limits inquiry and encourages teachers to teach to the test (Donnelly, 2007). Teacher-centred approaches may result whereby the teacher predominantly controls what is taught, and transmits knowledge, skills and values to students. This approach emphasises organising and presenting the course content in a way that is easy for students to understand in order to optimise their chances of achieving the learning outcomes (Chen & Brown, 2016).

I argue that the *NZC* (Ministry of Education, 2007), despite being outcomes-focused, endorses a variety of pedagogical approaches. On one hand, it is conducive to teacher-centred approaches. For instance, the *NZC* forms the basis for the ongoing development of Achievement Standards and Unit Standards registered on the National Qualifications Framework. These standards are designed to lead to the achievement of qualifications in Years 11–13 (Ministry of Education, 2007, p. 41). The shadow cast by this centralised assessment system may encourage teachers' beliefs that the purpose of assessment is to make students and teachers accountable for their effectiveness (Brown, 2004). In an effort to ensure their effectiveness by these national standards, teachers may employ teacher-centred pedagogies (Brown, Lake, & Matters, 2009). Conversely, the *NZC* also endorses student-centred teaching. Fundamentally, the *NZC* is aimed at students and their learning (Ministry of Education, 2007, p. 6). Consistent with this ideal, it promotes students' critical and creative thinking (Ministry of Education, 2007, p. 12) deep, constructed understandings of knowledge (Hunter, 2011), and lifelong learning (Ministry of Education, 2007, p. 8). Achievement Objectives at the higher levels of achievement frequently imply students' active involvement in constructing their knowledge. Finally, the Effective Pedagogy section supports collaboration between teachers and students in learning processes, and teachers' reflections on the effectiveness of their pedagogy (Ministry of Education, 2007, pp. 34-35).

Conclusion

This paper set out to describe my understandings of the *NZC*. In summary, the 2007 policy is focused on citizenship ideals. It is strongly imbued by human capital theory and social constructivist discourses, and it harbours strengths and weaknesses as an outcomes-focused curriculum model. Finally, it endorses student-centred pedagogies, but may also imply teacher-centred approaches because it is outcomes-focused.

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MINDFUL IMPLEMENTATION OF CURRICULUM AS CONSTRUCT

SHIRIN WHITE

As I explore *The New Zealand Curriculum* (*NZC*) (Ministry of Education, 2007), I'm reminded of Nelson Mandela's famous proclamation that "education is the most powerful weapon we can use to change the world" (Mandela, 2003). Educators are wielders of this power and so bear the responsibility of questioning our own world-changing actions and the policy documents that inform them. To what degree are we aware of the particular education we are delivering; its construction, its origins, its assumptions? To what extent are we examining the *NZC* as an educational construct born of a particular social and historical moment? This paper looks into some of the discourses that have shaped the *NZC* to begin to understand the document's purpose and construction, some of its inconsistencies and subsequent challenges for implementation, and its pedagogical influence on educators. My hope is that greater understanding of the *NZC* will assist educators to be more mindful of our actions in the society-building process of education, so we are aware of conceptions of reality we are changing and those we are perpetuating.

Introducing the New Zealand curriculum

From the 1870s to the 1980s, educational curriculum in New Zealand consisted of subject syllabuses with largely prescribed content (McGee & Cowie, 2008, p. 91). Liberal educational thought gradually built over this period, until a major shift was instigated in the 1980s, when public consultation on education culminated in the Picot report and Tomorrow's Schools policy (Butterworth & Butterworth, 1998, p. 21). Situated within broader economic discourses, such as free-market philosophy, schools were given more autonomy, allowing them to be administered by independent Boards of Trustees, while being accountable to the new Ministry of Education (Butterworth & Butterworth, 1998, p. 93). This represented a shift in New Zealand education characterised by more freedom at the local level in conjunction with accountability and standardisation at a national level.

The challenge of maintaining a national standardisation and assessment-model while assigning more power to schools has been tentatively solved by making the *NZC* an outcomes-based policy. The *NZC* envisions young people who will be "confident, connected, actively involved, lifelong learners" (Ministry of Education, 2007, p. 8) and seeks to outline the knowledge, skills and Key Competencies that will enable all students to achieve this vision. This vision implies a model New Zealand citizen who will contribute to the country's wellbeing, particularly its economic health, and ensure it is able to thrive into the future. It is interesting to note the framing of the *NZC* around the concept of a developing *individual*, who certainly interacts with a local or global community but is always distinct from it and whose progress is documented solely on individual terms. A pattern begins to appear here in the worldview of the *NZC*, of perceiving both society and knowledge as an accumulation of single 'pieces'; the latter posing a formidable challenge for achieving a "coherent" curriculum (Ministry of Education, 2007, p. 9).

Discursive influences: The language of the curriculum

A curriculum is never neutral as it is reflective of the ideologies and discourses of its time, particularly those that have accrued enough weight to inform educational policy. The *NZC* has a number of discursive influences which can be detected in the language of the Principles, Values and Learning Area statements.

Individualism

This discourse conceives of the individual as the centre for transformation and growth. Principles like *High expectations* convey this emphasis on the individual's personal progress: "The curriculum supports and empowers all students to learn and achieve personal excellence" (Ministry of Education, 2007, p. 9). Although Principles such as *Community engagement* may appear to move towards more collective thinking, they tend to still revolve around the individual as the pivotal unit: "The curriculum has meaning for students, connects with their wider lives, and engages the support of their families, whānau, and communities" (Ministry of Education, 2007, p. 9). This language frames the

student as separate from their community, enlisting it as an abstract source of external support. Individualism is a deeply-embedded ideology of Western Civilisation, as explained by Siedentop: "Since the sixteenth century and the advent of the nation-state, people in the West have come to understand 'society' to mean an association of individuals" (2015, p. 7). The *NZC* perpetuates this conception of society and aims to educate generations of individual students.

High expectations

Educational literature around the power of high expectations on young people is extensive. The *NZC* explicitly affirms its high expectations for students in its first Principle of *High Expectations* (Ministry of Education, 2007, p. 9) and its first Value of *Excellence* (Ministry of Education, 2007, p. 10). It is interesting to consider how the structure of the *NZC* shapes teachers' expectations of students. One study found that teacher expectations varied most according to the age and school level of the student (Lane, Pierson, Stang, & Carter, 2010, p. 172). This may be directly informed by the levels laid out in the *NZC*. A consequence of this is that teacher expectations of what would constitute excellence for a student could become confined to the Achievement Objectives for their age.

Ecological sustainability

The Principle of *Future focus* (Ministry of Education, 2007, p. 9) encourages exploration of "sustainability, citizenship, enterprise, and globalisation" (Ministry of Education, 2007, p. 9) and "ecological sustainability, which includes care for the environment" (Ministry of Education, 2007, p. 10) is one of the Values outlined in the *NZC*. Their curricular presence signifies a social awareness of the environmental concerns of our age and connects with the Education Outside the Classroom movement which strives to foster students' engagement with the natural world in order to advance sustainability (Hill, 2012, p. 15). It may be difficult however, to reconcile the powerful economic undertones of the *NZC*, along with its worldview of an individual independently excelling, with the language of collective, interdependent relationships that surrounds sustainability discourse.

Learner-centred and sociocultural theory

The wording of the *NZC* is entirely centred on the student, with a notable absence of acknowledging the other players in the educational process. The Principles are described as "putting the students at the centre of teaching and learning" (Ministry of Education, 2007, p. 9), connecting to the educational movement away from teacher-centred classrooms. Yet the *NZC* is not written for students, it's written for teachers and administrators, and used almost exclusively by only them. This connects to sociocultural theory of the more knowledgeable individual seeing the learner's path for progress and setting tasks just ahead of them, and also adds an inauthenticity to the picture of students as protagonists in education. The ambiguity of what it means to be at the "centre of teaching and learning" begins to become apparent.

Reconstructionist theory and coherence

There is an idealism in the curriculum Principles and Values that reflect reconstructionism. The values chosen are described as allowing us to "live together and thrive" (Ministry of Education, 2007, p. 10) and there is certainly a sense that a world full of individuals who are innovative, inquisitive, curious, pursuing excellence, diverse, equitable, community-focused, etc., would be a fantastic place to live. However, these values and principles appear distinct from, and in some ways, discordant with the Learning Areas. The *NZC*, with coherence as one of its principles (Ministry of Education, 2007, p. 9), claims to offer "a broad education that makes links within and across learning areas, provides for coherent transitions, and opens up pathways to further learning" (Ministry of Education, 2007, p. 9). Yet the links needed to unite the separated elements of the *NZC* into a coherent whole are absent, left to schools to discover (or remain unaware of): "The specific ways in which these values find expression in an individual school will be guided by dialogue between the school and its community. They should be evident in the school's philosophy, structures, curriculum, classrooms and relationships" (Ministry of Education, 2007, p. 10). This stance appears to be influenced by the discourses around personal values and the State/individual, where it is considered sensible to distance

matters of deep personal significance from the State, by ceding responsibility for clarification to individual schools and communities. Coherence of knowledge is discussed as follows.

Construction of knowledge into Learning Areas and Key Competencies

Perhaps the most significant characteristic of the *NZC* is its division of knowledge into Learning Areas and Achievement Objectives. While the *NZC* claims to offer a coherent education (Ministry of Education, 2007, p. 9), it is schools that are left with the pivotal task of unifying all the *NZC's* fragments. Whether they are aware of this responsibility is not known. Rather, it is expected that many schools accept the widespread compartmentalisation of knowledge in disciplines as being characteristic of knowledge itself—in many ways encouraged by the structure of Learning Areas. Each of the Learning Areas have been constructed to achieve a purpose, and provide particular knowledge and values. I have chosen to focus on English, as it is the Learning Area that I will primarily teach from.

English

Prioritised as the first Learning Area, after which the others are ordered alphabetically, English claims to provide the learning that is central to all learning in English-medium schools and a largely English-medium New Zealand society (Ministry of Education, 2007, p. 18). This Learning Area aims to help students "become increasingly skilled and sophisticated speakers and listeners, writers and readers, presenters and viewers" (Ministry of Education, 2007, p. 18). It is structured around "making meaning" and "creating meaning" (Ministry of Education, 2007, p. 18) and values these processes, of understanding and creating, more than the actual ideas that are understood or created. This links to its curriculum purpose, that it "gives students access to the understanding, knowledge, and skills they need to participate fully in the social, cultural, political and economic life of New Zealand and the wider world" (Ministry of Education, 2007, p. 18). English could draw on concepts relating to the social sciences, science, technology, etc., to connect the learning of processes for understanding (what English aims for) with actual content to be understood (an aim of other Learning Areas), but this is not made clear in the Learning Areas. As such, a value embedded in English and in English's position of import in the *NZC* surfaces: the ability to make or create meaning is more important than the meaning itself. Perhaps the origins of this unintentional value are the difficulties of reaching consensus as a nation on ideas that are important for young people to understand. Therefore teaching the ability to understand is less contestable than trying to identify concepts that we all agree are worthy of understanding. Nevertheless, the message embedded in the structure of the English Learning Area—that process supersedes ideas—becomes the result, and threatens to infuse education with a superficiality that does not value the acquisition of genuine ideas.

Other Learning Areas

The construction of knowledge into Learning Areas is an organisational choice which, while helpful, has limitations. If schools are deeply conscious of the true fluidity of knowledge beyond the bounds of disciplines, they will seek to develop their curriculum to be coherent by working with, between and beyond Learning Areas. If the Arts "transform people's creative ideas into expressive works that communicate layered meanings" (Ministry of Education, 2007, p. 20) then there is no reason students couldn't take the profound ideas they're discussing about "relationships that exist between people and the environment" (Ministry of Education, 2007, p. 30) from social sciences and create a piece of theatre inspired by them. When the Learning Areas are left in their divided state, with no surrounding conversation about wholeness of knowledge or sharing of concepts across different areas, the fragmentation of knowledge becomes ingrained and leads to an array of societal issues such as inter-disciplinary competition and narrow conception of reality.

Key competencies

The key competencies are highly commendable. They offer an ideal collection of capacities for the twenty-first century learner to be able to participate meaningfully in society. The *NZC* offers no guidance around how these competencies can actually be developed within students. Teachers must pursue the cultivation of these competencies in their students through experimentation and intuition.

An outcomes-based curriculum

In many ways, the *NZC* is a document of ideals. It is a reaction to prescriptive curricula of the past, instead striving to leave content choice to school preference, while still providing desired outcomes in the form of Standards (Achievement Objectives) and Key Competencies. The *NZC* adheres to a view that learning occurs in a progression and so structures itself in curriculum levels that represent increasing levels of sophistication. Achievement Objectives and Standards act as markers on this progression, to show learning as it advances. A challenge with this is that schools and teachers must move students along this progression without being able to clearly see what it would look like. Schools are tasked with devising their own curriculum that takes the *NZC's* framework of ideal outcomes and offers a learning path for students to reach these outcomes. The Learning Areas' Achievement Objectives are frequent enough to prevent this from becoming too formidable, whereas the key competencies provide no markers. Schools must explore their own resources and ideas for helping students to develop these competencies, or leave it to chance that they will develop naturally "over time" within "social contexts" (Ministry of Education, 2007, p. 12), which is the extent of the guidance the *NZC* offers for key competency development.

Influence of the curriculum on pedagogy

The *NZC* plays a significant role in shaping pedagogy, both in its explicit stance on teacher actions in Effective Pedagogy (Ministry of Education, 2007, p. 34) and in its structuring and framing of desirable education in New Zealand. There are limitations in estimating how teaching practice may be affected by the curriculum, particularly from my perspective as an aspiring, not fully practising, teacher. Therefore this section comprises of my suppositions about how curriculum policy could shape pedagogy, drawing on my own experiences and observations as well.

The curriculum's perspective of effective pedagogy

The *NZC* offers seven evidence-based pedagogical concepts that have a positive impact on student learning. The first, "Creating a supportive learning environment" (Ministry of Education, 2007, p. 34), encourages teachers to foster positive relationships in the classroom and with the wider community and families, with attention to cultural diversity. This is expressed when schools engage in culturally responsive and relational practice and actively foster healthy, happy relationships between students, faculty and those beyond the school. I have witnessed much effort along this line of action, although it appears to sometimes be tokenistic or subverted by the underlying motive of "raising achievement", which can give the relationships a sense of insincerity. The seventh concept, "Teaching as inquiry" (Ministry of Education, 2007, p. 35), is particularly important for teachers as lifelong learners and ever-advancing practitioners. It requires that teachers regularly inquire into the teaching-learning process and their role in it, in order to adapt practice and enhance students' learning. This is a powerful model for teachers' continual improvement, without which, students are subjected to stagnant and potentially harmful teaching. Like the first approach, I have similarly noticed that inquiry practice can also be superficially implemented when teachers do not feel they have sufficient time or motivation to carry out the 'extra' work that it demands.

Structural impact on pedagogy

Although the Effective Pedagogy section outlines promising concepts to impact teacher practice, the Learning Areas and Key Competencies quite possibly have a more pronounced impact on pedagogy, as the most frequently used sections of the *NZC*. As teachers strive to bring them into effect, they are influenced by their wording, structure, content and what has not been included.

The division of the knowledge content of the curriculum into Learning Areas has profound implications for pedagogy. Although coherence is valued by the policy, teachers, particularly secondary teachers, often learn to see the Learning Areas as distinct areas of knowledge that exist in isolation. Most secondary schools (and universities) teach in subjects, which may be a reflection of New Zealand societal structure and Western patterns of compartmentalising knowledge. Nevertheless, as coherence is not embedded into the structure of the Learning Areas, those "natural connections that exist between learning areas and that link learning areas to the values and key competencies" (Ministry of Education, 2007, p. 16) remain hidden unless schools deliberately bring them to light. As

discussed earlier, the Learning Area English is mostly concerned with processes of making and creating meaning and doesn't specify content to learn upon. This provides a natural space for content from other learning areas to link up and enrich the students' learning in multiple areas. A student learning about the colonisation of India in social sciences could study literature produced in that era in English, developing a deeper understanding of the ideas of the period, as well as learning how to "make meaning" (Ministry of Education, 2007, p. 18). Unfortunately, these opportunities may not be recognised by schools that continue to teach according to traditional division via subjects.

Students should be made aware that Learning Areas are constructed and not naturally or inevitably separate. This is one example of how the curriculum is going to impact my pedagogy—it demands that I converse with my students and fellow teachers about the coherence of knowledge and that we work together to make the links between Learning Areas visible. I envision collaborating with my colleagues to develop integrated unit plans and assessment tasks. If there is considerable resistance to a coherent collaborative curriculum, I may need to restrict the aforementioned conversations to my classroom—creating opportunities for my students to bring knowledge they've gained from other Learning Areas and develop them further through English processes.

Another aspect of fragmentation that impacts pedagogy is the division of each Learning Area into the micro-learning of Achievement Objectives. Once again, breaking knowledge into manageable pieces serves to aid us in engaging with something which, as a whole, is beyond our comprehension. However, it can distort the nature of learning if those "pieces" remain disjointed and do not find greater meaning in unity. Teacher pedagogy may be influenced by the Achievement Objectives if the teacher tries to enact them one by one, discarding the last as the new is taken up, never consciously drawing on their mutual complementarity. My pedagogical response is to design a programme that advances students across diverse Achievement Objectives, drawing on prior knowledge, moving forward in multiple ways so my students constantly make connections between everything they learn with me, everything they learn in other Learning Areas, and things they're learning in the wider world.

Mindfully educating with the NZC

In any examination of an aspect of education, it is important not to discount the tremendous advances that have been made in this noble profession, nor to unjustly criticise the dedicated efforts of experienced educators, researchers and policy writers who have helped construct the document in use today. It is apparent that the 2007 *NZC* is a remarkable work outlining New Zealand's hopes for its young citizens, and it offers educators much guidance in their efforts to empower their students to reach their potential. I am grateful that we have the *NZC* to aid us in this work.

Becoming more aware of the discourses that have shaped the *NZC* and the conceptual underpinnings of the structure of the document allow educators to implement it with greater understanding of its potential impact on students and the world at large. Throughout this paper I have questioned the fragmentation of knowledge, the excessive focus on the individual, the superficiality of valuing process and technique over ideas, and other limiting constructions which I have found to be present in the *NZC*, with the hope that awareness of the constructed nature of the *NZC* will encourage more mindful implementation. There are ways that these limitations can be transcended through practice, as well as opportunities that remain hidden within the scope of possibilities in the *NZC*, should educators seek these out. Educators should continue to recall that we do not passively deliver a neutral education; we co-construct social reality alongside our students, colleagues, fellow human beings. This demands that we continuously grow in our understanding of the kind of education we are delivering, the influence we're wielding and the ideological documents, such as the *NZC*, that we're propagating. Only then can we begin to feel comfortable about our role as practitioners of the world-changing process of education.

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Contributors

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I am mother to three daughters (11–17) and wife of Rob for 19 years. I have a Bachelor of Business Analysis (Fin.) from the University of Waikato majoring in accounting. I have been working as an accountant for over 10 years but now that my children are getting older I have decided to make the move to change my life completely by pursuing my desire to be a primary school teacher. I love handcrafts such as crochet, knitting, sewing and quilting, I love reading, watching TV, hanging out with my family and I am always keen for a deep and meaningful chat and a coffee.

Ben Deane

I am a 23-year-old University of Waikato student studying in the Master of Teaching and Learning programme. I come from a geographical background and hold a Bachelor of Arts from the University of Otago. I enjoy spending my spare time surfing and my savings on travelling. I have spent time in different parts of Latin America, Africa and Europe. Throughout these travels, I developed my desire to teach geography at a New Zealand secondary school. In this career I hope to influence New Zealand's youth to explore and appreciate the beauty of the relationship we as people have with the Earth.

Pascale Prescott

After abandoning a degree in physics for another in computer science, I completed my Bachelor degree from the University of Auckland at the end of 2010. Before I sat my final exams, I'd already accepted a job offer at a large local software development company. This started me on a six-year journey of job title hopping—from software engineer to information security analyst, then, after a brief hiatus taken to study design, to web developer and eventually web designer. I had project manager set in my sights as a title to add to my collection, when I had a quarter-life-crisis style epiphany that the IT industry wasn't fulfilling me anywhere near as much as my side job as a pole dance instructor. It wasn't the dance part that made it so satisfying it was the teaching. So, to the surprised and mildly confused reactions of friends and relatives, I gave up a job with perks so good (you would think it was with Google), to study teaching. Even though it's still early days, this is by far the most challenging but most rewarding career decision I've made so far.

Joshua Martelli

I have a degree in psychology and I am currently undertaking a Master of Teaching and Learning programme to be a primary teacher. I was inspired to apply for the MTchgLn this year because of my time spent teaching swimming to children. Even though there were some trying moments, overall I had an absolute ball and found that teaching could be really rewarding. Highlights from my practicum experience so far include getting to know all of the students in my home class, having a great mentor teacher, and taking some science and physical education lessons. I would love to teach in the Bay of Plenty next year.

Shirin White

I am a Pasifika student with a desire to contribute to social progress. With Samoan and Canadian whakapapa and an upbringing in Aotearoa New Zealand, I am interested in global processes of education and development and their intersection with culture, spirituality and religion. I apply my ideals through the grassroots educational endeavours of the Baha'i community, which hold promise for addressing social issues through spiritual and intellectual empowerment. I hold a Bachelor of Arts in English from Massey University and enjoy theatre, poetry and stories.

Philippa Hunter

I am a senior lecturer in history, social sciences and curriculum studies in education at the Te Kura Toi Tangata Faculty of Education, The University of Waikato. My research interests involve critical pedagogy in the teaching of social sciences in initial teacher education and narrative research of problematised history pedagogy. Recent postgraduate teaching has focused on cross-disciplinary possibilities in secondary social sciences curriculum.