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My ten cents: A new teacher's interpretation of The New Zealand Curriculum

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

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The *New Zealand Curriculum* (*NZC*) (Ministry of Education [MoE], 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 21st 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 [NZGovt.], 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 (MoE, 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 (NZGovt. Cab. Off., 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 (NZGovt.Cab.Off., 2008). The foundation curriculum policy and national curriculum statements inform the content of the *NZC* (MoE, 2007; NZGovt., 1989). By virtue of the Minister of Education's authority over these statements, the *NZC* (MoE, 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* (MoE, 2007) was influenced by a variety of stakeholders, including the Ministry of Education, teachers, principals, parents, academics, and the wider community, among others (MoE, 2007, p. 4; Rutherford, 2005).

Allocation of values

Embedded in the *NZC* are Values "to be encouraged, modelled, and explored" in schools (MoE, 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 (MoE, 2007, p. 10). This notion of exploration indicates the nature of the

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[i] Editor's note: The fourth of five articles written by beginning teachers about the New Zealand Curriculum (NZC, MoE, 2007) reprinted in the original order (see https://www.tandc.ac.nz/tandc/article/view/286). This series of five is followed by two new invited commentaries especially for this issue.

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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 et al., 2005).

Citizenship ideals

Broadly, the *NZC's* conceptions of citizenship ideals in the 21st 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 21st century (Ananiadou & Claro, 2009; Kennedy, 2008).

The *NZC* also emphasises exploration of links between Learning Areas. This implies that 21st 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 21st century are those who think critically and creatively; are literate and numerate; desire, use, and create knowledge; and are informed decision makers (MoE, 2007, p. 8). This notion of developing lifelong learners in the 21st century is also supported by research (Sitthisak et al., 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" (MoE, 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" (MoE, 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 that 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" (MoE, 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 et al., 2015; MoE, 2011).

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 (MoE, 2007, p. 30). Students will learn about the organisation and functioning of societies and the contextual factors that shape diverse perspectives and values (MoE, 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 (MoE, 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 (MoE, 2007, p. 16). They signal key areas of 'knowing' and knowledge (Hunter, personal communication, 2017), and are to be linked to the Values and Key Competencies (MoE, 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 providing 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" (MoE, 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 (MoE, 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 (MoE, 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" (MoE, 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" (MoE, 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 (MoE, 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" (MoE, 2007, p. 28). This implies students' dispositions towards academic rigour, whereby a "respect for evidence" is pivotal (MoE, 2007, p. 28). Finally, *Participating and contributing* is also integral to science in terms of being able to "contribute appropriately as a group member" (MoE, 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" (MoE, 2007, p. 28).

Table 1:   Interrelationships between NZC learning areas and key competencies, attitudes, skills and values embedded in the NZC. (compiled from MoE, 2007)

	English	The Arts	Health + P.E	Learning Languages	Mathematics & Statistics	Science	Social Sciences	Tech-nology
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 (MoE, 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 (MoE, 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 towards 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 (MoE, 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 (MoE, 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 (MoE, 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" (MoE, 2007, p. 34). These include creating a supportive learning environment, encouraging reflective thought and action, and using the 'teaching as inquiry' strategy (MoE, 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* (MoE, 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 (MoE, 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 et al., 2009). Conversely, the *NZC* also endorses student-centred teaching. Fundamentally, the *NZC* is aimed at students and their learning (MoE, 2007, p. 6). Consistent with this ideal, it promotes students' critical and creative thinking (MoE, 2007, p. 12); deep, constructed understandings of knowledge (Hunter, 2011); and lifelong learning

(MoE, 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 (MoE, 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.

Joshua Martelli biography

My name is Josh. 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.

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