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# Curriculum Development in New Zealand: New Directions, Opportunities and Challenges for School Geography

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**Abstract**

Geography as a senior subject in New Zealand secondary schools has been long overdue for curriculum change. The 2007 New Zealand Curriculum (NZC) currently being implemented at the senior school level provides geography with the mechanisms for positive curriculum change, giving teachers the opportunity to refocus on existing teaching, learning and assessment practices. Important paradigm shifts include devolving curriculum making to schools, embracing student ownership of learning, emphasizing a conceptual understanding approach and re-aligning the national geography assessment standards to the new curriculum. Although the implementation of the NZC is widely perceived as providing the needed stimulus to transform high school geography into a key subject for 21st Century learners, the process to date has not been without challenges. The aim of this paper is twofold. First, to identify the new directions and opportunities offered by the NZC using document analysis and review of associated literature. Second, using results from a teacher survey plus semi-structured interviews with heads of geography departments is to document teacher perceptions about uptake of the intended curriculum, challenges faced and the extent to which the state rhetoric is reflected in the new programs being planned by teachers of geography.

**Keywords:** curriculum change, new directions, opportunities, challenges, perceptions

## Introduction

Geography in New Zealand schools is an optional subject, offered only at the senior level (Years 11-13, Curriculum Levels 6-8). Until the mid-1990s the curriculum at the senior level was centrally controlled and subject orientated. Curriculum change took place in the form of rolling syllabus reviews (Bolstad, 2006). The Geography Syllabus for Schools (Ministry of Education, [MoE], 1990), developed since 1974 and heralded as innovative at its time was considered past its use-by-date by the late 1990s

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(McPherson and Keown, 2004). Concerns revolved around the datedness of the skills and ideas banks, the unsuitability of prescribed common topics including restrictive contexts making up a third of the syllabus at each year level, and several themes lacking relevance for today's learners. An output of the New Zealand stock taking review conducted in the mid-1990s was the creation of new curriculum documents for seven Essential Learning Areaa (ELAs). Geography teachers fearing their subject would be subsumed by the development of the new Social Studies in the New Zealand Curriculum (MoE, 1997) fought hard to retain geography as an independent senior subject. While successful to this end, an eventual decision by the MoE to no longer recognize syllabuses as mandated documents meant no provision was available for geographers to update their existing syllabus.

To compound matters the New Zealand Qualifications Authority (NZQA) undertook a review of the senior school qualification structure during the late 1990s. The outcome was one single qualification for every senior secondary student called the National Certificate of Education. The Geography Achievement Standard Writing Group, influenced by the Position Paper: Future directions of geography and assessment for 2001 and beyond (1999) commissioned by New Zealand Board of Geography Teachers, took the writing of the achievement standards as an opportunity to update the 1990 Geography Syllabus via the backdoor. An unfortunate consequence of this back door curriculum development was the geography standards becoming perceived as the de facto curriculum resulting in assessment becoming a dominant force in classroom practice over the last decade (Fastier, 2011).

Combined, the documents listed below are perceived as having a critical role to play in transforming geography into a key subject for 21st Century learners.

- New Zealand Curriculum (NZC) (MoE, 2007)
- Realigned Geography Standards (New Zealand Qualifications Authority, [NZQA], 2013)
- Senior Secondary Teaching and Learning Guides for Geography (Ministry of Education, 2013)

The first two documents are being implemented progressively at the senior school level (Years 11-13) with the aid of the third. The process commenced with Year 11 Geography in January 2011 and the targeted completion date for all schools being December 2014. Identifying the new directions, opportunities, challenges, enabling factors and teacher perceptions associated with the curriculum implementation process are the focus of this paper.

## Methodology

Document analysis of the critical documents referred to above and a related literature review are used to help identify the new directions, approaches, opportunities and challenges associated with the implementation of the New Zealand Curriculum. To appreciate how geography teachers' perceived the curriculum change process, a written survey was distributed to thirty practicing geography teachers in the Canterbury Region immediately prior to the NZC implementation date at Year 11. Additional data, for

comparative purposes, was gathered using semi-structured interviews with eight Heads of Geography Departments (HoDs) during the first year of implementation. The departments selected were representative of a cross section of schools. The data gathered has helped establish a base line for a longitudinal research project looking at the impacts of curriculum change over a five year period. Data analysis for both the survey and interviews involved coding responses into categories regarding teachers' perceptions of the NZC, readiness for implementation, approaches taken, enabling factors and obstacles faced. It should be noted that major earthquakes experienced in Christchurch have impacted on follow-up data gathering milestones.

## Findings

### The New Zealand Curriculum

The New Zealand Curriculum is a future focused, tightly worded, slimmed down document that incorporates the text of eight Essential Learning Areas into one single booklet. As a framework NZC provides a sense of national direction for future decision making (Hipkins, 2010). Structurally it is divided into two sections. The first half is generic in nature and outlines the Vision, Principles, Values and Key Competencies. These are strategically placed at the front of the curriculum and determine the framework for the eight Essential Learning Areas at the back. The focus is on what makes a successful learner, and what needs to be done differently to prepare students for the 21st Century. The back half of the NZC contains a one to two page 'essence' statement for each of the eight Essential Learning Areas along with generic sections on effective pedagogy, assessment and curriculum design.

The NZC is permissive in nature in the sense that it gives teachers the freedom and authority to decide the shape the curriculum takes in the classroom. Schools and teachers are given the power and responsibility to design learning that is responsive to perceived student needs, within the broad conceptual curriculum guidelines (Abbiss, 2011). The notion of developing a "local curriculum" within a national framework and having teachers assume the role of curriculum developers is not unique. Close parallels for example can be found within England's geography curriculum at the Key Stage 3 level (Rawling, 2008; Kinder, 2008).

School geography is found within the Social Science Learning Area under the strand Place and Environment, one of the four strands around which learning is structured. This conceptual strand representing Geography at the senior levels states:

"Students learn about how people perceive, represent, interpret and interact with places and environments. They come to understand the relationships that exist between people and the environment." (MoE, 2007).

Two geography achievement objectives are provided at each year level (refer to Figure 1). These achievement objectives are the focus for program planning and developing conceptual understanding.

| Level | Achievement Objectives |
|---|---|
| 6 | -Understand that the natural and cultural environments have particular characteristics and how environments are shaped by processes that create spatial patterns.<br>-Understand how people interact with natural and cultural environments and that this interaction has consequences. |
| 7 | -Understand how the processes that shape natural and cultural environments change over time, vary in scale and from place to place and create spatial patterns.<br>-Understand how people's perceptions of and interactions with natural and cultural environments differ and have changed over time. |
| 8 | - Understand how the interacting processes that shape natural and cultural environments occur at different rates and on different scales, and create spatial variations.<br>- Understand how people's diverse values and perceptions influence the environment, social and economic decisions and responses that they make. |

**Figure 1.**
*Geography Achievement Objectives (NZC, 2007).*

Developing a school based geography curriculum derived from a one page Social Science Learning Area Statement and two achievement objectives at each year level is proving challenging for geography teachers. Implementation is supported by the Senior Secondary Teaching and Learning Guides - Geography (MoE, 2013). It includes the rational for studying geography, the key geographic concepts, curriculum design considerations and relevant resource materials. Additional support, particularly during the initial implementation stages is provided by The New Zealand Board of Geography Teachers (NZBOGT) quarterly publication 'The Network', plus professional development support days offered by the Ministry of Education. Geography teachers and teacher educators are banking on the new directions offered by the NZC, to help geography regain its former status as an engaging, innovative, senior school subject with a secure future. They accept that change is essential (Fastier, 2010).

### Ownership of the Curriculum

Unlike the Syllabus, NZC provides a very broad, general framework. It is non-prescriptive and particular content and contexts are not directly specified. This does not imply NZC is anti-content or content free but emphasizes that contexts and content can be selected by teachers. As Arcus (2007) points out, the NZC fosters a local school based curriculum within a national framework. It puts the student at the center of the curriculum, and encourages each school to be responsive to their student and community needs. Differences are expected between what each school teaches. Such ownership of the curriculum-decision making process provides geography teachers with the flexibility and opportunities to develop programs significant to the lives of the students in their schools. Teachers need to critically review their current geography programs and listen to the student voice if they are to take full advantage of the curriculum design opportunities on offer.

The challenges involved with curriculum development are not to be underestimated. Rawling (2008) points out Curriculum development differs considerably from curriculum planning. The process of curriculum planning suggests organizing and sorting out material often already provided, as with the previous Geography Syllabus, whereas curriculum development involves making the curriculum to begin with. New Zealand teachers have had little or no previous experience as curriculum makers and designing school-based geography programs represents a significant change for them. The previous syllabus allowed some degree of flexibility in terms of schools choosing school-selected studies, but a high percentage of the teaching and learning programs were based around prescriptive elements. Roberts (2007) states that while curriculum development process can be interesting and exciting, the process can take a long time for teachers to learn and ongoing support is necessary. International research by Fullan (2008) and Levin (2008) make clear that curriculum implementation is typically difficult especially when the degree of change is substantial.

**Conceptual Understanding Approach**

A conceptual understanding approach is another significant curriculum change process fostered by NZC. The key concepts are derived from the two geography Achievement Objectives at each level and from the Social Science Essential Learning Area statement. The key concepts outlined in the Teaching and Learning Guides for Geography (Ministry of Education, 2013) are: Environments, Perspectives, Processes, Patterns, Interaction, and Sustainability. While there is some cross over with the important geographic ideas found in the Syllabus, they are not identical and the list provided is not intended to be exhaustive. Concepts involving a spatial component are considered to be geographic. Developing conceptual understanding is considered to help students organize information in their minds enabling them to develop a framework to better view the world. Adopting a conceptual approach differs greatly from teaching prescribed common topics with pre-set focusing questions.

In terms of planning, concepts sit above content and contexts and form the underlying structure of a program. The challenge for the geography teachers involves rethinking how they plan programs and how they integrate contexts and content in their programs. Planning should involve identifying the key conceptual understanding desired first, followed by thinking creatively of the kinds of teaching and learning experiences needed for students to gain that understanding. Selection of the relevant context(s) to assist students reach a deeper conceptual understanding should then follow. For students to develop their understanding of key concepts it is important to select only one or two and to explore them over time, not just in one lesson or one activity (Kinder and Widdowson, 2008). Rawling (2008) emphasizes that concepts should not imply a set selection of content, nor simply lists of definitions to be directly taught. Geographical skills and knowledge continue to retain importance but should be supportive of developing an understanding of the key concepts. This requires a new approach to the way geography teachers plan and also a change to the structure of existing templates.

An advantage of focusing on conceptual understanding is that concepts remain relevant and can be applied to different contexts through time, whereas content can become dated and some skills superseded. Gardner (2007) highlights shortfalls associated with using a prescribed common content approach. These include an

overemphasis on content coverage especially if assessed externally, an over reliance on text books, unresponsiveness to local needs and topical issues, and concepts and skills not always being made explicit. Examples of this have been evident in New Zealand geography classrooms. With less emphasis on content coverage, content can be used to serve rather than drive geography programs. Teachers need to think carefully about their rationale for selecting contexts to ensure they help deepen conceptual understanding. Although representing a new challenge, the conceptual understanding approach is perceived as a positive change.

**Assessment**

Achievement standards based assessment is used for national qualifications at the senior school level in New Zealand. The standards are credit bearing and contribute towards the National Certificate of Educational Achievement (NCEA) offered at each year level. The achievement standards indicate the quality of achievement that is expected and also provides the basis for judgments about the quality of students' work. Four standards are recognized: Non-Achieved, Achieved, Achieved with Merit and Achieved with Excellence.

With NZC being less prescriptive realignment of the existing geography achievement standards has been necessary. The themed external standards have been made less restrictive than their forerunners, more open in scope and conceptual in nature. The number of externally assessed standards offered has been reduced from four to three so the set examination time permitted does not become an inhibiting factor. The emphasis in the external standards is now focused on 'demonstrating understanding' as opposed to using lower level 'describing' or 'examining' which encourages knowledge recall. Achievement at the 'excellent level' typically involves demonstrating conceptual understanding, insight, full explanations and use of integrated supporting evidence. The reduced context setting requirements of the external standards has helped free up time to explore additional non assessed school selected studies of interest to the students. The internal achievement standards continue to provide a wide range of choice, allowing for inquiry learning outside of the classroom, local issues of topicality, global studies and applying spatial analysis to solve a geographic problem. The total number of credits on offer has increased from 24 to 28. Appendix 1 Geography Achievement Matrix 2013 (MoE, 2012) provides the titles and credit values of the achievement standards.

Assessment is an important component of curriculum design but it should not be the driving force. The challenge for geography teachers is to avoid viewing the Geography Achievement Matrix as a de-facto prescription. Programs of work should be planned with student needs and interests in mind first, followed by the selection of assessment standards, not vice versa. The matrix should be viewed as 'menu' offering standards for selection appropriate to school, student and program needs. As Baldwin (2012) states curriculum designers should choose appropriate assessment that fits seamlessly into the programs of learning and teaching. It is not expected that students attempt all credits. Another challenge relating to the internally assessed standards involves teachers being encouraged to move away from assessing them under end of topic, formal pen and paper test conditions. The new standards are accompanied by 'conditions of assessment' outlining approaches that can be used to accumulate evidence produced in class over a period of time e.g. power point presentations, role plays, blogs, posters, models, story

books (Fastier, 2009). This reinforces the notion that internal assessment should be integrated with learning and not an adjunct to it.

### Effective Pedagogy

The NZC highlights effective pedagogy as an important consideration in program design. Approaches to support learning and teaching include: creating a supportive learning environment, facilitating shared learning, encouraging reflective thought and action, providing sufficient opportunities to learn, enhancing relevance of new learning, making connections to prior learning and teaching as social inquiry. The Social Science Learning Area also has its own document titled 'Effective Pedagogy in Social Science / Tikanga a Iwi Best Evidence Synthesis Iteration' (Aitken and Sinnema 2008). This synthesis identifies four mechanisms by which teacher action can promote learning. These are: making connections to student lives, aligning experiences to important outcomes, building and sustaining a learning community and designing experiences that interest students.

The big challenge here is restructuring the roles and relationships between learners and teachers to best support learning. This involves rethinking how students and teachers can work together to build an effective learning environment. The cultural shift needed in terms of the new skills to be developed. and the way most teachers think, make this change difficult at least in the short term (Sinnema, 2011).

## Teacher Perceptions

### NZC Opportunities

Many of the teacher responses were expected. Survey participants perceived the 1990 Geography Syllabus as being prescriptive and out of date. In contrast, the NZC was perceived as being broader, more open and less restrictive. The three most common descriptors about the opportunities that the 2007 NZC offered teaching and learning programs were 'increased flexibility and choice', 'renewed schemes of work' and the 'incorporation of relevant, exciting, high interest studies'. Respondents also thought the NZC would place increased emphasis on concepts, values, key competencies, student centered learning and local community based research. In terms of receptivity and regard this is supported by national research findings where teachers in general viewed the NZC positively, being an improvement on previous curriculums, relevant for twenty first century learners, and highly regarded in terms of flexible school based design aspects (Sinnema, 2011).

### Key Drivers

The response to the question 'What do you consider to be the key driver(s) for change in Geography over the next three years?' was somewhat surprising. Almost fifty percent of the participants ranked the realigned achievement standards first. Several added a rider to the affect that in reality the NZC should be first, but this was not the case in practice. Although NZC was often ranked in second place only three participants ranked it first. The availability of the Teaching and Learning Guidelines, student interests, new e-learning technology and workload issues were other important drivers mentioned.

This 'unexpected response' reflects the assessment curriculum inertia that has grown in geography since the updating of the aging Syllabus (via assessment standards)

attempted at the end of the 1990s. An unintended consequence of this backdoor curriculum change was a negative effect where a positive effect was desired. The potency of high stakes assessment was reinforced when analyzing the 2010 Year 11 geography programs provided by the case study schools. Six of the eight programs were in reality simply a list of the assessment standards being offered during the year. Three survey respondents referred to the challenge of deciding where the 'power in curriculum decision making lay, with NCEA assessment or the NZC?' This tension existing between the high stakes standards-based NCEA assessment and the NZC is concerning. Data gathered suggests the NZC curriculum decision making in geography could at least initially still be dominated by assessment. This is at odds with the new NZC direction, that curriculum development should start with student and community needs and interests being identified first. Educational polices should be seen to reinforce each other not compete (Cowen & Hopkins et al, 2009).

### Approaches

In terms of approaches to implementing NZC the survey respondent's intentions varied considerably with three of the respondents deciding to stay with the current structure and making only the essential changes required. Seven were prepared to undertaking a complete review of their present course structure and content, and draw on new ideas, concepts and resources. The majority fitted somewhere in-between. The entry points differed depending on factors such as department size, level of curriculum expertise, teaching experience and attitudes to change. Making a start, however, is the crucial point. As Cowie & Hipkins et al (2009) point out curriculum development is a nonlinear process and curriculum implementation is best thought of as an iterative rather than a linear process.

### Obstacles

Factors hindering implementation of the NZC varied. Lack of time was cited unanimously. Most respondents noted the lack of geography professional development opportunities, having no geography-specific advisors in the region, and late resourcing and poor communication levels from the two central agencies (the MoE and NZQA) as factors believed to hinder progress. Examples cited included "the final Geography Teaching Learning Guide is not yet available and the draft version is hard to access", "ongoing tinkering with some Year 11 geography-aligned achievement standards" and "the development of student exemplar materials is still being a work in progress." Such factors created uncertainty in terms of forward planning and eroded the respondents overall confidence levels. Combined, these factors created negative curriculum momentum, slowing down the general uptake of curriculum ownership by the teachers. Nationally, across subject areas, research suggests the factors that most strongly influence the degree of change practice is firstly the respondent's confidence and secondly their perception of the quality of support received, both internally and externally (Sinnema, 2011).

The implementation challenge the interview and survey participants referred to as the most difficult was bringing together all the documentation to develop a teaching and learning program. With less structure and guidelines to work with, knowing how to integrate the front half and back half of the NZC, the aligned standards, student needs and effective pedagogy was perceived as a major juggling act. Many of the geography

departments felt unsure how to change their practice. The teachers wanted practical, quick-fix templates provided to achieve this, yet a deeper overall understanding is needed. Of interest, during initial teacher survey (conducted in term three 2010), paradigm shifts such as developing a 'conceptual understanding approach' and 'school based curriculum development' were rarely mentioned as challenges, begging the question whether or not the teachers were cognizant with the challenges and rethinking such shifts in direction required.

### Enabling Factors

In contrast the eight HoDs interviewed later in term 4 2010, indicated that the Professional Development day they attended in October was invaluable for getting their NZC curriculum implementation process underway. The professional development clarified implementation ideas, fostered collegiality, and gave them the necessary confidence to make a start. The quotes below indicate the benefits.

> *"Hearing from other teachers and the people involved with the change process at the deepest level and who could explain it to us if we were struggling helped heaps… the exemplar, templates and bits and pieces put up on line were really useful too."*

> *"At the Christchurch Geography Teacher Association day many of us established links with other schools … we set up a cluster group with schools of similar demographics to us, to network and share resources."*

Relevant professional development fostering the sharing of resources, discussion and collaboration with different schools appears to contribute to positive curriculum change that fosters teacher uptake and ownership of the curriculum. At a 2012 Geography Teacher Association professional development day held in Christchurch a 'Lead Teacher' in curriculum development was able to provide a worked example of a Year 11 (Level 6) geography program highlighting the best NZC practices and considerations in action, and report on the many benefits it had for her students. This was a major turning point for many in attendance who left feeling energized to put their new learning into action. A recent article published in the Geo-Ed section of the New Zealander Geographer by Baldwin (2012) containing a worked example of part a Year 13 (Level 8) geography teaching and learning program highlighting best NZC practices and the range of opportunities utilized to develop exciting, engaging and relevant geography programs is likely to have created a similar uptake.

## Discussion and Conclusion

A curriculum issue to emerge in relation to NZC geography implementation is the potency of assessment discourse and the disjunction between state rhetoric and classroom reality. While most teachers recognized the flexibility and choice offered by the NZC, nearly half the teachers surveyed initially thought assessment should remain as a key driver in the curriculum decision-making process. If continuing to use assessment as a starting point to program design, it could be argued these teachers would be acting as 'blockers' to the innovative and engaging geography programs they desired. In order to move forward professional development appears to hold the key. Engaging teachers from different schools in discussion, networking and collaboratively

sharing ideas appears, from the sample taken, to foster positive curriculum change and build teacher confidence and receptiveness. Lead schools are now starting to emerge with exemplars of effective NZC-based geography programs in place that are engaging students and growing geography numbers. Hearing the results, and more importantly seeing what an effective teaching and learning program looks like, is creating a positive momentum.

The permissiveness of the NZC is regarded as strength by policy makers and educators, its flexibility enabling learning to be shaped in ways that are meaningful for 21st century learners. The challenges involved however with such curriculum change should not be underestimated. The pedagogical shifts signaled can be perceived as both discomforting and exciting for teachers depending on their notions regarding what teaching and learning is and should be about, and implementation progress will inevitably vary between schools dependent on the degree that teachers embrace or resist the changes on offer (Abbiss, 2011).

This paper is intended to provide initial understanding of the recent directions, challenges and opportunities offered by the NZC for school based geography in New Zealand. It is offered as a contribution to the ongoing discussion and debate around national curriculum developments in geography and as a reference for comparative curriculum studies.

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### Biographical statements

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**Appendix 1: Geography Achievement Standard Matrix 2013**

| | Level 1 | Level 2 | Level 3 |
|---|---|---|---|
| **Place, processes, patterns and perspectives** | AS91007 **1.1**<br>Demonstrate geographic understanding of environments that have been shaped by extreme natural event(s).<br>4 credits External | AS91240 **2.1**<br>Demonstrate geographic understanding of a large natural environment.<br>4 credits External | AS91426 **3.1**<br>Demonstrate understanding of how interacting natural processes shape a New Zealand geographic environment.<br>4 credits External |
| | AS91008 **1.2**<br>Demonstrate geographic understanding of population concepts.<br>4 credits External | AS91241 **2.2**<br>Demonstrate geographic understanding of an urban pattern.<br>3 credits Internal | AS91427 **3.2**<br>Demonstrate understanding of how a cultural process shapes geographic environment(s).<br>4 credits External |
| | AS91009 **1.3**<br>Demonstrate geographic understanding of the sustainable use of an environment.<br>3 credits Internal | AS91242 **2.3**<br>Demonstrate geographic understanding of differences in development.<br>4 credits External | AS91428 **3.3**<br>Analyse a significant contemporary event from a geographic perspective.<br>3 credits Internal |
| **Applying Geographic Skills and Methodology** | AS91010 **1.4**<br>Apply concepts and basic geographic skills to demonstrate understanding of a given environment.<br>4 credits External | AS91243 **2.4**<br>Apply geography concepts and skills to demonstrate understanding of a given environment.<br>4 credits External | AS91429 **3.4**<br>Demonstrate understanding of a given environment(s) through selection and application of geographic concepts and skills.<br>4 credits External |
| | AS91011 **1.5**<br>Conduct geographic research, with direction.<br>4 credits Internal | AS91244 **2.5**<br>Conduct geographic research with guidance.<br>5 credits Internal | AS91430 **3.5**<br>Conduct geographic research with consultation.<br>5 credits Internal |
| **Geographic Issues** | AS91012 **1.6**<br>Describe aspects of a contemporary New Zealand geographic issue.<br>3 credits Internal | AS91245 **2.6**<br>Explain aspects of a contemporary New Zealand geographic issue.<br>3 credits Internal | AS91431 **3.6**<br>Analyse aspects of a contemporary geographic issue.<br>3 credits Internal |
| **Global Studies** | AS91013 **1.7**<br>Describe aspects of a geographic topic at a global scale.<br>3 credits Internal | AS91246 **2.7**<br>Explain aspects of a geographic topic at a global scale.<br>3 credits Internal | AS91432 **3.7**<br>Analyse aspects of a geographic topic at a global scale.<br>3 credits Internal |
| **Spatial Analysis** | AS91014 **1.8**<br>Apply spatial analysis, with direction, to solve a geographic problem.<br>3 credits Internal | AS91247 **2.8**<br>Apply spatial analysis, with guidance, to solve a geographic problem.<br>3 credits Internal | AS91433 **3.8**<br>Apply spatial analysis, with consultation, to solve a geographic problem.<br>3 credits Internal |
| **Total** | **External 12 credits<br>Internal 16 credits<br>Total 28 credits** | **External 12 credits<br>Internal 17 credit<br>Total 29 credits** | **External 12 credits<br>Internal 17 credits<br>Total 29 credits** |

Retrieved March 2013 from http://ncea.tki.org.nz/Resources-for-aligned-standards/Social-sciences/Geography