

International Capabilities

A summary report for schools: drawn from research and analysis by the Ministry of Education and an explorative study completed by the New Zealand Council for Educational Research into international capabilities for students in New Zealand schools.

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Ministry of Education

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1 Introduction

...international capabilities are the knowledge, skills, attitudes, dispositions, and values that make up the Key Competencies that enable people to live, work, and learn across national and cultural boundaries... International capabilities are how the New Zealand Curriculum (NZC) Key Competencies look when young people apply them in intercultural and international contexts. That is, international capabilities are the knowledge, skills, attitudes, dispositions, and values that make up the Key Competencies that enable people to live, work, and learn across national and cultural boundaries.

Some students will already have developed international capabilities, due to intercultural and/or international experiences growing up. Some students will have developed or will be developing international capabilities through cross-cultural interactions in schools with diverse student and/or staff populations. All students can further develop and apply their international capabilities through a range of learning opportunities at school.

Contexts in which young people may apply their international capabilities when they have finished their schooling include:

- Engaging cross-culturally, for example, in work or study environments
- Being an active and engaged 'change agent' in global contexts, such as participating in global efforts to protect the environment or change social outcomes in developing (or, indeed, developed) countries
- Making choices about post-school learning and work in a global context.

The purpose of this report is to introduce the idea of international capabilities as a learning outcome of classroom and other learning opportunities school students may have within the framework of the NZC. The report communicates recent research findings about international capabilities completed for the Ministry of Education by the New Zealand Council for Educational Research (NZCER). It defines international capabilities, asks why they are important for students, suggests learning opportunities in which students can develop and use them, and discusses approaches to measuring students' international capabilities. Measuring students' international capabilities would allow us to gauge how we are doing in providing students with international capability learning opportunities.

Providing young people opportunities to develop or build on their international capabilities contributes to achieving objectives and goals under the Business Growth Agenda and Leadership Statement for International Education.

It also outlines how international capabilities fit with broader government goals, including those raised in the New Zealand government's Business Growth Agenda and *Leadership Statement for International Education*.

The Business Growth Agenda is an ambitious programme of work that will support New Zealand businesses to grow, in order to create jobs and improve New Zealanders' standard of living. The Agenda is about delivering innovative initiatives and policy reforms that will help create a more productive and competitive economy.

It focuses on six key 'ingredients' needed to achieve the objectives above: export markets, innovation, infrastructure, skilled and safe workplaces, natural resources, and capital. Each of these has its own programme of work. Included in 'building export markets' is the need to help businesses internationalise, making a place for a discussion about international capability.

The Leadership Statement for International Education was launched by the Government in September 2011 and proposes a set of goals and objectives to increase the value of international education to New Zealand.² The Leadership Statement's third goal is that "New Zealand makes the best possible use of its international education expertise to build skills in our work force, to grow research capability and to foster wider economic connections between New Zealand and overseas firms". The third objective within that goal, to "increase New Zealanders' skills and knowledge to operate effectively across cultures" explicitly makes a case for international capability development.

Providing young people with opportunities to develop or build on their international capabilities contributes to achieving objectives and goals under the Business Growth Agenda and *Leadership Statement for International Education*. Learning about and experiencing international contexts can build international capabilities.

¹ http://www.mbie.govt.nz/what-we-do/business-growth-agenda

² http://www.minedu.govt.nz/NZEducation/EducationPolicies/InternationalEducation/PolicyAndStrategy/LeadershipStmt.aspx

What are international capabilities? What does it mean to be 'internationally capable'?

International capabilities can be developed and applied by young people right now, and in myriad different situations over their lifetime. International capabilities are the aspects of the Key Competencies that young people will need to draw on as they enter and navigate through different national and cultural contexts. This may be in the course of their schooling or tertiary education, their employment, or their interests and involvements outside of education and employment in the wider community. International capabilities can be developed and used in New Zealand and overseas contexts, as well as in the virtual international space.

Analytical work by the Ministry has provided a working definition of what we previously called 'international knowledge, skills and attitudes', suggested the learning opportunities in which students might develop and apply them, and some information about the benefit they can bring. Consideration of national assessment instruments including PISA and the International Civics and Citizenship Study suggested, however, that there was no measurement of these international knowledge, skills and attitudes underway that could indicate New Zealand students' understanding and attainment of them. This kind of information could inform what types of learning opportunities might need to be more readily provided and would provide a baseline against which to compare future results.

The Ministry commissioned NZCER in 2013 to build on previous Ministry research and analysis to:

- Consider how international knowledge, skills and attitudes fit with the NZC Key Competencies
- Consider how international knowledge, skills and attitudes might look in practice at the senior secondary level
- Produce an option or options for effectively measuring Year 12 and
 13 students' international knowledge, skills and attitudes.

NZCER has recommended adoption of the term *international capabilities* which more accurately reflects the relationship of 'international knowledge, skills and attitudes' to the Key Competencies, which are capabilities for living and lifelong learning. As the expression of the Key Competencies in international and intercultural contexts, international capabilities include knowledge, skills, attitudes and values. International capabilities work together and influence each other, just as the Key Competencies do in domestic, non-intercultural contexts. International capabilities can be developed and applied by young people right now, and in myriad different situations over their lifetime.

...we all experience our lives through a number of cultural and personal 'lenses', and that comprehending and accepting others' needs and behaviours rests as much on understanding ourselves as it does on understanding them. A number of other terms are used in place of international capabilities. 'Global competence', 'international-mindedness', and 'cross-cultural competence' are some of these. In the business environment, they are often referred to as part of a set of 'soft skills'.

Being internationally capable includes not only the awareness of other cultures, but also the awareness of one's own culture as being particular and specific. It involves the understanding that we all experience our lives through a number of cultural and personal 'lenses', and that comprehending and accepting others' needs and behaviours rests as much on understanding ourselves as it does on understanding them.

As part of their project for the Ministry, NZCER organised workshops with samples of secondary school students, teachers, and people from the community, business, and government, to explore their understandings of international capabilities.

Students

Students participating in NZCER's student workshops were unclear of the meaning of the term 'global citizen', a stand-in term used in the students workshop instead of the newer term 'international capabilities'. However, in response to some guiding questions for the workshops, they offered interpretations of international capabilities that included:

- connectedness (the need to know what's going on in the world and staying up to date)
- being 'internationally aware'
- being outwards-focussed
- curious
- · being interested in other people and their culture
- understanding or at least knowing something about other cultures,
- knowing that what is normal in one culture may not be normal in another.

Teachers

NZCER's workshop with teachers elicited a range of conceptualisations of international capabilities and different approaches to providing international capability learning opportunities. Examples included:

- framing international capabilities, or a group of these, as 'cultural intelligence' in a Business Studies context
- supporting students to 'understand how the world works' and examining issues from multiple cultural, social and political perspectives (in a Social Studies course)

The 'mixed expertise' group characterised international capabilities as including: 'knowing the unspoken rules' in different cultures and the cultural roots of these ways of doing things...

- international capabilities as 'international-mindedness' (how international capabilities are positioned in the International Baccalaureate curriculum), and
- as 'connectedness' across international and domestic intercultural boundaries.

Teachers noted also that because of the cultural diversification of student (and staff) populations, teachers themselves needed to be conscious of cultural differences, have awareness of their own cultural values and backgrounds and those of their students, and be able to communicate effectively across cultures.

A 'mixed expertise' group

In this workshop, NZCER brought together representatives from the tertiary education sector, staff involved with the development of New Zealand-Asia business relationships, young people who had developed their own social or commercial enterprises, and representatives of the international development and volunteering sector.

The 'mixed expertise' group characterised international capabilities as including:

- 'knowing the unspoken rules' in different cultures and the cultural roots of these ways of doing things
- having the personal resources to cope with challenges and changes of cultural context with a degree of comfort
- · allowing 'the world to teach you'
- being able to take a balanced view to new cultural situations and to empathise, and
- being conscious and aware of one's own cultural beliefs, habits and identity.

Why are international capabilities important?

An internationally capable person is more likely to be open to intercultural interactions within their extended family, neighbourhood, social groupings, and larger community. They have a better sense of their own identity culture, and language, which brings confidence and a sense of place and belonging.

International capabilities are socially and economically important.

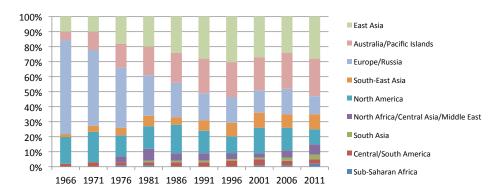
They can help New Zealanders achieve success in a globalised world – whether this takes place physically in another country, or in the online space – and to make New Zealand a cohesive and attractive place for international migrants and students.

International capabilities allow young people to be positive contributors and leaders in culturally diverse social settings, and to initiate and contribute to efforts to solve social, environmental, and other global issues. They enable development of self-awareness, awareness of other worldviews, and open-mindedness.

An internationally capable person is more likely to be open to intercultural interactions within their extended family, neighbourhood, social groupings, and larger community. They have a better sense of their own identity, culture, and language, which brings confidence and a sense of place and belonging. Travelling overseas, they will have richer experiences and may be better ambassadors for their own country and culture.

Young people in New Zealand also need international competence so they can work effectively in culturally diverse New Zealand workplaces, particularly those that export; perform jobs in overseas businesses; and do business in the virtual space with international collaborators and customers. As noted in the *Leadership Statement for International Education*, "our economic future will be determined by interactions with the rest of the world".

Research suggests that employees lacking international competence contribute to their firms missing business opportunities... Changes to migration, international business, information flows, and international economic power have affected New Zealand's trade focus. As the destinations of New Zealand exports change, greater numbers of New Zealanders capable of effectively operating in and across other cultures, especially non-English speaking and non-European ones, are required. The following graph shows a significant decline in the proportion of New Zealand exports to Europe and a rise in exports to Asia:



Research suggests that employees lacking international competence contribute to their firms missing business opportunities, failing to deliver on supply contracts or meeting client expectations, having insufficient credibility with foreign counterparts, finding business negotiations more difficult than expected, misunderstanding the business environment and culture, and failing to identify important shifts in trade policy and regulations of other countries.

New Zealand workplaces are also increasingly internationalised, and will become more so in the future. International capabilities can help young New Zealanders to adapt to working with people from other cultures. An internationally capable New Zealand population would also more readily welcome, interact and form positive connections with international students, migrants, and tourists, encourage them to stay or settle, and help them to enjoy their experience.

In the education sector, a focus on international capabilities can help teachers and educators:

- clarify their own identity, culture, and language
- value other staff members' identity, culture, and language
- develop responsiveness to the cultural differences amongst students
- enrich teachers' own knowledge of the world, and
- open conversations about cultural diversity in New Zealand schools and about international education.

International capabilities in other education systems

...we are not alone in considering how we can integrate international capability development into the learning of all of our students. International capabilities have been researched and included in education policy in education systems overseas for a number of years. Here are a few examples that show that we are not alone in considering how we can integrate international capability development into the learning of all of our students.

Australia has listed 'intercultural understanding' as one of the seven general capabilities in its curriculum, aimed at helping students to successfully live and work in the 21st century.

The U.S. Department of Education's strategy for international education proposes three interrelated objectives: to develop students' global competencies; learn from other countries through international engagement; and engage in education diplomacy.

Scotland's *Curriculum for Excellence* states that as 'responsible citizens', students should have 'respect for others', 'develop knowledge of the world and Scotland's place in it', and 'understand different cultures and beliefs'.

The Finnish National Board of Education's *As a Global Citizen in Finland* defines the competencies of global citizenship as intercultural competence, living sustainably, civic competence, global responsibility and development partnership, economic competence, and global citizens' ethics and identity.

Singapore's Desired Outcomes of Education include the ability to 'collaborate across cultures', 'think critically and communicate persuasively', and 'understand Singapore in relation to the world'.

Where do international capabilities fit in the New Zealand Curriculum?

...international capabilities fit with conversations about the teaching and learning of the Key Competencies. International capabilities are how the NZC Key Competencies look when young people apply them in intercultural and international contexts, therefore international capabilities fit with conversations about the teaching and learning of the Key Competencies.

A springboard for discussions about international capabilities is also provided in several other places in the NZC:

- In the Vision: our young people as 'international citizens'
- In the Principles, or foundations for curriculum decision-making, which include 'cultural diversity' and 'future focus', where one of these future focuses is learning about globalisation; and
- In the Values: students should learn 'Innovation, inquiry and curiosity'.

Before holding their workshops with teachers, students and a 'mixed expertise' group, NZCER considered three hypothetical international and intercultural contexts that senior secondary students and graduates might experience. These were engaging cross-culturally, being an active and engaged "change agent" in global contexts, and making post-school learning and work choices in a global context.

To stimulate workshop discussions about school-based opportunities to develop students' international capabilities, they mapped out how each of the Key Competencies and their self-reflective dimensions might look in these three hypothetical contexts. The table below presents some of these possibilities.

Кеу	International capabilities			
Competency	Engaging cross-culturally	Being an active and engaged 'change agent' in global contexts	Making post-school learning and work choices in a global context	
Thinking	Critical thinking during and about cross-cultural interactions	Curiosity: taking an interest in the world and in other people's lives Systems thinking: being able to tease out and make connections between multiple dimensions of both local and global issues Awareness of possibility of opposing interests Deliberately remaining openminded while all dimensions of a problem are considered	Ability to imagine multiple and different possible futures for oneself	
Using language, symbols and texts		Ability to use another language Ability to be considered and deliberate in choice of communication technology and use of that technology (e.g. tone, style, content)	Being open to new learning discourses and extending those already begun during school (e.g. other languages; subject-specific ways of thinking, speaking and representing knowledge)	
Managing self	Self-awareness: of one's own culture and its points of difference to other cultures Being open-minded: not judging others by their differences to self Being tolerant but able to hold own values as appropriate Awareness of own cultural biases	Acting with due carefulness and self-control Awareness of ethical dimensions of actions and communications	Taking responsibility for own choices Being proactive in furthering existing opportunities, developing new ones Understanding and constructively positioning oneself in relation to a team which may be culturally and linguistically diverse	
Relating to others	Ability to 'walk in other shoes' Willingness to actively seek points of connection and develop communication based on these Ability to work well with others in a team Ability to access a repertoire of possible responses and purposefully	Knowing how to connect with others (how, when, with whom) in order to advance a project or plan or to seek input, guidance or critique Looking for points of connection with others Checking for meaning made by group members	Seeking out opportunities to work with and get to know diverse others (not just sticking with 'people like me') Making the most of work and/or learning opportunities to learn from and with others Awareness of impact of own actions on others, in learning and work environments	
Participating and contributing		If a follower: action competencies to carry out plans devised by others If a leader: awareness of possibilities for action and being ready, willing and able to take action Entrepreneurial skills		

What learning opportunities help develop international capabilities?

...students taking part in the students' workshops thought that their schools supported their international capability development in ways that included: creating a school environment that welcomes and includes students from a wide variety of cultures...

There are many different sorts of learning opportunities through which students in New Zealand schools can develop and use their international capabilities. 'International learning' is already taking place both within the classroom, across multiple curriculum Learning Areas and subjects, and in the course of co- or extra-curricular activities.

Students

When speaking with NZCER, students taking part in the students workshops thought that their schools supported their international capability development in ways that included:

- creating a school environment that welcomes and includes students from a wide variety of cultures, through culture-related events such as festivals
- having a culturally-rich school environment where many different languages are spoken
- offering teacher-student mentoring, where teacher-mentors reflect the cultural diversity of the student population.

Teachers

NZCER asked school staff in their teachers workshop what learning opportunities they offered that might support students' development of international capabilities. These included:

- a focus on learning languages, and related to this, having a schoolwide focus on recognising cultural and linguistic diversity
- offering overseas trips built into learning across multiple subject areas
- service or volunteering programmes, with an international aspect or component
- hosting visiting international students and sister-school programmes
- cultural fairs and festivals within the school (based on an aspect of visible culture e.g. food).

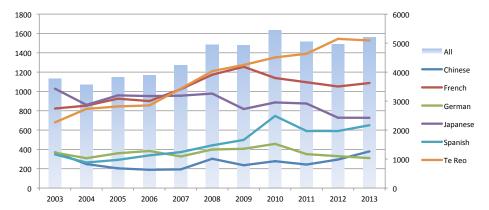
We have a range of information about some of these learning opportunities: insights into why they may contribute to international capability development, resources that are currently available to schools to help embed a new learning opportunity, and data on the uptake by schools. While good data showing a causal link between the learning opportunities described below and international capabilities is rarely available, they seem to intuitively make sense, and it would be positive to see more teachers and more schools coming on board with them.

Global contexts can be integrated into any Learning Area or subject discipline.

Learning Languages

Global contexts can be integrated into any Learning Area or subject discipline. However, learning a second or foreign language is considered by some to be one of the most effective ways for students to develop cross-cultural communicative competence and an awareness of other cultures and worldviews. Although studying about the world in one's native language is meaningful, it does not provide the possibility of experiencing seeing, thinking, and feeling as people who speak other languages do. Gaining facility in another language allows a person to subtly and emotionally relate to people in the country or countries where that language is spoken.

Unfortunately, many students in New Zealand schools do not have the opportunity to study a second or foreign language as regularly and for the length time needed to progress to senior secondary and university level study and achieve a satisfying and useful level of proficiency. The following graph, which draws on July roll return data, shows the low numbers of Year 13 enrolments in the five main international languages taught in New Zealand schools, and in learning te reo Māori as a separate subject, from 2003-2013:



Students can be encouraged to apply for opportunities to practice their target language in authentic settings, such as Language Immersion Awards (in the case of Pasifika and international languages), which gives students the chance to study their chosen language in a country where it's spoken.

Bringing diverse cultural and international perspectives into classroom discussions, by drawing on the cultural diversity of the students present, is one of the ways to create an international capability learning opportunity regardless of the subject matter at hand.

Social Sciences

Social science subjects are perceived as providing students the greatest number of opportunities to learn about other countries and global social, economic, and political systems, and are viewed as the 'natural home' for this type of learning.

Business Studies is one social science subject (among others) that can help build students' creative thinking, entrepreneurship and international-mindedness. For those students who wish to extend their skills and continue their business learning at the tertiary level, the GEE (Global Enterprise Experience) is a key opportunity to apply and further develop their international capabilities.

The GEE is an international business competition hosted out of Victoria University of Wellington that develops participating students' skills in managing across cultures, time zones, worldviews, and different levels of wealth. It is effective in challenging students to think in different ways, and in overcoming the discomfort that comes with experiencing other cultures and ways of doing things. In 2013, New Zealand university business students teamed up with students from universities in over 100 countries to create a business proposal that would be profitable while also contributing to the achievement of a Millennium Development Goal.³

Collaborative learning between students from different cultural backgrounds

Bringing diverse cultural and international perspectives into classroom discussions, by drawing on the cultural diversity of the students present, is one of the ways to create an international capability learning opportunity regardless of the subject matter at hand. For a positive and meaningful discussion with someone of another cultural background, students will need to draw on or learn the Key Competencies of Thinking, Managing self and Relating to others.

Having a variety of cultures represented is a feature of many New Zealand classrooms, with one quarter of the New Zealand population now born overseas, the ethnic make-up of the New Zealand-born population changing, and our hosting of around 500 exchange students and 16,000 full fee-paying international students in New Zealand schools each year.

In 2014, 57 New Zealand schools have 138 Ministry-approved school-to-school exchange partnerships with schools in 18 different countries, allowing New Zealand school students to study in a foreign country and gain a new worldview.

Research in Australian tertiary institutions⁴ has shown that learning interactions between domestic and international students have a number of other benefits for students too. These include greater independence from teaching staff and learning from peers, a greater sense of belonging and support, development of cognitive skills, effective communication and cross-cultural awareness, and greater awareness of their own cultures and worldviews.

School-to-school exchanges

Students' international capabilities can also be fostered through co- and extra-curricular activities, such as joining clubs and societies, taking part in community service opportunities, buddying an international student, joining a leadership programme, taking part in an overseas study trip or school-to-school exchange.

In 2014, 57 New Zealand schools have 138 Ministry-approved school-to-school exchange partnerships with schools in 18 different countries, allowing New Zealand school students to study in a foreign country and gain a new worldview.

Virtual international exchanges with students in other countries are an economical alternative to studying abroad and increasingly possible, due to the ultra-fast Broadband roll-out and Network for Learning in schools, and web-based VoIPs (Voice Over Internet programmes) like Skype, Ekiga, OoVoo and Google Hangouts.

Mixed expertise group

Offering additional food for thought in developing new learning opportunities, some members of the 'mixed expertise' group interviewed by NZCER indicated that in their view schools do not provide learners with the kind of complex, real-world learning opportunities they need to develop sophisticated international capabilities. They proposed, for example, creating more open-ended learning situations in which students might develop the skills that would enable them to identify others to help them solve problems, and bring others to work together on an issue. They considered that this would recognise that different people have different strengths and that in the working world and other settings, many problems are tackled in a collaborative way, where each individual contributes value to a larger process.

⁴ http://www.cshe.unimelb.edu.au/research/experience/docs/FindingCommonGround web.pdf

How capable are students in New Zealand currently? Why measure students' international capabilities?

The extent to which students in New Zealand possess, or are gaining, international capabilities is unclear... The extent to which students in New Zealand possess, or are gaining, international capabilities is unclear – there has been no measurement of students' understanding or application of the Key Competencies in international or intercultural contexts.

International student achievement assessments such as the International Civics and Citizenship Study (ICCS) and Programme for International Student Assessment (PISA) measure students' competencies to some extent, but are not comprehensive enough to provide robust information on students' international capabilities in New Zealand. Furthermore, secondary research by the Ministry has not identified any attempts to measure students' international capabilities in other education systems.

Measuring the international capability levels of students in New Zealand will fill this knowledge gap, and let us know how we are currently faring in supporting the development of these capabilities by our students, and may suggest whether more support or guidance for schools and teachers would be of use.

NZCER identified the following overall purposes that might be met by measuring students' international capabilities:

- systems accountability and reporting: assessment can be used to report on students' learning progress; to gauge schools' success in helping students meet the intended outcomes of their learning; and to monitor the success of government policies
- improving teaching and learning: assessment can provide feedback to the learner as well as the teacher, involving both teacher assessment and student self-evaluation
- supporting lifelong learning: assessment can help students to take an
 active part in collecting evidence and in the judgement of their own
 performance, and the assessment itself may become an important
 part of the learning.

⁵ The OECD announced in 2013 that it plans to work towards including the assessment of global competencies in its *Programme for International Student Assessment* from 2018. Such a move would allow us to see how students in New Zealand compare against their overseas counterparts in their readiness for international and intercultural interactions.

How can international capabilities be measured?

One participant however put forward the view that measurement is something that should be attempted to help identify the best activities to resource for capability development. NZCER asked the participants in each of the workshops they held (students, teachers, and 'mixed expertise') what they thought about measuring international capabilities and different ways in which this might be carried out.

Students

Students put forward the following aspects of international capabilities, or measurement approaches:

- students' knowledge of languages
- students' interests in other people, cultures, global issues or events, travel
- considering what international or intercultural opportunities students had been exposed to, both at school and through family-based experiences
- interviewing students
- keeping a record or portfolio of students' activities and experiences that contribute to international capability development
- student surveys.

Teachers

Teachers were initially uncomfortable with the idea of measuring students' international capabilities, although some teachers felt schools were already tracking students' development in this area, by:

- using the Effective Lifelong Learning Inventory (ELLI)
- using the International Baccalaureate learner profile as a reference
- providing opportunities for students to engage in verbal or written reflection on their learning and experiences in a variety of crosscultural or international contexts
- employing student portfolios.

Mixed expertise

Participants in the 'mixed expertise' group were less clear on the question of measurement of international capabilities. One participant however put forward the view that measurement is something that should be attempted to help identify the best activities to resource for capability development. The Intercultural Development Inventory was suggested as one instrument that can be used to show progress in the development of students' capabilities.

Key Competencies research findings also support the idea of a measurement approach that engages and involves students in gathering and reflecting on the evidence of their learning and growth (and enlists teachers, schools, and communities in this process).

In formulating recommendations for the Ministry around measuring international capabilities, NZCER drew on a further review of relevant literature on international capabilities, knowledge they developed through prior research on assessing Key Competencies, their workshops with students, teachers and the 'mixed expertise' group, and consultation with the Australian Council for Educational Research.

NZCER advised us that while considering assessment of students' international capabilities makes sense given the current knowledge gaps, and there are several ways this can be done, it may be a premature step. The workshops in particular suggested that for the most part students and teachers (and others beyond the school community) do not yet have a well-developed and adequately consistent understanding of international capabilities as expressions of the Key Competencies in intercultural and international contexts. It may not then be the right time to attempt to look for evidence of students' progress in developing international capabilities, when the learning opportunities to do this may not yet be offered sufficiently readily across classes and all schools, and given these are concepts which have not been assessed previously.

The types of assessment required to measure international capabilities are the same as for the Key Competencies, and should be developed with the following points in mind:

- appropriate use of knowledge is best assessed via meaningful tasks
- demonstrations of competency draw on knowledge from across Learning Areas
- reflective dimensions of competency need to be included in the assessment
- dispositions also need to be taken into account, as demonstrated in action
- learning to learn/transfer competencies to different contexts should be considered
- both group and individual settings should be considered.

Key Competencies research findings also support the idea of a measurement approach that engages and involves students in gathering and reflecting on the evidence of their learning and growth (and enlists teachers, schools, and communities in this process).

NZCER suggest four options for measuring Year 12 and 13 students' international capabilities, though recognise there will be others that are also appropriate. NZCER suggest four options for measuring Year 12 and 13 students' international capabilities, though recognise there will be others that are also appropriate. These four options are outlined below. Each has a different degree of value in terms of achieving the different overall purposes of attempting to measure students international capabilities mentioned earlier. Constructing a measurement approach that meets all of these purposes may be possible.

NZCER have outlined the features of each option, including their strengths and weaknesses.

An externally devised assessment framework and national sampling approach

This assessment may include a range of measures, including direct student measures and measures gathered from teachers, school leaders, or others about school practices, systems, and structures. It is most common to use standardised summative forms of assessment. Assessment issues tend to be technical in nature and validity is defined by technical, rational psychometric principles. These have historically relied on pencil-and-paper tests, but new forms of assessment tasks are being devised.

There is already significant expertise in the design and development of assessment frameworks for these sorts of approaches. Building a new framework would also involve some level of engagement with learners and teachers, during pilot testing and validation of the approach. Over time, assessment items that are no longer needed could be used as teaching or formative assessment resources in schools.

The people who best understand the assessment framework, and what it aims to measure, are the assessment developers themselves. It may be more difficult to effectively convey this knowledge to the school sector in ways that inform and improve learning and teaching practice. Continual revision of items will be needed to ensure learners and teachers do not seek to provide 'the right answers'.

The Australian National Assessment Program – Civics and Citizenship (NAP-CC) presents a model for how a national sampling approach can be used to see where students are at in relation to a construct that is seen to comprise knowledge, cognitive capabilities, attitudes, and values.

The development and design of the assessment framework could be similar to national sampling, or the first approach could later translate into the development of a self-assessment tool for schools.

Formative assessment tools for schools

This approach would focus on the development of formative assessment tools that schools could use to gather and reflect on data about their own school and students. They could then use this data to inform practice or track changes over time. Data from many schools could be used to develop a national picture that could inform ongoing policy work.

The development and design of the assessment framework could be similar to national sampling, or the first approach could later translate into the development of a self-assessment tool for schools. Some components would likely need to be collected in a 'standardised' way, while other components might be adaptable so that schools could put them into practice in ways that generate the particular data they need.

The data that is collected and reported back to schools could be at the level of individual students, or at the level of a class or whole-school sample, contributing to teaching and learning practice. However, the assessment itself would not necessarily allow for direct feedback of information that individual learners could use for their own formative assessment.

The strengths and weaknesses of this approach overlap with the first approach, although in this approach the strength of the feedback loop to practice is stronger. Either of the two approaches above would be scalable. They could aim for a broad and comprehensive data set, comprised of multiple measures (e.g. assessments of student knowledge, attitudes/perceptions, or abilities to interpret or respond to a complex intercultural scenario, as well as data about the system, and data from teachers and school leaders), or they could scale down to a more targeted focus (e.g. students' 'global-mindedness' scales or other specific measures).

Use of NCEA to assess and record data

This approach would utilise the opportunities that NCEA already provides for assessing students' learning, building on these to strengthen the learners, teachers, stakeholders, and policymakers' knowledge of what international capabilities look like in the context of different knowledge, learning areas, and disciplines.

Review and redevelopment of assessment standards within specific areas of the NZC would provide opportunities to explore international capabilities and their expression by students in context. Individual standards could be reshaped in ways that assess students' ability to

One option might be to invite young people to share their opinions, ideas about, and experiences of international capabilities and global citizenship and what kinds of evidence they think demonstrate capabilities in these areas.

make connections and the performance of standards can be analysed over time to evaluate their reliability in being able to assess dimensions of international capability.

The feedback loop into practice of this approach is potentially very strong, and it focuses on enhancing and developing the existing assessment and qualification structures rather than adding additional assessments or measures. The analysis and redevelopment of standards has the potential to support and improve curriculum and teaching in senior secondary school as these standards are central to learning and teaching at these year levels. On the other hand, this approach is more complex, long-term, and diffuse than developing and implementing a specific stand-alone assessment framework for measuring international capabilities.

Lifelong learning/learner-empowerment

The fourth approach considers what direction might be taken if the primary driver for work in this area is to support and empower lifelong learners who are internationally capable. In this approach the most important reason for devising an assessment is to support learners to become more capable and more self-aware of their capabilities, and to identify areas they can work on and next steps for their own learning and development.

An approach that is oriented towards lifelong learning represents a shift in the balance of power – students are actively involved in decision-making about their learning and assessment in a way other assessment approaches do not allow for. Currently, there is very little international evidence of young peoples' direct involvement and engagement in defining these constructs themselves or making decisions about their implementation into practice, their evaluation or assessment. One option might be to invite young people to share their opinions, ideas about, and experiences of international capabilities and global citizenship and what kinds of evidence they think demonstrate capabilities in these areas.

Such an approach might co-opt young people, their teachers, school leaders, and wider communities in a learning-driven process of examining and shaping their own meanings for international capabilities and practices, and collecting and sharing reflective evidence from that learning. Fundamentally, this approach represents a shift away from a question like 'how internationally capable are students in New Zealand?' and instead centres on the more open question of 'what could the international capabilities of students in New Zealand be?'

What comes next?

...there is an opportunity for New Zealand education to be world-leading in the area of students' development of international capabilities... NZCER's research for the Ministry in 2013 found that while measurement of international capabilities will be beneficial in the future, we need to find out more about teachers and students' understanding of international capabilities and, related to these, teachers and school leaders' understanding of international education and internationalisation. We need to have a firmer understanding of the range of learning opportunities offered in New Zealand schools through which students can develop and apply their international capabilities. Further work can also be done within the Ministry and beyond to establish the connection between international capabilities and the Key Competencies as well as other related curriculum development initiatives.

Additionally, NZCER identified that there is an opportunity for New Zealand education to be world-leading in the area of students' development of international capabilities, particularly if we co-opt students themselves as partners in shaping the meaning of international capabilities, and using new technologies and networks to generate, share, document, further experience and utilise learning and knowledge from which to gauge our students' capabilities in intercultural and international contexts.

The Ministry is planning to build on NZCER's work by engaging with a greater number of schools than in the 2013 international capabilities study, to explore:

- how teachers and students conceptualise international capabilities within their school community
- the range of learning opportunities through which students can develop and exercise their international capabilities, and
- any enablers and barriers to developing and implementing a teaching and learning programme around international capabilities that schools may have experienced.

Once better understanding of international capabilities has been reached, and learning opportunities in which students can develop and apply their international capabilities are more readily offered, we can reconsider how we might measure where senior secondary are at in this area.

The OECD has indicated it may consider including measurement of global competency in its PISA assessments of 15 year olds in 2018. We may be able to work with the OECD to ensure that students in New Zealand are included. Additionally, we could reconsider the different options for measurement put forward by NZCER and undertake a study of students' international capabilities in New Zealand.

Full NZCER report

The full report from the NZCER exploratory study into international capabilities can be found at:

http://www.educationcounts.govt.nz/publications/international/144533