Bridging the Gap between Preschool and Elementary School

Leveling the Playing Field for Underserved Children

Shahnaz Sahnow
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Foreword

Our most at-risk and under-served students are children living in poverty. There is a large body of research showing that children from poverty enter school significantly lacking literate cultural capital as compared to their middle-class peers. Consequently, these children begin their formal education at a drastic disadvantage and often take several years to catch up to their grade-level benchmarks. Many of these students never catch up at all. The purpose of this project was to study the New Zealand education system, specifically the national curricula at the early childhood and formal school levels. A major objective of this project is to build a bridge between preschools and elementary schools by aligning curricular and instructional practices across these two critical settings.

I spent four months in 2015 living and learning in New Zealand. I read published research, interviewed many principals/managers/teachers at primary schools and early childhood education centers as well as distinguished researchers at multiple universities and a senior manager at the New Zealand Ministry of Education. This document is a synthesis of my analysis of the education system in New Zealand and how aspects of it can be applied in communities in the United States to improve our early childhood services, which in turn will improve our elementary and secondary schooling and in the long-term our society as a whole.

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Shahnaz Sahnow
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Why New Zealand is a Good Comparison/Model for Individual States (especially Oregon)

At first glance, it seems like comparing policies and systems in New Zealand with those in the US is like comparing apples and oranges. For example New Zealand has a national system wherein their Ministry of Education sets policy for all schools in the country whereas in the US there is some federal education policy but each state governs and funds its own public education system. However, with deeper analysis there is a compelling argument that New Zealand is actually an ideal comparison and model for individual states in the US.

Same Size as a State

New Zealand is a very small country in comparison to the United States. In fact, it is much similar in size to individual states, Oregon in particular. With 103,500 square miles in New Zealand, it is comparable in geographic size to states such as Oregon (97,052 sq mi), Colorado (104,100 sq mi), Wyoming (97,818 sq mi), and Nevada (110,567 sq mi). With 4.5 million people, New Zealand is comparable in population to states such as Alabama (4.8 million), Kentucky (4.4 million), Louisiana (4.6 million), Oklahoma (3.9 million), Oregon (4 million), South Carolina (4.8 million). Since New Zealand is analogous to individual states with respect to size and population, it is valid to analyze its national education systems and policies when developing a model to be implemented in an individual state in the United States.

History of Colonization

Although the United States and New Zealand differ in their earliest dwellers (the US has indigenous peoples who inhabited the land for an estimated 12,000 years prior to the arrival of European settlers whereas New Zealand does not have an indigenous population but rather the first Pacific islanders who discovered and inhabited it) we share a similar history of colonization. Both lands were inhabited when the first European settlers arrived. Like in the Native Americans in the United States, the Maori have been marginalized by colonization. They lost much of their most precious land and sea ports. Despite having signed a treaty of partnership with the Europeans, they became second-hand citizens powerless against the structure of colonization. And within a short amount of time they came to highly disproportionately represent the lowest socioeconomic portion of New Zealand’s population.

Multicultural Society with English as the Official Language

New Zealand and the United States have a multicultural/multilingual society in common. Although Maori became an official language in New Zealand in 1987, English remains the dominant language in society. In addition to Maori, New Zealand has significant populations of Samoan and Fiji speakers as well as many Southeast Asian countries and India. English is the official and dominant language in the United States, but there are ever-increasing populations of speakers of other languages. According to Oregon’s Department of Revenue in 2005, 14% of school-age children in Oregon speak a language other than English at home. Most people in New Zealand speak English, even if it is not their native language. However, particularly in the cities, there are many immigrants who are temporary residents and do not speak English.
Staggering 1st World Hungry Children Statistics (especially specific to Oregon)

According to No Kid Hungry in Oregon (www.nokidhungry.org), 29% of children in Oregon struggle with hunger. 25% of New Zealand’s children are hungry (www.feedtheneed.co.nz). This is a relevant aspect for comparison because hunger has a direct impact on learning. Furthermore, in both the United States and New Zealand, children in poverty struggle the most in school. They have the lowest achievement and the highest drop-out rates.
Laying the Groundwork for Unified ECE in New Zealand

New Zealand has not always had a unified ECE sector. In the 80s New Zealand found itself in a situation somewhat similar to our current one in their ECE environment. At that time there was no unification or alignment across the ECE setting. 5 key transformations happened in the late 80s and early 90s to pave the way for alignment and unification.

The first was a shift in the structure of government administration. Until 1986 childcare fell under the jurisdiction of the Department of Social Welfare while kindergartens (teacher-led preschool) and playcentres (parent-led preschools) fell under that of the Department of Education. New Zealand recognized the need for unification across the ECE sector, and by 1990 all ECE services were enveloped under the administration of the Department of Education. Lee et al state that:

*These changes made New Zealand a world leader in integrating care and education provision in education. According to the Organization for Economic Cooperation and Development (OECD, 2001, 2006, 2011), countries with strong early childhood education and care systems have developed a systematic and integrated approach to policy, centering predominantly on children as a social group with rights, such as those expressed in the aspirations statement in Te Whariki. This integration and focus enabled decisions to be made in the interests of children from a united rather than fragmented perspective, and education to be foregrounded. (Lee et al, 2013, p.8)*

The second key event was a shift in policy based on government reviews of social policy reform and education. The 1987 Royal Commission on Social Policy identified these 5 critical themes for New Zealand:

1. Implementing the principles of the Treaty of Waitangi (the founding document of the nation of New Zealand that guaranteed partnership between the indigenous Maori and the British Crown);
2. Improving the social and economic status of women;
3. Providing a legislative environment which safeguards basic human rights and freedoms and works towards the removal of discrimination;
4. Recognizing the needs, contributions and traditions of Pacific Island peoples and other minority cultures residing in New Zealand;
5. Enhancing the family unit in New Zealand society.

Following that in 1988 the government conducted simultaneous extensive reviews of ECE, schooling (Years 1-13) and tertiary education in New Zealand. The ECE working group was chaired by Dr. Anne Meade and was required to take into account the 5 themes from the Royal Commission on Social Policy and given the task of establishing “*a more equitable system of early childhood care and education*” (Early Childhood Care and Education Working Group, 1988, Foreword).

The third important shift happened in the colleges of education at this same time. Up to this point teacher preparation programs for kindergarten were two years in duration whereas childcare worker programs were only one year. (Dalli, 1992; May Cook, 1985; May, 1992) In 1988 ECE teacher preparation program policy was revamped into a 3-year integrated early childhood education program. The new ECE teacher training programs had to be “inclusive of care and education, cover programmes
for the care of babies and have more emphasis on education studies and the cultural and family contexts of children’s lives (May, 2009, p.207). The new ECE teacher program requirements led to a higher societal importance of the professionals in charge of the care and education of the youngest members of New Zealand society.

The fourth important factor in the unification of ECE services was the 1988 Lopdell Curriculum Statement. The Department of Education held think tank forums for changing and creating policy. Experts from across the ECE span were included in the process. According to Lee et al, most important was the Lopdell Curriculum, “which identified 15 basic principles of early childhood curriculum. The same statement defined the curriculum as ‘the sum total of the child’s direct and indirect learning experiences’, a forerunner to the definition in Te Whariki (p.10): ‘The term curriculum’ is used in this document to describe the sum total of the experiences, activities, and events, whether direct or indirect, which occur in an environment designed to foster children’s learning and development.’ “(Lee et all, 2013, p.8)

The fifth of the critical factor in New Zealand’s ECE world began in 1990 with the merging of two ECE unions—one for preschool teachers and a separate one for childhood workers—into one amalgamated union representing all ECE educators. “Underlying the amalgamation was the desire to form a strong united voice for practitioners in early childhood education and influence policy and equitable employment conditions.” (Lee et all, p.10) This shift was solidified further in 1993 when it joined the primary school teachers and staff union, creating one cohesive union for all educators in staff working with children from birth through schooling.
Te Whariki—Context

New Zealand History

New Zealand is the most recently discovered and inhabited country in all the world. It was first discovered by eastern Polynesian sea farers probably in the thirteenth century, but possibly slightly earlier. The land that is now the nation of New Zealand was first settled by the Maori, and they are the indigenous population there. This land was rediscovered by Dutch explorer Abel Tasman in 1642 and later by the English navigator Captain James Cook in 1769. (Te Ara) It was soon after this that European arrived and settled there. In 1840 the Treaty of Waitangi was signed by 500+ Maori and the British Crown, and the nation of New Zealand was born. The Treaty of Waitangi was meant to be a partnership between the Maori and the British Crown. However, misunderstandings and differing interpretations led to the Maori losing much of their land and being marginalized in society. (SOURCE)

Many Choices of Early Childhood Education (ECE)

Most children in New Zealand begin primary (elementary) school at age 5 although it is not compulsory until age 6. Early Childhood Education (ECE) reaches from birth to the start of primary school. There are many types, settings, models, and philosophies of ECE in New Zealand, and this diversity is carefully protected to this day. ECE services can be center-based or home-based. They can be teacher-led or parent/family-led. They can be religious or secular. You will find several familiar models/philosophies of preschool, such as Montessori, Kindercare, preschool as well as some that exist only in New Zealand, such as Kohanga Reo—the Maori language and culture immersion ECE.

Collaboration to Create Te Whariki

In 1991 the New Zealand Curriculum had been revised for primary and secondary schooling, and the government was ready to turn its attention to the creation of a national ECE curriculum. The stage was already set for this task (see Laying the Groundwork section). The ECE curriculum advisory panel consisted of representatives from (Lee et al, 2013, p.17):

- all national early childhood organizations
- government agencies
- universities/research/teacher training institutions

The curriculum development team was made up of (Lee et al, 2013, p.17):

- practitioners
- trainers
- nationally known experts

The following six specialist working groups were included in designing the curriculum (New Zealand Ministry of Education, 1993, p.157):

- Infant and Toddler Working Group
- Young Child Working Group
- Maori Immersion Groups (Kohanga Reo)
- Pacific Island Language Groups (Tagata Pasafika)
This broadly representative team engaged in curriculum design for five years before the final curriculum was published in 1996.

**The Meaning of “Te Whariki”**

Central to New Zealand’s context is its bicultural history (see Why New Zealand is a Good Comparison section). All across the nation you can see evidence of Aotearoa New Zealand embracing its biculturalism. The Maori have been steadfast in their self-advocacy to have the Treaty of Waitangi be upheld, and consequently the Maori culture is more visible and valued in many domains of New Zealand. One area of society in which the Maori have made significant gains is in the education sector.

Lady Tilly Reedy and Sir Tamati Reedy were instrumental in this change. They had written the curriculum for Kohanga Reo, the Maori language immersion model of early childhood education (Lee, 2013, p.16). They were key members of the team that collaborated on the national ECE curriculum. They represented Maori culture and values, and they were highly influential in the design of the curriculum and, in fact, the name of it. Te Whariki is the Maori word for woven floor mat, and it served not only as the name of the curriculum, but as a metaphor as well. The explanation in the Te Whariki document is:

_The early childhood curriculum has been envisaged as a whariki, or mat, woven from the principles, strands, and goals defined in this document. The whariki concept recognizes the diversity of early childhood education in New Zealand. Different programmes, philosophies, structures, and environments will contribute to the distinctive patterns of the whariki (New Zealand Ministry of Education, 1996, p. 11)._

Te Whariki weaves together the critical curriculum principles with the learning strands in order to create a strong cohesive mat in which all aspects of a child’s early childhood learning experiences are integrated and holistic.

**A Sociocultural Approach**

Urie Bronfenbrenner, the Russian psychologist, was the father of The Human Ecology Theory or The Ecological Systems Theory. This theory believes that a child’s learning environment consists of multiple layers and that some of the layers are beyond the child’s close proximity.

The inner-most layer is the microsystem. This is the closest environment in which we find ourselves. For a child this includes family, friends, teachers, classmates, etc. In the microsystem layer the child has direct social interaction with the other people in that layer. The theory specifies that the child itself contributes to the construction of this environment and does not have a passive role.

The next layer out is the mesosystem. The mesosystem is the layer in which the Microsystems in a child’s life interact with each other. These interactions can affect one another. For example, if there is discord in the social interaction between and child and his parents, this can affect his interactions with teachers at school.
The third layer is the exosystem. In this layer, there is a link between the child and the factors of this layer although they do not interact directly. For example, what occurs at the workplace of a child can affect her even though she is not physically there and therefore not directly linked to the workplace.

The fourth layer is the macrosystem, and this refers to the wider culture in which a child lives. The macrosystem includes the child’s race/ethnicity, socioeconomic status, etc.

The chronosystem is the final layer, and this is constituted by transitions and shifts. A divorce, death, diagnosis of a health problem or a move would all be examples of events that happen in the chronosystem.

New Zealand specifically incorporates this theory into Te Whariki and includes an entire page in the curriculum document explaining it and calls for a sociocultural approach to early childhood services. “This ecological emphasis is also a reminder to policy-makers and governments that the adults’ environment is influential; poverty and inequality of opportunity in the wider society influence the educational achievements of non-dominant groups (those who have little power) in the population. (Lee et al, 2013, p. 20)

This figure depicts the layers of Bronfenbrenner’s Human Ecology Theory (http://study.com/academy/lesson/urie-bronfenbrenner-biography-theory-quiz.html)

The Te Whariki document specifies this sociocultural approach with the following statement:

This curriculum emphasizes the critical role of socially and culturally mediated learning and of reciprocal and responsive relationships for children with people, places, and things. Children learn through
collaboration with adults and peers, through guided participation and observation of others, as well as through individual exploration and reflection (New Zealand Ministry of Education, 1996, p.7)

This is so critical because in order to truly align with the Te Whariki curriculum, teachers must consider what is happening in all of the layers of the sociocultural context for each child. This will be the key to helping each child develop his/her empowerment, relationships, family and community, and holistic frames—the principles of Te Whariki and the foundation for successful learning and livelihood.

ECE Funding

New Zealand has something else that Oregon does not have. The government funds 20 hours of ECE/child/week for every single child beginning at age 3. ECE is funded at both teacher-led and family-led environments which can be either centre-based or home-based. Community-based ECE centres are entirely publicly funded, whereas private ECE centers supplement the government funding with family fees. That is 20 hours per week that can free a parent up to be in the workforce. Or up to 20 hours that parents can participate in the ECE learning process alongside his/her child.
Te Whariki – Components and Framework

Components of Te Whariki

Te Whariki is comprised of an aspirations statement, four curriculum principles, and five strands of learning outcomes.

Aspirations Statement

The following is the aspirations statement:

*To grow up as competent and confident learners and communicators, healthy in mind, body, and spirit, secure in their sense of belonging and in the knowledge that they make a valued contribution to society (New Zealand Ministry of Education, 1996, P.9).*

Notice that there is no reference to academics in this statement. The sociocultural basis of Te Whariki is clearly evident in the aspirations statement. The child’s well-being in relation to his/her own self and wider community is of utmost importance.

Principles

Taken directly from the Te Whariki document, the four principles of Te Whariki are (New Zealand Ministry of Education, 1996):

1. **Empowerment**
   
   [Te Whariki] empowers the child to learn and grow.
   
   Early childhood care and education services assist children and their families to develop independence and to access the resources necessary to enable them to direct their own lives.
   
   The curriculum enables all children to:
   
   - take increasing responsibility for their own learning and care;
   - develop an enhanced sense of self-worth, identity, confidence, and enjoyment;
   - contribute their own special strengths and interests;
   - learn useful and appropriate ways to find out what they want to know;
   - understand their own individual ways of learning and being creative

2. **Relationships**

   Children learn through responsive and reciprocal relationships with people, places, and things. Interaction provides a rich social world for children to make sense of and gives opportunities for them to learn by trying out their ideas with adults and other children. Co-operative aspirations, ventures, and achievements should be valued.
   
   The learning environment will assist children in their quest for making sense of and finding out about their world if:
   
   - adults know their children well, providing the basis for the “give and take” of communication and learning;
   - adults provide “scaffolding” for the children’s endeavours – supports and connections that are removed and replaced when and where they are needed;
   - appropriate and interesting play materials are provided that children can change and interact with;
- there are active and interactive learning opportunities, with opportunities for children to have an effect and to change the environment;
- there are opportunities for social interaction with adults and other children.

3. Family and community
The wider world of family and community is an integral part of the early childhood curriculum. The well-being of children is interdependent with the well-being and culture of:
- adults in the early childhood education setting
- whanau/families
- local communities and neighbourhoods.

4. Holistic development
The early childhood curriculum reflects the holistic way children learn and grow. Cognitive, social, cultural, physical, emotional, and spiritual dimensions of human development are integrally interwoven. The early childhood curriculum takes up a model of learning that weaves together intricate patterns of linked experience and meaning rather than emphasizing the acquisition of discrete skills. The child’s whole context, the physical surroundings, the emotional context, relationships with others, and the child’s immediate needs at any moment will affect and modify how a particular experience contributes to the child’s development. This integrated view of learning sees the child as a person who wants to learn, sees the task as a meaningful whole, and sees the whole as greater than the sum of its individual tasks or experiences.

Learning and development will be integrated through:
- tasks, activities, and contexts that have meaning for the child, including practices and activities not always associated with the word “curriculum”, such as care routines, mealtimes, and child management strategies;
- opportunities for open-ended exploration and play;
- consistent, warm relationships that connect everything together;
- recognition of the spiritual dimension of children’s lives in culturally, socially, and individually appropriate ways;
- recognition of the significance and contribution of previous generations to the child’s concept of self.

**Strands and Goals**

There are five strands:

1. Well-being
2. Belonging
3. Contribution
4. Communication
5. Exploration
Each strand interweaves with each of the curriculum principles and is defined by the goals and learning outcomes in relation to each of the principles. Each strand also indicates the adult responsibilities that pertain to it based on each principle.

The goals provide a more concrete guide for how each of the principles and strands can be implemented in an ECE program. For each strand, the goals indicate:

- learning outcomes for knowledge, skills, and attitudes;
- questions for reflection;
- some examples of experiences to help meet these outcomes for infants, toddlers, and young children (New Zealand Ministry of Education, 1996).

It is important to note that the learning outcomes in Te Whariki are indicative versus definitive. This allows for each ECE service to create its own site-based curriculum and model within the overarching umbrella of Te Whariki.

Te Whariki framework from New Zealand Ministry of Education, 1996

[Diagram of the Te Whariki framework]
The Weaving

This figure represents the way in which the four curriculum principles interweave with the five strands of learning outcomes. It also illustrates the metaphor of Te Whariki, the woven floor mat that interconnects all of the aspects of a holistic learning experience for the child. One that lays the foundation for children, “To grow up as competent and confident learners and communicators, healthy in mind, body, and spirit, secure in their sense of belonging and in the knowledge that they make a valued contribution to society” (New Zealand Ministry of Education, 1996) as the nation of New Zealand aspires for its youngest members of society.
The Case for Horizontal Alignment across the Preschool Sector

The spectrum of perceptions and beliefs about preschool is vast. Some believe preschool learning should be play-based while others believe it should have more direct instruction. For some it is a mini version of elementary school, and for others it is just the next step in daycare until a child can go to kindergarten. Some value child choice over teacher choice while others believe teachers should direct the learning experiences. Fortunately, when families make a preschool choice in the United States, there are many models and philosophies from which to choose. The same is true in New Zealand. From community-based to home-based centres, from Montessori to kindergarten (which is a preschool model, not their first year of primary school, like in the US), from Catholic creches to Kindercare, from English language learning environments to Maori immersion, families can choose from a plethora of models and philosophies. The New Zealand education system has something that the United States does not however: a national Early Childhood Education (ECE) curriculum.

Let me clarify that “curriculum” in this case refers not to a specific textbook or instructional program, the way we think of it in the United States. “Curriculum” in this case refers instead to a set of national standards (an articulation of what they want students to know and be able to do) that are mandated by the Ministry of Education for every ECE learning environment in the country. Yes, every single one whether it be public, private, or home-based. All ECE centers are expected to educate the youngest kiwis using the national standards, and they are all subject to evaluation by the Educational Review Organization (ERO). This is a little mind boggling for the US since our public schools are governed and funded by each state instead of at the federal level. Keep in mind that New Zealand does not have states, and that it is actually more like the size of a state in the US. In fact, NZ has almost the same population and square mileage as Oregon, which makes for a viable comparison.

Regardless of where a child goes for ECE (including in his/her own home), s/he is expected to be being taught within the framework of and to the standards of Te Whariki. This means that when children enter primary school, they are all theoretically coming from a learning environment with the same standards. So, when students begin year one of primary school (that is the equivalent of kindergarten in the US), they come in with the same early childhood foundation regardless of the ECE model they attended.

We don’t have any sort of alignment like this in Oregon. Our reality is that 5-year-olds enter kindergarten coming from a vast array of preschool experiences. All of our preschool models and philosophies are valid and valuable, and it is important to maintain all of the options that we have. Having aligned preschool outcomes would not dictate a specific model or philosophy. Each preschool in NZ has the authority and freedom to develop its own curriculum within the overarching umbrella of the national preschool curriculum. The majority of children who attend preschool in our community go on to attend our public elementary schools. Aligning standards across the preschool sector would serve our children well as they venture on to their elementary schooling.
The Importance of Quality ECE for Economically Disadvantaged Children

Our most at-risk and under-served students are children living in poverty. There is a large body of research showing that children from poverty enter school significantly lacking literate cultural capital as compared to their middle-class peers. Consequently, these children begin their formal education at a drastic disadvantage and often take several years to catch up to their grade-level benchmarks. Many of these students never catch up at all. One of the keys to leveling the playing field for children in poverty is to provide them with high quality early childhood education prior to their start in kindergarten.

Hart and Risley’s unprecedented research on vocabulary in 1995 revealed astonishing information about children in poverty. They discovered that children in welfare are exposed to 30 million fewer words than their middle class peers in their first 4 years of life. Their vocabularies are half those of their working class peers and one-third those of their peers from professional families. Baker, Simmons, and Kame’enui showed in 1997 that this gap only widens over time. The vocabularies of children living in poverty expand by an estimated 3,000 words per year between grades 1 – 3 whereas their classmates from middle class families learn approximately 5,000 words each of those years. Vast numbers of children in poverty begin school deficient in vocabulary, and they only become more and more discrepant each year.

Hart and Risley’s study revealed an additional important piece of information. Race/ethnicity, gender, and birth order are not determinant factors in vocabulary acquisition. The one factor that matters is relative economic advantage. This is important because in both the United States and New Zealand, among other countries, ethnic and racial minorities tend to be some of the lowest achieving students. The study controlled for race/ethnicity, and it was found not to be a factor. It so happens that many ethnic/racial minorities are living in poverty, and it is this economic disadvantage that creates the disparity in vocabulary.

We cannot, as the education system, or as society, throw our hands up and say that because a child’s socioeconomic status is beyond our control there is nothing we can do about this phenomenon. We can’t give up because it’s already too late when 5-year-olds arrive for school already at such a disadvantage compared to their middle class peers. So, what can we do? In the elementary school setting we can apply our very best instruction from our very best expert teachers, and those children will make gains. But it is not enough. Even with the best instruction and interventions, children who begin school with one-third—or even half—the vocabularies of their peers will never catch up. In fact, that gap will only widen. The solution is to build word knowledge and vocabulary sooner. The answer is quality early education accessible by all children before they ever get to elementary school.

New Zealand understands that this is the answer, and although their economically disadvantaged populations struggle in the same way ours do in the United States, New Zealand is far ahead of us in addressing the issue. As a society they acknowledge the need for quality early childhood education, and they understand that it is a cost effective way to address many societal needs. New Zealand’s Ministry of Education Statement of Intent 2008-2013 says the following:

There is increasing evidence that better education and life outcomes can be achieved through early identification and intervention where there are significant barriers to children’s learning. Early
identification and support for young children with developmental and behaviour challenges, and for their families and whānau, early childhood services and schools, is critical. Intervening early provides the greatest opportunity for change and is cost effective. The risks of not intervening early and the flow-on effects reduce opportunities for student participation and engagement in learning at all stages of education (New Zealand Ministry of Education, 2008).

New Zealand also recognizes that merely providing access to ECE is not sufficient. Their data is showing that they are not closing the gap for their at-risk learners, so they are addressing that issue with a strategic plan for improving early intervention:

*We are seeking to lower the average age of first intervention for children with specific barriers to learning. We want to ensure that ECE and primary teachers have increased skills and confidence to identify children with specific barriers to learning, and to support their engagement and achievement in education. We want to ensure that all of our special assistance is of the highest quality (New Zealand Ministry of Education, 2008).*

New Zealand understands that the key to diminishing their welfare population is to invest in education at the earliest years. That is why the New Zealand government funds 20 hours of preschool/week for all of their children starting at age 3. They know that this investment in their youngest members of society will ensure a healthier society in the future. One with a strong economy and an ever-decreasing number of people in the welfare system.
The New Zealand Curriculum
History & Context

So much of many students' long-term success and achievement in school is determined by the the trajectory they get on at the very beginning of their school careers, which in turn is determined in large part by their pre schooling experiences. (It is important to note that preschool learning environments do not only refer to preschools but rather all learning environments, which include homes and communities as well.) My Fulbright capstone project is multifaceted, but the purpose is ultimately to improve student learning by aligning standards and practices between preschools and public elementary schools in order to create a more seamless transition for students between these two critical learning environments. I am looking at broad education systems and policies as well as specifics about best practices in literacy instruction.

One of the many things that makes New Zealand the ideal place to conduct my project is that it has had a national curriculum since 1992. Let me reiterate that "curriculum" in this case refers not to a specific textbook or instructional program, the way we think of it in the United States. "Curriculum" in this case refers instead to a set of national standards (an articulation of what they want students to know and be able to do) that are mandated for every school in the country by the Ministry of Education. This is a little mind boggling for the US since our public schools are governed and funded by each state instead of at the federal level. Keep in mind that New Zealand does not have states, and that it is actually more like the size of a state in the US--both population- and geography-wise.

New Zealand implemented their first national curriculum in 1992. Acknowledging that there had been much social change over the next 8 years, the education system conducted a thorough 2-year review from 2000-2002, and--based on the findings--the Education Cabinet led a 4-year revision of the curriculum before implementing the current version of The New Zealand Curriculum in 2007. They want to ensure that the achievement objectives are, "current, relevant, and well-defined."

In addition to having a 23-year history with two versions of a national curriculum, New Zealand has also been on the cutting edge of literacy instruction and practice for the last several decades and--partly because of their size but mostly because of their purposeful intent--they have been able to effect significantly positive change on a national level in a relatively short amount of time. These aspects make New Zealand the perfect place to design a model that can be implemented in Oregon--or any other state--in the context of the Common Core State Standards.

Karen Sewell, who was Secretary for Education in New Zealand at the time of implementation of the new version of the New Zealand Curriculum had this to say about it:
The New Zealand Curriculum is a clear statement of what we deem important in education. It takes as its starting point a vision of our young people as lifelong learners who are confident and creative, connected, and actively involved. It includes a clear set of principles on which to base curriculum decision making. It sets out values that are to be encouraged, modeled, and explored. It defines five key competencies that are critical to sustained learning and effective participation in society and that underline the emphasis on lifelong learning.

What more could a country ask for from its future guardians of society?
The New Zealand Curriculum
Components and Framework

Purpose and Scope

It would be easy to draw the conclusion that with a national curriculum, things are uniformly and tightly scripted and mandated so that all students in all schools get an educational experience that looks identical to that of every other child in the country. The reality is actually quite the opposite. As explained in the statement of official policy in the New Zealand Curriculum (P6):

“The New Zealand Curriculum is a statement of official policy relating to teaching and learning in English-medium New Zealand schools.* Its principal function is to set the direction for student learning and to provide guidance for schools as they design and review their curriculum.”

(*There are Maori-medium schools in which all instruction is delivered in the Maori language. There is a parallel document to the New Zealand Curriculum called Te Marautanga o Aotearoa. It is interesting and important to note that this is a parallel document and not a translation of the English document into the Maori language.)

The official statement from the Ministry of Education explains that indeed the purpose of the New Zealand curriculum is NOT to have a uniform educational experience for every student in New Zealand but rather it is to serve as a guiding document for each school to design its own curriculum. Each school in NZ has the autonomy to design its own curriculum under the umbrella of and aligned to the New Zealand Curriculum. This system not only allows for but requires each school to analyze and interpret the national curriculum and to develop its own school curriculum to match the context of the school. It acknowledges that each school has its own demographics, location, passions, interests, and needs, and it entrusts each school to use determine its own best curriculum given this context. Let's examine how a school goes about doing this.

If that is the purpose, what is the scope? To which students exactly does the New Zealand Curriculum pertain?

“The New Zealand Curriculum applies to all English-medium state schools (including integrated schools*) and to all students in those schools, irrespective of their gender, sexuality, ethnicity, belief, ability or disability, social or cultural background, or geographical location.”

(*A state-integrated school is a school that used to be private but has integrated into the state system, so they teach to the national curriculum and receive state funding. They retain private land and characteristics and supplement state funding with fees paid by families.)
Below is a schematic overview that appears in the New Zealand Curriculum document.

It shows that The New Zealand Curriculum provides direction for learning via the Vision, Values, Key Competencies, Learning Areas, Achievement Objectives, and Principles. You can also see that the curriculum provides guidance for schools to create their own curricula by laying out the Purpose and Scope, Effective Pedagogy, and the process for design and review of the School Curriculum. Each school is to use the New Zealand curriculum as its guiding document for determining its own school-based curriculum.

Vision

The New Zealand Curriculum document lays out the nation’s vision as follows:

Our vision is for young people:

- who will be creative, energetic, and enterprising;
- who will seize the opportunities offered by new knowledge and technologies to secure a sustainable social, cultural, economic, and environmental future for our country;
- who will work to create an Aotearoa New Zealand in which Maori and Pakeha recognise each other as full Treaty partners, and in which all cultures are valued for the contributions they bring;
• who, in their school years, will continue to develop the values, knowledge, and competencies that will enable them to live full and satisfying lives;
• who will be confident, connected, actively involved, and lifelong learners (New Zealand Ministry of Education, 2007)

They further expand their vision by explaining what confident, connected, actively involved, lifelong learners do as follows:

Confident
• Positive in their own identity
• Motivated and reliable
• Resourceful
• Enterprising and entrepreneurial
• Resilient

Connected
• Able to relate well to others
• Effective users of communication tools
• Connected to the land and environment
• Members of communities
• International citizens

Actively Involved
• Participants in a range of life contexts
• Contributors to the well-being of New Zealand – social, cultural, economic, and environmental

Lifelong learners
• Literate and numerate
• Critical and creative thinkers
• Active seekers, users, and creators of knowledge
• Informed decision makers

Notice that out of 16 bullet points, there is only one that refers specifically to reading and math. This vision acknowledges that academic achievement in those areas is only one component of a successful member of society. New Zealand places high value on each person’s well-being and his/her role in the greater social and cultural realm. It is also important to note that New Zealand’s vision is a society that values and protects the two founding cultures that began the nation as well as all cultures and the natural environment. New Zealand values a holistic society, and they strive to achieve and maintain that by articulating this importance in their educational vision statement.
Principles

The principles of the New Zealand Curriculum are at the core of curriculum decision making. There are eight statements that illustrate what is most important to New Zealand in their education system—both locally and nation-wide. According to the document, “These principles put students at the centre of teaching and learning, asserting that they should experience a curriculum that engages and challenges them, is forward-looking and inclusive, and affirms New Zealand’s unique identity (New Zealand Ministry of Education, 2007)”

The eight principles of the New Zealand Curriculum are:

1. **High expectations.** The curriculum supports and empowers all students to learn and achieve personal excellence, regardless of their individual circumstances.
2. **Treaty of Waitangi.** The curriculum acknowledges the principles of the Treaty of Waitangi and the bicultural foundations of Aotearoa New Zealand. All students have the opportunity to acquire knowledge of te reo Maori me ona tikanga (the Maori language).
3. **Cultural diversity.** The curriculum reflects New Zealand’s cultural diversity and values the histories and traditions of all its people.
4. **Inclusion.** The curriculum is non-sexist, non-racist, and non-discriminatory; it ensures that students’ identities, languages, abilities, and talents are recognized and affirmed and that their learning needs are addressed.
5. **Learning to learn.** The curriculum encourages all students to reflect on their own learning processes and to learn how to learn.
6. **Community engagement.** The curriculum has meaning for students, connects with their wider lives, and engages the support of their families, whanau, and communities.
7. **Coherence.** The curriculum offers all students a broad education that makes links within and across learning areas, provides for coherent transitions, and opens up pathways to further learning.
8. **Future focus.** The curriculum encourages students to look to the future by exploring such significant future-focused issues as sustainability, citizenship, enterprise, and globalisation.

Values

The New Zealand curriculum defines values as, “...deeply held beliefs about what is important or desirable. They are expressed through the ways in which people think and act.” (New Zealand Ministry of Education, 2007) The document iterates that the list of values in the curriculum is “neither exhaustive nor exclusive.” The values are articulated as follows:

Students will be encouraged to value:

- **excellence**, by aiming high and by persevering in the face of difficulties;
- **innovation, inquiry, and curiosity**, by thinking critically, creatively, and reflectively;
- **diversity**, as found in our different cultures, languages, and heritages;
- **equity**, through fairness and social justice;
- **community and participation** for the common good;
- **ecological sustainability**, which includes care for the environment;
- **integrity**, which involves being honest, responsible, and accountable and acting ethically;
- and to **respect** themselves, others, and human rights.

The directive is for each school to have dialogue between itself and its community to determine the ways in which these values will be taught, experienced, and expressed.

**Principles vs. Values**

The document says the following about the distinction between principles and values:

*Although similar, the principles and the values have different functions. The principles relate to how curriculum is formalised in a school; they are particularly relevant to the processes of planning, prioritizing, and review. The values are part of the everyday curriculum – encouraged, modeled, and explored* (New Zealand Ministry of Education, 2007)

**Key Competencies**

Another important component of the New Zealand Curriculum is key competencies, which can be defined as the “capabilities for living and lifelong learning.

The five key competencies are:

1. Thinking. Intellectual curiosity is at the heart of this competency.
2. Using language, symbols, and texts. Languages and symbols are systems for representing and communicating information, experiences, and ideas.
4. Relating to others. This is about interacting effectively with a diverse range of people in a variety of contexts.
5. Participating and contributing. This is about being actively involved in communities.

According to the curriculum document,

*People use these competencies to live, learn, work, and contribute as active members of their communities. More complex than skills, the competencies draw also on knowledge, attitudes, and values in ways that lead to action. They are not separate or stand-alone. They are the key to learning in every learning area. The development of the competencies is both an end in itself (a goal) and the means by which other ends are achieved* (New Zealand Ministry of Education, 2007)

Again New Zealand is articulating, valuing, and emphasizing importance on the aspects of life required to be positively contributing members of community and society.

**Learning Areas**

There are eight official learning areas included in the New Zealand Curriculum: English, the arts, health and physical education, learning languages, mathematics and statistics, science, social sciences, and technology.
According to the document:

*The learning associated with each area is part of a broad, general education and lays a foundation for later specialization. Like the key competencies, this learning is both end and means: valuable in itself and valuable for the pathways it opens to other learning (New Zealand Ministry of Education, 2007)*

There is no standardized testing in New Zealand schools before years 11-13 when students seek certification in specific areas. Unlike the United States where Language Arts and Math are valued above all other areas, equal importance is placed on all eight learning areas, and the expectation is that learning will be integrated. According to the curriculum document, “All learning should make use of the natural connections that exist between learning area and that link learning areas to the values and key competencies (New Zealand Ministry of Education, 2007). Again, the New Zealand Curriculum reflects the nation’s value of and vision for a holistic educational experience for all students.
Achievement Objectives

Achievement objectives translates to standards in the United States. They are laid out in detail for each learning area for each year of school. The achievement objectives are purposely formatted in the New Zealand Curriculum document to ensure that instructional planning and assessment are cross-curricular and integrated.

This diagram depicts the curriculum levels of the achievement objectives in relation to the number of years at school (grades, in the United States; Year 1 = kindergarten, Year 2 = 2nd grade, etc). Notice that the curriculum levels diagram shows the learning continuum for the typical student but recognizes that this is not the case for all students. In fact, the curriculum recognizes this specifically:

*Many students do not, however, fit this pattern. They include those with special learning needs, those who are gifted, and those who come from non-English-speaking backgrounds. Students learning an additional language are also unlikely to follow the suggested progression: Level 1 is the entry level for those with no prior knowledge of the language being learned, regardless of their school year (New Zealand Ministry of Education, 2007)*

Effective Pedagogy

A critical component of any education system is the design and delivery of the actual instruction. There is a vast body of research that tells us what constitutes quality teaching. New Zealand requires effective teacher pedagogy. The New Zealand curriculum calls for teachers to be well skilled in the following areas of teaching pedagogy (New Zealand Ministry of Education, 2007):

*Creating a supportive learning environment.* Learning is inseparable from its social and cultural context. Effective teachers attend to the cultural and linguistic diversity of all their students.
Encouraging reflective thought and action. Reflective learners assimilate new learning, relate it to what they already know, adapt it for their own purposes, and translate thought into action. Teachers encourage such thinking when they design tasks and opportunities that require students to critically evaluate the materials they use and consider the purposes for which it was originally created.

Enhancing the relevance of new learning. They look for opportunities to involve students directly in decisions relating to their own learning. This encourages them to see what they are doing as relevant and to take greater ownership of their own learning.

Facilitating shared learning. Teachers...[cultivate] the class as a learning community. In such a community everyone, including the teacher, is a learner; learning conversations and learning partnerships are encouraged; and challenge, support, and feedback are always available.

Making connections to prior learning. When teachers deliberately build on what their students know and have experienced, they maximise the use of learning time, anticipate students’ learning needs, and avoid unnecessary duplication of content.

Providing sufficient opportunities to learn. Students learn most effectively when they have time and opportunity to engage with, practise, and transfer new learning. It also means that when curriculum coverage and student understanding are in competition, the teacher may decide to cover less but cover it in greater depth.

Teaching as inquiry. Since teaching strategy works differently in different contexts for different students, effective pedagogy requires that teachers inquire into the impact of their teaching on their students.

The diagram above illustrates the process of teaching as inquiry in the New Zealand Curriculum. This is very closely related to Richard DuFour’s Professional Learning Community structure and system, which is becoming more and more prevalent in the United States because, when implemented well, it is highly effective.
The inclusion of effective pedagogy in the national curriculum acknowledges that any curriculum is only as good as the instruction that delivers it. By incorporating the seven aspects of teacher practice that are shown by research to be the most effective into their national curriculum, provides the avenue for schools to require excellent teaching. All teacher training programs in the country are aligned to this and ensure that teachers in New Zealand are trained in all of these areas. And all schools have criteria to which they can hold their teachers for quality and effective instruction.

Assessment

Assessment is an essential part of education. Without assessment, how do we know what our students know and can do? Unfortunately assessment has become somewhat of a taboo word in the United States where, according to a July 2013 report by the American Federation of Teachers, students spend between 19 full school days and a month and a half on standardized testing. New Zealand has a very different approach to assessment. The New Zealand Curriculum states that, “The primary purpose of assessment is to improve students’ learning and teachers’ teaching as both student and teacher respond to the information that it provides (New Zealand Ministry of Education, 2007).

As stated in the New Zealand Curriculum:

Assessment for the purpose of improving student learning is best understood as an ongoing process that arises out of the interaction between teaching and learning. It involves the focused and timely gathering, analysis, interpretation, and use of information that can provide evidence of student progress. Much of this evidence is “of the moment.” Analysis and interpretation often take place in the mind of the teacher, who then uses the insights gained to shape their actions as they continue to work with their students.

There is no standardized testing in New Zealand before Year 11, and even then not all students take the exams. Instead, New Zealand uses Overall Teacher Judgment, or OTJ. In New Zealand they have a very holistic and integrated curriculum that includes well articulated vision, values, principles, key competencies, achievement objectives, and effective pedagogy. The universities make sure they train teachers to be experts, and then the nation trusts teachers to evaluate students using Overall Teacher Judgment, or OTJ.
The Case for Vertical Alignment between Preschool and Elementary School

There is a vast array of choices of preschools in the United States. There are many models and philosophies, and the level of teacher training is as varied as the types of early childhood education. Each preschool essentially functions as an island. Each one working its hardest and doing its best to foster the learning of our youngest members of our communities. However, according to a Grantmakers for Education report, one-third of middle-class children, and nearly one-half of low-income children, cannot identify the letters of the alphabet when they begin school. Research shows that it is many of these same children who end up dropping out of school. While this phenomenon is present in all classes, children living in poverty represent a much higher portion of this population.

Teachers with expertise in differentiating instruction and matching interventions to instructional needs can be very effective in helping all students make gains, even those who begin school unprepared. However, research shows that most often children who start out behind, remain behind. 44 out of 50 first graders who struggle with reading will continue to have problems in 4th grade, and only 12% of students who start kindergarten behind will show improvement (Juel, 1988).

There is evidence that preschool can and does help these children start out in kindergarten on a more level playing field. Preschool is particularly important for many children living in poverty who so often start school lacking language and vocabulary development as well as exposure to early literacy and numeracy. Preschool does indeed help these children, but preschool standing alone as an island is not sufficient.

Although research has shown that pre-K and Head Start participation can increase achievement, when these children progress through grades K-3 in low-resource schools, their initial gains in reading and math scores may diminish. Children who participate in an aligned PK-3 program show sustained gains in reading and math (Grantmakers for Education, ).

The most effective schools have carefully aligned curriculum, standards, and assessments both horizontally (across all classrooms of the same grade level) and vertically (from one grade level to the next). When this alignment exists, teachers have universal expectations of student behavior and academic achievement, critical benchmarks are identified and therefore not skipped or repeated unnecessarily. Students benefit from horizontal and vertical alignment because it streamlines their educational experience and creates seamless transitions from room to room and grade to grade.

Elementary School in Corvallis, Oregon is proof of the benefits of such alignment. By aligning curriculum, standards, assessments, and behavior systems horizontally and vertically throughout the school, they went from being the only elementary school in town to not meet Adequate Yearly Progress (AYP) to being one of 7 schools in the state to win a State Champion School award for closing the achievement gap. Because they are part of a K-12 district, they were able to expand that alignment vertically to the middle school. Where they come up against an obstacle is at school entry. Just imagine what could happen if there were alignment with the preschools in town that feed into this school. The potential is endless for building an even stronger foundation for children. At present we are asking children to take a leap across a chasm when they leave preschool and enter kindergarten. By aligning preschool with elementary school, we would be building a bridge across which children can walk with ease and readiness to begin their formal schooling years.
This diagram from New Zealand’s Ministry of Education shows the cross-sector alignment of key competencies from the ECE setting to primary/secondary schooling, and finally to tertiary education.

This graphic depicts the progression of each of the Te Whariki strands across the full span of education. It illustrates the value that New Zealand places on the social-emotional as well as academic development in order to create members of society who are confident, connected, actively involved lifelong learners.
A Final Word

New Zealand has a vision for the members of their society to be confident, connected, actively involved, and lifelong learners. They value excellence, innovation, inquiry, and curiosity, diversity, equity, community and participation, ecological sustainability, and integrity. They value social emotional well-being and the holistic person, so they embed these values in their educational policy. They also know that the path to confident, connected, actively involved lifelong learners begins at birth. They understand that an investment in early childhood services is cost effective because it only strengthens the economic and physical health and well-being of their society in the future.

There are aspects of New Zealand that cannot be applied elsewhere because they are specific to New Zealand’s unique context. However, there are many things we can learn from New Zealand and apply in our home communities and states that can make a huge impact on the lives of our children and families and on our communities. New Zealand formalized their value of overall well-being and actively involved community members into a holistic education policy. They understood that the investment in early childhood services is not only cost effective but beneficial in numerous non-monetary ways. And through this commitment and enactment of policy, they have been able to affect significant change in a relatively short amount of time. I see endless possibilities to the lessons we can learn from the New Zealand model and context, and I am thrilled at the prospect of being a part of this change.


