Finnish Lessons - a phenomenon

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Executive Summary

After undertaking background research and hearing speakers at the ICP Leading Educational Design Conference in Helsinki, what stands out is the consistent, simplified, student-centred nature of the Finnish education system. Finns are the first to understate their achievements; and the first to keep seeking improvement. They are also the first to try to encourage other countries to seek their own confidence to form their own systems that are context driven; systems that have their own identity - an authentic identity that aligns with the traditions and recognised philosophy of that particular society/country.

There are lessons that can be learned from the Finnish education system and the most important one that emerged is confidence to reflect on worldwide trends and then to take responsibility and make decisions that have student wellbeing and learning at their centre - for all students, in your own country's context.

The second lesson may appear contradictory to the first, but is complementary - to continuously be open to learning from others. In Finland's case, they 'politely said no thank-you' (Sahlberg, 2013, TVO) to trends such as national testing right up to the end of basic education (age 16 years), yet they freely acknowledge that for innovative classroom learning activities Finland is indebted to the USA. (Ibid).

The third lesson relates to the fact that high levels of expertise, resourcing, choice and trust are four of the most obvious features of the way the Finnish education system works in practical terms. An important question is what can New Zealand learn from this?

Purpose

The purpose of this sabbatical project was to research what might be learned from the Finnish example in terms of student centred learning. The original intention was to focus on the following areas in particular:

- the pedagogy of creative and critical thinking
- philosophical and physical modern learning environments (MLEs)
- e-learning

In addition the opportunity was available to see the Danish model of vocational training. Because of this a separate purpose is to identify how the Danish model

works and whether NZ can learn from this model as we embark on the vocational pathways initiative.

Rationale and background

I am fortunate to work in a school environment where the students have high levels of motivation, love of learning and achievement. Over the last six years we have focused on making learning what we defined as 'student centred' which has involved the pedagogy of flipping the classroom with an emphasis on critical and creative thinking and bringing in a BYOD programme as an aid to individualising ubiquitous learning. Consequently e-learning has also been a focus area for teacher professional learning groups (PLGs) over the last several years. Along with this we have been investigating possible re-development to MLEs of what is very old plant in many buildings within the school. These three aspects of student centred learning - thinking, e-learning and MLEs should be symbiotic and we are now at a stage where we are formulating ideas of how our experience is shaping our thinking on the sort of physical and philosophical learning environments that we now need. I was interested in the role that these aspects of student centred learning might play in the Finnish context to see what we might learn.

Vocational Pathways - a 2015 initiative in New Zealand - is very much in its infant stages. I decided to see if I could gather information on pathways from secondary school in the Danish context as an example of a well-established system. Findings are contained in Appendix A.

Methodology

Because the main focus of the project was a conference the methodology used was background research on the Finnish education system before attending the conference; research into presenters; use of presentation materials; follow-up statistics analysis and further research post-conference, and observation and interview for vocational pathways.

Terminology

Basic education - Grades 1-9 (7 - 16 years old)

Upper secondary - 2-4 years after completion of basic education (Levels 1-3)

Findings - Section 1

Student-centred learning

The three areas identified in Purpose, above, were evident at the ICP Conference in a different way than anticipated. The pedagogy of creative thinking will be reported on later in this Findings section; critical thinking was not a focus of any session attended. Philosophical MLEs will be part of the reporting immediately below. Physical MLEs were largely taken as read, except for one workshop from Surry Hills Primary School (Sydney), which will be reported on later in this section. E-learning was taken as read and it was acknowledged right from the opening address by the Minister of Education and Culture that 'school as a social environment coexists with other more exciting environments such as social media' and that part of securing the functionality of the education system lay in a key project for Finland of continuing to develop digital materials and ensure adequate infrastructure. Minister Sanni Grahn-Laasonen also emphasised that 'genuine change means changing materials and behaviours - a real change in attitude and culture requiring commitment from principals and teachers' (Grahn-Laasonen, 2015, Opening address ICP Conference).

What did emerge at the conference very strongly was an overarching philosophy and two main supporting systemic factors that provide optimum conditions for creating a truly student-centred learning environment in schools in Finland. The overarching philosophy is that schooling is just one part of what Ari Pokka, who has been a principal of three schools in Finland, refers to as 'the developing story' of 'a larger plan to build a welfare society, the founding idea of which is to leave no child behind.' (Pokka, 2015, P15). The fundamental starting point for this is societal respect for childhood and adolescence. The two main supporting systemic factors for this philosophical stand to be carried out are equity and a highly qualified teaching profession.

Respect for childhood and adolescence

Every parent of a newborn receives a 'basket' of baby clothes and equipment from the Government. As well as being homely, practical and personal, it is a palpable, symbolic signal that every child will get the same welcome and care and it is obvious that this is ingrained in the minds of citizens as Mark Bosworth attested in a BBC report:

> This felt to me like evidence that someone cared, someone wanted our baby to have a good start in life. And now when I visit friends with young children it's nice to see we share some common things. It strengthens that feeling that we are all in this together.'
>
> (Lee, 2013).

His last sentiment is typical of how Finnish educators, students and parents think about education - all in it together. It is an attitude that encompasses one school not wanting to be the best school, or of Finland not seeking to be the best education system, but rather the aim of thought and action being the question “How can we provide equally positive opportunities for all children?” Pasi Sahlberg talks of the popularity of teaching as a career in terms of people wanting to do something positive and satisfying; something for other people - for children and the future; and for Finland (Sahlberg, 2013, TVO). The first parts the response are very recognisable. In how many other countries would the last part of the response be included as a spontaneous reaction?

The vocabulary relating to children and adolescents is consistently that they are an opportunity. Pokka advises his readers not to ‘feed [the] kind of hostile culture that sees childhood and adolescence in a negative light. They are the future’ (Pokka, 2015, P136). He sees that respect for children and adolescents 'radiates' within Finnish schools where there is full 'recognition of the student's position as a fully pledged member of the school community and that 'the right to be active subjects in their own school environment is an asset.' (Pokka, 2015, pp24-25).

This respect for childhood and adolescence is evident also in the credo of Less is More. This begins with early grade students often having the same teacher for 3 to 6 years, providing stability with a highly trained significant adult who is able to know the students, track progress over time, and plan and implement strategies for individual success in learning in those vital early years.

Instruction time in basic education is 15% lower than the OECD average of 7475 hours (OECD, 2014, Indicators) with the school day often starting between 9.00 and 9.45am and finishing by 2.00 or 2.45pm. Very little homework is given. See pages 11-12 for detail on the structure of a typical primary school day. Teachers in Finland in basic and upper secondary education spend ’over 100 hours less per year teaching than the average in OECD countries - eg; ‘589 hours per year’ (4 or fewer lessons per day) in lower secondary in general subjects ‘in contrast to the OECD average of 694 hours.’ (OECD, 2014, Indicators). At secondary level Fulbright research scholarship recipient identified as Kelly1111, observed that Finnish teachers ‘usually have 10 to 20 minute breaks in between classes and often have a few skip (prep) periods as well.’ (Kelly1111, 2015).

Another aspect of Less is More is seen in the absence of testing in basic education and an absence of compulsion to get through a vast number of curriculum topics. It is interesting to note that observing mathematics teaching in Finland the American teacher, Kelly1111, found that there was not an emphasis on practising calculations and solving algebraic equations in contrast to what she describes as the American approach of ‘factoring complex equations for months on end.’ She did a PISA

mathematics test and found it to be ‘more like a logic exam than a math [sic] exam.. they were all logical real life questions’….more geared toward an understanding of physics than actual mathematics.’ Finnish students learn the basics of Physics from the 4th or 5th grade and physics is taught each year from ages 13-16. She cites these two things as being important in understanding the high achievement levels in PISA maths testing for Finland (Kelly1111, 2015). Perhaps this is a case of not only less is more but also different is more. The OECD notes that:

> Finland was not only among the top-performing countries in mathematical skills, but also one of the few in which boys performed as well as girls. The socio-economic background of the students also had a weaker impact on their results than average.
>
> (OECD, 2014, Education at a glance - Country Note: Finland)

This OECD commentary brings together the apparent success of the key notions of Less is More and Equity.

Equity

A commitment to equity, a cornerstone since the 1970s (Pokka, 2015, P23), is stated in the Finnish Government Programme document of 2011 and stands today:

'All people must have equal access to services of consistent quality.'

As Ari Pokka, current President of the International Confederation of Principals, puts it:

> Educational equality has been one of the core values... Its essence is that children and young people must have equal opportunities to go to school, regardless of their gender, the location of their home, or their families' socio-economic status.
>
> (Pokka, 2015, P28)

Students attending schools close to their home 'means that every Finnish school should be able to provide high-quality teaching that responds to all students' learning challenges in the best possible way.' (Ibid, P 29). This means that schooling is not a competitive environment (cf Bali Haque's comments in *Changing our Secondary Schools* on one school in a community doing well at the expense of other local schools in the New Zealand context. In an interview with the New Zealand Herald he said ‘Ultimately his school’s growth cost the community.’ (Jones, NZ Herald, 16 December 2014).)

Residence is the main factor in admission to a school and so competition for 'good' students or 'good' schools is not very evident in Finland. Parents know that the education a child will receive at any school will be of high quality because the ethos is one of 'a learning culture and trust' and 'high standards for all' (Sahlberg, 2015, ICP Conference keynote). Although upper secondary matriculation results are

published by some newspapers, Pokka feels that ‘the overall impact of those lists is still rather marginal’ (Pokka, 2015, P10). In comparing this situation to ‘many other countries’ he goes on to say that in those countries ‘the public ranking of schools involves the nullification of the schools’ and the principals’ work contribution’ (Ibid).

For the nine grades of basic education, a national core curriculum stipulates how many hours are to be spent in each curriculum area (new version 2016); local curriculum is then decided on by each school and added to this. it is interesting when a number of New Zealand schools debate whether more timetable time should be devoted to a ‘core’ of English, Mathematics and Science that OECD data shows that the time spent on learning the language of instruction, Mathematics and Science in Finland is well below the OECD average (Valijarvi, 2015, ICP workshop).

From the beginning of the coming school year, each school will also need to ensure that there is at least one period of several weeks when multi-disciplinary or phenomenon learning takes place - ‘collaborative classroom practices, where pupils may work with several teachers simultaneously during periods of phenomenon-based project studies...’ (Finnish Board of Education, Curricula). This new development was misrepresented by the English press (The Independent, 20 March 2015) as replacing individual subjects which is not the case.

Curriculum materials are freely available for all schools for teachers to choose which they would like to use and e-curriculum materials are under constant development. In the process of bringing in a new curriculum for 2016, it is interesting to note that the publishing houses were included in the consultation and development group of 45 experts from 16 stakeholder groups right from the beginning (Kauppinen, 2015 and Pitkala, 2015).

Equity is seen in the emphasis on learning and low incidence of testing as well as in the high trust shown in principals and teachers to do the job they are trained to do. There are no national examinations and there are no school inspections in basic education in Finland (abandoned in the 1980s). With regard to testing, Sahlberg’s approach when asked about other countries who have a high-level of testing is to advise asking a difficult question - “Do we really need all the testing?” This is not naivety on his part. He feels that it is important to have a conversation about the possibilities of ‘transforming monitoring’ (Sahlberg, 2013, TVO). On the absence of school inspections, interviewing a district education manager from Helsinki revealed that she meets with the principals assigned to her each Thursday as a group, and they have access to her individually. They collaborate as a group on issues and forward planning, further fostering the non-competitive spirit and actuality of education. She knows what is happening in their schools and is also able to act as a conduit when budget requests are made as she is thoroughly familiar with strategic and annual planning and actions in each school. This practice substantiates the

claim made by Pokka that ‘The strength of the non-competitive school is its ability to share its best practices with other schools and education professionals’ (Pokka, 2015, P10).

Highly qualified teaching profession

Teachers in Finland are described as:

> autonomous, independent and trusted professionals highly educated pedagogical experts who have the necessary competence for any demands of schoolwork including curriculum planning and student assessment
>
> (Salander and Kostiainen, 4 August 2015)

The label professional arises from the fact that all teachers have a Master’s degree, with class teachers majoring in Education Science (grades1-6) and subject teachers majoring in their academic subjects (grades 7-9 and upper secondary 1-3). The master’s degree course includes 60 points of pedagogical studies. There are also specialty courses for special education teachers, guidance and counselling and kindergarten teachers. The main principles of teacher education are a research base; integrating theory and practice and teachers as life-long learners. Entry to teacher training is highly competitive - in 2013 there were 750 places granted from 8,500 applicants at the 8 research universities in Finland offering primary teaching Masters’ degrees (Sahlberg lecture, WISE, 2013). Recruitment is obviously not an issue. This competitive entry has led other countries to assume that the teaching force is made up of top academics. Sahlberg explodes this myth:

> Last spring, 1650 students took the national written test to compete for [the] 120 [primary] places at the University of Helsinki… A quarter of the accepted students came form the top 20% in academic ability and another quarter came from the bottom half. .. the student cohort represents a diverse range of academic success, and deliberately so.
>
> (Sahlberg, 2015, Guardian.)

Finland seeks to ‘design initial teacher education in a way that will get the best from young people who have natural passion to teach for life’ (Ibid).

Alongside this, Pokka points out that ‘Finland has avoided the mystification of the teacher. There are no super teachers in Finland, but even more good teachers’ (Pokka, 2015, P92). This reflects the commitment to equity and common enterprise and value, and is in contrast to current thinking in a number of countries on performance pay and identifying ‘master’ teachers.

There is no formal teacher evaluation (Salander and Kostiainen, 4 August 2015). Teachers have conversations with other teachers and the principal about students’ learning. Principal use of management activities’ data shows Finnish principals

consistently exceed the OECD average in discussing the school's academic goals with teachers; drawing teachers' attention to the importance of pupils' development; encouraging teachers to help build a school culture of continuous improvement and providing staff with opportunities to participate in school decision-making (Valijarvi, 2015, ICP Conference workshop).

Finland recognises that the old 'map' of how to teach no longer works and in response to this current and future Finnish teacher education plans are similar to the dialogue in New Zealand - from individual to community; from teaching to learning; from a class focus to an individual focus; ubiquity of learning; new ways of operating. In the macro view this can be described as moving from a culture of knowing and planning what has been considered as known as 'right' for teaching to a culture of 'experimenting, daring, tolerating uncertainty and changing' (Ibid). Teacher educators talked of 'dynamic agility' and participation and involvement. Teacher training in phenomenon learning is one way for teachers and teacher trainees to see these new ways in practical terms - studying everyday phenomena (not invented cases); connecting emotionally and practically with the phenomenon and having an inductive rather then deductive approach.

Creative Thinking

Alf Rehn provides a refreshing view of creative thinking. His main points can be summarised as:

- despite the fact that each month more than 100 books are published on the subject, we actually know very little about creativity
- Knowing very little, we are, however, obsessed with being 'more creative'
- We may be paying attention to the 'wrong' things in this urge - it seems unlikely that creativity would be the preserve of the 'noisy, the slightly crazy - those who stand apart
- a warning about special places to 'be creative' - many organisations have a creative/creativity room, with big coloured cushions in primary colours, a large moveable whiteboard, post-it notes and crayons. The conditions for creativity seem to have been decided and they are divorced from the everyday work that people do
- This means that many people may label themselves as uncreative as they are not happy in the pre-packaged game of creativity
- Innovations may not be creative and people may get innovation fatigue
- Instead of a pre-determined idea about creativity perhaps the questions to start with may be:
  - What is the combined creative potential of this organisation?
  - Do we listen to everyone?
  - Does everyone feel welcome in the creative conversation?
  - Do people have the necessary tools to be creative?

    - How do we break with what we have been comfortable with?
    - How do we go to unconstrained spaces?
    - How do we bring in those who today are not part of the conversation?
    - What can be done differently - being creative is not always adding something extra
- We are often very good at killing an idea before it even has wings
- Rehn identifies four things as key to encouraging creativity and he advises challenging each other on these:
    - Respect for people and ideas
    - Reciprocity - dialogue; not dismissive behaviours
    - Responsibility - taking responsibility to ask is this worthwhile/valuable or is it 'rubbish'?
    - Reflection - Is this something we really want to do or is it simply de rigeur

Rehn also noted that the counter-side is that we sometimes believe ourselves creative when we are not.

His overall point was that we should not swallow creativity experts and their jargon whole - we should question how true creativity can come about and link it to the real work we are engaged in and not exert pressure on people to 'be creative' - a valuable lesson for teaching and learning.

(Rehn, A. 2015, ICP Conference keynote)

MLEs

Surry Hills Primary School - a very traditional school in Sydney with very old, traditional buildings - was offered a complete MLE rebuild by the state government with certain conditions. They were not allowed to include in the plans any single, closed rooms, an art room or a library.

Lessons from their experience over a three year period can be summarised as:

- ensuring that spaces planned were large enough
- communicating the educational vision regularly was pivotal - to staff, parents and students
- staff needed to know exactly what was going to be happening and given the opportunity to either opt in or opt out with support about further career moves
- staff professional development was based on action research with an open question - What do you want to know? Time was given for visiting other schools with MLEs; for sharing what had been observed and for career development beyond the school if staff felt they could not adapt to the change
- parents were offered regular forums - every week at night - for two years and some daytime forums near the end of the process. A questions box was also at the school office. This meant that all queries and concerns were well aired and nobody felt they had not had a chance to present their point of view
- for staff there were major adjustments around territoriality of space and students - Mrs Brown would not teach the same group for maths each day; no staff member had a class for the year; no staff member had a room for the year; gear was not 'mine' or 'yours' - teams submitted budgets for shared equipment

- protocols for the new environment had to be developed, monitored and sometimes adapted - e.g: for managing noise; for storage of students' work - no student desks or table to have as a base
- Each child was given an ILP for each semester and the student's learning journal became the place to annotate on progress, and this was shared with parents at meetings.

(Staley, M. & Sutherland, J, 2015, ICP Conference workshop)

Findings - Section 2

Lessons from PISA

Looking at PISA data from the last 12 years Pasi Sahlberg has identified common features of schooling systems that are successful and those that are not:

Systems showing lack of improvement	**Successful systems**
Competition	Collaboration
Standardisation	Creativity
Test-based accountability	Trust-based responsibility
De-professionalisation	Professionalism
School choice	Equity

(Sahlberg, 2015, ICP Conference).

The left hand list reflects features common to many countries, including New Zealand.

Current research

Current research that is driving reforms in both Finland and Denmark relates to inactivity. *Sitting is the new smoking* is the slogan as health researchers warn against the dangers of long periods of sedentary learning. In Denmark I questioned a primary mathematics teacher about this - in their team meetings before the new school year began a large emphasis was on planning mathematics activities that made students active as the 2014 Government reform requires students to have an average of 45 minutes minutes of physical activity a day. The emphasis has been on integrating this activity into classroom learning and the community has responded with local government and private sector groups coming together to 'search for new ways of applying [physical activity] to everyday school life' (DDC, 2014).

In Finland attention is also given to activity and to breaks. A typical 4th grade day has the following structure:

Mother tongue - 45 minutes
15 minutes recess
PE - 45 minutes

30 minute recess
Science - 45 minutes
15 minute recess
Music - 45 minutes
15 minute recess
English - 45 minutes
0-30 minutes homework

(Sahlberg, 2015, ICP keynote)

Implications

New Zealand is constantly on a quest to improve outcomes for students. As we go from initiative to initiative (eg: National Standards, the goal for 85% of school leavers to have achieved NCEA Level 2; Vocational Pathways, Ka Hikitia, The Pasifika Education Plan, IES and COS) perhaps we flail where we could flourish. In educational reform the big questions often boil down to:
Do we do the wrong thing a little righter (sic)?
Do we fix the old/current system?
Do we design a new one?

(Sahlberg, 2015, ICP keynote)

With the drop in 2012 PISA results Finland is asking questions after having dominated the top position for a decade. They seek to analyse what this is all about and whether Finland should worry. 'All countries in competitions that measure the competence of public school systems should consider what kind of image PISA creates about school. Above all it is important to think twice about whether we allow PISA results to guide the way we develop our schools or whether we continue to trust our own Finnish way of working' (Pokka, 2015, P16). In the New Zealand context the challenge is different. With PISA data highlighting a widening gap between the top 10% and the bottom 10% of performance it seems plain that we have an obligation to narrow this gap. A commitment to equity and excellence discussed in the Conclusions section, below, could provide a possible solution.

Conclusions

First - a rider - Finnish educators are continually surprised by the press and world experts. During the past 'PISA decade' Ari Pokka kindly expresses it as 'every now and again it has been slightly difficult to recognise the Finnish school that has turned into the hottest brand in international education politics.' (Pokka, 2015, P15). Finnish educators are wary of the situation where 'the story about the wonderland of education has often been critique-free admiration' (Ibid). Examples of areas Finns

are concerned about include budget cuts of the last three years especially; the pressure on principals who have a large role and responsibility, a decline in systematic professional development for teachers, and, of course, the world is watching to see if the 2012 dip in PISA results continues. Finnish keynote speakers a the ICP Conference had a synchronised refrain for eager adopters, along the lines of context is everything; it would be a mistake to try to imitate the Finnish model; there may be some things that other countries can learn from what Finland has been doing but it is vital to look at the context of your own country and take time to decide what might work well there. With this in mind, the following conclusions are based on what the Finnish example may be able to offer for New Zealand.

i

Equity

From the many indicators gathered, the OECD education commentary has concluded that 'The highest performing education systems are those that combine equity with quality' (OECD, 2012). A common criticism is that equity will lower standards overall yet the Finland data shows that both excellence and equity are possible. It must be remembered that the Finnish context of equity is one where education is one part of a wider political and social environment where health services, welfare and education combine under a commitment to equity. With equity comes true student-centred learning - for all students. Comparing this ethos with the New Zealand context, our current schooling system is not one of equity and thus it follows that it is not able to be a system that is truly student-centred.

The 'steady continuum in the political atmosphere' (Pokka, 2015, P15) is a major contributor to the success of Finland's education system. The policy of equity stands as governments come and go. This commitment to a philosophical stand and policies to carry that stand to actuality is the backbone of the Finnish model.

The OECD 2014 commentary for New Zealand notes:

> The difference in quality of educational resources between socio-economically advantaged and disadvantaged schools is one of the largest among PISA-participating countries and economies. (0.79 PISA Index, rank 8/62)
>
> (OECD, 2014, Education GPS)

This is something of which our best selves cannot be proud as so much of New Zealand's history reflects an egalitarian society where anyone could rise through education, talent and dedication. This commentary means that we have the undesirable situation where a child, by virtue of the school they happen to live near, may thrive or not. We know that we want future generations to have the competencies, the confidence and the resilience to be able to compete in the world market and we know that some of our population, over-represented in low achievement statistics at present, are going to be a higher proportion of the population by 2050. Targeted programmes for these groups may address some of

the problems but these programmes do not truly put everyone on the same level. Equity seems a possible approach to attack the problem at its root.

ii

Resourcing

Equity requires resourcing - uniformly highly-qualified teachers and uniformly high-quality physical environments.

Currently the entry requirement for primary teaching at the University of Auckland for example is University Entrance and a ranked score of 150 - the lowest rank score for any degree courses offered and more than met by 80 Level 3 credits at Achieved. Other institutions have similar requirements. A 2015 Report on mathematics teaching in New Zealand has identified teacher competence as ‘a related issue’ to student performance quoting a 2010 study ‘that found a third of new primary teachers could not add two fractions (7/18 + 1/9) (Johnston, NZ Herald, 4 June 2015). Our entry requirements could be raised and our training of teachers could be more thorough, supportive and practically based to ensure positive outcomes for future students across New Zealand. Recruitment incentives may also prove useful in order to recruit

In June 2015 press coverage of Bay of Islands College Principal, John Patai, and Commissioner at Northland College, Chris Saunders, outlining the unsatisfactory state of school buildings and the lack of progress on remediation brought the issues into sharp relief. It must be acknowledged that since that time the Ministry of Education has engaged in substantial change - for example Kim Shannon’s identification of "Instead of being piecemeal, we've been able to take an integrated approach and I think that's better for the school and better for managing that asset over the long-term." However, a sustainable system is something to be desired. The same recent Radio NZ feature points out the potential problems associated with finite resourcing, especially at a time when changing to mles may exert pressure on budget allocations (Gerritsen, J, 2015). Nationally assured resourcing and efficiency in providing and maintaining satisfactory physical environments for all schools would be a comprehensive solution.

iii

Decision-making and policy setting

In looking ahead at future decision-making, nationally and locally, reflection on 'whether we are doing 'good' things or just following what some indicators do to exert pressure to act ‘ could be beneficial. Rehn advises reflection on whether we are ‘merely supporting claims that have gained legitimacy in our dialogue' (Rehn, 2015) The Finns talk of taking responsibility and asking "Is this valuable/worthwhile or is it something that is not for us?” Currently, features of the New Zealand education system can be identified in those listed on Page 11 of education systems that show

lack of improvement in PISA data. Education Counts cites the following from the 2012 PISA results:

Key Results

- New Zealand's average scores in mathematics, reading and science have declined since 2009.
- New Zealand's performance in these subjects has also declined relative to other countries.
- However, New Zealand's average achievement in mathematics, science and reading remains above the OECD average.
- Compared to earlier cycles of PISA there are larger proportions of New Zealand students with low performance in mathematics and science (below PISA proficiency Level 2). The OECD considers proficiency Level 2 as the baseline level at which students begin to demonstrate the competencies that will enable them to participate actively in life situations.
- While the proportion of top performers in reading (PISA proficiency Level 5 or higher) has declined, the proportion of students at the highest level (Level 6) has not declined by much. New Zealand still has one of the largest proportions at this level among participating countries.

(Education Counts)

The declines and the larger proportions of students with low performance are of real concern, as is the rose-tinted selective summary on reading proficiency. In the actual PISA New Zealand data the following analytical statements which highlight the gap between the top and the bottom levels of achievement can be found:

- The score difference in mathematics between the 10% of students with the highest scores and the 10% of students with the lowest scores is one of the largest among PISA-participating countries and economies. (261 PISA Score, rank 7/64)
- The score difference in reading between the 10% of students with the highest scores and the 10% of students with the lowest scores is one of the largest among PISA-participating countries and economies. (271 PISA Score, rank 8/64)
- The score difference in science between the 10% of students with the highest scores and the 10% of students with the lowest scores is one of the largest among PISA-participating countries and economies. (272 PISA Score, rank 3/64)

(OECD, 2014, Education GPS)

Accessing the same profile for Finland there are no statements relating to score differences. Current affirmative action interventions may be a way forward for targeting priority learners, as well as innovations in teacher training such as Teach

First NZ. It may also be prudent to ask the difficult questions to critique current policy and to serve all New Zealand students as well as we can.

v

Linked to the previous conclusion is the question of testing and measurement. Pokka notes that the 'international education world - that applauds the autonomous Finnish schools - makes stronger and stronger commitments to various assessment and measurement structures that narrow the general education vision.

(Pokka, 2015, P160)

With such a high level of preoccupation worldwide with PISA results, Pokka cautions against siding with the new top performers in PISA as these environments may be those where 'childhood and youth are sacrificed to school' (Pokka, 2015, P17).

At government level Finland believes that it is a duty to protect students from influences that might harm them. Accordingly they have not changed tack in policy in a conscious bid to improve PISA scores. They have not engaged in collecting data that may lead to comparing one school with another (Sahlberg, 2013 Chicago). They firmly believe that if the environment is one of competition:

> Lack of success often leads to a competitive culture where both teachers and students are pressured to the brink of exhaustion, which ends up eroding the entire school culture. Joy of working and learning, and a positive school culture are the first victims in this normative war.
>
> (Pokka, 2015, P16)

These observations point to concluding that New Zealand is in a position where rethinking policies that are not proving productive enough for enough students could be beneficial. The introduction of national testing in primary schools has been problematic and now it is proposed that testing be introduced at secondary level in Years 9 and 10 in the form of one of the following three options:

- Expand National Standards to Year 9 and 10.
- Roll NCEA down from its usual start at Year 11.
- Use a modified youth version of the Literacy and Numeracy for Adults Assessment Tool, an online approach that provides information on reading, writing and numeracy skills.

(Jones, 1 July 2015)

Looking at the shared characteristics of low performing education systems (Page 11) and the PISA results for New Zealand that show a widening achievement gap the time appears ripe for reconsideration of our philosophy on testing and measurement.

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Respect for childhood and adolescence lies at the root of the previous five conclusions. It is a value that we certainly espouse here in New Zealand but the difficult question is “Do we promote and support this value so that it is demonstrable?” New Zealand child abuse statistics are the hard end of this issue and the spectrum goes right through to New Zealand not providing equity of opportunity for those of school age; some members of the public buying into the culture of seeing adolescents, especially, in a negative light to the extent that they label teachers as ‘brave’ for ‘coping’ with them each day; and the way that too many adults often interact with children and adolescents that does not show respect for them. Substantial respect for childhood and adolescence needs to be the basis of our education, health and welfare policies. We have seen significant steps towards this in doctor visit health provision for children up to the age of thirteen. In New Zealand perhaps there is a growing need for more citizens to feel more positive about their nation and how it serves them to become productive citizens. Targeted affirmative action can be successful but perhaps a more comprehensive approach could be even more effective. Taking responsibility to ensure that the most vulnerable members of our society - the young - have equal opportunities to thrive; to have a society that has respect for childhood and adolescence is not pie in the sky sentimentality - it makes good sense on every count.

Appendix A
Findings - Vocational Pathways

The following observations are based on a four hour site visit to CELF in Nykobing Falster, Denmark plus an interview with John Rasmussen head of pedagogy at CELF. There are approximately 100 centres like this in Denmark s and most students can attend near their home for the basic level at least. Main features are:

- no tuition fees
- entry from the end of basic secondary education - 17 years of age - students need to have a reasonable level in Danish language and Mathematics. About 75% of entrants have this and the remaining students attend summer school to catch this up before the new intake year begins. Courses can be started into adulthood (in Denmark if no employment can be found people under 30 have to enrol in training - the theory behind this is that this initial training will either lead to further training or a job with better prospects for advancement than if they had transitioned straight into the workforce with no training. The government goal is that 95% of the population will gain a qualification beyond basic secondary level. (Statistics for completion of a qualification are not taken at 19 or 20 years of age because of later adult entries).
- entry can be combined with entry to gymnasium (this means that a student can exit upper secondary with two qualifications. Alternatively a student enters vocational training instead of gymnasium as an upper secondary pathway.
- Basic courses are offered for one year. Then a student starts a pattern of working in a firm for a number of weeks; coming back to CELF; back to the firm etc for 1-2 years. Not all courses are offered at every centre - for example ..... basic plumbing is offered at this centre and then students choose either roofing and spouting or interior plumbing and progress to a different centre that offers these at advanced level.
- If a place cannot be found in a firm, a student can fulfil the apprenticeship part of the course at the centre in order to complete the qualification.
- Staff are recruited from industry and a two pronged approach is taken - the first being support at CELF - initial training in pedagogy and the culture of CELF, plus an adviser for 20 hours in their first year. Staff work in teams and the HOD meets with teachers once a year for an appraisal type discussion. Any issues become evident through the team work and the adviser role. Students give feedback four times a year and this is discussed with the adviser and actions proceed from this. The second prong to ensure that teachers do not fall behind in their area of expertise is a week each year back in their industry.
- Courses at this centre include Bakery,Bricklaying, Carpentry, Electrical Engineering, Farming, Food Technology, IT, Plumbing, Retail and Vehicle Mechanic.
- Numbers are not regulated as skill shortage is common in the EU.

Conclusions - Vocational Pathways

An important difference with the New Zealand context is that CELF is part of the upper secondary education system as well as tertiary with the advanced level courses offered. It appears that in lower secondary, Danish schools do not offer the practical skills to the extent that New Zealand does in the Technology curriculum. Organisations like CELF would like to see skill development start in earlier years.

The teaching programme combined with apprenticeship over an extended period allows for a high level of skill to be developed. This is aided by large areas for all courses devoted to ‘studio’ space for students to practise techniques. For example as well as mock setups for indoor plumbing an indoor actual size field is used for practising drainlaying. The facilities were plain, utilitarian, 20 years old, but also had a modern feel and were well-maintained. The main building had features similar to miles - eg; incidental student spaces in corridor ‘corners’ providing casual lounge and learning spaces, complete with brightly coloured, attractive furniture.

online learning materials are under development for all programmes and the use of online tutorials was high, especially for specific skill development.

Staff are respected by the students as they see their level of expertise which gives the students confidence in the courses offered. Just as in New Zealand CELF recognises the importance of strong learning relationships between teachers and students.

Sustainability, preservation of artisan methods (eg; 90% of bread is stone oven produced) as well as cutting edge innovation, and point of sale for products are features of the Centre. Having Food and Farming at the same centre also allows collaboration on use of raw materials produced.

Onsite is a Youth Advisory Centre and students could delay completion of a course by taking a break arranged through this service if necessary. A Job Centre is also onsite which facilitates transition to the workplace at the appropriate time.

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