

Yes,
We do Need Evidence to Show Whether *Te Whāriki* is Effective:
A Reply to Anne Smith’s Discussion Paper,
“Does *Te Whāriki* Need Evidence to Show it is Effective?”

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19 December 2013

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Blaiklock, K. (2013). *Yes, we do need evidence to show whether Te Whāriki is effective: A reply to Anne Smith’s discussion paper, “Does Te Whāriki need evidence to show it is effective?”* Retrieved from <http://unitec.researchbank.ac.nz>

Te Whāriki, the New Zealand Early Childhood Curriculum, was released in 1996. Since that time, it has been widely praised by academics and teachers in this country and beyond. Although there is much to admire in the aspirations of the document, a number of important concerns have been raised about its efficacy. These concerns were noted as part of a presentation I gave to the Ministry of Education on October 23, 2013, “Early Childhood Education and Care in New Zealand: A Closer Look at the Evidence”. (A copy of the powerpoint slides from the presentation is attached as an appendix.)

Emeritus Professor Anne Smith (University of Otago) did not attend the presentation but I sent a copy of the powerpoint slides to her and asked for her comments. Subsequently, she circulated a discussion paper, “Does *Te Whāriki* Need Evidence to Show it is Effective?”(Smith, 2013a).

I welcome Smith’s response and am heartened to see further engagement in the issues I raised in the presentation. In order to continue the dialogue, I have written the current paper as a reply to the comments Smith has made. I have reproduced Smith’s response in full (in italics) and have commented on each section in turn. I trust that my reply to Smith’s paper will generate further discussion in the early childhood community. Please email me if you have any comments or questions.

Anne Smith:

A presentation by Ken Blaiklock (2013a) from Unitec to the Ministry of Education on October 23rd has stimulated reflection and discussion about early childhood education in New Zealand, particularly our curriculum guidelines Te Whāriki. While I intend to challenge Blaiklock's criticisms, I think that his presentation is a useful challenge to us in the early childhood sector to engage in reasoned debate about the curriculum.

Ken Blaiklock:

It is good to hear that the presentation has “stimulated reflection and discussion”. For some time now, I have tried to encourage greater dialogue and debate about ECE issues in NZ. I am grateful for Anne Smith for taking the time to write her response to my presentation.

I have been interested in early childhood curriculum issues, both as a researcher and as a participant in the process of policy development on a variety of early childhood working parties and committees, for many years. I was not directly involved in the production or writing of our New Zealand early childhood curriculum guidelines, Te Whāriki, but was consulted and provided feedback, as did many others in our early childhood sector. I have since published articles and made presentations about the innovative framework for learning provided by Te Whāriki (Smith, 2006; Smith, 2007a, 2007b; Smith, 2008; Smith, 2011), and explained how it is based on a sociocultural theoretical framework, viewing learning as arising from children's active participation in meaningful activities in the context of social interactions and warm relationships. Te Whāriki also provides an ethical framework that is respectful of children's rights to a quality early childhood education and to be active participants in their own learning (Smith, 2007a).

I am aware that Anne Smith is a longtime supporter of *Te Whāriki* and the associated assessment method of Learning Stories. She has been a strong advocate for these approaches in her publications and in numerous conference presentations in New Zealand and overseas. She has worked closely with other enthusiastic supporters of *Te Whāriki*, and coauthored publications with Margaret Carr and Helen

May (- two of the original authors of *Te Whāriki*). Smith and Carr were joint directors of a \$600,000 government funded project that examined notions of ‘learning dispositions’ for a group of young children (Carr, Smith, Duncan, Jones, Lee, & Marshall, 2010). Hence, Smith is in a very informed position to respond to my concerns about some key issues in ECE in New Zealand.

In order to address some of the questions raised by Blaiklock, it is important to ask what the role is of curriculum guidelines in early childhood education. A curriculum model is a very important determinant of what happens in education. It provides a theoretical basis, goals and philosophies for practice, promotes shared understanding and language, and provides a framework for assessment. (Smith, 2007a, p. 5)

I am in agreement with Smith’s comments.

Te Whāriki is based on a theoretical and philosophical set of principles backed up by diverse research, and it is not intended to be a prescriptive menu for what and how to teach. Such top-down approaches to curriculum design have been widely discredited (Miller & Pound, 2011).

I differ from Smith’s opinion in relation to the standing of the research that backs *Te Whāriki* (- a point I will return to later). I agree with Smith’s concern about overly prescriptive programmes but suggest that *Te Whāriki*, with no required learning outcomes, and no required assessments for any particular areas of learning, is at the other extreme. Perhaps there is a need for a more balanced approach in New Zealand.

This does not mean that Te Whāriki should not be subject to challenge, debate and critique. I have argued that critique is important “to prevent stagnation and encourage improvement” (2011, p. 156), and I agree with concerns that Te Whāriki has taken on a ‘gospel-like status’ (Cullen, 1996, p. 113). It is very important

therefore that teacher education encourages students to engage in reflection and critique of Te Whāriki, and to ensure that they know what effective implementation of Te Whāriki looks like. It is very clear that in my own tertiary institution such reflection and critique is very much part of the education of early childhood teachers.

Smith and I are in agreement about the importance of “challenge, debate and critique” but it is possible that her continued promotion of *Te Whāriki*, along with her position as one of New Zealand’s foremost scholars in early childhood education, has contributed to the document’s ‘gospel-like status’. An unfortunate side effect of the ‘gospel-like status’ of *Te Whāriki* is that those who question it can be seen as heretics!

Early on in my October presentation (Slide 3), I noted that “challenging widely held viewpoints about ECE in NZ carries the risk of being seen as negative” but “being open and transparent about the current state of ECE enables us to make improvements for the benefit of children.” Smith claims to welcome debate but later in her discussion paper, she labels my presentation as “focusing on attacking *Te Whāriki*”. I had hoped that raising legitimate issues about ECE, and looking carefully at the evidence, would be seen not as an ‘attack’, but as a reasoned critique.

I am very aware that the concerns I have raised can result in strong responses from those who have worked with *Te Whāriki* for some years. It is important to see, however, that *Te Whāriki* is a document written on paper, not stone. Like other documents, it should be amenable to change. It is understandable that many people identify personally with *Te Whāriki*; its development and implementation coincided with a time of increasing recognition of the importance and professional status of early childhood education in New Zealand. To challenge *Te Whāriki* could be seen as challenging this professional status. In reality, however, challenge and critique are part of being professional and should always be welcomed.

Blaiklock’s Critique

Ken Blaiklock’s presentation challenges the view that “New Zealand is a world leader in ECE” and argues that there is no evidence to support this claim. His presentation, however, focuses criticisms on one aspect of the early childhood system – the curriculum guidelines, Te Whāriki, and its associated assessment approach,

Learning Stories, largely it seems in relation to a supposed lack of empirical evidence to support their effectiveness.

Anne Smith claims that my presentation argued there is “no evidence” to support the view that “New Zealand is a world leader in ECE”. A check of the powerpoint slides, however, will show that I did not say there is “no evidence”. Rather, I first listed a number of publications that are often seen as supporting the notion of New Zealand as a “world leader in ECE”. I then went through each of these publications and found that the evidence they presented to support our position as a world leader in ECE was quite limited. I went beyond accepting the publications at face value and looked more carefully at the quality of the evidence. I would be happy to acknowledge any errors I have made in the analysis of the publications; that is the nature of dialogue and critique. At this stage, however, Smith has not pointed out errors in the analysis that invalidate my findings about the lack of evidence.

Complacency and Self-Congratulation

Blaiklock says that we are complacent about our early childhood system, “resistant to learning from international research and experience” and “self congratulatory”. I would argue instead that we have justified pride in our innovative early childhood education approach, and I see it as positive that early childhood teachers in NZ are generally supportive of the early childhood curriculum that guides their work. The widespread international esteem within which Te Whāriki is held is good reason for our pride. Peter Moss (2007), for example, describes New Zealand as leading a wave of early childhood innovation and having confronted ‘wicked issues’ with our integrated approach to funding and curriculum.

Smith states that I said we are “complacent about our early childhood system” and “resistant to learning from international research and experience”. To be more correct, what I actually said is that the “commonly expressed opinion” that ‘New Zealand is a world leader in ECE’ “can lead to complacency and resistance to learning from international research and excellence” (Slide 2). I stand by my original comment. In my conclusion, I said that we “need to move beyond self-congratulatory beliefs that we are “world leaders in ECE” (Slide 45). That comment is still pertinent.

Curriculum is about what we value, as well as about ‘effectiveness’ as defined by research outcomes. Support for Te Whāriki is based, not only on the fact that early childhood teachers and educators were consulted extensively during the process of its development, and that extensive resources and professional development have been available to support its implementation, but that it incorporates values that are important and relevant to diverse early childhood settings. Undoubtedly, however, many early childhood centres in New Zealand could improve their implementation of Te Whāriki. In my view when it is implemented well, it can lead to a high quality learning experience for children and families, but implementation is dependent on many other factors, such as the quality and education of the staff, availability of professional development opportunities, and funding to put in place appropriate structures (such as favourable ratios).

Smith writes “In my view, when it [*Te Whāriki*] is implemented well, it can lead to a high quality learning experience for children and families...”. However, as I pointed out in the presentation, we need to move beyond personal viewpoints about the effectiveness of *Te Whāriki* and look more closely at the research evidence.

Blaiklock argues that there is a lack of critique. This is manifestly untrue as Te Whāriki has been discussed and debated nationally and internationally for two decades. It is easy to demonstrate that there has been plenty of criticism and debate about Te Whāriki, as many publications provide evidence of this. The following citations are just examples of the large body of critical literature focused on Te Whāriki (Cederman, 2008; Duhn, 2006; Garbett & Yourn, 2002, Hedges & Cullen, 2005; McLachlan, 2011; Nuttall, 2003; Nuttall, 2013; Rau & Ritchie, 2011).

There is a lack of critique. I did not say there is no critique but given the significance of *Te Whāriki* for impacting (either positively or negatively) on children’s lives, there is a surprising lack of critique and debate. Where critique is particularly lacking is in relation to the quality of evidence that is sometimes cited as providing support for *Te Whāriki*. My presentation was an attempt to examine this evidence more closely.

Smith claims, “there has been plenty of criticism and debate”. Perhaps I should have been clearer in acknowledging that thousands of pages have been written in relation to *Te Whāriki*. However, much of what is written shows an uncritical acceptance of the document. The proportion of pages that challenge and debate the worth of *Te Whāriki* is rather small.

Lack of Evidence

Blaiklock argues that developments in New Zealand early childhood education are not supported by international research. In my view, they are very much based on research evidence as well on value and ethical issues, such as a concern for children’s rights. I recently gave a public lecture in London (to be published in another form in 2014) about the important role research has played in the development of our EC policy in New Zealand (Smith, 2013b).

I will respond to Smith’s comments about research evidence shortly. I certainly share Smith’s concerns for ethical issues and children’s rights. Indeed, concerns for such issues are why it is so important to encourage debate about whether *Te Whāriki* is contributing to social justice or whether (through a lack of focus on enhancing children’s knowledge and skills, and a lack of attention to what helps children get off to a good start in learning at school) it is acting to some children’s disadvantage and serving to perpetuate inequities in society.

Blaiklock criticises some of the research that he believes has been influential in New Zealand. It is true that the Competent Children study says nothing about Te Whāriki because of the study was started before Te Whāriki was introduced, but it does say something about the effectiveness and impact of our early childhood system in New Zealand, before the introduction of Te Whāriki.

Smith and I are in agreement that the Competent Children study does not provide evidence about the effectiveness of *Te Whāriki*. Also, as I pointed out in the presentation, methodological problems (e.g., no comparison group of children who did not have early childhood education) limit the value of the findings of the study for

making conclusions about ECE. Smith has not responded to the methodological issues. (See Nash, 2001; Farquhar; 2008; Wylie & Thompson, 2001.)

More recent evidence highlighted by the Ministry of Education (Le Quesne, 2013) based on 2009 data from the PISA study, demonstrates that in New Zealand one year of early childhood education predicts higher reading scores better than an extra year of school. Le Quesne's presentation (citing PIRLS, 2010) shows that there is a clear advantage in Years 5 and 6 in reading, maths and science for New Zealand students who have attended early childhood education for at least a year. In addition the PIRLS and TIMMS studies showed that the longer (up to 3 years) children attended an early childhood education centre, the greater their achievement. These findings suggest that our early childhood system in New Zealand (of which Te Whāriki plays an important part) is having a measurable and significant impact on children's subsequent success in the education system. There are of course limitations to this data, as it does not tell us anything how the quality of the early childhood experiences, or whether Te Whāriki was being fully implemented, influenced children's achievement.

Smith suggests that the reading results for the PISA 2009 study are supportive of the effectiveness of early childhood education in New Zealand. I discussed the PISA results in my presentation but went beyond the surface findings to examine important methodological issues (Slide 6). Problems with the data collection (especially for how ECE experience was measured) in this study mean that it is not possible to use the results to propose that time spent in early childhood education is an explanation for the association with higher reading at age 15 years.

Smith also refers to the PIRLS and TIMMS results for Years 5 and 6. (Presumably she means Year 5 & 9 because Year 6 was not included in PIRLS or TIMMS) In fact, information on ECE attendance is only available for Year 5 students. Parents of the Year 5 students were sent a survey asking them to state if their child had not attended ECE or had attended for a particular number of years. As Smith noted, there are limitations to this data because it does not show the quality of ECE that a child may have experienced, nor does it take account of how many hours a week a child attended.

However, there are some interesting findings in the more detailed information about the PIRLS and TIMMS that has recently become available. (The PIRLS results for Year 5 reading are sourced from Chamberlain, 2013, and Mullis, Martin, Foy, & Drucker, 2012. The TIMMS results for Year 5 science and mathematics are unpublished analyses using TIMMS Data. Data available from the Comparative Education Research Unit, Ministry of Education, December, 2013)

This information is reported below in two main sections: (A) before and (B) after taking account of differences in the socioeconomic status (SES) of students.

(A) Relationship Between ECE Attendance and Year 5 Achievement (Before Taking Account of SES)

(i) Year 5 Reading: No statistical difference was found between the average reading scores of Year 5 students who had not attended ECE and students who attended for up to 1 year. There was a small statistical difference in favour of students who had attended ECE for 1-2 years compared to students who had attended up to one year. No significant differences in reading scores were found between students who had attended for 1-2 years, and students who had attended for a longer duration.

(ii) Year 5 Mathematics: A statistical difference in scores was found in favour of students who had attended ECE for up to 1 year compared to students who had not attended at all. No significant differences in mathematics achievement were found between students who attended ECE for up to 1 year, and students who had attended for 1-2 years or longer.

(iii) Year 5 Science: A statistical difference in scores was found in favour of students who had attended ECE for up to 1 year compared to students who had not attended at all. No significant differences in science scores were found between students who attended ECE for up to 1 year, and students who had attended for more than a year or longer.

The above findings do not show results as positive as Smith had suggested for the earlier results. In Year 5 reading, there is an advantage for students who attended

ECE for 1-2 years but no additional advantage for attending longer. In science and mathematics there is an advantage for attending up to 1 year but no apparent advantage for attending longer than a year. Smith reported that “the PIRLS and TIMMS studies showed that the longer (up to 3 years) children attended an early childhood education centre, the greater their achievement.” It would be reasonable to expect such an additive effect from quality early childhood education. It is disappointing, therefore, that more recent analyses of the data do not support Smith’s claim.

The above analyses of the PIRLS and TIMMS results do not take account of differences in the socio-economic background of the different groups of students. It was only a relatively small number of students who were said to have had not attended ECE (4%) or attended for 1 year or less (4%). However, these students are more likely to be from lower socio-economic groups, and this factor that could contribute to differences in achievement between the groups at Year 5.

Further analyses carried out by the Ministry of Education do take account of socioeconomic status (SES). The analyses divided children into 3 SES groups: Low SES (lowest 25%); Medium SES (middle 50%); and High SES (top 25%). (The relatively small number of students who had no ECE or had attended for less than 1 year meant it was necessary to combine these groups for taking account of SES.)

(B) Relationship Between ECE Attendance and Year 5 Achievement After Taking Account of SES

(i) Year 5 Reading.

Low SES Students who had attended ECE for 1-2 years scored higher than a combined group of students who had no ECE or up to 1 year of ECE. No difference in reading scores was found between students who attended ECE for 1-2 years, and students who attended for longer than 2 years.

Medium SES. There was no statistical difference in the Year 5 reading scores between a combined group of children who had not attended ECE or had attended for up to 1 year, and students who had attended for longer.

High SES. There was a small statistical difference in favour of students who had attended ECE for 1-2 years compared to the combined group of students who had no ECE or had attended for less than 1 year. However, students who had attended for more than 2 years showed no significant difference in average reading scores in comparison to students who had not attended or who had attended for up to 1 year.

(ii) Year 5 Mathematics

Low SES. No differences in Year 5 mathematics scores were found between the combined group of students who had no ECE or had attended for less than 1 year, and students who had attended for more than 1 or 2 years.

Medium SES. There was an advantage for students who had 1-2 years of ECE compared to the group of students who had no ECE or less than 1 year. No difference was seen between the mathematics scores of students who had 1-2 years ECE, and students who attended for more than 2 years.

High SES. Insufficient data was available to calculate comparisons for the combined group of students who had no ECE or had attended up to 1 year. There was no difference between the scores of students who had attended ECE for 1-2 years compared to students who had attended for more than 2 years.

(iii) Year 5 Science.

Low SES. No significant differences in Year 5 science scores were seen between the combined group of students who had no ECE or less than 1 year, and students who had more than 1 or 2 years ECE.

Medium SES. Students who had 1-2 years ECE scored significantly higher than the combined group of students who had no ECE or up to 1 year. There was no difference in the Year 5 science scores between children who had attended ECE for 1-2 years, and children who had attended for more than 2 years.

High SES. Insufficient data meant that comparisons could not be calculated for the combined group of students who had no ECE or who had attended for less than 1

year. There was no difference between the science scores for students who had attended 1-2 years, and students who had attended for more than 2 years.

Smith, when commenting on the earlier results for the PIRLS and TIMMS reported that “the findings suggest that our early childhood system in New Zealand (of which *Te Whāriki* plays an important part) is having a measurable and significant impact on children’s subsequent success in the education system.” However, the latest results (taking account of SES), do not provide support for maintaining our current approaches in early childhood education (including the use of *Te Whāriki*).

There are some positive findings in the results. For both the Low SES and the High SES children, attendance at ECE for 1-2 years was associated with higher reading scores at Year 5 compared to the combined group of students who had no attendance or less than 1 year. But for the middle 50% of children, there was no link between attendance at ECE and Year 5 reading achievement. For mathematics and science, medium SES students who had attended 1-2 years of ECE scored higher than students who had no ECE or less than 1 year. However, there was no association between attendance at ECE and Year 5 achievement in mathematics and science for the low SES students.

There are limitations to the data but the overall pattern of results indicates there is room for considerable improvement in our ECE system if we are to ensure that involvement in early education is linked with later success in school learning. The most common finding in the above analyses (after taking account of SES) was of no association between duration of ECE attendance and later achievement. Where there were positive associations, we need to ensure that the increase in achievement linked with early education is not just statistically significant but is substantial enough to make a real difference to children’s later educational outcomes. International research shows that quality early childhood education can have large benefits for children, especially children from disadvantaged backgrounds (Barnett, 2013; Neuman, 2013; Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2011; Yoshikawa et al., 2013. New Zealand needs to make more use of such research when looking at ways to improve our ECE system.

To return to Blaiklock's claim that there is no evidence to show that Te Whāriki is effective, I would argue that it is very difficult to determine this by empirical research. In my view, it is not usually feasible or ethical to use experimental and control group studies to evaluate curriculum models. The use of randomized control trials is problematic because of their highly contextualised nature which makes it difficult to generalise from the results. Many other major longitudinal studies such as the NICHD study in the US, and the EPPE study in the UK, do not have control groups, but they have many useful findings relating to the effect of natural variations in the quality and nature of early childhood (NICHD, 2005; Sylva et al., 2004).

As I pointed out earlier, I did not say there is “no evidence.” What I have done in the presentation is to examine the quality of the evidence by looking in more depth at a range of studies and publications.

Smith argues that it would be very difficult to determine the effectiveness of *Te Whāriki* by empirical research. I agree that it would be difficult but this does not mean that we should avoid such work. A good start could be made if similar levels of government funding were provided for this type of research as was directed to the many qualitative action research projects that have been funded through the Centres of Innovation (COI) and Teaching and Learning Research Initiative (TLRI) funds. These projects were valuable for describing some interesting innovations in ECE but omitted to gather valid evidence to show what children were learning as a result of the innovations.

As Smith notes, ethical issues in research are very important. Of course we should ensure that there are no negative impacts on children as a result of their inclusion in research studies. A related issue to consider here is whether *Te Whāriki*, as an innovative but unproven approach to curriculum, should have first been trialed and thoroughly evaluated, before being implemented on a nationwide basis.

I agree with Smith about the value of the NICHD and EPPE studies. A reason why these studies are so useful is that, unlike many NZ ECE research projects, careful attention was given to valid assessments of what children were learning.

There is one major US longitudinal study (Schweinhart & Weikart, 1997) that randomly assigned children to one of three curriculum treatment conditions – High

Scope, Nursery (ordinary preschool) and DISTAR (direct instruction). This study showed far more positive outcomes long-term associated with High Scope and Nursery than DISTAR, Children assigned to the DISTAR programme (highly structured, regimented, academically-oriented and teacher directed) had two and a half times more antisocial behaviour in adolescence, and 47% of the DISTAR group were treated for emotional disturbance during their schooling, compared to 6% in the Nursery and High Scope groups. The High Scope approach is generally quite compatible with Te Whāriki and a sociocultural perspective on curriculum, being both cognitively and socially oriented as well as focused on children's interests and activities. While it was purportedly based on Piagetian theory, according to Kathy Sylva (1997) it's approach fits better with Vygotsky's theory, on which our own curriculum is based (Smith et al., 2000). I do not agree that High Scope is necessarily more structured than Te Whāriki.

The HighScope study is one of the most highly regarded and influential studies in early childhood education (Pianta, Barnett, Burchinal, & Thornburg, 2009; Schweinhart & Weikart, 1997). The positive findings of the study have contributed to increased government support for funding ECE programmes in many nations. The study had a rigorous empirical design with long-term follow-up assessments of cognitive and social outcomes for those who originally participated at ages 3- and 4-years of age. Smith and I are likely to be in agreement about the importance of the HighScope research. Where we disagree, however, is over whether the findings of this research can be used to support *Te Whāriki*.

Smith suggests that High Scope is not necessarily more structured than *Te Whāriki*. This is a puzzling claim as any description of HighScope programmes shows them to have considerably more structure than is evident in *Te Whāriki*. There is overlap between *Te Whāriki* and HighScope in that both emphasise active participatory learning, child choice, and adult-child interactions. There are, however, many differences. High Scope programmes have a set daily routine that includes adult initiated large and small group times. These may target the development of particular knowledge and skill areas for particular children. A crucial part of the day for 3 and 4 year olds is the “Plan – Do – Review” time. Children spend 10 to 15 minutes in small groups where they talk about and plan what they will do in “work” time. They then work with teachers and other children on their chosen activity for 45-

60 minutes. Following this, 10-15 minutes is spent in small groups reviewing what they have done (Epstein, 2012-2013; Epstein, Johnson, and Lafferty, 2011).

Unlike *Te Whāriki*, the HighScope curriculum is periodically updated to reflect new findings in research on children's learning. Currently the HighScope preschool curriculum provides clear and comprehensive guidance on how teachers can facilitate children's learning in 58 "developmental indicators" in 8 key areas (Approaches to Learning, Social and Emotional Development, Physical Development, Language, Literacy and Communication, Mathematics, Creative Arts, Science and Technology, Social Studies. See Epstein, 2012-2013). The preschool curriculum is described in a set of books totaling 1288 pages. (Many other teaching resources are also available for HighScope. A separate 450-page manual is available for the infant-toddler curriculum.) Compare this to the 99 pages of *Te Whāriki*. Supporters of *Te Whāriki* will argue that *Te Whāriki* is just a curriculum framework to be "woven" into a curriculum by each centre. Where, however, is the clear guidance to assist New Zealand teachers with this task?

HighScope, unlike *Te Whāriki*, is explicitly "developmental" and recognises that what children learn can change as they grow and develop (Epstein et al., 2011). HighScope, unlike *Te Whāriki* places considerable emphasis on developing knowledge and skills, including those that prepare children for school. HighScope, unlike *Te Whāriki* requires ongoing authentic assessment of children in specific areas including art, music, language, literacy, and mathematics. Information from these assessments is used for planning future learning experiences. *Te Whāriki* contains no requirement to assess children's learning in particular areas, and provides almost no guidance on planning future learning experiences. I would invite anyone who is interested to look at the HighScope organisation's publications and website (www.highscope.org) and see if they agree with Smith's claim that HighScope is not "necessarily more structured than *Te Whāriki*."

It is not entirely clear what Blaiklock would prefer as a curriculum, as he focuses on attacking Te Whāriki. He seems to be advocating much more focus on literacy and numeracy and more teacher control and structure (as in DISTAR), but

while early academic outcomes of DISTAR looked positive, the long-term outcomes were not.

Smith claims I focused on “attacking *Te Whāriki*”. However, I noted that *Te Whāriki* “contains many worthwhile statements and values” (Slide 27) and acknowledged the widespread praise for the document from teachers and NZ academics. Certainly I have critiqued *Te Whāriki* but the issues I have raised are valid concerns that need to be examined carefully rather than being seen as an “attack”.

Smith implies that I am supportive of a DISTAR type programme. This is incorrect. It is unfortunate if those who raise concerns about *Te Whāriki* are seen as advocating a rigid teacher controlled approach. It is possible to advocate for a greater focus on literacy (including language development) and numeracy without favouring DISTAR (see, e.g., Blaiklock, 2008a). Indeed, if we see children as “competent and confident learners” (to quote from page 9 of *Te Whāriki*) and wish to “empower” them for making a good start in school, the international evidence is quite clear that opportunities to learn literacy and numeracy in meaningful experiences are valuable for children (Barnett, 2013; Sylva et al., 2011; Yoshikawa et al., 2013).

Blaiklock quotes very selectively from the OECD report, as it comes down more strongly in favour of ‘a social pedagogy tradition’ than it does for a sequential approach. The OECD report (2006) is critical of literacy/numeracy structured sequential approaches because of their failure to provide children with opportunities for self-regulation, and because they do not tap into children’s intrinsic motivation. “When this intrinsic motivation is missing, the teacher will have to work harder to engage the children in learning...learning becomes artificial and uninteresting” (Van Kuyk, 2006, cited by OECD, 2006, p. 135). Children learn much better in meaningful situations when the learning tasks are not decontextualized (as they were in DISTAR).

I agree with Smith that children learn much better in meaningful situations. I have never suggested otherwise. Smith claims that I quoted “very selectively” from the OECD (2006) report but quotes, by their very nature, are selective. What I have done in referring to the OECD report in my October presentation was to challenge the

ECE Taskforce (2011) use of this report (and the literature review by Mitchell, Wylie, & Carr, 2008) to support the strong endorsement that the Taskforce gave to *Te Whāriki*.

To recap: The Taskforce stated, “*Te Whāriki* “is considered a model of best practice” (p.6). They concluded that they “found nothing to detract from the widely-held national and international view that *Te Whāriki* is a profoundly important document that is fit for purpose and meets our society’s needs as well as the needs of a diverse early childhood education sector” (p.112). The Taskforce suggested it would be useful to review the implementation of *Te Whāriki* but made no criticism of the structure or content of the document. In support of their findings about *Te Whāriki*, the Taskforce cited the OECD (2006) report and Mitchell et al. (2008).

When referring to the OECD (2006) report in my presentation, I pointed out the concerns the report noted about overly structured programmes (see Slide 20). I share these concerns. A concern for overly structured programmes, however, does not mean that the OECD report can be taken as support for the laissez-faire approach that is possible with *Te Whāriki*, where there are no required learning outcomes, no required assessments and a very loose approach to planning in relation to children’s well-being and learning. The points I have included from the OECD report in my presentation (Slides 20-23) indicate that it was inappropriate for the Taskforce to use this report to suggest that the structure and content of *Te Whāriki* does not need to change.

My presentation also noted that it was inappropriate for the ECE Taskforce to refer to the literature review by Mitchell et al. (2008) as support for its endorsement of *Te Whāriki*. On Slide 10 I noted that the highest quality studies noted in Mitchell et al. are of programmes using curriculum that are very different to *Te Whāriki*. I also noted Mitchell et al.’s finding on the lack of research on learning dispositions.

Smith makes no response to the concerns I expressed about statements in the “Quality Matters in Early Childhood Education and Care: New Zealand” report (OECD, 2012) or the “Starting Well” report (Economist Intelligence Unit, 2012). Both of these reports have been used to support the notion that New Zealand is a world leader in early childhood education. However, a closer examination of the reports shows they lack valid evidence to support such an opinion (Slides 7-13).

An approach like that advocated by Te Whāriki, focused on dispositions, motivation and non-cognitive skills, is strongly supported by the work of Nobel Laureate economist, James Heckman (2011). He says that non-cognitive skills such as motivation, sociability, ability to work with others, attention and self-control are learned more easily in the early years, and they are very important for ongoing learning because they facilitate transfer to new and different situations. It is these skills that Te Whāriki focuses on. Similarly in New Zealand, Richie Poulton's (2011) work on another non-cognitive skill, self-control, shows that it strongly influences positive outcomes in many aspects of life

Areas such as “motivation, sociability, ability to work with others, attention, and self control” are very important. Few would disagree. The point I have tried to make, however, is that there is no valid evidence that the use of *Te Whāriki* in New Zealand ECE centres is effective in encouraging such characteristics. A common defence given for *Te Whāriki*'s lack of focus on content knowledge is that the curriculum framework focuses more on dispositions to learn (see e.g., Smith 2011). Without evidence that *Te Whāriki* is effective in enhancing such dispositions, this is no defence.

Smith argues that *Te Whāriki*'s focus on “dispositions, motivation, and non-cognitive skills, is strongly supported by the work of ... Heckman (2011)”. What she omits to mention is that Heckman also recognises the importance of early childhood education for promoting cognitive skills that help children get off to a good start in school (Heckman, 2011). Promoting cognitive skills and non-cognitive characteristics are not mutually exclusive. Indeed, children who experience success in cognitive domains are likely to have enhanced self-belief and motivation to learn (Sadler, 2002). Quality curriculum emphasises that the cognitive and non-cognitive are synergistic and both are of importance.

Of relevance when considering the elements of an early childhood curriculum are findings from longitudinal studies of the first years of school in North America. Greg Duncan and colleagues have carried out a detailed analysis of six large datasets that tracked children's progress from kindergarten entry through to Grade 8. Results were adjusted for differences in socioeconomic background. Duncan (2011) reports that attention skills were found to be important but that “future school achievement is much less a function of a child's school-entry social and emotional development than

concrete literacy and numeracy skills such as knowing letters, word sounds, numbers, and ordinality” (p.93). The content of *Te Whāriki* is far removed from these findings.

Richie Poulton’s work with the Dunedin longitudinal study has produced fascinating results about the importance of childhood self-control for adult outcomes in social, health, and financial areas. The study suggests that it would be beneficial for early childhood educators to consider how they can best provide opportunities to develop self-control in centre programmes. (This was one of the focuses of the original HighScope studies and was the reason behind the Plan-Do-Review sequence that makes up a key part of that programme [Weikart, Rogers, Adcock, & McClelland, 1971]). As yet, however, there is no evidence that self-control is enhanced in New Zealand ECE programmes that are based on the *Te Whāriki* curriculum framework.

I would argue that there is no one curriculum model that research evidence shows to be superior. There are many confounding variables to challenge the validity of such research, such as teacher, child, and family characteristics, interpretation and delivery of the curriculum, resources and funding to support the curriculum etc. As Nores & Barnett (2010) say from their analysis of 38 contrasts, and 30 early childhood intervention programmes in 23 countries:

Overall, our findings indicate that program design matters, but that there is a lack of clarity about what dimensions matter and for what reason (p.129).

I agree that the complexity of variables makes it difficult to conduct research into the effectiveness of particular curriculum models. But this is why we need to learn from the carefully designed studies that have already been carried out (e.g., HighScope, Chicago Longitudinal Study, see Barnett, 2013). Smith cites the review by Nores and Barnett (2010) but omits to point out that nearly all of the countries in this particular review were developing nations. When Nores and Barnett conclude, in the above quote, that there is a “lack of clarity” they are referring to the differences between programmes in relation to a focus on nutritional aid, cash transfers, education, or a mixture of these. The context for most of these programmes is very different to New Zealand.

Canadian and United States studies, some of the highest quality research available, were not included in Nores and Barnett's (2010) investigation. However, Barnett has co-authored other more comprehensive reviews of the evidence on early childhood education. The conclusions of an extensive review (which did include American studies) by Barnett and other leading early childhood researchers (Pianta et al., 2009) include the following points:

Effective teaching in early childhood education requires skillful combinations of explicit instruction, sensitive and warm interactions, responsive feedback, and verbal engagement or stimulation directed to ensure children's learning while embedding these interactions in a [centre] environment that is not overly structured or regimented (p. 50).

I think many supporters of *Te Whāriki* would agree with most of these comments except, perhaps, the notion of "explicit instruction". Explicit instruction, however, can perhaps be seen more acceptably as intentional teaching within meaningful contexts. A sociocultural approach, which *Te Whāriki* is often aligned with, provides for explicit teaching from experts to novices, something that can be overlooked in the emphasis on "free play" in many programmes. As I tell the teacher education students I work with, "It's okay for teachers to teach" (through relationship-based interactions and within meaningful contexts of course). It is also vital that children have plenty of time for play (Moyles, 2005).

Pianta et al. (2009) also state,

"Quality of instruction within a specific content area appears closely linked to improvements in language, math and reading. These studies suggest that children may achieve larger gains when they receive higher-quality instruction that specifically teaches target skills in a manner that matches children's skill levels and provides instruction through positive responsive interactions with the teacher. ... It is quite clear that programs that are more educationally focused and well defined produce larger effects on child development (p.50)..

Te Whāriki does not compare well in relation to Pianta et al's (2009) comments on quality programmes. Little guidance is given in *Te Whāriki*, or in the resources that are currently available about using *Te Whāriki* (e.g., Lee, Carr, Soutar, &

Mitchell, 2013), on how to teach target learning areas through the means of quality teacher-child interactions, and in ways that match children's current understandings. To target individual children's learning in particular domains (e.g., language development, physical development, social learning) does not mean that there is any less emphasis on caring and responsive relationships with children. At the start of my presentation I noted that I had deliberately included the word "care" in the title, "Early Childhood Education and Care in NZ" (although I generally use the more common abbreviation, ECE). I emphasised the importance of care as a basic foundation to ECE and pointed out that to care about children is to also care about what they are learning.

There is a considerable body of research, however, to show the type of early childhood centre structures and processes that are associated with more favourable outcomes for children. I outline these in Chapter 5 of my newly published book (Smith, 2013c).

There is much to agree with in Chapter 5 of the new edition of Smith's valuable book on children and childhood. Her stance on *Te Whāriki*, however, remains uncritical. Her praise of the curriculum framework is generous but she could be clearer about the lack of empirical evidence that exists to show whether *Te Whāriki* is having a positive effect on children's well-being and learning.

It is important to reiterate, however, that curriculum is not just a question of technical issue of outcomes, but is also a value issue of what we think is important in our cultural context. According to Peter Moss:

The bigger issue is that you cannot begin to talk about evaluation without engaging with a variety of political and ethical questions that have many answers, many of which are conflicting. Put another way, education and evaluation are more than just technical practices, they cannot take place in a political and ethical vacuum in which the only question is the simplistic 'what works?' ... How can we decide what is most successful without first asking and

deliberating on political and ethical questions? e.g. what is the purpose of education, what is our 'diagnosis of the times', what are our fundamental values, what do we understand by education, knowledge, care etc. (Moss, 2013)

Of course education is surrounded by, and part of, wider issues. Engaging (or perhaps indulging?) in academic deliberations of the “diagnosis of the times” and “what are our fundamental values” etc., can be of significance but it is also crucial to focus on what Moss refers to as the “simplistic” question of ‘what works’. Finding ‘what works’ is actually far from simplistic, and requires careful and critical examination of the evidence and an understanding of differences in the detail and context of different early childhood programmes. Parents, whanau, and teachers want to know ‘what works’ in terms of the well-being and learning of children as individuals and as part of a community. Academics can assist by providing informed analysis of the available evidence on ‘what works’, taking account of variability and contextual influences.

I agree with Blaiklock, however, that it would be useful for more large scale in-depth long-term research to be carried out in early childhood education in New Zealand. In my view we should be looking critically at the nature of the structures and processes that take place in early childhood centres in New Zealand, and be looking more systematically at longer-term outcomes. It would also be useful to see how early childhood teachers are implementing Te Whāriki and whether their practice reflects the type of quality practices we know to be evidence-based. Linda Mitchell and colleagues’ research showed that most centres in her Pathways evaluation project did implement Te Whāriki (Mitchell et al., 2011), but more detailed observational data across a larger sample of centres would be very valuable. “Monitoring is generally the responsibility of government through its statistical agencies, evaluation and research units” (OECD report, 2006, p. 175), and this has not been done adequately, so it is unfair to attack the early childhood sector for its failure to carry out what is a government task. It would seem that the Education Review Office is not sufficiently resourced to be able to carry out the sort of intensive research that is necessary in the field, nor is it ERO’s core business. To work towards improvement of quality in early

childhood, it is important that comprehensive research is carried out, which does not have adverse effects on the sector.

Smith and I are in agreement about the need for “more large scale in-depth long-term research to be carried out.” Smith also says it would “be useful to see how early childhood teachers are implementing *Te Whāriki*” and refers to Mitchell et al.’s (2011) findings that most centres in her project did implement *Te Whāriki*. However, it is very difficult to know what ‘implementing’ *Te Whāriki* actually means. The holistic and non-specific nature of the document means it can be interpreted in so many ways. Mitchell et al.’s evaluation of the implementation of *Te Whāriki* provides little information about what this looks like in the day-to-day practice of a centre. Evaluations in this study were not based on extended observations of key aspects of centre programmes but were judged on the basis of interviews with groups of teachers.

Blaiklock is critical of the use of American research in the Early Childhood Taskforce Report (2011), but on the other hand he tells us that Te Whāriki is not supported by international evidence (so it is necessary after all?), and does not tell us what research he is relying on to support his views. The taskforce report draws widely on international theory, research and evidence from Australia, the UK, the Nordic countries and other European countries. The research was not being used to support New Zealand programmes, but to argue that there is incontrovertible evidence that quality early childhood education makes a difference, and that it was therefore worth investing in quality early childhood education. It is always essential to draw on international literature when carrying out a literature review on early childhood education, so obviously US and UK research must be included. Our own system is strongly influenced by aspects of overseas models. Moreover as I have argued earlier, it is difficult to carry out research showing the superiority of one curriculum model over another.

It is essential to make use of international literature and something I have advocated that we need to do more of in New Zealand ECE. However, Smith’s above argument appears confused. She suggests, “Blaiklock is critical of the use of American research in the Early Childhood Taskforce Report (2011) but on the other

hand he tells us that *Te Whāriki* is not supported by international evidence (so it is necessary after all?).” Smith may have misunderstood the points I was making in Slides 15-20. I was not critical of the inclusion of American research (e.g., HighScope, Abecedarian Project) in the Taskforce Report. (These studies provide very important empirical evidence about the effectiveness of quality ECE.) What I was critical of was the way that the Taskforce refers to such studies as if they provide support for current ECE practice in New Zealand when, in fact, the American studies are of programmes very different to what occurs in our country.

Earlier in this paper I challenged Smith’s claim that HighScope is not “necessarily more structured than *Te Whāriki*.” HighScope is more structured. It is therefore inappropriate to use the very positive findings of the HighScope research to support the approach of *Te Whāriki*. Smith, however, has long made this link. In a literature review for the Ministry of Education back in 2000, Smith et al. suggested that the results of the HighScope study (Schweinhart and Weikart, 1997) could be used to support the approach of *Te Whāriki*:

The results of the curriculum comparison study appear, therefore, to support New Zealand’s theoretical and curriculum model. That our model has been embraced with enthusiasm overseas, especially in the United Kingdom, is a further indication that the model is a useful framework which can be practiced in diverse settings and using a variety of different approaches (p.69).

However, in 2010, I pointed out that

it is rather a long stretch, however, to use the results of the HighScope studies to endorse the New Zealand approach. There are countless differences between New Zealand programmes and the programmes that were found to be more beneficial in the HighScope studies. For example, the HighScope studies only looked at programmes for 3- and 4- year olds whereas *Te Whāriki* spans the 0-5 year age range. Another difference is the teacher-child ratio” [more generous in HighScope]. ... “Furthermore, the HighScope curriculum places considerably more emphasis on early mathematical and literacy activities (including alphabetic skills) than is found in *Te Whāriki*” (Blaiklock 2010a, p.204).

Given Smith's longstanding support for *Te Whāriki*, and given that she was the only early childhood education academic on the ECE Taskforce, it is perhaps not surprising that the Taskforce supported no change to the content of *Te Whāriki* and only recommended a review of its implementation. Reviewing the implementation of *Te Whāriki*, however, is of limited use when the document itself is vague and non-specific in so many areas. As noted above, what does 'implementation' mean when the document can be interpreted in so many ways? A consequence of focusing on implementation is that it becomes possible to put the blame on teachers for not 'understanding' how to put the framework in action. This is unfair, especially given the lack of clarity in *Te Whāriki*, and the very limited availability of resources on the practical realities of running effective early childhood programmes using *Te Whāriki*.

Te Whāriki is deeply grounded in sociocultural theory and research, which entails a detailed examination of the interplay of learning contexts and children's engagement with learning activities in particular settings. Blaiklock does not seem to want to engage with, or acknowledge this internationally recognised and respected research and theoretical framework. Indeed by his questioning of the meaning of 'dispositions' he clearly does not understand it. Blaiklock obviously favours other research paradigms and theories, but these are never explained or argued for in his presentation, nor does he provide empirical evidence to support an alternative approach.

I am puzzled by Smith's claims that I do not wish to engage with sociocultural theory and research. I have read much in this area and found much of interest. Sociocultural theory can be seen as a part of the much wider field of developmental psychology, a field that continues to grow and develop. Research in this field continues to reveal more about the complexities of children's learning and development in different contexts. Sociocultural theory, like any other theory, should be questioned and evaluated in the light of research findings.

I am also puzzled by Smith's logic when she states, "by questioning the meaning of 'dispositions' he clearly does not understand [sociocultural theory]." To

question the meaning of a term does not mean that somebody does not understand a theory. To question is important! – and it is what theory building relies on.

I will continue to question the meaning of ‘dispositions’. It is unfair for teachers to be expected to assess the learning dispositions of children from 0 to 5 years of age when they have not been given a clear definition of what dispositions are. Smith (2013b, p. 230) relies on Carr’s (2001) definition of learning dispositions as:

situated learning strategies plus motivation-participation repertoires from which a learner recognises, selects, edits, responds to, resists, searches for and constructs learning opportunities ... [and] ... being ready willing and able to participate in various ways: a combination of inclination, sensitivity to occasion and the relevant skill and knowledge (p.21).

As I noted in Slide 40 of the presentation, what does this really mean? If the overall concept of learning disposition is difficult to define, how can we define particular dispositions such as curiosity, playfulness, and resilience? And where is the evidence to show how such dispositions change in relation to changes in children’s development, learning, and context? Also, where is the evidence that assessment of such dispositions (in which NZ has invested many tens of millions of dollars) leads to improved learning for children?

Dispositions are a fascinating area and one that is worthy of further research. It is unfortunate, however, that demands have been placed on teachers to assess learning dispositions when this field of inquiry is still so poorly understood, and when researchers in this area cannot adequately define what it is they want teachers to assess.

I am unclear about Smith’s claim that I “obviously favour other research paradigms and theories” but do not explain them or provide empirical evidence to support an alternative approach. The purpose of my presentation was to challenge some oft-repeated opinions about ECE in NZ that are not supported by valid evidence. Rather than favouring particular research paradigms, I value looking at the quality of the evidence that supports particular approaches. My presentation challenged the cosy consensus that continues to promote the success of *Te Whāriki* in the absence of valid evidence that it is effective in promoting children’s well-being and learning. *Te Whāriki* was introduced at a time when the early childhood field in New Zealand was

campaigning for greater professional recognition. The curriculum framework gave early childhood teachers something to identify with and something that they were told was special and “world leading”. *Te Whāriki* does contain many valuable aspirational statements about children and teaching and it is natural that many feel a personal attachment to the curriculum and share a belief that it must be effective. This belief, however, should not get in the way of a realistic appraisal of the value of *Te Whāriki* for enhancing children’s well being and learning. (For recent accounts of effective, research-based practice in ECE, see Pianta, 2012, and Reutzel, 2013).

Qualitative Research

Blaiklock spends a considerable amount of time in his presentation criticising the rich body of qualitative research on early childhood education that we have amassed in New Zealand, such as the COI and TLRI studies. I believe that these projects have been very valuable in New Zealand giving examples of the application of new ideas to early childhood education in New Zealand, being directly relevant and understandable to teachers, and helping to enthuse them about being partners in the research process. The COI projects have been widely disseminated (as was intended) and have helped to make other teachers more reflective about their programmes and willing to try new ideas. They were not necessarily designed to look at what children were learning (though some have), but to document the application of innovative ideas to early childhood practice. Anecdotal evidence and the narrative assessment approaches used in Learning Stories are ideally fitted to documenting the processes that take place in early childhood settings. It is one of the strengths of qualitative research that it allows researchers to investigate participants’ subjective meanings and interpretations of their experiences, and encourages documentation of children’s learning in context. Since many of these projects have been published in peer reviewed journals, books and government reports (eg. Alvestad & Duncan, 2006; Carr, 1998a, 1998b; Carr et al., 2010; Carr, May & Podmore, 2000; Podmore, May & Mara, 1998; Ramsey, Breen, Sturm, Lee & Carr, 2006; Waitai & Clarkin-Phillips, 2013), it seems that the author is being unfairly critical, because he prefers to work in a different research paradigm. Moreover, the funding for these qualitative projects is a very tiny amount when it is compared with the funding that goes into major longitudinal projects such as the Dunedin, Christchurch or Auckland studies.

So far those expensive studies have produced very little evidence that is directly useful for early childhood teachers.

Smith claims that I “spent a considerable amount of time” in my presentation “criticizing the rich qualitative research on early childhood education that we have amassed in New Zealand, such as the COI and TLRI studies.” In fact, my discussion of these studies was on only one slide of the 46 that made up the presentation. I noted that the projects had provided descriptions of innovative practices but also pointed out concerns about the absence of valid information about what children were learning and whether the innovative practices were influencing learning. I also noted that such concerns had been raised by Meade (2010), and Nuttall, (2010).

Smith expands at some length on her ‘belief’ that the projects were valuable but she does not answer the concerns about whether the innovative practices were effective for enhancing children’s learning. It may seem unthinkable but it is possible that the practices may have sometimes had a negative effect on some children’s learning (e.g., by taking teachers away from involvement in other important areas). Looking over the many COI and TLRI reports, I found it interesting to read of the innovations and I personally believe that a number of them may have had positive effects. But this is just my belief. Without valid evidence, who knows? Research needs to go beyond beliefs, opinions, and anecdotes if it is to be of real value. Both qualitative and quantitative research can be informative but both approaches need to be done with rigor and a clear understanding of research methodology (Martella, Nelson, Morgan, & Marchand-Martella, 2013). Using a combination of qualitative and quantitative approaches, or mixed methods, can be very useful for investigations in early childhood education (Sylva et al, 2011).

Smith considers the \$8 million that was spent on the COI and TLRI ECE projects to be a “very tiny amount” in comparison to the funding for large-scale longitudinal projects. However, \$8 million is a substantial amount of money and would have gone a long way if directed towards research that provided valid evidence (rather than focusing on beliefs, opinions, and anecdotes) on how to enhance children’s learning and wellbeing in ECE centres.

It is relevant here to refer to the last slide in my presentation (Slide 46) where I cited Peter Gluckman’s (2013) report on “The role of evidence in policy formation and implementation”. Gluckman provides a clear account of the value of a scientific

approach in the social sciences, and the need to look carefully at the quality of research design and evidence in particular studies. He suggests, “education policy is an area where it is easy for received wisdom to determine policy” and cautions that “values are often conflated with evidence” (p. 22). I would suggest that in ECE in New Zealand, there is often confusion between what is “opinion” and what is “evidence”.

Subject Focus

Blaklock is critical of Te Whāriki for its lack of subject focus. This is by no means a new criticism. I published a response to it in 2011, acknowledging that teachers should have subject knowledge, but arguing that it should be applied flexibly in the context of meaningful activities, and arising out of children’s own interests and questions. The avoidance of subject knowledge in Te Whāriki was due to concerns that this would result in a trickle down of the primary school curriculum. It was also a reflection of the authors’ original focus on the motivational aspects of learning, learning how to learn rather than what to learn, and that there is not one authentic learning pathway but many. A study by Hedges and Cullen (2005) of the beliefs and practices of early childhood teachers, parents and children, suggests that subject knowledge is not necessarily incompatible with a socioculturally-based curriculum. When children ask questions, it is important for teachers to know enough to answer them – for example why sand and water are insufficient to make concrete, or questions about car mechanics or astronomy. Hedges and Cullen’s study found that early childhood teachers missed subject enquiry cues, and rarely used subject knowledge in their teaching or their documentation. Hedges and Cullen argue that ‘the lack of emphasis on subject content may limit learning and teaching opportunities and children’s inquiry-based learning’ (p. 75). They view depth of subject knowledge as necessary for teachers to be able to respond meaningfully to children’s interests and enquiries, and for children to learn about their communities. The study suggested that subject content knowledge is an essential component of early childhood teacher education, which can enhance teachers’ capacity to implement Te Whāriki.

Smith acknowledges criticisms of *Te Whāriki*'s lack of subject content and responds that “teachers should have subject knowledge” but “it should be applied flexibly in the context of meaningful activities, and arising out of children’s own interests and questions.” Her response does not explain why a curriculum document should not contain descriptions of key areas of learning and development for young children, alongside guidance for teachers on how to facilitate learning and development in these areas.

Smith suggests that teachers’ use of subject knowledge should arise out of children’s interests. While it is important to be aware of children’s interests, and extend these when possible, the downside of the common suggestion to “follow children’s interest” is that it could result in children being provided with a limited range of experiences and learning what they already know. There is also the question of how do we really know what children’s interests are? Teachers should be encouraged to create new interests in children to ensure they learn across a full range of areas. This is one of the real skills of early childhood teaching – to provide rich experiences and interactions with children in order to engage their interest in ways that motivate them to learn more.

Smith also states, “the avoidance of subject knowledge in *Te Whāriki* was due to concerns that this would result in a trickle down of the primary school curriculum.” The logic here is unclear. Would it not be better for *Te Whāriki* to include guidance and information on the subject knowledge that is important for the early childhood years (e.g., language, music, art, physical development, science, early mathematics and literacy) rather than simply avoiding this material for fear of the “trickle down”? Like the “trickle down” theory of economics, the “trickle down” theory of school subject knowledge is rather dubious. *Te Whāriki* talks of “empowerment” but surely an important way to empower children is to ensure that they have the skills and knowledge to get off to a good start with learning at school.

Hedges and Cullen’s (2005) findings emphasise the importance of teacher education for ensuring teachers have sufficient subject content and pedagogical knowledge to facilitate children’s learning in important areas. This is particularly important given the lack of guidance in *Te Whāriki*. The problem is, however, that there are no national guidelines on how much subject content and associated pedagogical knowledge to include in teacher education programmes in New Zealand. Some institutions emphasise subject content whereas others give little attention to this

area. It is possible for early childhood teacher education programmes to receive accreditation from the NZ Teachers Council even if they contain only a small amount of material on how teachers can facilitate learning and development in key content areas.

The exemplars, however, contain many examples of the use of subject knowledge to implement Te Whāriki, together with an elaboration of the theoretical and research base of Te Whāriki. For example Connor learns about harvest line haulers (machinery used by his Dad in his work in the bush) and how they work (Carr, et al., 2004, Bk 14), while Ezra (Carr et al., 2009, Bk18) learns about height, balance, measurement and number when he moves the saw horse around under the tree house in the playground. Subject knowledge is, therefore, embedded in meaningful culturally and locally-based shared knowledge and the child's interests. There are multiple pathways to acquiring relevant generic knowledge implicit in Te Whāriki. (Smith, 2011, p. 157-158)

Smith suggests that the exemplars, *Kei Tua o te Pae* (Ministry of Education, 2004, 2007, 2009) “contain many examples of the use of subject knowledge to implement *Te Whāriki*”. However, as a guide for teachers on how to incorporate subject knowledge within everyday contexts, the exemplars are of very limited value. Indeed, they are also of limited value for their primary purpose of being a guide on formative assessment. The 20 booklets that make up the exemplars contain an eclectic mix of narratives or Learning Stories that provide some interesting descriptions of children involved in particular experiences. Some of them also contain useful insights from teachers on what learning may have occurred in the situations. The 20 booklets do not, however, exemplify a valid approach to assessment or the use of subject knowledge.

Smith specifically cites the narrative of “Connor learns about harvest line haulers” (Ministry of Education, 2004, Bk. 14, p.10) as an example of the use of subject knowledge. An examination of this narrative, however, shows that it describes some things Connor may have said about his father's work in forestry, and then shows him wearing a harness as he works alongside an adult on the swing frame. The narrative does not clarify or explain how a teacher made use of opportunities to

enhance learning within this situation. There is no record of a dialogue between Connor and a teacher or anybody else. There is no record of suggestions, questions, or comments that could have been used to extend Connor's thinking and knowledge base.

The other interesting thing about this example is that it is actually included in *Kei Tua o te Pae* as an exemplar for showing teachers how to assess children's language development. It does not do this. I have previously commented in detail about the inadequacy of the guidelines in *Kei Tua o te Pae* for the assessment of language (Blaiklock, 2010b). I pointed out that the guidelines did not even note the importance of recording a child's language accurately (rather than simply writing down at a later point what a teacher recalls the child might have said). I referred specifically to the example about Connor and noted that although it was supposed to illustrate the assessment of verbal communication, it provided only a very superficial analysis of language. The analysis in *Kei Tua o te Pae* includes very general comments such as "he has many learning dispositions, skills, and attitudes, too, which make him a competent and confident learner", "he asks adults and other children to help", and "he can express his ideas and feelings verbally". Such comments could be applied to nearly all young children, whether they have beginning or more advanced language skills. The other exemplars of verbal communication in Booklet 14 also provide little analysis of language.

These exemplars are completely inadequate in providing guidance for the assessment of children's language. Language acquisition is one of the most important developments in the early years and impacts on children's learning in all social and cognitive areas. Teachers need to be very aware of the progress of individual children's language in order to provide appropriate and meaningful learning experiences and to know when to seek assistance if a child's language appears delayed. Hence, it could be expected that a government funded resource, *Kei Tua o te Pae* would provide useful information about the assessment of language (especially as at least \$14 million dollars was spent on professional development to promote the value of the exemplars to teachers). That it fails to do so is a serious concern.

Measurement of Specific Learning Outcomes

Blaiklock is critical of the “lack of measurement of specific learning outcomes” in Te Whāriki related to curriculum subject content. The reason for this is explained in the above Smith (2011) quote. It was precisely to avoid the trickle down or ‘schoolification’ of early childhood education and its harmful effects (OECD, 2006), that Te Whāriki avoids specific learning outcomes. It is much less interested in specific skills than in orientation towards learning, or learning in action. Te Whāriki shows the multiple ways that its goals can be met, however, through the Kei Tua o Te Pae exemplars (Carr, Lee, & Jones, 2004, 2007, 2009).

The above quote that Smith attributes to me does not actually appear in my presentation. Perhaps the point Smith meant to refer to was when I stated, “Just as there is no requirement to cover particular learning outcomes when planning, so there is no requirement to assess particular learning outcomes” (Slide 37). That statement is correct.

Although I consider Smith’s trickle-down concerns to be an inadequate explanation for the neglect of subject content in *Te Whāriki*, I agree with her about the need to be cautious about too great a focus on academic goals. This is a point made in the OECD (2006) report that Smith cites. The same report, however, also quotes Bennett (2005) who warns against “excessive suspicion of ‘schoolification’ and reluctance to orient children towards learning goals valued by parents, schools and society” (p.14). If we value partnerships with parents and whanau, we will pay attention to what they value. Families want their children to get off to a good start in numeracy and literacy at school and we have an obligation to ensure the early childhood curriculum best facilitates this.

There is no evidence to support the view that having specific subject outcomes leads to better learning outcomes. In fact the Schweinhart & Weikart study and the UK EPPE project (Siraj-Blatchford & Manni, 2008) suggests that the key aspect of a quality curriculum, is for children to be engaged with adults in joint thinking and problem-solving in meaningful contexts, with an emphasis on responsiveness to initiations by children. Blaiklock mentions the EPPE’s emphasis on “sustained shared thinking”, and this is exactly the approach that Te Whāriki is encouraging.

Learning, as Te Whāriki points out, occurs in the context of reciprocal, responsive, relationships with people, places and things. There is voluminous evidence to support such a proposition. Yet it is true that we do not know how much sustained shared thinking is engaged in within early childhood centres in NZ as highlighted by Anne Meade and her colleagues (2013). This supports my argument for more detailed observational research in New Zealand early childhood centres. Rather than doing this in order to offer summative evaluation conclusions, it would be much more valuable if such data could be used formatively to help improve quality. Since current professional development programmes have been decimated, there is little chance of this happening.

The emphasis in Te Whāriki is on children's engagement in learning and how their identities as learners transfer to new and different situations. Listing specific outcomes would likely have a deadening effect on early childhood programmes, limiting the diversity of ways that children can learn, and the content of their learning, and ignoring how learning is deeply embedded in different contexts. Blaiklock's approach suggests that there should be one path of learning for all children in all early childhood centres, rather than recognising that there are many potential developmental pathways depending on particular cultural goals and local community contexts.

I am unsure why Smith claims, "Blaiklock's approach suggests that there should be one path of learning for all children in all early childhood centres". I have never suggested the idea of "one path of learning for all" and it is incorrect for Smith to imply otherwise.

Smith mentions the importance of "sustained shared thinking". I agree with the importance of this in adult-child interactions. As Smith points out, there is valuable research on this topic. Smith also notes that we do not know how much "sustained shared thinking" occurs in ECE centres in New Zealand. Research clearly shows that much of children's learning occurs through quality adult-child interactions in both home and centre situations. Although *Te Whāriki* talks about reciprocal and responsive relationships, it provides little guidance on what this really involves and how to facilitate learning through interactions. New Zealand could learn much from the high quality empirical studies by Robert Pianta and colleagues (e.g., Burchinal et al. 2008). Such studies are providing valuable detail about the types of teacher-child

interactions that are most effective for providing learning opportunities in cognitive and social domains. Pianta's work is also focused on using well-designed professional development to enhance the capabilities of teachers in working effectively with young children (Hamre et al. 2012; Pianta, Mashburn, Downer, Hamre, & Justice, 2008). The work of the Hanen Centre on responsive language interactions is also very relevant here (e.g., Girolametto Weitzman, & Greenberg, 2006).

It is heartening to see how well Te Whāriki aligns with Bolstad & Gilbert's (2012) Report to the Ministry of Education on Supporting future-oriented learning and teaching. The authors explain that there has been a shift away from knowledge known and developed by experts, which is then transmitted to passive learners, towards creating and using knowledge. The transmission approach is not helpful, as there many 'wicked' problems (eg climate change) to be addressed, and we do not know what knowledge will be relevant in the future. Knowledge, they argue, is coconstructed, and working theories developed, in the context of people coming together and collaborating to solve the problems of daily life. What is important, is the development of children's identity as learners, and their becoming self-reliant, critical creative thinkers who use initiative and collaborate on an ongoing basis. Some of the principles Bolstad and Gilbert propose for future-oriented teaching and learning include the following:

- *Personalised Learning – moving away from a one-size-fits-all approach that worked for the industrial age, towards embracing the diversity of learners and building learning opportunities for individuals to help equip them for the future.*
- *Curriculum that uses knowledge to develop learning capacity – shifting from transmitting content knowledge to creating and using new knowledge to solve problems and design solution, equipping students to be inventive with knowledge in new contexts.*
- *Changing the script and rethinking the roles of learners and teachers – shifting away from a transmit/absorb model towards collaborative learning and power sharing.*

- *A culture of continuous learning for teachers and educational leadersteachers drawing on the expertise of their communities, working with people who have the appropriate expertise, and engaging with learning on a lifelong basis.*

The trend is away from equipping children early in life with a store of knowledge to be drawn upon throughout their lives. A UNESCO report argues that twenty-first century learning is of four fundamental types.

Learning to know, that is acquiring the instruments of understanding; learning to do, so as to be able to act creatively on one's environment; learning to live together, so as to participate and cooperate with other people in all human activities; and learning to be, an essential progression which proceeds from the previous three. (Delors, et al, 1996, p. 86, www.unesco.org/delors/ cited by Bolstad & Gilbert, 2012, p. 13)

This forward-looking approach aligns well with Te Whāriki's emphasis on well-being, belonging, communication, contribution and exploration, and ongoing learning dispositions.

In the above section, Smith repeats some of the fashionable comments about “21st century learning”. Although there are some interesting ideas here, it is important not to get carried away with such speculation. Guesswork about the future is no excuse for neglecting the knowledge base that has been developed through centuries of human creativity and endeavour in the past.

As a response to Bolstad and Gilbert (2012), it is of relevance to note some of Tom Bennett's (2013) comments on the “21st century learning” movement:

Here's one of the more famous quotes endlessly recycled by proponents of the idea, from Richard Riley, secretary of state under Bill Clinton: “We are currently preparing students for jobs that don't exist yet ... using technologies that haven't yet been invented ... in order to solve problems we don't even know are problems yet.”

Hang on – jobs that *don't exist yet*? What like a janitor at the 2046 Olympics? A light sabre inspector? This is madness. ... This appeal to the terrifying unfamiliarity of the future is a sham nestled in a half-truth. Of course no one knows the future, but to say that we have no idea what jobs there will be is rubbish. Take someone who designs iPhones; he or she might have a job that doesn't exist in 1995, but back then there were mobiles, and people who designed things. Today's jobs rely on skills that already exist, which is handy, otherwise nothing could be invented. We don't predict the future. We create it! (p. 111).

It is a truism to say that the only constant is change. But I am not yet aware that we will live in a future where children won't need to learn to walk, talk, interact, and become literate. Quality early childhood education can enhance learning in so many areas. However, the open and non-specific nature of *Te Whāriki* means that it is possible for centres to operate programmes that completely omit learning experiences in important domains. (As was discussed earlier, a contrasting approach is provided by HighScope which lists 58 key developmental indicators for 3 and 4 year olds as the basis for experiences in the 8 curriculum domains: Approaches to Learning; Language, Literacy and Communication; Social and Emotional Development; Physical development and Health; Mathematics; Science and Technology, Social Studies; and Creative Arts. HighScope has developed a separate curriculum and developmental indicators for children up to 3 years of age. See Epstein 2011-2012.)

Smith (2003) has long supported the focus of *Te Whāriki* being,

towards setting up attitudinal and dispositional thinking. Instead of being preoccupied with specific skill, which children do or do not have, the concern is for developing an overall enthusiasm for learning. *Te Whāriki* encourages children's autonomy, communication, exploration, commitment and aspirations. Children and their learning, rather than subject areas, are the starting points of educational thinking (p.5).

However, as I pointed out in the presentation (Slide 29), there is no evidence that *Te Whāriki* is more effective for encouraging what Smith calls an “overall enthusiasm for learning” (or “identity as a learner”) than a curriculum that specifies

important subject areas and domains of learning. The HighScope curriculum again makes an interesting comparison to *Te Whāriki*. HighScope includes “Approaches to learning” (which seems to overlap with what Smith considers to be the processes or “how” of learning) as one of the 8 main areas in its curriculum. Whereas supporters of *Te Whāriki* seem to consider that including the “how” of learning is reason to omit the “what” of learning, the HighScope curriculum still includes considerable detail about the other 7 key content areas (Language, Literacy and Communication, etc as listed above).

Narrative Assessment

As explained above, Te Whāriki is not focused on the learning of specific content but constitutes learning as working theory and learning disposition (see Te Whāriki, pp. 44-45; Gunn, 2012; Hedges, 2011; Peters & Davis, 2011) and more broadly as related to mana and children’s identities as learners (Carr & Lee, 2012; Gunn, 2012; Rameka, 2011). Blaiklock’s presentation does not appear to engage with this significant framing of learning in early childhood education, imposing instead a very narrow construct of learning and curriculum. Because Te Whāriki is focused on learning rather than performance goals, narrative assessment is an entirely suitable tool to measure these goals.

Blaiklock argues that Learning Stories are an unproven assessment method. This claim is simply incorrect. The assessment method was developed in the context of a study of what, why and how to assess in the context of Te Whāriki (Carr, 1998a, 1998b). Mitchell et al.’s (2008) finding that 94% of services were using the approach, a fact cited by Blaiklock in his presentation, shows that Learning Stories are clearly practical to implement, otherwise, as assessment scholars like Ruth Sutton (1995) argue, they would be unmanageable and not ‘best-fit’ nor ‘fit for purpose’.

Smith challenges the claim that “Learning Stories are an unproven assessment method” but she does not provide evidence to show they are an effective and practical way of assessing and enhancing children’s learning. Back in 2008, when I raised concerns about Learning Stories, I concluded, “Currently the theory and empirical evidence on learning dispositions is not sufficient to support the continued use of

Learning Stories as a major assessment technique in early childhood settings” (Blaiklock, 2008b, p.85-86). That conclusion still holds. The 2008 article dealt at length with the many problems that Learning Stories have as an assessment method, some of which I summarized on Slide 41 of my presentation. (I have also noted some of the concerns with Learning Stories or ‘narratives’ in the above discussion on *Kei Tua o te Pae*) In the presentation, I pointed out that Learning Stories can have benefits (e.g., as descriptions of children’s involvement, for conversations with children, and as a way to promote interest in literacy) but these benefits can also occur with easier more practical approaches (e.g., photos with anecdotes, or Learning Notes) that remove the confusion and mystique that exists for Learning Stories. (For more on Learning Notes, see Blaiklock, 2010c.) That 94% of services are using Learning Stories does not mean they are effective. It may simply be a result of the generous funding of professional development that went into promoting Learning Stories and *Kei Tua o te Pae*. The widespread use of Learning Stories also stems from teachers learning little about other assessment methods in some teacher education programmes, and from the perception that the Education Review Office requires Learning Stories to be used in centres.

Blaiklock criticizes Learning Stories on several other grounds suggesting a non-engagement with key principles of learning and assessment as expressed in the curriculum. He argues for assessment that focuses on comparing children’s achievement on specific skills – a norm-referenced approach. Yet, in line with the turn to formative assessment in New Zealand education more generally (Ministry of Education, 1994, 1998, 2011), Te Whāriki expressly asks teachers to engage with formative and self-referenced assessment (situated within sociocultural principles). Blaiklock questions the validity or credibility of Learning Stories as an assessment form. This is despite the fact they have high content and face validity. (Kei Tua O Te Pae exemplars for example, report on children’s working theories, dispositions, mana and learner identities over time.) The construct validity of Learning Stories, especially those interpreted overtly in relation to dispositions, working theories, learner identities, or mana, is sound; and the consequential validity of Learning Stories expressed oftentimes as social consequences of assessment are also well documented (see for example Kei Tua O Te Pae, Carr & Lee, 2012, and Cowie & Carr, 2009).

Smith claims that I argue for “a norm-referenced approach” to the assessment of children. This is incorrect and misleading. I did not suggest that “norm-referenced” assessment should be promoted in ECE. I value formative assessment and am also aware that research-based criterion assessment can be useful. I have previously written, “The use of valid assessment procedures would also allow teachers to monitor the effectiveness of their work and to adjust their programs in response to the individual needs of children. This could help to reduce the disparities in learning that are found at school entry which, in turn, contribute to increased inequities in educational outcomes during the school years” (Blaiklock, 2013b, p.55). In other words, quality assessment is an issue of social justice. There is no evidence that Learning Stories have contributed to reducing inequities in New Zealand children’s learning at school entry. There is, however, evidence that Learning Stories have required a great deal of teacher time, time that may have been more productively spent interacting with children or engaged in more effective assessment procedures.

We need to be cautious when assessing young children. In my October presentation, I noted this point and also stated that “assessments should be purposeful, valid, practical and for the benefit of children.” To assess children without clear benefits is not justified. To assess children with invalid procedures is also unjustified. I am unclear why Smith claims that Learning Stories meet standards of validity when proponents of this approach have not yet even been able to actually define what it is they are assessing. An examination of any major text on the assessment of young children (e.g., Bagnato, 2007; Wortham, 2012; National Research Council, 2008) will show that the criteria needed for validity have not been established for Learning Stories. Proponents of Learning Stories have also been unable to show how individual children’s learning dispositions may develop and change over time and how they vary between different contexts (see Blaiklock, 2008b).

Summary and Conclusions

This paper is a critical reflection on the claims that New Zealand is complacent about its early childhood curriculum, Te Whāriki, and that there is no basis for its claim to be a world leader in early childhood education. It also looks critically at the argument that there is no reputable empirical evidence to support its effectiveness,

that it lacks subject focus, and does not focus on measuring specific learning outcomes. The paper argues that Te Whāriki provides a theoretical framework backed by research, to support children's ongoing learning identities and intrinsic motivation, rather than to transmit specific subject content. Because of the difficulty of evaluating any curriculum out of context, there is no evidence that any one curriculum model is superior to others. The author, however, would welcome rigorous research, both quantitative and qualitative, to provide knowledge about how well New Zealand early childhood centres are implementing Te Whāriki, as well as to give an overall representative picture of whether evidence-based quality processes are in place. The most important use of such research findings will be to provide support and resources for teachers and centres to improve their practices, in order to realize children's right to participate in high quality early childhood settings, and to allow children to achieve their learning potential.

The title of Smith's discussion paper is, "Does *Te Whāriki* need evidence to show it is effective?" Having read the paper, I am still unclear as to how Smith has responded to the question. Her conclusion stated that she "looks critically at the argument that there is no reputable empirical evidence to support [*Te Whāriki*'s] effectiveness". However, although she "looks critically" at the issue, she has not provided evidence to counter the argument. Nor has she pointed out errors that invalidate my findings of a lack of evidence in the studies and publications that have been used to support the value of *Te Whāriki*.

Smith noted, "because of the difficulty of evaluating any curriculum out of context, there is no evidence that any one curriculum model is superior to others." However, her conclusion seems to be in direct contradiction to her earlier discussion that emphasised the superior long-term results of HighScope compared to the DISTAR curriculum model. It is apparent that Smith does consider some curriculum models to be superior to others.

I agree with Smith about the difficulty of evaluating curriculum approaches and the importance of being aware of context. This is why well-designed empirical studies are so important. Such studies go beyond opinion and anecdote to provide valid evidence about what works to enhance children's learning and well-being. The shortage of such studies in New Zealand means we need to be more open to learning

from the empirical evidence from international studies (see e.g., Pianta, 2012; Reutzell, 2013; Yoshikiwa, 2013).

Smith and other promoters of *Te Whāriki* have sought to excuse the lack of focus on knowledge and skills in the curriculum by arguing that it is instead focused on learning dispositions and making children motivated to learn. However, there is no evidence that *Te Whāriki* is any more effective at enhancing children's interest in learning than a more knowledge and skills based curriculum. Indeed, it is likely that children who succeed in developing knowledge and skills will be motivated to learn more (Sadler, 2002). Hence, it is possible to argue that *Te Whāriki*, by neglecting knowledge and skills, could actually be resulting in a loss of opportunities to develop children's motivation and interest in learning across a range of areas.

In her final comments, Smith calls for more research about how *Te Whāriki* is being 'implemented' in centres. However, as I discussed earlier, the vague and holistic nature of *Te Whāriki* means that it can be interpreted in so many ways and hence it is not possible to define what it actually means to 'implement *Te Whāriki*'. Although *Te Whāriki* is officially known as a curriculum, it is often seen as a curriculum framework, from which each early childhood service 'weaves' a curriculum in response to its children, families, whanau, and community. But where is the guidance to assist teachers with this task, and is it really possible? The looseness of *Te Whāriki* as a framework may allow for high quality programmes but could also accommodate poor quality practice (see Education Review Office, 2013).

Focusing on implementation, rather than the content of *Te Whāriki*, can act as a distraction to facing up to the limitations of the document. Focusing on implementation is also a way of placing blame on teachers for any shortcomings rather than acknowledging that *Te Whāriki* itself may be problematic. It is quite unfair to suggest teachers may not be implementing *Te Whāriki* correctly when no one can adequately describe what implementing means for the day-to-day practice of an early childhood service.

Te Whāriki contains many admirable statements about the value of childhood, relationships, families and communities. It expresses high ideals for children's well-being and learning. Hence it would be ironic if its open and non-prescriptive structure, in combination with invalid assessment procedures, resulted in children being provided with an inadequate range of learning experiences in ECE centres. Children start school in New Zealand with widely differing levels of achievement in areas that

contribute directly to school learning (e.g., oral language, early literacy, and early mathematics). It is usually children from lower income families and/or minority ethnic groups who are at most disadvantage (see e.g., Tunmer, Chapman, & Prochnow, 2006). Quality early childhood education should aim to reduce these differences and contribute to higher levels of achievement for all children throughout the school years.

Currently, however, there is very little empirical evidence that the use of *Te Whāriki* is effective at reducing educational inequities and promoting the learning and well-being of all children. Indeed, it is quite possible that the nature of the curriculum, by providing little guidance for teachers and making no requirements to teach or assess key areas of learning, is actually limiting opportunities for children to be provided with a full range of learning experiences and is falling well short of what is required to reduce educational disparities in our society. We now need to make substantial changes to *Te Whāriki*, or consider developing a new research-based curriculum, if we are to ensure that all children in New Zealand will receive a high quality early childhood education.

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Appendix

Blaiklock, K. (2013a). *Early childhood education and care in New Zealand: A closer look at the evidence*. Presentation to Ministry of Education, Wellington, New Zealand, 23rd October 2013.

[Next page]

Early Childhood Education and Care in NZ: A Closer Look at the Evidence

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(Papers available on “Unitec Research Bank”)

Ministry of Education
Wellington, 23 October 2013

Some slides for this presentation are adapted from earlier presentations on the Research Bank

1

“NZ is a world leader in ECE”

- Many positive aspects to ECE in NZ:
- Integration of care and education.
- High levels of trained teachers. Many committed and talented people.
- High participation rates.
- Relatively high funding levels per child – compared to schooling sector.
- However, little evidence that ECE in NZ is effective.
- (It may be – but we don’t know.)

2

“NZ is a world leader in ECE”

- A commonly expressed opinion. But can lead to complacency and resistance to learning from international research and experience.
- Challenging widely held viewpoints about ECE in NZ carries the risk of being seen as negative.
- But being open and transparent about the current state of ECE enables us to make improvements for the benefit of children.
- *“The great enemy of truth is not the lie – deliberate, contrived, and dishonest, but the myth – persistent, pervasive, and unrealistic.”* John F. Kennedy
- Surprising lack of critique of ECE in NZ.

3

What evidence supports the idea that NZ is a “world leader” in ECE?

- Generally good press about the benefits of ECE in NZ
- The opinion is apparently supported by a number of publications:
 - (1) Competent Children Study
 - (2) OECD Pisa 2009
 - (3) OECD Quality Matters in ECE and Care – NZ (2012)
 - (4) Starting Well – Economist Intelligence Unit (2012)
 - (5) TLRI and COI research reports
 - (6) ECE Taskforce Report (2011)

4

Let's look closer at the evidence in these publtns:

(1) Competent Children Study

- Reports positive associations between quality of ECE and later outcomes.
- Methodological Problems (see Farquhar, 2008; Nash, 2001).
- Combining of two different groups.
- No control group of children who were not in ECE.
- Study began before *Te Whāriki* was implemented.

5

(2) OECD PISA 2009

- Only measure of ECE was recollection of 15 yr-olds on whether they had attended for < 1 yr, > 1 yr, or not at all.
- Problematic. No measure of starting age, hrs or quality.
- After controlling for SES, students who attended > 1 yr outperformed students who had not attended, by an amount equal to nearly 1 yr of schooling, on avge across OECD countries. Gains also seen in other countries.
- NZ placed 21st in participating countries for amount of gain associated with attending ECE for more than 1 yr.
- NZ results. Little difference in gains between those who attended for > 1 yr and < 1 yr.

6

(3) OECD Quality Matters in ECE and Care – NZ (2012)

- “NZ’s *Te Whāriki*

is a progressive and cogent document...

clearly lays out what is expected from staff and child development with useful examples. ...

provides continuous child development through the use of one national framework for ECE ..

ensuring age appropriate content ...

aligning the ECE curriculum with primary schooling”

(p.7).

7

(3) OECD ECE in – NZ (2012) (contd.)

- Research about ECE – Critical Learning Areas
 - ECE Literacy “*Evidence suggests literacy should focus on improving vocabulary and listening skills; building knowledge of the alphabetic code; and introduce printing*” (p.15)
 - ECE Numeracy “*consensus that early numeracy should be implemented on a wide scale. Everyday activities ... numbers and operations, shapes and space, measurement and patterns*” (p. 16).

Reality in NZ? Lack of attention in teacher education?

8

(3) OECD ECE in – NZ (2012) (contd.)

- *“Te Whāriki provides guidance for ECE staff on subject learning areas, e.g., literacy, but through the lens of guidance for ECE staff on a broader competency or “strand” (p.28).*
- *Te Whāriki focuses “largely on developmental process outcomes and little on actual child outcomes in terms of precisely what a child should know at a certain age” (p.33).*
- [Te Whāriki has no required learning outcomes]

9

(3) OECD ECE in – NZ (2012) (contd.)

- NZ *“includes explicit outcomes guidance and experiences for different age groups” (p.34).*

[Not so. Indicative outcomes very general. Same outcome could often apply from 0-12 yrs. Examples of experiences are broad]

“In Te Whāriki there are explicit links to the primary school curriculum and learning areas for each development strand. These links clearly describe what children are expected to do in primary school, how this relates to the experiences in ECE and what activities staff can do to facilitate this transition” (p. 34).

[Not so]

10

(3) OECD ECE in – NZ (2012) (contd.)

- “NZ aligns its five developmental strands well with essential skills and experiences in primary schooling” (p. 34).

[Not so. Connections are broad and vague. Lack of clear definitions and research evidence]

- “Te Whāriki puts a high value on age appropriateness” (p. 34).

[Not so. ‘Developmentally Appropriate Practice’ is poorly understood, but widely rejected, in NZ.]

11

(4) Starting Well – Economist Intelligence Unit (2012)

- “to devise an index to rank preschool provision across 45 countries” (p.5).
- “To accompany this data-driven research, the EIU interviewed experts around the world” (p.6). This included two NZ ECE academics.
- Concluded that NZ was 6th out of 45 countries for quality
- Reported in NZ media as showing NZ “a world leader”

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(4) Starting Well – EIU (2012) contd.

-ranked NZ 6th for quality of ECE

- How did the EIU assess quality of ECE?
- Quality made up of subcategories: Teacher education, Wages, Curriculum guidelines, Data collection, Links with primary education, Parental involvement.
- Unclear how judgements were made for each of these subcategories.
- No assessment of what children were learning in ECE.
- Quality judgement based on opinion?
- EIU will not release any information about the scores for each subcategory.

13

(5) COI and TLRI projects

- Centres of Innovation (COI) – 40+ projects (≈\$5m.)
- Teaching and Learning Research Initiative (TLRI)
18 ECE Projects (≈\$3 m+).
- Provide descriptions of innovative practices in particular centres.
- Reliance on qualitative action research. Methodology sometimes unclear. Use of anecdotes and Learning Stories as evidence.
- Absence of valid information about what children were learning and whether practices affected learning. (See Meade, 2010; Nuttall, 2010.)

14

(6) ECE Taskforce Report (2011)

- Refers to American studies when reviewing evidence on the benefits of ECE (pp. 21 – 27). However, the programmes in these studies are much more structured and academically oriented than in NZ. Also involved family interventions.
- Cannot use these studies to support effectiveness of NZ programmes.
- In spite of a lack of evidence about what children are learning in ECE in NZ, the Taskforce provided a strong endorsement of *Te Whāriki* .

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(6) ECE Taskforce contd. - endorsed T.W.

- *“Te Whāriki is considered a model of best practice, nationally and internationally but could benefit from a comprehensive review of its implementation”*(p. 106).
- *“Te Whāriki is based on the principles of empowerment, holistic development, family and community relationships. It is not prescriptive, and does not tell teachers ‘what to teach’; rather it focuses on supporting learning dispositions and broad competencies that can be readily transferred to new situations (such as entry to school)”* (p.107).

16

(6) ECE Taskforce contd..

- “Research shows that curricula that address motivational aspects of learning, focused on learning dispositions rather than static skills or competencies, are associated with better performance in later schooling than those that are overtly ‘academically’ oriented [Mitchell, Wylie, & Carr, 2008] or standards-based [OECD, 2006]” (p. 107).
- “It’s general approach to learning, and the principles, goals and strands it contains, align well with recent research and evidence [OECD, 2006] ... We therefore do not believe that the content of *Te Whāriki* requires review” (p. 110).

17

Was the ECE Taskforce fair in its use of research to support *Te Whāriki* ? - A closer look at the two main research reviews cited

- Mitchell et al. (2008) Literature Review: (Learning Dispositions pp. 47-49)
 - - includes major US studies – where programmes are more structured and skills based than *Te Whāriki* (e.g., High/Scope Perry). Inappropriate to use these studies to support *Te Whāriki* .
 - - includes Competent Children Studies (Wylie & colleagues). As prev noted, *Te Whāriki* was not yet implemented when sample children were in ECE.
 - Other cited studies. Progs very diffnt to *Te Whāriki*

18

Mitchell et al. (2008) contd.

- Concludes “*Most of the research to date on outcomes for children has focused on cognitive and social-emotional aspects*” ... “*There is little yet specifically on the learning dispositions and key competencies identified as important for learning in the 21st century, and included in Te Whāriki*” (p. 91).

19

The other study cited by the ECE taskforce to support *Te Whāriki* - OECD (2006) *Starting Strong II*

- Describes two broad approaches to curriculum
 - (1) “*a ‘readiness for school’ approach, focusing on cognitive development in the early years and the acquisition of a range of knowledge, skills and dispositions that children develop as a result of classroom experiences*” (p. 57).

OECD report expresses some concern about overly structured programmes.

- (2) “*a social pedagogy tradition ... seen as broad preparation for life and the foundation stage for lifelong learning*” (p. 57).

20

OECD (2006) Report – research evidence

- *“Recent research from the United Kingdom and the United States supports a structured approach to curriculum and learning in pre-school. ... Similarly the recent EPPE study (UK) and the Preparing for School Study in Australia also find that effective pedagogy includes interaction traditionally associated with the term ‘teaching’, the provision of instructive learning environments and ‘sustained shared thinking’ to extend children’s learning. A Dutch meta-analysis of different programming types also concludes that the most enduring cognitive results are achieved when both cognitive and socio-emotional outcomes are pursued simultaneously through structured programming” (p.63).*
- These findings do not fit with the Taskforce’s interpretation of the OECD report as being supportive of *Te Whāriki*.

21

OECD (2006) contd.

- *“Movement in the United States towards learning standards in pre-literacy and numeracy is defended on several grounds. Firstly – a point sometimes overlooked by critics of early literacy and numeracy – children are genuinely interested from an early age in reading and writing” (p. 136).*
- *“..a genuine democratic concern that all young children should have a fair start in life, be supported in their early development and enter school “ready to learn” Particularly important in diverse societies, “an issue of equal educational opportunity for children from low-income and immigrant backgrounds” (pp. 136-137).*

22

OECD (2006) contd.

- The OECD's comments about ensuring educational opportunities for children from diverse backgrounds is very pertinent in NZ, given the rising economic inequalities and the wide range of educational achievement (e.g. PIRLS, 2006, study of reading levels.)

- In summary, it is inappropriate for the ECE Taskforce to use the two cited reviews of research (Mitchell et al. 2008 & OECD, 2006) to suggest that the content of *Te Whāriki* does not require review.

23

Recap – Publications supportive of ECE in NZ

- (1) Competent Children Study
- (2) OECD Pisa 2009
- (3) OECD Quality Matters in ECE and Care – NZ (2012)
- (4) Starting Well – Economist Intelligence Unit (2012)
- (5) TLRI and COI research reports
- (6) ECE Taskforce Report (2011)

These studies/publications provide valuable insights but lack valid information about what children are learning in ECE in NZ. Ideally they would show not only that children are learning and developing (which they are doing at a rapid rate anyway), but that ECE contributes to the learning and development.

How can we say we are “world leaders” when we don't have basic information about what children are learning?

(See Blaiklock, 2013)

24

A closer look at Te Whāriki

- Widely supported and praised by teachers and NZ academics (as seen in the ECE Taskforce report)
- “ *Te Whāriki has had an enormous impact on curriculum development in many countries*” ... “*Te Whāriki has gained international prominence as an early childhood curriculum of great substance and importance*” (Fleer 2003, 243-244).
- *Te Whāriki has made a tremendous contribution to the field of early childhood education, both in its home country and abroad*” (Ritchie & Buzzeli, 2012).

25

Recent ERO Report – Working with Te Whāriki (2013)

- Follows on from ECE Taskforce recommendation that it would be useful to review the implementation (but not the content) of *Te Whāriki*.
- ERO continues the praise for “*the widely accepted strengths of Te Whāriki*” (p.6) by referring to quotes from the ECE Taskforce and OECD ECE in NZ (2012) (- reports that, as we have seen, do not in fact provide evidence for the effectiveness of *Te Whāriki*).

26

Te Whāriki - Research Evidence?

- Founded on the aspiration “*for children to grow up as competent and confident 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*” (Ministry of Education 1996, p. 9).
- Contains many worthwhile statements and values.
- But little evidence to suggest *Te Whāriki* is helping to achieve these ideals.

27

Te Whāriki and Content Knowledge

- Minimal guidance in relation to subject content areas (e.g., music, art, maths, science, literacy)
- Smith (2003) argued for the benefits of a process oriented, rather than content oriented, approach: “*Te Whāriki, in contrast to overseas early childhood curricula (such as the UK curriculum) is oriented towards setting up attitudinal and dispositional thinking. Instead of being preoccupied with specific skills which children do or do not have,-*

28

Te *Whāriki* and Content Knowledge contd.

- *the concern is for developing an overall enthusiasm for learning. Te Whāriki encourages children's autonomy, communication, exploration, commitment and aspirations. Children and their learning, rather than subject areas, are the starting points of educational thinking*" (Smith, 2003, p.5).
- No evidence, however, that *Te Whāriki* is more effective in encouraging "an overall enthusiasm for learning" in comparison to more subject content oriented approaches.

29

Te *Whāriki* and Content Knowledge contd.

- Indeed, lack of content knowledge in *Te Whāriki* may limit children's learning.
- Enthusiasm for learning – Learning about what?
- Content knowledge makes learning meaningful (See Hedges and Cullen, 2005).
- Supporters of *Te Whāriki* claim that it focuses more on the processes of learning rather than the content. However, very little evidence that *Te Whāriki* is effective at promoting children's 'learning dispositions' or 'identities as learners'

30

Te Whāriki and Content Knowledge contd.

- The lack of detail on learning seen in *Te Whāriki* is reflected in recent ERO (2013) report, “*Priorities for Children’s Learning in Early Childhood Services*”.
- The report examined how early childhood services were determining and enacting their curriculum priorities for children. Noted that *Te Whāriki* “states that each service will develop its own emphases and priorities for children’s learning” (p. 1).
- The word “learning” appears 245 times in the report, but it does not actually say what children are, or should be learning.

31

Te Whāriki and Content Knowledge contd.

- Teacher Education Programmes need to ensure that ECE teachers have subject content and pedagogical knowledge. Particularly important with a holistic curriculum like *Te Whāriki*. Teachers need to promote learning while interacting with children and responding to their interests. Requires knowledgeable teachers.
- But no guidelines on how much subject content and pedagogical knowledge to include in ECE teacher education programmes. Varies greatly (see Kane, 2005). Possible for programmes to include very little on how to enhance children’s learning in key areas (e.g., language development, early maths and literacy).

32

Te *Whāriki* and Content Knowledge contd.

- *Te Whāriki* does include learning outcomes related to curriculum subject content such as maths, science, music, and art but these are scattered across different strands and goals. The structure of *Te Whāriki* means they could be easily overlooked.
- The inclusion of learning outcomes for a particular area across the strands could be said to reflect the integrated nature of children's learning.
- But learning outcomes are "*indicative, rather than definitive*" (p. 44). None are required.

Possible for ECE centre to believe it is covering all the strands of *Te Whāriki* but be omitting key learning areas.

33

Programme Planning Using Te *Whāriki*

- Guidelines on programme planning in *Te Whāriki* are very general and suggest each centre should plan in its own way.
"There are many ways in which each early childhood service can weave the particular pattern that makes its programme different and distinctive. Early childhood services should, therefore, develop their own distinctive pattern for planning, assessment, and evaluation" (Ministry of Education, 1996, 28).
Centres are advised to "offer sufficient learning experiences for the children to ensure that the goals are realised".

34

Te Whāriki

- Much to admire in the sentiments and aspirations of *Te Whāriki* . It is to be hoped that these have helped teachers to develop responsive relationships and provide quality experiences.
- Equally possible that *Te Whāriki* has been ineffective.
- Indeed, it could be argued that the lack of guidance and the lack of attention to content areas in *Te Whāriki* has resulted in a decline in the quality of ECE. The research evidence is insufficient to support or challenge the effectiveness of *Te Whāriki*.

35

Te Whāriki & Assessment

- Although there may be concerns about the content of *Te Whāriki* , and the lack of research evidence on its effectiveness, surely centres must have valid information about what children are learning?
- Problematic.
- The assessment technique designed for *Te Whāriki*, Learning Stories, is an unproven approach to documenting and enhancing learning.

36

Assessment in ECE

- Just as there is no requirement to cover particular learning outcomes when planning, so there is no requirement to assess particular learning outcomes.
- While there is little guidance on *what* to assess, large amounts of funding directed at telling teachers *how* to assess.
- Learning Stories (Carr, 1998, 2001). Designed to align with *Te Whāriki*. Emphasis on processes of learning (dispositions) rather than knowledge and skills outcomes.
- An innovative, but unproven approach.

37

Assessment in ECE contd.

- Learning Stories can have benefits:
 - A description of children's involvement in particular activities.
 - A way to promote communication between teachers, children, and families.
 - A way to promote interest in literacy.
(Other simpler approaches may also show these benefits, e.g., Learning Notes – Blaiklock, 2010a.)
- Little empirical evidence that Learning Stories are an effective and practical assessment technique.

38

Assessment in ECE contd.

- Mitchell (2008) found that 94% of centres were using Learning Stories, often as the only form of assessment.
- *Kei Tua o te Pae: Assessment for learning: Early childhood exemplars* (Ministry of Education, 2004, 2007, 2009).
- Focus on learning dispositions.

39

Assessment in ECE – Learning Dispositions

- Carr (2001) described learning dispositions as “*situated learning strategies plus-motivation-participation repertoires from which a learner recognizes, selects, edits, responds to, resists, searches for and constructs learning opportunities*” (p.21).
- What does this really mean? If the overall concept is difficult to define, how can we define particular dispositions such as curiosity, perseverance, resilience...

40

Learning Stories

Significant problems include:

- problems with defining and measuring learning dispositions over the age range of 0-5 years.
- lack of evidence on validity or credibility.
- problems with inclusion of subjective interpretation and judgements made on small amounts of evidence.
- confusion about where, when, and how often to record Learning Stories.

41

Learning Stories

- situational specificity of Learning Stories limits their value for planning future experiences.
- lack of value for showing changes in children's learning over time.
- See Blaiklock (2008, 2010b).
- Given the lack of evidence on the effectiveness of Learning Stories as an assessment technique, it is surprising they have been used as a major source of evidence of children's learning in many NZ ECE research projects.

42

Assessment in ECE

- Assessments should be purposeful, valid, practical, and for the benefit of children (NRC, 2008).
- Caution needed when assessing young children.
- Teachers need to be knowledgeable about assessment concepts and procedures. So that they can make choices about appropriate assessment.
- Assessment can make teachers aware of disparities between children in learning. Teachers can then ensure they make a difference.

43

Risk factors in ECE in NZ

- Lack of research evidence to support current approaches
- A curriculum lacking in detail in combination with Learning Stories, an unproven approach to assessment.
- Rapid growth in numbers of centres and teacher education providers. (Quality teachers are crucial.)
- Large role of private industry providers – profit motive.

44

Concluding Comments

- *Te Whāriki* contains valuable ideals about the importance of children's well-being. It is perhaps ironic that a blind allegiance to the document may not be in the best interests of children.
- If we care about the well-being of children, and issues of social justice and equity, we have a responsibility to provide high quality early childhood education and care that makes a difference.
- Need to move beyond self-congratulatory beliefs that we are "world leaders" in ECE.

45

The future ...

- Need to focus on research evidence rather than opinion.
- Need to be more open to learning from international experience and research (e.g., Pianta, 2012; Reutzel, 2013).
- Need to move beyond near exclusive use of qualitative/narrative/action research methods in NZ ECE research
 - Importance of quantitative methods and mixed methods.
 - Recognition of the value of scientific approaches (see Gluckman, 2013).

46

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