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Abstract

Te Whāriki, the New Zealand early childhood curriculum, has received much praise since its introduction in 1996. There is, however, little research evidence about the implementation or effectiveness of the curriculum in early childhood centres. This article raises questions about the structure and content of *Te Whāriki*. The holistic and integrated nature of the curriculum means that subject content areas (e.g., art, music, science, literacy) can be overlooked. The generalised nature of the guidelines in *Te Whāriki* on programme planning allows for flexibility but may result in children being provided with an inadequate range of learning experiences. Concerns are also raised about the value of Learning Stories, a novel form of assessment that was designed to align with the approach of *Te Whāriki*.

Keywords: Early childhood curriculum; Te Whāriki; New Zealand

Introduction

The New Zealand Early Childhood Curriculum, *Te Whāriki*, was introduced in 1996 following a lengthy period of consultation with many groups and individuals in the early childhood sector (see Carr and May 2000). The words, *Te Whāriki*, mean woven mat in Maori and reflect the integrated and holistic nature of the curriculum. A sociocultural emphasis is apparent throughout the document, as noted in the introductory statement (Ministry of Education 1996, 9):

This curriculum emphasises the critical role of socially and culturally mediated learning and of reciprocal and responsive relationships for children with people, places, and things. Children learn through collaboration with adults and peers, through guided participation and observation of others, as well as through individual exploration and reflection.

The framework for *Te Whāriki* consists of four Principles and five Strands. The four Principles are described as follows (Ministry of Education 1996,. 14):

1. Empowerment

The early childhood curriculum empowers the child to learn and grow.

2. Holistic Development

The early childhood curriculum reflects the holistic way children learn and grow.

3. Family and Community

The wider world of family and community is an integral part of the early childhood curriculum.

4. Relationships

Children learn through responsive and reciprocal relationships with people, places, and things.

The five Strands of *Te Whāriki* are also described (Ministry of Education, 1996, 15-16):

1. Well-being

The health and well-being of the child are protected and nurtured.

2. Belonging

Children and their families feel a sense of belonging.

3. Contribution

Opportunities for learning are equitable, and each child's contribution is valued.

4. Communication

The language and symbols of their own and other cultures are promoted and protected.

5. Exploration.

The child learns through active exploration of the environment.

A separate section of *Te Whāriki*, written in Maori, discusses the significance of the Principles and Strands for Maori language immersion programmes. The English and Maori texts are not equivalent but “parallel and complement each other”... “The Maori curriculum is an integral part of the document and provides a basis for bicultural early childhood education in New Zealand” (Ministry of Education 1996, 10).

In the English language sections of *Te Whāriki*, each strand is subdivided into three or four Goals. Each Goal includes a number of Learning Outcomes. Examples of experiences to help meet the outcomes are provided for each Goal.

Praise for Te Whāriki

Since its introduction in 1996, *Te Whāriki* has received widespread praise, both within New Zealand and internationally, as illustrated in the following quotes:

“To date, *Te Whāriki* has been greeted with enormous enthusiasm by the early childhood profession, to the extent that it has taken on a gospel like status” (Cullen 1996, 123).

“Engaging with *Te Whāriki* allows teachers to have their own learning journey just as children have theirs. It is for this reason that so many early childhood professionals feel privileged to have such a sound document to work with” (Tyler, 2002, 3).

“*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* is a world class early childhood curriculum and has been a significant factor in putting New Zealand on the early childhood world stage. (Trevor Mallard, Minister of Education, press release, 17 January 2005, cited in Nuttall 2005, 23).

“[*Te Whāriki*] that's basically our bible. We always look to *Te Whāriki* to make sure we have done it correctly.” “*Te Whāriki* – gives the defining word on that issue, because it is all in there.” “The value [of *Te Whāriki*] is enormous ... It's

priceless I think.” (Quotes from teachers interviewed in Alvestad and Duncan, 2006, 36-37).

The above statements indicate widespread support for the value of *Te Whāriki* as an early childhood curriculum. Clearly there is much about *Te Whāriki* that appeals to many academics and early childhood teachers. Given, however, that it is now approaching 15 years since *Te Whāriki* was introduced, it is somewhat surprising that there has been little critique of the document. Nuttall (2003) suggested that an earlier lack of critique might have been due to a reluctance to criticise the developers of the curriculum when their work appeared to be a way of increasing quality and professionalism in the early childhood field. Nuttall further suggested that teachers were supportive of *Te Whāriki* because they saw it as being in agreement with what they already did.

Research Evidence about *Te Whāriki*

Te Whāriki is based on the following aspirations for all 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, 9).

There is, no doubt, widespread support for this statement but currently there is little evidence that *Te Whāriki* is effective in helping children to achieve these ideals. Nuttall (2005, 20) concluded that “there is almost no empirical evidence examining whether *Te Whāriki* is actually making a difference to children’s learning and development relative to other models [of curriculum] Without this process of evaluation, the effectiveness of *Te Whāriki* remains open to doubt”.

In a review of early childhood research literature for the New Zealand Ministry of Education, Smith et al. (2000, 67) observed “it is only in the most general sense that the New Zealand curriculum model has been tested”. They suggested, however, that the results of American studies of the High Scope curriculum model seem to support the approach embodied in *Te Whāriki*. The High Scope studies compared the long term effects of three types of preschool curriculum for 3 and 4-year-old children from economically disadvantaged homes. The models compared were High Scope, Direct Instruction, and traditional Nursery School education (Schweinhart and Weikart 1997).

The Direct Instruction model focused on academic skills that were taught in precisely planned 20-minute lessons. Questions and other interactions were carefully sequenced. The only materials used in the classroom were workbooks.

In contrast, the High Scope classrooms were well resourced and organised into separate interest areas. The High Scope curriculum was based on Piaget’s theory of child development and provided experiences in key domains of learning including social relations, creativity, music, language, literacy and mathematical concepts. Children worked with teachers in small and large groups, inside and outside. They were given choices to plan and participate in activities, and were encouraged to reflect on their learning.

Teachers in the Nursery School model organised activities and discussions around particular topics or themes (e.g., animals, holidays). Children were able to move freely around the classroom and to choose which activities they wished to participate in. Teachers facilitated learning through interacting with individuals and small groups. The focus of the programme was on social skills rather than cognitive or academic skills.

At the start of school, the Direct Instruction group performed slightly higher on some cognitive tasks than the other groups. At age 10, there was little difference between the groups in academic performance. By age 15, however, the Direct Instruction group performed at significantly lower levels on a variety of measures related to social adjustment and well-being. The lower outcomes for social measures were also seen at age 23. Overall, the study concluded that programmes with child-initiated activities had benefits over programmes that focused on teacher-directed instruction.

Smith et al. (2000, 69) suggested:

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.

It is rather a long stretch, however to use the results of the High Scope 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 High Scope studies (i.e., the High Scope and Nursery models). For example, the High Scope 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 in the High Scope and Nursery models was 1:5 or 1:6 whereas the ratio in New Zealand early childhood programmes for 3 and 4-year-olds may be 1:15. Furthermore, the High Scope curriculum places considerably more emphasis on early mathematical and literacy activities (including alphabetic skills) than is found in *Te Whāriki*.

Such differences, combined with the great diversity of programmes in New Zealand, means that it is highly problematic to see the results of the High Scope studies as supporting *Te Whāriki*. Even if it is claimed that the studies provide support for the general approach represented in *Te Whāriki*, how the approach is actually being implemented in different centres in New Zealand is largely unknown. Smith et al. (2000) pointed out that there was an urgent need for research into how *Te Whāriki* was being put into practice. Ten years later, this research has still not taken place.

Research has been conducted, however, into the long-term effects of early childhood education in New Zealand. The Competent Children project has tracked the progress of a large group of children from the time they were in early childhood education through to primary and secondary school (see Hogden 2007). The findings of the project suggest that quality early childhood education has ongoing social and academic benefits. However, the findings cannot be used to comment on the effectiveness of *Te Whāriki* because the curriculum was not published until after the project children had already completed their involvement in early childhood education (see also the criticism of the project's methodology and conclusions by Nash 2001, and Farquhar 2008).

Te Whāriki and Subject Knowledge

The generalised and holistic nature of *Te Whāriki* means that teachers are provided with little guidance about how to provide effective learning experiences in relation to particular subject content areas (e.g., music, art, drama, mathematics, science, literacy). In the editorial for a special issue of the *International Journal of Early Years Education*, which focused on the New Zealand experience, Smith (2003, 5) argued for the benefits of the process oriented approach of *Te Whāriki*:

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 when they get to school, 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.

There is, however, no evidence that *Te Whāriki* is more effective in encouraging an 'overall enthusiasm for learning' in comparison to a more "subject" oriented approach. Indeed, the lack of subject knowledge in *Te Whāriki* may actually limit children's learning, a point made by Hedges and Cullen (2005). Reporting on a study of teacher beliefs and practices in one centre, Hedges and Cullen (75) concluded:

that a curriculum's lack of emphasis on subject content knowledge may limit learning and teaching opportunities and children's inquiry-based learning. Teachers described their curriculum planning and pedagogical approaches in ways consistent with their interpretation of *Te Whāriki* as focused on learning processes rather than content. Yet, to think, theorise, and problem solve, children need to have something substantive of interest and relevance to theorise about. In short, cognitive learning processes require subject knowledge to make learning meaningful.

The emphasis on play-based integrated learning that is found in New Zealand early childhood centres does not preclude the significance of subject knowledge. Although the centre day may not be broken into separate times that focus on particular curriculum areas, as may happen at primary school, this does not mean that subject knowledge is unimportant. Hedges and Cullen (2005) noted that many opportunities to promote children's knowledge construction occur when teachers interact with children and respond to their interests and inquiries. For these interactions to be effective, teachers must be confident with subject knowledge and must know how to incorporate this knowledge when facilitating children's learning.

Early childhood teacher education programmes have a crucial role in ensuring that graduating teachers have sufficient subject content and pedagogical knowledge. Teachers need to be knowledgeable not only about the subject content but also need to know how best to facilitate learning experiences related to that content. This is particularly important in New Zealand because of the generalised nature of the guidance that *Te Whāriki* provides on programme content. *Te Whāriki* does not say when and how to facilitate learning in particular subject content areas. Instead, the responsibility is placed on teachers to integrate subject content knowledge within interactions that extend on children's interests and build on children's current understandings.

Given the importance of teachers knowing about subject content and subject pedagogy, it might be assumed that these areas would be fundamental components in all teacher education programmes in New Zealand. There are, however, no national guidelines on how much subject content and pedagogical knowledge to include in teacher education courses. This has resulted in the situation where some institutions place considerable emphasis on subject content and associated pedagogy whereas other institutions give relatively little attention to these areas (see Kane 2005).

Bennett (2005), in reviewing early childhood education in the OECD countries, observed that two broad categories of curricular approach could be distinguished, namely the pre-primary approach and the social pedagogic approach. The pre-primary approach has a curriculum that focuses on goals and outcomes, often related

to cognitive development and subject related skills seen as important for school readiness (e.g., mathematics, language and literacy). Teachers have an active role in providing a mix of instruction and thematic work as well as facilitating child-initiated activities.

Curricula in countries with a social-pedagogic approach contain general principles related to broad developmental areas (e.g. physical development, emotional well-being, communication, general knowledge). There is a focus on child-centredness, responding to children's interests, and the provision of quality teacher-child and peer interactions. Subject content and methods are not specified at a national level but are devolved to centres that have considerable autonomy to make decisions about what to include in their programmes.

Bennett (2005) noted that there is little research that compares the effectiveness of the social pedagogic approach with the pre-primary approach. He observed, however, that current early childhood curriculum developers tend to favour the social-pedagogic approach, valuing “‘open frameworks’ that encourage children to choose and learn (with intention) from active experiences with people, material, events and ideas rather than through direct teaching or sequenced events” (14). Bennett also described social pedagogic programmes as being focused on child and family interests, and where “curriculum is not referenced on external norms, but on the identity drives and needs of children in the centre” (14).

Te Whāriki fits within the social-pedagogic category. It is a curriculum that contains broad goals and focuses on the importance of responsive relationships between teachers and children, along with emphasising the value of connections with families and the wider community. In line with the social-pedagogic approach, *Te Whāriki* does not provide detailed guidelines on subject content. Learning outcomes are given for the goals of each of the five strands of the curriculum (Well-being, Belonging, Contribution, Communication, and Exploration) but these are “indicative rather than definitive” (Ministry of Education 1996, 44). Some examples of experiences to meet the outcomes are provided but it is up to each early childhood centre to decide on the content and methods that operate within the broad framework.

Bennett (2005) provides a caution about too great a focus on academic goals but also warns against “excessive suspicion of ‘schoolification’ and reluctance to orient children toward learning goals valued by parents, schools and society” (14). This appears to be a valid concern within the New Zealand context. An area that is highly valued by parents, schools and society is the development of literacy skills but this receives limited attention in *Te Whāriki*. Literacy is included within one of the goals of the Communication strand but there is little guidance about how to incorporate effective literacy experiences within centre programmes.

The goal that focuses on literacy states: “children experience an environment where they experience the stories and symbols of their own and other cultures” (Ministry of Education, 1996, 78). The learning outcomes for this goal include “an understanding that symbols can be ‘read’ by others”; “familiarity with print and its uses”, “familiarity with an appropriate selection of the stories and literature valued by the cultures in their community”; and “experience with creating stories and symbols” (78). Although described only in general terms, these are all worthwhile outcomes. What is entirely missing, however, is any specific mention of the importance of providing children with opportunities to learn about letter names and sounds. Indeed the words “letters” or “alphabet” are not mentioned in any of the goals, learning outcomes or examples of experiences in *Te Whāriki*.

Te Whāriki does refer to the value of “symbols”, and letters could be said to be included within this category. This may not, however, be immediately apparent to teachers, especially as the examples given when referring to symbols are “words, pictures, print, numbers, sounds, shapes, models, and photographs” (Ministry of Education 1996, 78), with no explicit mention of letters. A large amount of research evidence shows the value of children learning about letter names and sounds (see Ehri 2005). Studies have found that children’s letter knowledge at school entry is an important factor in early reading and spelling (Foulin 2005; Hammill 2004). Given this evidence, it is puzzling that *Te Whāriki* does not include specific mention of letters when describing outcomes and experiences. It may be that the absence of this information reflects an over reaction by the developers of *Te Whāriki* to concerns about the ‘push-down’ influences of school requirements on the early childhood curriculum.

Concerns about the ‘push-down’ curriculum may have also contributed to the obtuse way that other traditional curriculum subject areas are included within the five strands of *Te Whāriki*. *Te Whāriki* does include numerous learning outcomes related to mathematics, science, music, and art but the location of these within the document is not readily apparent. For example, mathematical concepts are included in some of the learning outcomes that are listed under the following Strands and Goals in *Te Whāriki*:

Communication Goal 3: “Children experience an environment where they experience the stories and symbols of their own and other cultures” (78).

Exploration Goal 3: “Children experience an environment where they learn strategies for active exploration, thinking, and reasoning” (88).

Exploration Goal 4.: “Children experience an environment where they develop working theories for making sense of the natural, social, physical, and material worlds” (90).

Another example of how learning in a particular subject area is distributed across different parts of *Te Whāriki* is seen for music. Learning outcomes for music can be found under the following Strands and Goals:

Contribution: Goal 2. “Children experience an environment where they are affirmed as individuals” (68).

Communication Goal 1. “Children experience an environment where they develop non-verbal communication skills for a range of purposes” (74).

Communication Goal 4. “Children experience an environment where they discover and develop different ways to be creative and expressive” (80).

Exploration Goal 2. “Children experience an environment where they gain confidence in and control of their bodies” (86).

The inclusion of particular subject content areas across a variety of different Strands and Goals could be said to reflect the integrated nature of children’s learning. Furthermore, it could be said that the structure of *Te Whāriki* allows for subject-content to be interwoven in children’s learning across a range of contexts within children’s daily experiences.

On the other hand, it is possible that subject content could be lost within the holistic approach of *Te Whāriki*. Although there are general learning outcomes related to subject content, there is no requirement to include these learning outcomes within centre programmes. *Te Whāriki* states, “the list of outcomes in this document is indicative rather than definitive. Each early childhood setting will develop its own emphases and priorities” (Ministry of Education 1996, 44). Hence it is possible for an early childhood service to consider that it is covering all the Strands of *Te Whāriki*

when it may, in fact, be using an inadequate selection of learning outcomes and entirely neglecting experiences related to one or more subject content areas.

Programme Planning Using Te Whāriki

The information on planning in *Te Whāriki* provides no reassurance that children in particular centres will be provided with a comprehensive range of learning experiences. The guidelines on programme planning (which consist of less than half a page of the 100 page document) are phrased in general terms and suggest that 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”. The difficulty with this suggestion is that the goals of *Te Whāriki* are often very general (as discussed above). No advice is given in *Te Whāriki*, or in any other Ministry of Education publications, to ensure that centres plan to cover a particular selection of core learning outcomes when considering each goal.

Te Whāriki and Assessment

Just as there is no requirement to cover particular learning outcomes when planning for children’s learning, there is also no requirement to focus on particular learning outcomes when assessing children’s learning. A novel form of assessment, known as Learning Stories (Carr 1998, 2001) has been developed in New Zealand in an attempt to provide a way of assessing children that aligns with the approach of *Te Whāriki*.

As is the case for *Te Whāriki*, Learning Stories have an emphasis on the processes of learning rather than on specific knowledge and skill outcomes. Teachers are required to write narrative “stories” to show the learning that is occurring during particular experiences. Learning Stories are supposed to reveal children’s dispositions for learning instead of focusing on what children can or cannot do. The Learning Stories approach to assessment has been endorsed in the Ministry of Education’s early childhood assessment resource, *Kei Tua o te Pae: Assessment for learning: Early childhood exemplars* (Ministry of Education 2004, 2007, 2009).

Carr (1998) suggested that five dispositions should form the basis of assessment using Learning Stories. Each disposition is linked with a Strand of *Te Whāriki* and is assessed by focusing on a particular behaviour (see Figure 1).

Figure 1. Links between Curriculum Strands, Learning Dispositions and Behaviours

Curriculum Strand	Disposition	Behaviour Indicative of Disposition
Belonging	Courage and curiosity	Taking an interest
Well-being	Trust and playfulness	Being involved
Exploration	Perseverance	Persisting with difficulty - challenge and uncertainty
Communication	Confidence	Expressing a point of view or feeling
Contribution	Responsibility	Taking responsibility

(Adapted from Carr 1998.)

The Learning Stories approach has been widely praised (e.g., Bayes 2006; Drummond 2003) but many questions remain about the value of this assessment technique. Learning Stories may be useful for describing aspects of children's learning in particular situations but currently there is little empirical evidence that they are an effective and practical means of assessing and enhancing children's learning.

An area of particular concern is that Learning Stories have not been shown to be adequate for showing changes in individual children's learning over time. Carr (1998 17-18) suggested that Learning Stories define progress in children's learning in three ways:

1. Stories become longer
2. Stories become wider
3. Stories become more complex or deeper.

Research evidence is lacking, however, as to how *longer*, *wider*, and *deeper* Learning Stories can show the many changes that occur in children's learning over time, whether it be for dispositions or for knowledge in a particular domain of learning (e.g., language development). Without a valid approach to assessment, it is impossible to evaluate whether centre programmes are effective for enhancing children's learning and development.

Other concerns over the adequacy of Learning Stories include:

- difficulties with establishing the validity or credibility of Learning Stories
- problems with defining and measuring particular learning dispositions across the age range of 0-5 years
- confusion about where, when, and how often to record Learning Stories
- concern that the situational specificity of Learning Stories may limit their value for planning to extend children's learning in different contexts (see Blaiklock 2008).

Conclusion

It is now approaching 15 years since *Te Whāriki* was published. During that time a very large amount of funding has been spent on implementing the curriculum and providing extensive professional development to teachers. Substantial resources have also been directed towards developing and implementing *Kei Tua o te Pae* as an assessment resource that aligns with *Te Whāriki*.

New Zealand early childhood educators and academics have given considerable support to *Te Whāriki*. There is, however, little evidence about the implementation or effectiveness of the curriculum across a range of different centres. It may be that *Te Whāriki* has resulted in improvements in the quality of early childhood education in

New Zealand. It is to be hoped that attention to the principles and strands of *Te Whāriki* has been of value for teachers in developing responsive relationships with children and in providing rich learning experiences.

It is, however, equally possible that *Te Whāriki* has been largely ineffective. Indeed it could even be argued that *Te Whāriki* has actually resulted in a decline in quality in early childhood education in New Zealand. Such a proposal would be anathema to the many supporters of *Te Whāriki*. The point is, however, that currently the research evidence is insufficient to either support or challenge the effectiveness of the curriculum

Although the research evidence is lacking, this article has raised concerns about the structure and content of *Te Whāriki*. I have suggested that the lack of attention to curriculum subject content, coupled with varying amounts of subject content and pedagogy in New Zealand teacher education courses, may result in the neglect of important areas of children's learning. I have also suggested that the non-prescriptive nature of the guidelines in *Te Whāriki* on programme planning means that centres are free to include, or not include, important experiences that foster children's learning and development in particular areas.

Furthermore, I have expressed reservations about the adequacy of the assessment techniques that have been developed for *Te Whāriki*. The Learning Stories approach, as exemplified in *Kei Tua o te Pae*, comes with no requirement to assess specific domains of learning (e.g., language development). Of particular concern is the lack of evidence that Learning Stories can be used to show progress in key areas of children's learning over time.

There is much to admire in the sentiments and aspirations that are expressed in *Te Whāriki*. Few would question the curriculum's emphasis on the importance of respectful and responsive relationships and the value of empowering children to explore, learn, and contribute within a diverse range of contexts. It appears, however, that there is little evidence that the implementation of *Te Whāriki* has resulted in the achievement of such ideals. There is now a need for carefully conducted evaluative research, along with an examination of curriculum innovations in other countries (e.g., Department for Children, Schools and Families 2008; Skolverket 2006), to investigate whether *Te Whāriki* really is the most effective curriculum for enhancing the learning and development of children in New Zealand.

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