

Commentary on ERO's evaluation indicators for early childhood services with a focus on infants and toddlers

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The purpose of this paper

This commentary aims to stimulate discussion about ways in which the current evaluation indicators for early childhood education (ECE) in Aotearoa New Zealand might be revised to promote important goals in early learning services. This commentary draws on recent research evidence to explain the significance of *Mātauranga and Tikanga Whakaako*, with a particular focus on infants and toddlers. While the current indicators refer to children up to two years of age, this commentary includes material that relates to children up to three years of age, recognising that infants and toddlers are overlapping groups.

I was asked to focus on factors pertinent to quality care and education for infants and toddlers, and to prioritise current literature related to the New Zealand ECE context. I have selected literature dated no earlier than 2012, to capture research-based evidence published since the current indicators were adopted in 2013. In a few cases, I have cited earlier sources to provide context and/or highlight patterns over time.

The search terms that I used included ‘children under two/up to two’, ‘infants and toddlers’, ‘care and education’, ‘curriculum infants toddlers’, and ‘pedagogy infants toddlers’. The literature reviewed included peer-reviewed research, academic and practitioner papers, national reports, policy documents, and academic opinion pieces. New Zealand literature was prioritised to ensure that revisions would reflect social, cultural and political considerations unique to ECE provision in this country. Practitioner papers were included to ensure that any revisions took into account the voices of those engaged in real-life practice.

In this commentary I discuss the current climate of infant and toddler provision in New Zealand before going on to explore the revision of ERO’s current methodology. I summarise research findings regarding significant factors and associated practices that may contribute to positive learning outcomes, and then examine the extent to which these factors and practices are apparent in the current indicators for *Mātauranga and Tikanga Whakaako*. I address the issue of reframing indicators and identifying and defining indicators and good practices, and explore how we might ensure that the necessary specialist knowledge is visible to and used by those in a position to foster positive outcomes for infants and toddlers.

Infant-toddler provision in New Zealand: the current landscape

The provision of quality early childhood education for infants and toddlers is an international concern (Organisation for Economic Co-operation and Development [OECD], 2017). International statistics show that in 2014 at least one third of all enrolments in ECE settings were of children aged up to two years (OECD, 2017). In New Zealand in 2015, fewer than one-fifth (17%) of all enrolments in care and education centres were of children aged up to two. Even more significantly, fewer than half (47%) of all children in ECE settings were in the up-to-three age range (Education Counts, 2018).

The numbers of infants and toddlers in care and education settings in New Zealand increased significantly from 2000 to 2015: the number of children aged up to two increased

by 75%, from 12,293 to 21,464 and of children aged up to three by 64%, from 30,182 to 49,478 (Education Counts, 2018). These statistics show that the increase over this period is proportionally greater for children in the up-to-two category.

Current research evidence demonstrates that brain sensitivity is at its peak during the first three years of life. It follows, therefore, that the learning and development of young children is greatly enhanced by nurturing environments and the care of warm, responsive adults (OECD, 2017; Rowley, 2016). Children in quality ECE that takes account of these factors can benefit in terms of improved wellbeing and learning outcomes (OECD, 2017).

Reports of practice, however, highlight a concerning pattern of low-quality provision for infants and toddlers (Carroll-Lind & Angus, 2011; ERO, 2009, 2015). For example, in a report (2015) based on reviews of 235 ECE services, ERO found that only 12% of services were 'highly responsive' to infants and toddlers, treating them as 'competent and confident communicators and explorers' as per the expectation in Te Whāriki (1996). In these services teachers were attuned to the non-verbal communications of infants and toddlers, encouraging them to try new things and engaging with their interests more deeply. 'Attuned' teachers are sensitive to a child's cues and signals, in other words, they are 'tuned in' to the child's state of mind (Siegel, 2012). These services also had "high quality leadership; a highly reflective culture where teachers inquired into and regularly reflected on their teaching practice; whole-staff professional learning and development about infants and toddlers" (p. 14). At the other end of the spectrum, 13% of services had a curriculum that was deemed 'unresponsive' to infants and toddlers. While teachers in these services attended to the wellbeing and belonging of infants and toddlers, they paid little attention to communication (e.g., oral language) and exploration (for physical confidence), and even less to toddlers' transitions within the setting.

Similar concerns regarding infant-toddler provision were highlighted six years earlier when ERO (2009) reported on the quality of provision in 74 infant-toddler centres across New Zealand. In some centres teacher-child interactions were warm, caring and nurturing, and care routines were acknowledged as significant opportunities to foster learning; 'effective' teachers were "nurturing, gentle, responsive, highly respectful, calm and unhurried when interacting with infants and toddlers" (p. 15). But in other services teachers focused too much on routines and tasks and gave less attention to interacting with children and addressing their basic needs. In summary, ERO's 2009 and 2015 reports highlight ongoing concerns regarding the quality of care and education for infants and toddlers in New Zealand's early learning services.

Additional concerns relate to how teachers/kaiako support the cultural identities of Māori and Pasifika children. In a 2013 review of 387 early childhood services, ERO found that only two-fifths had considered how they might develop a responsive curriculum for Māori children and only one-fifth had considered doing this for Pasifika children. ERO made the recommendation that services improve their responsiveness to Māori and Pasifika families and review how well they were addressing the needs of priority groups. Providing a high-quality infant-toddler curriculum and pedagogy requires teachers/kaiako to recognise and

be responsive to the cultural identities of all children in their care, including those who are Māori and Pasifika.

In this section I have outlined the importance of care and education for infants and toddlers and given three reasons why we need to look into our current provision: the increasing participation of infants and toddlers in early learning settings, ongoing concerns about the quality of provision for infants and toddlers, and a reported lack of cultural responsiveness in many settings. I now investigate what the current research evidence tells us matters most for infant-toddler pedagogy and curriculum.

Factors that contribute to positive learning outcomes for infants and toddlers

The literature highlights a number of factors that are important for supporting positive learning outcomes for infants and toddlers in early learning services. These include:

- a positive view of infants and toddlers
- culturally-responsive professional care
- warm, intersubjective adult–child relationships
- an understanding of language and communication as verbal, non-verbal and embodied
- supportive conditions for quality care and education.

These factors are overlapping and collectively shape the kinds of environments that promote positive early learning and development. I explain each factor in turn, relate it to the recently revised *Te Whāriki* (Ministry of Education, 2017), and consider some implications for practice.

A positive view of infants and toddlers

Researchers are in strong agreement that infants and toddlers be viewed through a positive lens, consistent with the expectations of *Te Whāriki* (Ministry of Education, 2017). Every infant or toddler is a unique, agentic individual and participant in social and cultural communities, deserving of respect as curious, inquisitive, holistic and mysterious, and having unique needs for supervision, safety, curriculum provision and quality care. This all-encompassing view derives from a wide range of scholarly studies and papers. For example, infants and toddlers are viewed:

- as capable social agents (Dalli & White, 2017; Redder & White, 2017) who can communicate in complex and imaginative ways (Bateman & Gunnarsdottir, 2017)
- as culturally located (Rameka et al., 2017; Rameka, Glasgow, & Fitzgerald, 2016) and bicultural learners (Jenkins, 2014)
- as capable and competent members of a community (Dalli & White, 2017; Fremaux & Liley, 2014; Rameka & Walker, 2012; Smith, 2016)
- as inquisitive, mysterious, and unknowable (White & Mika, 2013), whose learning is a fluid, organic and holistic process (Cooper, Lovatt, & Hedges, 2015) and a progressive and diverse unfolding (White & Mika, 2013)

- as competent and confident to manage and cope with their own transitions (Stewart MacKenzie, 2014)
- as relational partners not passive objects, during care moments (Bussey, 2013)
- as citizens of today, not beings of the future (Dalli & White, 2016)
- as having unique supervision, safety and curriculum provision needs (White, Ranger, & Peter, 2016)
- as deserving of respect, and quality care practices (Bussey & Hill, 2017).

This rich and complex view assumes that infants and toddlers have agency, which is the ability to contribute to decision-making on matters that concern them. Teachers/kaiako might recognise infants' and toddlers' agency by encouraging them to orient themselves in social situations, instead of expecting them to wait passively for an adult to provide them with physical and emotional security (White & Mika, 2014). Infants and toddlers might exercise agency if given opportunities to choose a teacher/kaiako to care for them (Fremaux and Liley, 2014) or the time and space to choose where they will move/position themselves in the learning environment (Stewart MacKenzie, 2014). Agency is emphasised in *Te Whāriki* (Ministry of Education, 2017).

The current indicators

The language used in the current indicators assumes that infants and toddlers have agency. For example: “follow the child’s lead”, “responsive to children’s temperaments, preferences and interests”, “offer infants and toddlers choices ... and wait for them to respond to the choices offered”, “children have space and time to lead their learning”. However, stating that [infants and toddlers] have a “need for strong and secure attachments” could suggest that all infants and toddlers are passively waiting for an adult to take the lead, which disregards their ability to, at times, orient themselves within the social situation.

Less explicit in the current indicators are the ideas that (a) infants and toddlers are participants in their centre community and in their own social and cultural communities, and (b) infants and toddlers are, at times, unknowable and mysterious.

Implications

Make explicit the expectation that infants and toddlers will be viewed positively in all aspects of their care and education. By positioning this expectation front and centre in the methodology and indicators, ERO will encourage teachers/kaiako to acknowledge and foster infants' and toddlers' competence, agency and active participation in matters that concern them, and consider each child an important member of their various learning, social, and cultural communities.

Culturally-responsive professional care

Mounting evidence supports the view that professional care is fundamental to quality infant-toddler pedagogy and curriculum (Bussey & Hill, 2017; Dalli & White, 2016). It has become increasingly acceptable for the care of young children to be shared between home

and centre (Dalli, 2014). This is due in part to social, economic and labour market dynamics that have encouraged or required both parents to seek employment, which has led in turn to increasing numbers of infants and toddlers enrolled in early childhood services (Dalli & White, 2017). *Te Whāriki* integrates the care and education aspects. But researchers (Bussey & Hill, 2017) have argued that the care aspect is all-too-often subsumed by the education aspect and have proposed therefore that the care aspect be considered in its own right.

Understandings related to the care of infants and toddlers in ECE services have changed over time. Indeed, the care aspect has not always been perceived positively (Dalli & White, 2016). For example, pre-*Te Whāriki*, 'care' was interpreted as meeting physical needs, and sometimes as a chore that took time away from teaching and learning (Rockel, 2009). The introduction of *Te Whāriki* in 1996 challenged this narrow view and proposed instead that care be viewed as an important context for learning (Rockel, 2009).

Current thinking theorises care as an ethic, based on Noddings' (1984) view of care as a caring relation and an interpersonal encounter (as cited in Dalli & White, 2016). Conceptualising care in these ways brings significance to the relationship between the carer and the cared-for; dialogue takes on a crucial role as the teacher, who is central to the encounter, engages children in "intimate acts of intersubjective interactions" (Dalli & White, 2016, p. 12). Understanding care as an ethical commitment brings attention to both the child and the teacher/kaiako, to the quality of interactions, and to the curriculum experienced during reciprocal, caring encounters.

Care can also be understood as a moral obligation to teach children in caring and loving ways (White & Mika, 2013). Being caring is not about meeting a set of indicators; rather, it involves embracing a holistic conception of care that is inclusive of, but more than, physical care (White & Mika, 2013). Such caring is relational, not exclusive or dismissive, emphasises the empowerment of children, mutual dialogue and respect, and promotes a view of children as "loving partners in a dialogical process" (p. 102). White and Mika (2013) suggest that pedagogy can be underpinned by a moral obligation to care by nurturing infants' growth in loving and caring ways through aroha. The authors describe aroha as a love or compassion for deepening relationships and a commitment to children and their participation in the curriculum. Such ideas align with *Te Whāriki* (Ministry of Education, 2017), which emphasises that care practices should encourage infants to trust, feel worthy of love, and where appropriate, exercise agency.

Care can also be understood as curriculum (Bussey & Hill, 2016), with care moments such as nappy changing, mealtimes, toilet and dressing valued for their teaching and learning potential. Care as curriculum relies on adults establishing secure, attachment-based relationships, and on unhurried interactions with individual children during care moments (Bussey, 2013). Care as curriculum may be seen in services that have adopted a 'primary caregiver' or 'key teacher' approach, where responsibility for the children is shared but each teacher has particular responsibility for decision making relating to several specified children (White & Redder, 2015). Participants in Bussey and Hill's research (2016) used this approach, which was inspired by Hungarian paediatricians Magda Gerber and Emmi Pikler. Bussey and

Hill did not explain how these ideas aligned with *Te Whāriki*, but the notion of care as curriculum aligns well with the document's emphasis on care practices with infants and its challenge to top-down teaching, and it gives value to the time teachers spend engaged in relational encounters with children.

Studies have shown that it can be beneficial for infants and toddlers if there is some alignment between approaches to care and teacher/kaiako identity. For example, Sandilands (2016) explored how teachers implemented Gerber's Resources for Infant Educators (RIE) philosophy, now known as Gerber's Educaring approach, (Gerber, 2002; Gerber & Johnson, 1998) with infants and toddlers. Sandilands proposed that the children's learning benefited because Gerber's philosophical perspective aligned with the teachers' identity, practice, and 'way of being', but exactly how they benefited she did not explain. Although Sandilands explained that parents were not looking for the Gerber approach when they chose the centre, she did not provide any details as to how well the families' values and beliefs aligned with those that underpinned the centre's approach to care.

There is often a lack of congruence between approaches to care and teachers' own values and beliefs. For example, Māori and Pasifika teachers/kaiako working in Māori and Pasifika early childhood services cited incongruities between their own cultural worldviews and care models based on western worldviews, such as those deriving from the work of Gerber and her predecessor Pikler (Rameka & Glasgow, 2015). The teachers/kaiako in the study were concerned about the dominating effect that western ideas have had on practice. Indeed, the work of Gerber and Pikler has had a significant influence on infant-toddler care and education in New Zealand despite its original focus on paediatric care and psychology rather than curriculum and pedagogy (Bussey, 2013). The teachers/kaiako in the study preferred to use care practices that aligned with Māori and Pasifika worldviews, which they shared with the children and their families. They emphasised, for example, the cultural importance of intergenerational care and education, in which the wider whānau have a major role; all adults in the service are regarded as whānau and, therefore, as having whānau responsibilities (Rameka & Glasgow, 2015).

Rameka and Walker (2012) advocate aroha as a core value and pedagogical principle for all those involved in the care Māori babies. Aroha, which is based on manaakitanga and awhi (nurturing/caring), represents responsibility to the collective and connectedness to whānau, hapu and iwi. Rameka and Walker suggest that non-Māori teachers/kaiako develop their understanding of this concept to ensure culturally appropriate practice with Māori infants and toddlers.

Other cultural practices relate to communal caregiving, where multiple adults and peers share responsibility for a child's care (Rameka, Glasgow, & Fitzgerald, 2016). Where communal caregiving is the norm, manaakitanga (caring and looking out for others) is fostered as, in the process of being cared for, children to learn to care for others. Child-adult kinship is strengthened when children are cared for by adults who are considered part of their whānau, and by peers. Communal caregiving facilitates tuakana-teina relationships, in which older siblings, cousins or children take responsibility for the feeding, bathing,

nurturing, and sleeping of the younger ones. This practice helps build strong and enduring relationships between siblings or children (Rameka et al., 2017). Tuakana-teina relationships are also an important means by which cultural knowledge and messages about identity are passed on (Rameka et al., 2017). Other practices that incorporate cultural knowledge include oriori (lullabies) and waiata (song), both of which can help children connect to their whakapapa, land and family/whānau.

The possibility of incongruity makes it vital that teachers/kaiako consider how their approaches reflect the cultural worldviews and identities of the children in their care and their whānau/families (Rameka et al., 2016). Indeed, disregarding the values, beliefs, protocols, and practices of children and families may mean engaging in culturally insensitive practices that adversely affect outcomes for some children (Rameka et al., 2017). According to Rameka et al., for many Māori and Pasifika children and their families culture is central and integral, not additional, to care and education. If teachers/kaiako lack awareness of the role culture plays in learning they are unlikely to be able to be responsive to the identities, languages and cultures of the infants and toddlers in their care, and likely to fail to meet the needs of Māori and Pasifika children (Rameka et al., 2017, 2016). Teachers/kaiako therefore need to understand that there are no universal truths when it comes to infant-toddler care, and that improving outcomes for Māori children, for example, may start with culturally responsive teaching practice, and learning experiences that are underpinned by te ao Māori (Rameka & Walker, 2012). All this suggests that teachers/kaiako should approach care through a critical lens.

A critical lens is especially important given the lack of responsiveness to Māori and Pasifika children that is evident in many early learning services (ERO, 2013). Thinking critically may help ensure that care practices reflect the identities of all children. Amongst other things this will mean showing “respect for the Māori world” and strengthening the “identities, languages and cultures” of Pasifika children “by acknowledging the interconnectedness of people, place, time and things” (Ministry of Education, 2017, p. 31).

Research has shown that uncritical acceptance of approaches can also compromise the implementation of *Te Whāriki*. For example, Cooper, Hedges and Dixon (2014) found that the members of one teaching team were so loyal to Gerber’s ideas that they viewed all teaching, assessment, and learning through this one narrow lens. One result was that teachers took on sole responsibility for assessment, whereas *Te Whāriki* sets down the expectation that families be involved in decisions relating to the learning and assessment of their children.

Two studies have drawn attention to teachers’ emotional experiences of caregiving and the influence these may have on children’s experiences. Brennan (2014) explored the reciprocal nature of relationships, focusing on how the affective and subjective nature of teachers’ care practices influences the infants in their care. Brennan pointed out that a teacher’s emotional state can have an impact on the quality of the care they provide, so they need support. They also need to be aware of how their emotional experiences with children affect their own wellbeing and emotionality. Cooper (2017) explored the assessment practices of one infant-

toddler teacher team and found that increasing the workload of teachers intensified the emotional labour; they had to manufacture feelings to keep the environment positive for the children. Cooper suggests that teachers/kaiako may need support from others to navigate the complex social and emotional work that is needed to foster reciprocal and sensitive interactions with infants and toddlers.

In summary, it appears vital that approaches to infant and toddler care are discussed with others and thoughtfully considered as they are implemented. While western ideas such as those of Gerber and Pikler may resonate with many teachers/kaiako in New Zealand, they do not always align with the cultural values and beliefs of children, families, and teachers/kaiako. It is important therefore that teachers/kaiako have knowledge of a range of perspectives, including care as ethical and moral practice, discuss their approach/practices with families, and ensure that their practices are culturally responsive to the children in their care. A further matter for consideration is the emotionality of teachers/kaiako and the support they may need for their own emotional wellbeing. It is important then for teachers/kaiako of infants and toddlers to feel supported and to adopt a critically reflective approach to professional care with the aim of ensuring that the care they provide is responsive to the children's cultural identities.

The current indicators

The notion of care seems to be implied not explicit in the current indicators. The inclusion of care-related terms such as 'responsive caregiving', 'consistent caregiving' and 'commitment to a pedagogy of care' will better align the indicators with the current research. Some amalgamation may be possible, perhaps by including an indicator that focuses on care as curriculum and pedagogy. 'Aroha' is already explicitly included in the indicators as a value that is important to Māori but its presence would be strengthened by the addition of other practices that derive from a Māori and/or Pasifika worldview.

Implications

The concepts 'care as curriculum' and 'care as pedagogy' need to be made explicit for teachers/kaiako. They could be fleshed out with examples from the above summary.

It would also be good to identify in this section: (a) the responsibility of leaders to make time for collaborative discussion and debate about approaches to care to ensure they are culturally responsive, (b) the importance of acknowledging the existence of multiple perspectives, and (c) the need to recognise teachers' emotional experiences of caregiving and provide them with the support they need.

Warm, intersubjective adult-child relationships

The promotion of warm, respectful and responsive relationships with children and families contributes to quality infant-toddler provision (Dalli, 2014; Dalli & White, 2016; White & Redder, 2015). This idea is consistent with *Te Whāriki's* emphasis on relationships that are respectful, reciprocal and responsive. Research shows that authentic and secure

attachments with very young children can foster healthy development (Brennan, 2014; Rowley, 2016). From a neuroscientific perspective, warm and nurturing relationships with adults can support infants' healthy brain development and provide the foundation for all future relationships (Dalli, 2014; Rowley, 2016). It is necessary therefore that teachers/kaiako have some understanding of the physiological aspects of the brain, including how neural synapses and pathways are generally established and nurtured, and of the importance of caring relationships with significant adults in the first year of life (Rowley, 2016). According to Rowley, attachment relationships are a product of the interactions experienced by the infant during care moments such as feeding, nappy changing, being comforted, and touched. Because these experiences are so influential, it is vital that all adult-child relationships be based on trust and predictability. Further, attachment relationships do not just happen; they require adults who are responsive, involved, caring, and available. To provide anything less than this, argues Rowley, is to place infants at risk of being "primed for negativity rather than nurturing and joy" (Rowley, 2016, p. 42). This risk should encourage all teachers/kaiako to develop their understanding of the relationship qualities that contribute to positive outcomes for all infants and toddlers.

Warm adult-child relationships provide the ideal environment for children to learn to self-regulate for positive wellbeing (Shanker, 2013). They are able to self-regulate when they can manage their own physical states, moods and emotions, and interactions with others, and are willing and able to understand and assist others. Shanker highlights the importance of self-regulation by explaining that a child's prosocial functioning is a strong predictor of personal satisfaction, growth and social success, and is therefore a key to all other domains. He also argues that developing self-regulation can enable a child to cope when they are over-stimulated or over-stressed. Responsive adults, he argues, can help infants learn to self-regulate through a 'brain to-brain hook-up', where the adult, or the higher-order brain, reads the baby's cues – facial expressions, posture, movements, sounds – and adjusts their responses to up- or down-regulate the baby as necessary; for example, for feeding, playing, learning about the world, or going to sleep. Rather than take over and try to manage children's immoderate emotions and behaviours themselves, adults should explore why particular behaviours are occurring, address unnecessary stressors, and help the children learn to self-regulate (Shanker, 2013).

Neuroscientific research has developed an important body of knowledge for infant-toddler pedagogy and curriculum. Researchers have argued that "adults who have responsibility for very young children must understand the 'brain story' and base their pedagogical choices on this understanding" (Dalli, 2014, p. 2). However, some writers caution against allowing neurobiological arguments to have undue sway to the detriment of other research that can generate different ways of knowing (Dalli & White, 2016). It is imperative to avoid uncritical and simplistic extrapolation of causal links between ECE and children's long-term outcomes (Dalli & White, 2016). Even so, it is important to know that continued high stress can negatively affect the immune system, emotional wellbeing and cognitive functioning, and that sensitive, responsive caregiving based on attunement and intersubjectivity can buffer stress and support infants to learn to moderate their own emotional responses (Dalli, 2014).

The literature leaves us in no doubt as to the benefits for infants and toddlers of warm, responsive relationships based on attunement and intersubjectivity.

Intersubjectivity is believed to be a key feature of adult–child relationships. Intersubjectivity refers to mutual understanding about the meaning of an object or focus; such understandings often arise in episodes of joint attention (Dalli & White, 2016).

Intersubjective relationships between teachers and infants and toddlers can enhance children’s long-term emotional wellbeing, social competence and emotional regulation (Dalli & White, 2016). Drawing on White’s 2012 study of two teachers of infants in an early childhood setting, White and Mika (2013) reported that the teachers did not conceptualise their pedagogy in terms of fostering positive outcomes but as a relational presence or intersubjective process “comprising mutual gazes, shared rituals, physical and emotional presence, and the constant seeking of cues through physical and verbal language” (p. 101). This suggests that intersubjectivity in teacher–infant relationships is an important, sensitive and intentional practice.

Although hardly a new focus, there is increasing research into the role teachers play in adult–child relationships. *Te Whāriki’s* emphasis on reciprocal relationships brings value not only to the child but also to the teacher/kaiako, who is seen as a relational partner alongside the child. White and Redder (2015) emphasise teacher presence as an important consideration in relationships with infants in group care settings. Based on analyses of infant–teacher interactions, the authors found that when teachers were close by and available they had opportunities to engage in meaningful dialogue with infants that could inform the children’s relationships with their peers and support their emotional regulation. Teacher presence is related to attunement: “presence is not only physical but refers to emotional attunement, an ability to orient oneself to ‘the child’s experience’” (Dalli, 2017, p. 125). This means teachers/kaiako need to be aware of their positioning and reflective about the implications of their interactions with infants.

A similar point is apparent in the writing of Dalli (2017) and Rockel and Fryer (2016), who argue that teachers need to be self-aware and reflective about their role in, and influence on, relationships with young children. “[U]nderstanding the importance of being genuinely seen and held in the mind of another person, understanding that minds create minds and that we all have the power to shape relationships (and brains) throughout life, can provide a personal and professional anchor for self-reflection and influence how and what we bring to our relationships” (Rockel & Fryer, 2016, p. 76).

Redder and White (2017) and Widger (2014) explore the nature of teacher presence and participation in relationships with infants. The first study, which focuses on teacher engagement in infant–peer relational encounters, found that teachers’ responses to infants’ interactions with peers could strengthen the infant–peer relationship. The authors highlight the importance of teachers knowing when and how to engage in infant–peer dialogue/social encounters and being fully aware of and responsible for the decisions they make when supporting infant–peer relationships. Teacher awareness and responsibility can be understood in terms of ‘answerability’, which implies that teachers remain aware of how

they alter the lives of infants and peer relationships through dialogue (Redder & White, 2017). Answerability means that by entering into peer–peer dialogue a teacher becomes not only a mediator but an active partner, and makes ethical decisions about how that engagement takes place (Redder & White, 2017).

In the second study Widger (2014) focuses on the idea that infants are always subject to adult presence, and that this presence, even if subtle, impacts on the child’s experiences. Indeed, “a teacher’s bodily presence must be understood as being intrinsic to ‘uninterrupted play’” (p. 67). Attention should therefore be paid to the complex sensitivity and tentativeness that teachers might bring to their work with very young children. This study highlights the idea that ‘bodily presence’ is a form of interaction and needs to be acknowledged as such, because even when teachers/kaiako believe they are not interrupting, their mere presence makes them ‘quietly interactive’ (p. 41).

In summary, warm, sensitive and responsive relationships are believed to contribute to positive outcomes for infants and toddlers. This conclusion extends to relationships that are based on intersubjective interactions where adults and infants come together to share meaning, focus, and attention. It extends also to attunement, where adults are sensitive to children’s cues and signals and attempt to tune in to their state of mind. These types of quality relationship can foster healthy development and support children’s emotional regulation, though this requires that teachers/kaiako recognise and respond to the children’s non-verbal cues and gestures. Another potentially important pedagogical dimension is teacher presence, which puts responsibility on the teacher to recognise that they play a dialogic role in peer relationships and that their bodily presence is a form of interaction that has an impact on children’s experiences even if they are unaware of it.

The current indicators

An existing indicator refers to positive, sensitive and responsive interactions as evidence of quality provision. To reflect current research, it could be modified to recognise intersubjectivity, attunement and teacher presence as three important aspects of quality. The reference to “one-to-one responsive interactions” implies that no-one else is involved in these encounters; however the research shows that teachers can play a role in infants’ dialogic relationships with other infants, so teachers’ relationships with infants do not always need to be one-to-one. Teachers/kaiako need to acknowledge the impact they have on children, whether they intend to or not. Being ‘bodily present’ and ‘quietly interactive’ are forms of interaction that challenge the idea of non-intervention.

Implications

‘Warm, intersubjective relationships based on attunement and teacher presence’ might replace “positive, sensitive and responsive interactions”. Consideration should be given to whether and/or how “one-to-one” can be broadened to include peer interactions. “[R]esisting the urge to intervene unnecessarily” could be replaced with ‘Teachers/kaiako

understand the role their bodily presence plays in relationships with infants and acknowledge the impact this may have on their experiences.’

An understanding of language and communication as verbal, non-verbal, and embodied

Supporting language and communication is an important focus for ensuring quality provision for infants and toddlers (ERO, 2015). Mounting evidence shows that children up-to-three years are not only receptive to language but can also create and invent language (Bateman & Gunnarsdottir, 2017; Dalli & White, 2016, White & Mika, 2013).

Acknowledging and supporting children’s competence with language and communication aligns with *Te Whāriki’s* emphasis on promoting all children’s language and communicative expressions. The strand of communication focuses on fostering children’s non-verbal, verbal, expressive and culturally symbolic forms of communication skills for a range of purposes (Ministry of Education, 2017), and teachers/kaiako are encouraged to consider families’ cultural languages, key words and signs in order to foster a sense of belonging for children.

Reports of practice with very young children, however, highlight concerns. ERO’s (2017) report on how well children’s oral language was supported in 167 early learning services (and in schools), emphasised that the first years of life, especially between eighteen months to three years of age, are a critical time for fostering language development. Yet, ERO found variability in how well early learning services were supporting young children’s oral language learning and development. ERO highlighted that many services needed to improve their strategies to support oral language, and pointed out that while *Te Whāriki* provided an appropriate framework for developing children’s oral language, there was limited use of available resources beyond *Te Whāriki*. One suggestion was for teacher/kaiako professional knowledge to include knowing how children’s oral language develops, what types of experiences and strategies foster oral language development, and how to use internal evaluation to improve the quality of curriculum in supporting oral language learning and development. In addition to these factors which contribute to “a rich oral language environment, interactions and learning” (p. 46), the current research has highlighted some additional factors that ought to be considered by teachers/kaiako in ECE settings.

Teachers’/kaiako use of their bodies appears to play a central role in supporting infants’ language development. Sensitive and emotionally attuned adults can help foster dialogic interactions to underpin their intersubjective relationships with infants (Dalli & White, 2016). Evidence has shown that a teacher’s positive affect, body language, tone of voice, and way they handle infants’ bodies are central to fostering such interactions (Dalli & White, 2016). In this way, language and communication can be understood as embodied and fostered in the context of sensitive and attuned relationships.

Acknowledging infants and toddlers’ use of their bodies is also emphasised as a consideration for quality pedagogy and curriculum. Evidence has shown that infants under-1-year-old can demonstrate communicative competence and an ability to convey complex

meanings using their unique gestures, vocalizations, and bodily movements (Dalli & White, 2016). Toddlers have also shown competence in drawing on the social acts of others as a compass or map for their own intentions, which is more than just mimicking the behaviour of others (White & Mika, 2013). Academic scholars have also brought attention to the body as a complex, fully sensing, and communicative subject, thereby challenging the traditional view of the body and mind as separate (Rockel & Sansom, 2015). Together, these ideas describe the notion of 'bodily agency' (Dalli & White, 2016, p. 11), and suggest that teachers/kaiako ensure infants and toddlers have time to process and make sense of what they see, and have time to explore their social engagements with others as a way to make decisions about their own behaviour, social actions, and expressions (White & Mika, 2013). Teachers/kaiako might also appreciate the whole child and understand that language and communication are embodied experiences.

Language and communication for very young children can be promoted in playful ways, in the context of warm relationships. For example, in a one-year study exploring three teachers' interactions with very young children, Bateman and Gunnarsdottir (2017) analysed video footage to identify the pedagogical moments that reflected Te Whāriki in teachers' everyday interactions with children. Conversation analysis provided detail of the verbal and non-verbal nature of communication between the teachers and toddlers. Toddlers were found to co-construct with their teacher an unfolding, inpromptu storyline that involved characters, setting the scene and problem-solving characteristic with complex early storytelling that had an ongoing flow of storyline. Bateman and Gunnarsdottir highlighted that the teacher's actions were key: she was attentive, playful and facilitative helping to negotiate the play in a safe and nurturing environment, while staying in character to be a participant in play. Overall, the study emphasised a nurturing environment and attentive, playful and facilitative teachers as being central to enabling toddlers to feel secure and able to partake in longer periods of higher quality pretend play.

In summary, the recent literature highlights that language and communication are vital aspects of learning and development for infants and toddlers, but that there is variability in how these processes are supported in current practice. In particular, the literature shows that fostering positive language and communication ought to be an intentional, playful strategy of teachers of infants and toddlers, and that language can be fostered and co-created in the context of interactions between teachers/kaiako and children. Infants' and adults' bodily agency appears to be an important consideration in how language and communication are expressed and understood. These ideas suggest that language and communication contribute to positive outcomes for infants and toddlers if they are understood as being verbal, non-verbal and embodied in the actions, expressions and interactions of teachers/kaiako, infants and toddlers.

The current indicators

The current indicators bring attention to infants' and toddlers' narrative style (language development), "the level of communication and language used by each child", and the need for teachers to "interpret and respond to the subtle cues offered by infants and toddlers

including body language". Together, these references align with the ideas evident in the current literature and acknowledge children's competence in creating their own language. These ideas do not however make explicit the importance of teachers being intentional in extending infants' and toddlers' language and communication development other than in responding to their cues. ERO (2017) make some recommendations in this regard.

Implications

Emphasise the importance of a language- and communication-rich environment that takes into account teachers' and infants' bodily agency as a form of communication. Also, emphasise the intentional practice of recognising and extending infants' and toddlers' verbal, non-verbal and embodied forms of language and communication in playful ways.

Supportive conditions for quality care and education

The literature discussed thus far affirms curriculum and pedagogy with infants and toddlers as highly important and complex work. Even newly qualified teachers can find themselves navigating complex, political, emotional, and social issues when beginning their teaching with infants and toddlers (Tesar & Farquhar, 2015). What the research tells us is that the conditions of such environments need to be stress-free, and that infants and toddlers need access to teachers/kaiako who can provide the appropriate emotional support when needed (Cooper, 2017; Dalli, 2014). Evidently, the absence of a supportive emotional environment can have long lasting effects and influence physical and mental health (Rowley, 2016). Low-stress environments that are emotionally supportive for both children and adults contribute to positive outcomes for all.

There is a need to consider the role that supportive conditions play in enabling quality provision. This is especially important given Dalli and White's (2017) view that high-quality curriculum and pedagogy may be limited in their effect on children unless teachers/kaiako are supported at all levels of the system. Realising high quality curriculum and pedagogy for infants and toddlers therefore requires a focus on the interrelated structural and process conditions that can enable quality provision for infants and toddlers.

In 2011, Carroll-Lind and Angus' Children's Commissioner review on the state of non-parental education and care of infants and toddlers made some clear recommendations for the Minister of Education. These recommendations were based on their findings and argument that some of the regulated minimum standards that support quality provision were too low. They recommended that:

- group size be no more than 8 under two-year-olds
- the minimum adult to child ratio be reduced from 1:5 to 1:3 in ECE centres
- the minimum space requirements for under-2-year-olds be increased from 2m² to 3m²
- services are supported to provide quiet spaces and environmental materials that keep noise levels to a minimum.

In addition to these recommendations, recent reports of practice showed how teachers/kaiako and leaders modified their environments to enhance outcomes for teachers/kaiako, leaders, and infants and toddlers. For example, Fremaux and Liley (2014) reported on their move from a under two/over two centre to a mixed-age setting and argued that teachers/kaiako (and leaders) need to collaboratively discuss and adapt their practice by heightening their awareness of the environment for supervision purposes, such as looking out for infants who are walking and/or finding small items to explore.

Similarly, Stewart MacKenzie (2014) reported another centre's change from an under two/over two centre to a mixed-age setting in response to the changing demands of the community and the leadership of the institution the centre was part of. The teaching team took the opportunity to modify their current individualised approach to care by trialling a whānau-based model to support tuakana-teina relationships. They also chose to retain their separate rooms but allowed free movement for the children between both through the use of a concertina door. This decision helped to regulate the flow of both rooms without a permanent barrier, and enabled teachers to feel like they were working as a cohesive group. Recommendations regarding group size have also been raised in Redder and White's (2017) study, which explored teachers' interactions with infants. The authors have argued that a small group size of 10 or less is conducive to sensitive interactions, and that knowing when and how to engage in infant-peer relationships is more challenging in settings where ratios and numbers of children are less than ideal.

In summary, it is difficult to contemplate how quality practices with infants and toddlers might be sustained without also looking to the interrelated structural and process conditions that enable them. Teaching infants and toddlers is complex work and requires that teachers/kaiako are well supported and feel empowered to make changes if their practices are to contribute to positive outcomes for infants and toddlers.

The current indicators

The current indicators acknowledge the importance of structural and process indicators to underpin practice for children up-to-two, and reflect the recommendations made in Carroll-Lind and Angus' (2011) report. The current indicators also point out that these conditions are within the responsibilities of Pou Whakahaere and Pou Arahi, although there is potential to cross-reference in both sections. The 'Learning environment' section of Tikanga Whakaako and Mātauranga for children up-to-two years includes three practices that ought to be retained: sufficient space with minimal noise (and avoidance of exposure to infectious disease), low-stress environments, and comfortable, safe spaces for children who are crawling not yet walking.

Implications

Consider including the recommendations and conditions for the learning environment under the Pou Arahi indicator 'Building and supporting professional practice' and make a cross-reference to the Tikanga Whakako indicator 'The learning environment'.

Considerations for reframing, defining, and identifying potential indicators

The literature discussed in this paper has highlighted particular practices that ought to be prioritised with infants and toddlers. This endorsement aligns with the wide consensus amongst early childhood scholars that pedagogy and curriculum for infants and toddlers are specialised practices and require specialised knowledge (Dalli et al., 2011; Dalli & White, 2016; White & Mika, 2013). A specialised pedagogy has been described as involving higher levels of physical care, and heightened intimacy and emotional nurturing than would be expected for children over two years (Dalli & White, 2016). It also requires an understanding of communicative strategies that infants and toddlers use, such as bodily agency in situations of free movement and gestures and moderating their vocalisations as they engage with others (Dalli & White, 2016). In addition, a specialised pedagogy is one that positions the infant, toddler and teacher as intersubjective partners “in an ethical quest for uncertainty and awe” (White and Mika, 2013, p. 108). Hence, understanding that practice with infants and toddlers is specialised is essential, but knowing in what ways it is appears equally important.

The literature discussed has illuminated some significant factors that can contribute to positive outcomes for infants and toddlers. These factors include the need for teachers/kaiako to view infants and toddlers with a positive attitude, to adopt a critical approach to care that is responsive to cultural identities and teacher emotionality, to foster warm, intersubjective relationships based on attunement and teacher presence, to interpret and extend on children’s verbal, non-verbal and embodied language and communication, and to understand and strive for optimal process and structural conditions that enhance the early childhood experience for infants and toddlers. In the move towards quality provision, teachers' practices ought to reflect these factors and be considerate of the diversity of all children, families, and teachers/kaiako.

The literature has also highlighted that fostering positive outcomes for infants and toddlers relies on teachers’ ability to draw on multi-disciplinary knowledge to inform practice (Dalli, 2014). Dalli proposed that to do so also involves a capacity to critique new knowledge in order to avoid compromising other ways of knowing, to apply new ideas to local situations to be reflective and critically engaged with pedagogy and implications for children and families. These skills and abilities are useful considerations for teachers/kaiako and for leaders.

This paper concludes by addressing the issue of reframing, defining and identifying potential indicators and potential associated practices. It also brings together the implications discussed earlier for revising the review framework. These ideas are outlined in the following table.

Implications for the review framework

First, the current indicators of Mātauranga and Tikanga Whakaako for children-up-to-two currently sits separate from the Mātauranga and Tikanga Whakaako indicators applicable to teachers of all children in early learning services. There is some general duplication in the text. While a separate box brings visibility to the specialist nature of practice and knowledge with children up-to-two, on first impression, it tends to suggest that infants and toddlers are not included in the notion of ‘children’, and potentially creates a situation where other relevant indicators may be disregarded in favour of a reliance on the indicators suggested in this box alone. Given ERO’s intention to reduce and revise the review methodology, one possibility might be to collapse and merge the two sets of indicators for Mātauranga and Tikanga Whakaako, which would promote a more integrated and inclusive approach and reduce duplication, while retaining the specialist practices and knowledge required to support infants and toddlers, within the relevant sections.

Second, the suggested implications outlined in the table below may inform a more inclusive representation of infants and toddlers in the review methodology, while ensuring the specialist practices that ought to be prioritised with infants and toddlers are made explicit.

Potential indicator	Potential associated practices	Implications for Mātauranga and Tikanga Whakaako
Infant-toddler teachers/kaiako view infants and toddlers positively as unique, competent, culturally-located, and as having agency.	<ul style="list-style-type: none"> Teachers/kaiako and leaders collaboratively discuss and debate their views of infants, toddlers, and older children. Leaders address any potentially deficit views of children. Teachers/kaiako and leaders collaboratively discuss how their views take into account children’s agency and being culturally-located. 	<ul style="list-style-type: none"> As a positive view should apply to all children, such a view could be made explicit at the beginning/front of the framework to complement the reference to <i>Te Whāriki’s</i> aspiration statement in Part two.
Infant-toddler teachers/kaiako adopt a critically reflective approach to care and ensure it is responsive to children’s cultural identities and teachers’ emotionality.	<ul style="list-style-type: none"> Teachers/kaiako critically reflect on their approach/es to care. Teachers/kaiako discuss their approaches to care with one another and with families. Teachers/kaiako consider how their approaches to care are responsive to children’s cultural values and beliefs, particularly Māori and Pasifika. Teacher/kaiako have knowledge of culturally relevant practices for Māori and Pasifika children, which may include aroha, communal caregiving, tuakana- 	<ul style="list-style-type: none"> The concept of care needs to be visible and explicit as a core practice of infant-toddler teachers/kaiako. A crosslink could be made to the responsibility of leaders to make time to collaboratively discuss and debate teachers’ approaches to care to ensure responsiveness to culture and priority groups, multiple perspectives of care, and recognition of and support for teachers’ emotional experiences of caregiving.

	<p>teina relationships, oriori and waiata.</p> <ul style="list-style-type: none"> • Teachers/kaiako consider how their approaches to care align with teachers’ identity. • Teachers/kaiako have knowledge of a range of perspectives of care, including care as ethical and moral practice. • Teachers/kaiko and leaders pay attention to teachers’ emotionality and to the type of support available to teachers. 	
<p>Infant-toddler teachers/kaiako know how to foster warm, intersubjective relationships and strive for attunement and an understanding of teacher presence.</p>	<ul style="list-style-type: none"> • Teachers/kaiako will have knowledge of how to foster warm, sensitive and responsive relationships with infants and toddlers. • Teachers/kaiako will promote relationships based on intersubjectivity and attunement*. • Teachers/kaiako understand how their role in relationships can support children’s healthy development and their emotion regulation. • Teachers/kaiako will acknowledge the dialogic role they play in infants’ relationships with their peers, and that their bodily presence influences infants’ experiences, whether they realise this or not. 	<ul style="list-style-type: none"> • Replace the current “Positive, sensitive and responsive interactions” with this language. • Elaborate on “one-to-one” to include peer interactions. • Modify “resisting the urge to intervene unnecessarily” to “Teachers/kaiako understand the role their bodily presence plays in relationships with infants, and acknowledge the influence this may have on their experiences”. <p><i>*Intersubjective interactions are those where adults and infants come together to share meaning, focus, and attention. Attunement is where adults are sensitive to children’s cues and signals and attempt to tune in to their state of mind.</i></p>
<p>Infant-toddler teachers/kaiako know how to interpret and extend infants’ and toddlers’ verbal, non-verbal and embodied language and communication.</p>	<ul style="list-style-type: none"> • Teachers/kaiako have knowledge about how language and communication develop in the first years, what types of experiences and strategies foster language development, and how they might support language learning and development. • Teachers/kaiako hold a broad view of language and communication as being verbal, non-verbal and embodied in teachers’ and infants’ actions, expressions and interactions. • Teachers/kaiako understand the importance of bodily agency in how language and 	<ul style="list-style-type: none"> • Emphasise the importance of a language- and communication-rich environment that takes into account teachers’ and infants’ bodily agency as an embodied form of language and communication. • Emphasise the intentional practice of recognising and extending infants’ and toddlers’ verbal, non-verbal and embodied forms of language and communication.

	<p>communication are expressed and understood.</p> <ul style="list-style-type: none"> Teachers/kaiako are intentional in fostering infants' and toddlers' language and communication in playful ways in the context of warm interactions. 	
<p>Infant-toddler teachers/kaiako and leaders discuss and plan for process and structural conditions that will promote positive early learning and development</p>	<ul style="list-style-type: none"> Teachers/kaiako and leaders have knowledge about supportive structural and process conditions that promote quality. Teachers/kaiako and leaders discuss and plan for process and structural conditions that will enable infants and toddlers to thrive. Leaders provide teachers/kaiako with appropriate social and emotional support. Teachers/kaiako and leaders collaborate to modify their own environments in ways that contribute to positive outcomes for all. 	<ul style="list-style-type: none"> Consider including the recommendations and conditions for the learning environment highlighted in this review under the Pou Ārahi indicator 'Building and supporting professional practice' and make a cross-reference to the Tikanga Whakako indicator 'The learning environment'.

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