



The impact of reducing educator qualification requirements on the program quality and ultimate learning and development of children aged birth to 3. Evidence from International and Australian research.

Submission to the Productivity Commission in response to the Draft Report into Childcare and Early Childhood Learning, 2014

Dr Sheila Degotardi
Senior Lecturer in Early Childhood Education

Sandra Cheeseman
Lecturer in Early Childhood Education

Institute of Early Childhood, Macquarie University, NSW.

Overview:

This paper addresses key Draft recommendations contained within the Productivity Commission Report into Childcare and Early Learning. The commission proposes that qualification requirements for those working with under 3 year old children could be lowered without compromising quality (p.35). On this basis, the Commission proposed **Draft recommendation 7.2:**

- All educators working with children aged birth to 36 months are only required to hold at least a certificate III or equivalent, and
- the number of children for which an early childhood teacher must be employed is assessed on the basis of the number of children in a service aged over 36 months.

Furthermore, **draft recommendation 7.5** proposes that ACECQA should:

- remove the requirements that persons with early childhood teacher qualification must have practical experience for children aged birth to 24 months.

The Productivity Commission argues that this move will reduce the cost of provisions for very young children, allowing the early childhood and care (ECEC) marketplace to determine whether parents are willing to pay the increased costs associated with higher qualified staff. The presence of qualified staff is regarded as a 'value-added extra', rather than as a significant contributor to the quality of the ECE program or the learning outcomes of under three-year-old children.

The Commission intends to investigate further the implications of the proposed changes, and is seeking advice on the expected impacts on the development of children under 36 months. This paper aims to contribute towards this investigation by drawing on recent empirical evidence about the impact of educator qualifications on infant-toddler program quality as well as infant-toddler workforce capacity and satisfaction. We feel that, by considering recent and robust evidence findings, the Productivity Commission will be better positioned to make recommendations which meet its aim, as stated in the draft report, to "*help governments make better policies, in the long term interest of the Australian community*" (p.ii). In this submission, our focal point is the **long term interest of our youngest citizens** - our infants and toddlers - and the evidence-based impact that the above-cited recommendations will have on their learning and development.

Our key concern is to advise in regards to point 1b of the Scope of Inquiry - that is to investigate the contribution of affordable, high quality child care to optimising children's learning and development. In the following pages, we make three key points:

Key point 1: High quality infant-toddler programs matter

We draw on recent longitudinal investigations of the impact of high vs low quality infant-toddler early childhood education and care programs to demonstrate that the quality of the program is pivotal in ensuring the best learning and development outcomes for our children

Key point 2: Education qualifications *are* empirically related to important elements of program quality that predict child outcomes

We present evidence to demonstrate the empirical links between educator qualifications and infant-toddler program quality, and to refute the misconception that care and education can be separated in infant-toddler early childhood programs

Key point 3: Key point 3: Educator qualifications also *indirectly* impact on quality

We present emerging evidence from international and Australian studies which demonstrate that qualification levels are necessary for educator workplace satisfaction, retention and leadership

Key Point 4: Certificate III is insufficient as a qualification for working with infants and toddler

We present information to demonstrate that entry level Certificate III vocational program does adequately prepare educators to work autonomously with infants and toddlers.

Key point 1: High quality infant-toddler programs matter for children's development and learning

As acknowledged by the Productivity Commission report, there exists a body of evidence which demonstrates that the quality of early childhood experienced during the first years of life has significant ramifications for children subsequent developmental and learning outcomes. The first three years of life have been identified by psychological, medical and educational researchers as being foundational in terms of cognitive, social, emotional, language and physical development, with robust evidence demonstrating that early experiences matter. In particular, ***sensitive, responsive, emotionally available and cognitively stimulating interactions*** are identified as core contributors to the early learning of these foundational skills.

The Productivity Commission report cites Melhuish (2004) to suggest that research is inconsistent in their findings of the effects of infant-toddler ECEC on later development. What is missing from this citation is Melhuish's (2004) accompanying qualification that participation alone is insufficient to demonstrate effects, but that **effects of infant-toddler ECEC are attributed "at least partly to differences in the quality of the childcare received by children"** (p. 47). Similarly, the Commission's use of the Centre for Community Child Health (2014) report to highlight potential negative effects should be moderated with reference to the major recommendations of this report that i) the Government has a major obligation to determine and implement universal quality standards for ECEC (p.2) and ii) lower staff ratios and higher qualifications are integral to any approach towards improving quality (p.3).

While some studies published in the 1990s and early 2000s reported negative or relatively negligible (Lefebvre & Merrigan, 2002) effects of attendance in infant-toddler ECEC on children's later development, these studies are limited by the general omission of measure of quality. A later wave of research which has included such measures have highlighted the significance high quality programs for under twos by detecting **significant associations between infant-toddler program quality and children's development**. The well-known NICHD Early Child Care Research Network study of the effects of early child care in the US have reported that positive caregiver infant interactions, as rated through observations of sensitive, intrusiveness, emotional warmth and stimulation in the first year of life, predict cognitive development and pre-academic scores as well as language development (National Institute of Child Health and Human Development and Early Child Care Research Network, 2000). Follow-up studies reported similar findings for the accumulated quality across infancy and toddlerhood, leading the authors to state that high quality child care can have considerable benefits for children's cognitive and linguistic functioning. Implications have also been reported for very young children's social and emotional development (National Institute of Child Health and Human Development Early Child Care Research Network, 2002). Phillips et al., (2013), for example, reported that infants in high quality centres were more likely to have positive interactions with their peers than those who attended lower quality services. In Australia, The Longitudinal Study of Australian Children has reported significant positive effects of the quality of caregiver active engagement with infants and their subsequent social competence (Harrison, 2008). Research from the Israeli Haifa study of early care have reported that infants and toddlers attending low quality services are at risk of developing insecure attachment relationships with their mothers (Sagi, Koren-Karie, Gini, Ziv, & Joels, 2002).

The question of whether such developmental implications endure over time have been addressed by two recent studies, again drawing from the NICHD data. Vandell and colleagues (Vandell, Belsky, Burchinal, Steinberg, & Vandergrift, 2010) reported that children who experienced high quality early childhood education and care averaged over the first 5 years of life were reported by their teachers to have significantly higher cognitive achievements and significantly lower levels of externalising behaviours at age 15. Of most significance to this submission is a recent analysis of the timing of quality indices for subsequent development. Li, Farkas, Duncan, Burchinal and Vandell (2013) investigated children's outcomes as determined by their specific combination of high and low quality infant and preschool programs. While they found significant gains associated with the quality of

preschool programs, they also found that high quality infant-toddler care was associated with developmental gains that endured *regardless* of the quality of the subsequent preschool program. Children's cognitive, language and pre-academic skills prior to school entry were the highest for those who had experienced high quality in both settings, but attendance in high quality infant-toddler programs was associated with significant gains over and above those explained by the quality of the pre-school program.

It is therefore clear that the key point, identified by the Productivity Commission report, that ECEC services play a vital role in the development of Australian children and their preparation for school *does not only* apply to services for pre-school aged children. While research is inconsistent in relation to whether attendance in infant toddler programs is beneficial or detrimental, recent evidence strongly concludes that the **quality of infant-toddler classrooms has significant and far-reaching effects**. In particular, the quality of services for infants and toddlers has a significant impact on pre-academic and important social - emotional skills, demonstrating overwhelmingly that the contribution of ECEC on development and school readiness begins in infancy.

It is of concern, therefore, that some international and Australian studies have raised concern that the **quality of infant-toddler programs tends to be poorer than those of pre-school aged children** (Fenech, Sweller & Harrison, 2010; Goelman et al., 2006; Thomason & La Paro, 2009), and that low income families tend to access the lowest quality ECEC services (Melhuish, 2004). These concerns are supported in a recent study by La Paro, Williamson and Hatfield (2014) who report that the quality of 93 toddler rooms were rated as low in terms of interactions which support learning and language development. The researchers note with concern the relatively low level of qualifications required in these US centres, as well as the lack of infant-toddler content in most early childhood qualification programs. They conclude that "it is becoming clear that intentional efforts need to be made in regard to policies that require educational levels and experiences for teachers of toddler age children and in preservice education" (p.889)

In summary, these findings demonstrate that:

- The quality of infant-toddler programs have short and long term effects across a range of cognitive, language and social-emotional areas.
- These effect appear to endure over time.
- Infant toddler programs vary considerably in quality from poor to high, but research suggests that quality may be poor, relative to programs for older children
- Raising educator qualifications requirements and addressing the shortage of infant-toddler content in qualifications is suggested as a way of addressing quality disparities.

Key point 2: Education qualifications are empirically related to important elements of program quality

The Productivity Commission Report concludes that there is little evidence to support the idea that qualified educators are needed in programs for children under 3. In drawing this conclusion, the Commission appears to have overlooked recent studies which have examined factors influencing the quality of early childhood education and which overwhelmingly cite educational qualification as a significant contributor to program quality. Higher levels of education are associated with increased knowledge in children's development and stronger understandings of how development and learning can be facilitated in age-appropriate ways (Berthelsen & Brownlee, 2005; Burchinal, Cryer, Clifford, & Howes, 2002; Phillips & Adams, 2001). This is not only the case with educators of pre-school aged children, but also, with those of under threes. Commissioned reports and theoretical discussions of the quality of education and care programs for infants and toddlers cite **teacher education as a significant contributor to quality** (Dalli, White, Rockel, & Duhn, 2011; Press & Mitchell, 2014), a conclusion supported by a growing body of evidence from large, comprehensive international studies into the effects of early experience in early childhood education and care programs. For example, a number of

studies exist to demonstrate that reported that higher levels of educator qualifications were associated with higher global measures of quality, as assessed by the widely used quality measure - the Infant Toddler Environmental Rating Scale (Burchinal et al., 2002; Hestenes, Cassidy, Hegde, & Lower, 2007; Phillips, Mekos, Scarr, McCartney, & Abbott-Shim, 2001; Phillipsen, Burchinal, Howes, & Cryer, 1997). **Specialised early childhood training** has also been found to predict positive caregiving interactions (Manlove, Vazquez, & Vernon-Feagans, 2008; National Institute of Child Health and Human Development Early Child Care Research Network, 2002). Qualification levels also explain significant variations in important caregiver cognitions, such as adherence to non-authoritarian caregiving beliefs (National Institute of Child Health and Human Development Early Child Care Research Network, 1996) and the presence of complex levels of reasoning about infant development and behaviours (Degotardi, 2010; Manlove et al., 2008).

It is important to remember that measures of caregiver education and the nature of educator qualification requirements and programs vary considerably between and within countries. In some studies, the qualification measurement has captured a general level of post high-school education. This is the case with the Longitudinal Study of Australian Children longitudinal analysis cited in the draft report which concluded that there was no effect of educator qualification levels on subsequent child outcomes (Giaramas, Mittinty, Sawyer, Zubrick and Lynch, 2014). In this instance, a lack of significant effects can be attributed to the generic nature of the education level, which may or may not have any early childhood content. Furthermore, some early childhood qualifications in the past and current-day practice focus very little on the learning and teaching of children under 3. The two other key longitudinal studies which reported no, or inconsistent relationships between teacher education and measures of quality both cite difficulties with the measurement of educator qualification levels as a reason for the lack of significant relationships in their study. For example, when noting inconsistent findings relating to educator qualifications across their 6, 15 and 25 month measures of caregiver interactions, the NICHD (2002) explain that this inconsistency would, in part, be due to the fact that the wide variation of qualification content and requirements reduces the reliability of their qualification measurement. Another large Dutch study which, again, failed to report the significance of qualification levels on overall infant-toddler room quality proposed that this finding was likely due to a lack of focus in many early childhood qualification programs on infant-toddler development (Vermeer et al., 2008). As explained by Huntsman (2008), it seems clear that the **level of specialisation in the qualification is the feature that contributes towards the quality of the program**

More conclusive findings about the contribution of qualifications to infant-toddler program quality therefore come from countries with similar qualifications structures as Australia. One such study was conducted in Canada by Goelman and colleagues (2006), who investigated contributors to quality in over 100 infant-toddler programs. The early childhood qualification level of educators was one of two most significant predictors of quality, as measured by the ITERS (the other significant predictor being that of educator-infant ratios). The researchers conclude that **pre-service early childhood education programs "provide these individuals with the knowledge and skills to deliver quality early childhood care and learning environments."** This is further supported by Mathers, Eisenstadt, Sylva, Soukakou, & Ereky-Stevens (2014) who found in a recent review of research that although the evidence-base is less rich than that for over threes, there was good evidence that qualifications matter for under threes. "In short, good quality staffing underpins good quality practice" (p. 140). They also found that it was difficult to make any determination about the impact of highly qualified educators working with young children because it was difficult to gather sufficient data given that there are currently insufficient highly qualified educators working with infants and toddlers to enable a robust and valid study.

Further to this, The Evaluation of the Graduate Leader Fund (Mathers, Ranns, Karemaker, Moody, Sylva, Graham and Siraj-Blatchford, 2011) also identified the dangers of drawing conclusions about the impact of highly qualified staff on learning and development outcomes for infants and toddlers based on an inconclusive evidence base:

The authors of the Evaluation of the Graduate Leader Fund argued that, in fact, we do not know enough to draw firm conclusions either way ... This is a challenge for future research, and there is a pressing need to understand more about the relationship between qualifications and quality for children under three, and how these different dimensions of professional preparation and support relate to each other.

If it is not possible to make recommendations for highly qualified educators to work with infants and toddlers based on inconclusive evidence then **it is equally not possible to make recommendations for educators to have a low level of qualifications.**

While such large scale investigations are yet to be conducted in Australia, Degotardi (2010) found significant associations between 24 infant educators' qualifications levels and behaviours and cognitions that predict children's wellbeing and development. Using the NICHD's Observational Record of the Caregiving Environment, she found that educators with diploma or degree level qualification were rated as more sensitive and stimulating in play and routine caregiving contexts than those with Certificate level or no formal early childhood education qualifications. The level of complexity of these educators' reasoning and understanding of infant behaviour also increased significantly in accordance with their qualification level.

Finally in this section, the Productivity Commission argues that ECEC for under 3s should focus on care rather than education (p.277), and uses this argument to justify their conclusion that only minimally qualified educators are needed in this context. This conclusion is contrary to an increasing body of literature which find that care and education for our youngest children cannot be separated, and that one very much depends on the presence of the other (Brooker, 2010; Dahlberg, Moss, & Pence, 1999; Rockel, 2009; Taggart, 2011). Contemporary, evidence-based approaches to ECE therefore argue strongly that **caregiving is an integral aspect of an educational program** for young children, and the role of the educator is to identify and capitalise on the learning opportunities that are evident in caregiving practices (Degotardi & Davis, 2008; Degotardi & Pearson, 2014; Sims & Hutchins, 2011). The Centre for Community Child Health's (Centre for Community Child Health, 2014) report, cited by the Productivity report to raise concerns about the potential impact on children's development of infant-toddler ECEC programs comprehensively justifies the integration of care and education functions as a means of improving effectiveness and quality. They justify their position with reference to multiple studies, summing this up as follows:

Elliott (2006) argues that it is 'conceptually and ethically inappropriate to separate the care and education functions'. The younger the child, the more important it is to recognise the inseparability of care and learning: 'Every moment in which an adult provides care to a young infant is a moment rich with learning' (Lally, 2007)" (p. 8)

The responsive, sensitive, emotionally available and stimulating interactions that have been identified in this report as empirically related to both qualification levels and developmental outcomes are **integral aspects of caregiving and teaching**. The proposal to reduce qualification requirements for this children based on an ill-conceived, artificial division between care and education runs counter to this evidence and runs the risk of seriously impacting on the quality of these services.

In summary, findings from recent research demonstrate that:

- Educator qualification are positively associated with general measures of program quality as well as more specific qualities of caregiver interactions with children
- When the qualification is a specialised early childhood education program (such as those offered in Australia), findings are more consistent and conclusive.
- The presence or absence of infant-toddler knowledge content in early childhood qualification program is a significant factor in determining whether the qualification level itself has implications for infant-toddler program quality.
- Any division of 'care' and 'education' for very young children is artificial and misinformed, and does not justify the removal of qualified educators from a program.

- Counter to the Productivity Commission claims, there is a significant body of evidence to suggest that reducing the required level of qualification for infant-toddler programs will compromise the quality of those programs.

Key point 3: Educator qualifications also indirectly impact on quality

The Productivity Commission report rightly recognises that the **Early Childhood workforce is negatively impacted by low workplace satisfaction**, in particular, satisfaction with salary and perceived professional status (pp.472-473). This impacts negatively on retention and professional enhancement within the sector. As increased international attention is being drawn to the quality of infant-toddler programs, emerging quantitative and qualitative evidence strongly suggests that adults' experiences within their work environment also influences young children's learning experiences in these settings. Infant-toddler educators' satisfaction in the workplace can be an important influence in determining their responsiveness to very young children and their ability to deal positively and constructively with the emotional demands of working with this young age group (Elfer, 2014). Manlove et al. (2008) argue that the extent to which an early childhood setting is supportive of its employees can determine their caregiving practices in the room. They found a significant effect of infant educator workplace satisfaction on the levels of observed educator sensitivity. In another large study, de Schipper and colleagues (2008) found educators who reported a more positive and optimistic career outlook were demonstrated more positive and developmentally supportive interactions across a range of observational measures than those with a negative, pessimistic attitude. Of concern were findings in a previous analysis of the data which demonstrated that the general positivity of educators working with under two year olds was lower than those working with older children (de Schipper, Riksen-Walraven, & Geurts, 2007).

So how are educator qualifications implicated in these findings? For a start, reducing the required qualification level is likely to affect workplace satisfaction and the retention of staff due to the **low salaries** of Certificate level workers. Professional status is also at risk. In the Dutch studies mentioned earlier, researchers caution that in their country, where early childhood programs for under twos are interpreted as 'care' rather than 'education', low required qualifications levels are a contributing factor to a **lack of professional recognition and workplace status** (de Schipper et al., 2007; Vermeer et al., 2008). Qualitative research emerging from the UK, where programs for under threes only require minimally qualified staff, also point towards **low levels of job satisfaction** as well as **poor opportunities for professional and career development**; all of which contribute towards high staff turnover and low levels of positivity (Clark & Baylis, 2012; J. C. de Schipper, Van IJzendoorn, & Tavecchio, 2004; Gooch & Powell, 2013). Similar concerns have been raised in New Zealand, where the requirements for qualified staff have been reduced in recent years (Rockel, 2005). This work, as well as that emerging from Australia (Berthelsen & Brownlee, 2005; Degotardi, Semann, & Shepherd, 2012 ; Ireland, 2007; Nyland, 2004; Press, 2006) unanimously concludes that the development, delivery and sustainability of high quality infant-toddler programs can be enhanced by addressing the professional knowledge-base of the infant-toddler workforce. As Siraj-Blatchford, Sylva, Muttock, Gilden, and Bell (2002) found, the presence of more highly qualified staff has positive influence on the behaviour of other staff, and Fenech, Harrison, Press, and Sumsion (2010) found that a core group of teachers is more likely to create a learning community and facilitate higher quality pedagogic practices which in turn enhance curriculum and outcomes for children.

Key Point 4: The Certificate III credential is inappropriate as a qualification requirement for educators working with infants and toddlers.

Scrutiny of the Certificate III credential exposes this competency based, entry level program as inadequate to contribute meaningfully to best learning and development outcomes for infants and toddlers who may spend significant time in childcare settings.

The Certificate III is described as a qualification that

... reflects the role of workers in a range of early childhood education settings who work within the requirements of the Education and Care Services National Regulations and the National Quality Standard. They support the implementation of an approved learning framework, and support children's wellbeing, learning and development. Depending on the setting, educators may work under direct supervision or autonomously (Commonwealth of Australia, 2014, p.12).

Clearly designed as an entry level program for those with limited work experience and in many cases for those with relatively low levels of high school achievement, this program emphasises foundational skills for those taking on a supporting role to work with more highly qualified educators.

The units of study within the Certificate III program are heavily weighted to content covering physical health, development, welfare and care of children with limited inclusion of units to support children's learning. There is only a single unit designated to specifically address working with infants and toddlers is titled 'Provide care for infants and toddlers' (p.12). Any assumption that this qualification might contribute positively to learning and development outcomes for infants and toddlers must be viewed tentatively and is not substantiated by the existing evidence base from both Australia and other comparable countries.

Draft Recommendation 7.2 'that all educators working with children aged birth to 36 months are only required to hold at least a certificate III, or equivalent' will result in a revolving door of young, inexperienced and minimally educated people working with infants and toddlers. Once working toward a higher level of qualification these people will no longer be eligible to work with infants and toddlers and consequently the stable and knowledgeable workforce recommended for very young children will be severely eroded.

The Certificate III must be viewed as it was intended as an entry level career pathway and not as an end point or relevant specialist qualification in its own right. The Standing Council on School Education and Early Childhood describes the Certificate III as...

Building a career pathway is a key step in raising the professionalism of the ECEC workforce. Clearly articulating the opportunities available for educators through updating and increasing qualifications will offer clear goals and reward professionalism, ultimately improving the quality of education and care of children (Standing Council on School Education and Early Childhood (SCSEEC), 2012, p.8).

The National Quality Framework specifies the intent of early childhood education and care programs to contribute to enhanced learning outcomes for children from birth. The Early Years Learning Framework describes the work of educators who work with young children from birth as complex and requiring significant knowledge, sensitivity to children and families and capable of contextualising pedagogic decisions. "In order to engage children actively in learning, educators identify children's strengths and interests, choose appropriate teaching strategies and design the learning environment" (Australian Government Department of Education Employment and Workplace Relations, 2009, p.9). Educators are also asked to draw on a range of perspectives and theories to challenge traditional ways of seeing children, teaching and learning, and encourage educators, as individuals and with colleagues, to:

- investigate why they act in the ways that they do
- discuss and debate theories to identify strengths and limitations
- recognise how the theories and beliefs that they use to make sense of their work enable but also limit their actions and thoughts
- consider the consequences of their actions for children's experiences
- find new ways of working fairly and justly.(Australian Government Department of Education Employment and Workplace Relations, 2009, p.11).

These expectations for educators require high-order thinking and theoretical knowledge. Programs that will contribute to enhanced learning and development outcomes for children of all ages must be led by highly qualified experts in child development, pedagogy and curriculum. It is essential that teams of educators working with infants and toddlers come from a range of qualifications backgrounds including degree qualified early childhood teachers who can establish learning environments based on up to date and robust education theory and research.

In summary, emerging international and Australian research is demonstrating that:

- General work satisfaction for those working with under 2s tends to be lower than that of those working with older children
- There are real concerns about the professional knowledge base and long-term sustainability of this workforce
- Empirical relationships exist that link educators' levels of positivity, optimism and work satisfaction and the quality of their programs and interactions with very young children.

Conclusions and recommendations

In sum, in contrast to the draft conclusions of the Productivity Commission, there exists a strong body of research to demonstrate that the provision of high quality infant-toddler ECEC is a necessary feature of infant-toddler programs that benefit learning and developmental. Conversely, attendance in low quality services places children's learning, development and wellbeing at risk. Evidence strongly suggests that a requirement for minimum only level qualification levels will have a detrimental effect on our youngest children, both directly, through the quality of the program that is offered, and indirectly, through the negative impact that a poor professional knowledge base and workplace satisfaction has on educators capacity to deliver a high quality program. When paired with concerns raised by the Productivity Commission report itself about the variable quality of early childhood qualifications, in particular the poor quality training associated with Certificate level qualifications (pp.494-495), it is clear that **moves to reduce the requirement for specialised early childhood educators with our youngest children are poorly conceived and risks the long-term wellbeing of Australian children.**

We conclude that requirements for qualification levels need to be rigorous, consistent and take into account evidence that qualifications levels have ramifications for both the children in infant-toddler programs as well as the staff. Qualification requirements also need to include the regulated inclusion of infant-toddler specialised content, so that those with the highest levels of qualifications can i) draw upon this when working directly with the children and ii) use this knowledge to support and guide the lesser qualified educators in their programs. In this way, negative outcomes for children can be avoided and the workforce sustainability and productivity of infant-toddler educators can be enhanced.

On this basis, we make the following recommendations to the Productivity Commission:

- 1. That the draft recommendation that educators working with children under three only be required to have a Certificate III is rejected.**
- 2. That the report, and its recommendations, be amended to clearly acknowledge the international and emerging Australian body of evidence in support of high qualifications with specialised content and experience in infant-toddler programs.**
- 3. That the final report clearly acknowledges the contribution that high quality infant-toddler education care makes to children's learning and development and recommends that the Government takes evidence-based measures to improve the quality of Australian infant-toddler programs. These measures will, at a minimum include:**

- a. **The mandated provision of diploma and teacher-qualified educators in infant-toddler programs**
 - b. **The mandated inclusion of infant - toddler professional knowledge content and practicum experience in all university teacher-education programs.**
 - c. **That all infant-toddler programs exist under the leadership of an university-qualified early childhood teacher with appropriate birth - 2 knowledge and experience.**
 - d. **The provision of increased professional learning and development opportunities for infant-toddler educators**
4. **That the final report includes the recommendation that the Australian Government fund a comprehensive longitudinal study of the contributors to, and the learning outcomes associated with, the quality levels in infant-toddler early childhood education and care programs.**

References

- Australian Government Department of Education Employment and Workplace Relations. (2009). *Belonging, being and becoming. The early years learning framework for Australia*. Canberra: Australian Government Department of Education, Employment and Workplace Relations for COAG.
- Berthelsen, D., & Brownlee, J. (2005). Respecting children's agency for learning and rights to participation in child care programs. *International Journal of Early Childhood*, 37(3), 49-60.
- Brooker, L. (2010). Constructing the triangle of care: Power and professionalism in practitioner/parent relationships. *British Journal of Educational Studies*, 58(2), 181-196. doi: 10.1080/00071001003752203
- Burchinal, M., Cryer, D., Clifford, R., & Howes, C. (2002). Caregiver training and classroom quality in child care centres. *Applied Developmental Science*, 6(1), 2-11.
- Centre for Community Child Health. (2014). *Response to the Productivity Commissions' Childcare and Early Childhood Learning Issues Paper*. The Royal Childrens Hospital Melbourne.
- Clark, R. M., & Baylis, S. (2012). 'Wasted down there': Policy and practice with under-threes. *Early Years: An International Journal of Research and Development*, 32(2), 229-242. doi: 10.1080/095751456.2011.652939
- Dahlberg, G., Moss, P., & Pence, A. (1999). *Beyond quality in early childhood education and care: Postmodern perspectives*. London: Falmer Press.
- Dalli, C., White, E. J., Rockel, J., & Duhn, I. (2011). *Quality early childhood education for under two-year-olds: What should it look like?* Wellington: Ministry of Education.
- de Schipper, E. J., Riksen-Walraven, J. M., & Geurts, S. A. E. (2007). Multiple determinants of caregiver behavior in child care centers. *Early Childhood Research Quarterly*, 22, 312-326.
- de Schipper, E. J., Riksen-Walraven, M., Geurts, S. A. E., & Derksen, J. J. L. (2008). General mood of professional caregivers in child care centres and the quality of care-giver-child interactions. *Journal of Research in Personality*, 42, 515-526. doi: 10.1016/j.jrp.2007.07.009
- de Schipper, J. C., Van IJzendoorn, M. H., & Tavecchio, L. W. C. (2004). Stability in center day care: Relations with children's well-being and problem behaviour in day care. *Social Development*, 13(4), 331-550.
- Degotardi, S. (2010). High-quality interactions with infants: Relationships with early childhood practitioners' interpretations and qualification levels in play and routine contexts. *International Journal of Early Years Education*, 18(1), 27-41.
- Degotardi, S., & Davis, B. (2008). Understanding infants: Characteristics of early childhood practitioners' interpretations of infants and their behaviours. *Early Years: An International Journal of Research and Development* 28(3), 221-234.
- Degotardi, S., & Pearson, E. (2014). *The relationship worlds of infants and toddlers*. Maidenhead, UK: Open University Press.
- Degotardi, S., Semann, A., & Shepherd, W. (2012). Using practitioner inquiry to promote reflexivity and change in early childhood programs. In P. Whiteman & K. De Gioia (Eds.), *Children and Childhoods*. Newcastle, England: Cambridge Scholars Publishing.
- Elfer, P. (2014). Facilitating intimate and thoughtful attention to infants and toddlers in nursery. In L. Harrison & J. Sumsion (Eds.), *Lived Spaces of infant-toddler education and care: Exploring diverse perspectives on theory, research and practice* (pp. 103-118). Dordrecht: Springer.
- Fenech, M., Harrison, L., Press, F., & Sumsion, J. (2010). *Contributors to quality long day care: Findings from six case study centres*. Bathurst, NSW: Charles Sturt University.

- Fenech, M., Sweller, N., & Harrison, L. (2010). Identifying high-quality centre-based childcare using quantitative data-sets: what the numbers do and don't tell us. *International Journal of Early Years Education*, 18(4), 283-296. doi: 10.1080/09669760.2010.531615
- Gialamas, A., Mittinty, M.N., Sawyer, M.G., Zubrick, S.R., Lynch, J. (2014). Child care quality and children's cognitive and socio-emotional development: An Australian longitudinal study. *Early Child Development and Care*, 184, 977-997. Doi:10.1080/03004430.2013.847835.
- Goelman, H., Forer, B., Kershaw, P., Doherty, G., Lero, D., & LaGrange, A. (2006). Towards a predictive model of quality in Canadian child care centers. *Early Childhood Research Quarterly*, 21(3), 280-295. doi: <http://dx.doi.org/10.1016/j.ecresq.2006.07.005>
- Goouch, K., & Powell, S. (2013). *The baby room: Principles, policy and practice*. Maidenhead, UK: Open University Press.
- Harrison, L. (2008). Does child care quality matter? Associations between socio-emotional development and non-parental child care in a representative sample of Australian children. *Family Matters*, 79, 14-25.
- Hestenes, L. L., Cassidy, D. J., Hegde, A. V., & Lower, J. K. (2007). Quality in inclusive and noninclusive infant and toddler classrooms. *Journal of Research in Childhood Education*, 22(1), 69-84. doi: 10.1080/02568540709594613
- Huntsman, L. (2008). Determinants of quality in child care: A review of the research evidence. Ashfield: NSW Department of Community Services.
- Ireland, L. (2007). Life is good for babies: The pedagogical and management decisions enabling a teacher to be employed in a rural infant-toddler program. *Education in Rural Australia*, 17(2), 21-36.
- La Paro, K., Williamson, A., & Hatfield, B. (2014). Assessing quality in toddler classrooms: Using the CLASS-toddler and the ITERS-R. *Early Education and Development*, 25(6), 875-893. doi: 10.1080/10409289.2014.883586
- Lefebvre, P., & Merrigan, P. (2002). The effect of childcare and early education arrangements on developmental outcomes of young children. *Canadian Public Policy*, 28(2), 159-186.
- Li, W., Farkas, G., Duncan, G., Burchinal, M. R., & Vandell, D. (2013). Timing of high quality child care and cognitive, language, and preacademic development. *Developmental Psychology*, 49(8), 1440-1451. doi: 10.1037/a0030613
- Manlove, E. E., Vazquez, A., & Vernon-Feagans, L. (2008). The quality of caregiving in child care: Relations to teacher complexity of thinking and perceived supportiveness of the work environment. *Infant and Child Development*, 17, 203-222. doi: 10.1002/icd.547
- Mathers, S., Eisenstadt, N., Sylva, K., Soukakou, E. & Ereky-Stevens, K. (2014). *Sound foundations. A review of the research evidence on quality of early childhood education and care for children under three. Implications for policy and practice*. The Sutton Trust and the Education Endowment Foundation. Retrieved from: www.ox.ac.uk/document.rm?id=3215
- Mathers, S., Ranns, H., Karemaker, A., Sylva, K., Graham, J. & Siraj-Blatchford, I. (2011). *Evaluation of the graduate leader fund. Final report*. National Centre for Social Research and University of Oxford. Retrieved from: <http://www.natcen.ac.uk/media/23233/evaluation-graduate-leader-fund.pdf>
- Melhuish, E. (2004). A literature review of the impact of early years provision on young children - summary. UK National Audit Office.

- National Institute of Child Health and Human Development and Early Child Care Research Network. (2000). The relation of child care to cognitive and language development. *Child Development*, 71(4), 960-980.
- National Institute of Child Health and Human Development Early Child Care Research Network. (1996). Characteristics of infant child care: Factors contributing to positive caregiving. *Early Childhood Research Quarterly*, 11, 269-306.
- National Institute of Child Health and Human Development Early Child Care Research Network. (2002). Early child care and children's development prior to school entry: Results from the NICHD study of early child care. *American Educational Research Journal*, 39(1), 133-164.
- Nyland, B. (2004). Infant programmes in Australian childcare centres: Are there gaps in pre-service training of childcare staff. *Early Child Development and Care*, 174(1), 47-57.
- Phillips, D., & Adams, G. (2001). Child care and our youngest children. *The Future of Children*, 11(2), 35-51.
- Phillips, D., Mekos, D., Scarr, S., McCartney, K., & Abbott-Shim, M. (2001). Within and beyond the classroom door: Assessing quality in child care centres. *Early Childhood Research Quarterly*, 15, 475-496.
- Phillipsen, L. C., Burchinal, M. R., Howes, C., & Cryer, D. (1997). The prediction of process quality from structural features of child care *Early Childhood Research Quarterly* 12, 281-303.
- Press, F. (2006). What about the kids? Policy directions for improving the experiences of infants and young children in a changing world. Sydney: Commission for Children and Young people NSW / Commission for Children and Young People, QLD / National Investment for the Early Years.
- Press, F., & Mitchell, L. (2014). Lived spaces of infant-toddler education and care: implications for policy. In L. Harrison & J. Sumsion (Eds.), *Lived spaces of infant-toddler education and care: Exploring diverse perspectives on theory, research and practice* (pp. 225-240). Dordrecht: Springer.
- Rockel, J. (2005). Primary care in early childhood education - To be or not to be? *ACE Papers*(15), 73-87.
- Rockel, J. (2009). A pedagogy of care: Moving beyond the margins of managing work and minding babies. *Australasian Journal of Early Childhood*, 34(3), 1-8.
- Sagi, A., Koren-Karie, N., Gini, M., Ziv, Y., & Joels, T. (2002). Shedding further light on the effects of various types and quality of early child care on infant-mother attachment relationship: The Haifa study of early child care. *Child Development*, 73, 1166-1186.
- Sims, M., & Hutchins, T. (2011). *Program planning for infants and toddlers: In search of relationships*. Castle Hill: Pademelon Press.
- Siraj-Blatchford, I., Sylva, K., Muttock, S., Gilden, R., & Bell, D. (2002). Researching effective pedagogy in the early years, DfES Research Report 365. London: HMSO Queens Printer.
- Standing Council on School Education and Early Childhood (SCSEEC). (2012). Early years workforce strategy. The early childhood education and care workforce strategy for Australia 2012–2016. <http://hdl.voced.edu.au/10707/223062>
- Taggart, G. (2011). Don't we care?: The ethics and emotional labour of early year professionalism. *Early Years: An International Journal of Research and Development*, 31(1), 85-95. doi: 10.1080/09575146.2010.536948
- Thomason, S. A., & La Paro, K. (2009). Measuring the quality of teacher-child interactions in toddler child care. *Early Education and Development*, 20, 285-304. doi: 10.1080=10409280902773351

Vandell, D., Belsky, J., Burchinal, M., Steinberg, L., & Vandergrift. (2010). Do effects of early child care extend to age 15 years? results from the NICHD study of child care and youth development. *Child Development, 81*(3), 737-756. doi: 10.1111/j.1467-8624.2010.01431.x

Vermeer, H. J., van Ijzendoorn, M. H., de Kruif, R. E. L., Fukkink, R. G., Tevecchio, L. W. C., Ricksen-Walraven, J. M., & van Zeijl, J. (2008). Child care in the Netherlands: Trends in quality over the years 1995-2005. *Journal of Genetic Psychology, 169*(4), 360-385.

Fenech, M., Harrison, L., Press, F., & Sumsion, J. (2010). Contributors to quality long day care: Findings from six case

study centres. . Bathurst: Charles Sturt University.

Siraj-Blatchford, I., Sylva, K., Muttock, S., Gilden, R., & Bell, D. (2002). Researching effective pedagogy in the early years, DfES Research Report 365. London: HMSO Queens Printer.