

Staff joining children in their play

At high rating centres, staff frequently joined in children's activities, offered materials or information or encouragement to facilitate play and learning around a particular theme. A centre whose staff only monitored children's play but did not join in it at all would receive a low rating.

Providing a print-saturated environment

High rating centres on this aspect of quality are very print focused. They would encourage print awareness in children's activities, have a lot of printed material visible around the centre, at children's eye-level or just above, and offer children a range of readily accessible books. A centre with no books, posters, or other forms of writing would receive a low rating.



Implications of the findings

Our findings are consistent with a growing body of international research showing benefits for children from ECE experience, and particularly the quality of staff-child interaction.² What we have found shows that these benefits can extend 11 years later, into late adolescence.

This body of research underlines the importance of providing children with high quality staff:child interaction in their ECE experience. It follows that a key rule of thumb for planning at both practice and policy levels might well be: Is this use of time/resources likely to improve/sustain the quality of staff-child interaction?

For example, other international research (summarised in Mitchell, Wylie, & Carr) has shown that quality staff-child interaction in ECE services is supported by:

- having staff whose training gives them understanding of how young children learn, and of their role in supporting and scaffolding that learning by building on children's interests and deepening their thinking and language use;
- having staff:child ratios that allow staff to both know children as individuals, and to be able to work with them in ways that help children develop confidently; and by
- having staff stability.

² Mitchell, L., Wylie, C., & Carr, M. (forthcoming). Outcomes of Early Childhood Education: A Literature Review.

It is also important that ECE centres do provide children with opportunities to see the printed word and letters as an everyday – and enjoyable – part of their life, so that children value literacy from an early age and gain confidence with their early exposure to the written word, and the worlds it can open.

Few of the ECE centres in the study scored very low on these ratings when we gathered the data in 1993-94. Now, with the current regulations for ECE, we would expect no centres to score low. We would also expect to see many of New Zealand's ECE centres to score well for these vital quality aspects if we were to repeat the ECE phase of the *Competent Children, Competent Learners* Project, since there has been substantial government support for ensuring ECE staff have relevant qualifications and have professional development and assessment resources that help them focus on ensuring that their interaction with children is as rich as possible. But we need to ensure that services keep their qualified staff (turnover rates remain high in ECE services), and continue to enlarge the number who are qualified. We also need to ensure that staff:child ratios allow time for high quality interaction with children (not all of which has to be one-to-one), and for staff to work together to share their knowledge and keep improving their ECE centre quality.

Further information about the *Competent Children, Competent Learners* project can be accessed from the Education Counts website: www.educationcounts.edcentre.govt.nz



Key findings from the age-16 phase of the Competent Children, Competent Learners project.

The Competent Children, Competent Learners Project is funded by the Ministry of Education and the New Zealand Council for Educational Research. It is a longitudinal study which focuses on a group of about 500 young people from the greater Wellington region (Wellington, Hutt, Kapiti, Wairarapa).

It charts the development of their competence in numeracy, literacy, and logical problem-solving and their competence in social and attitudinal skills. It also explores the contributions of home and education experiences to find out which may account for differences in patterns of development and performance in these competencies.

The project started in 1993, when the children were close to five years old and in early childhood education. Seven phases of the study have now been completed – the first when the children were near age 5, the next when they were at age 6, and at two yearly intervals since then (ages 8, 10, 12, 14 and 16).

This summary reports the key findings about the associations between early childhood education experience and young people's competency levels at age 16. The full picture of this analysis is provided by the second technical report from the age-16 phase.¹



Can early childhood education make a long-term contribution to competency levels?

Earlier studies in the Competent Children, Competent Learners Project found children benefited from quality early childhood education in both the cognitive and the social/attitudinal competencies.

In the age-14 study, the researchers found that aspects of students' early childhood education still had associations with performance nine years later.

The aspects that showed a lasting contribution were: high quality staff interactions with children; an environment providing lots of books and written material and where children could select from a variety of learning activities; the child's starting age and the total length of early childhood education; and the socio-economic mix of the children attending the centre.

Generally the associations applied regardless of maternal qualification or family income; that is, there were benefits for all children, regardless of their background.

What we found at age 16

We found that these earlier patterns continued at age 16. Some aspects of ECE were still making a statistically visible contribution to young people's competency levels, 11 years later, over and above the contribution it had made to their performance levels at age near-5. The associations at age 16, however, were weaker on the whole, than they were at age 14.

We found that young people who had attended an ECE service which had high ratings for the quality of teacher-child interaction, and those whose ECE service had moderate or high ratings for providing lots of printed material to use or display on the walls of the centre had higher scores on average for literacy, numeracy, logical problem-solving, and their social skills.

These aspects of quality in their ECE experience contributed about 4 percent of the variability in young people's numeracy – about the same level as maternal qualification levels, which give an indication of the kinds of resources and learning experiences children are likely to have had at home. They also contributed about 4 percent of the variability in logical problem-solving scores at age 16, about half the level of the contribution from maternal qualification levels.

The ECE quality aspects (detailed on opposite page) and whether children had attended an ECE centre that served mainly middle-class families also contributed 4-7 percent to the variation in the young people's social skills at age 16. This is half or more of the contribution made by maternal qualification levels. We found that good quality ECE can provide some protection against getting into trouble at age 16, by reducing the likelihood of mixing with peers who get into trouble, of being influenced by peer pressure to do things out of character, and to stay away from bullying, or being bullied.



Defining what early childhood education quality that contributes to age-16 competency levels looks like

Staff responsiveness


Staff at top-scoring centres responded quickly and directly to children, adapting their responses to individual children. They provided support, focused attention, physical proximity, and verbal encouragement as appropriate, were alert to signs of stress in children's behaviour, and guided children in expressing their emotions. A centre that had the lowest possible rating would have staff who ignored children's requests, and were oblivious to their needs.

Staff guiding children in activities

Staff at top-scoring centres moved among the children to encourage involvement with materials and activities, and interacted with children by asking questions and offering suggestions. They offered active guidance and encouragement in activities that were appropriate for individual children. A centre that had a low score for this aspect of quality would have left children to choose all their own activities.

Staff asking children open-ended questions

Staff at top-scoring centres often asked children open-ended questions, giving them opportunities to come up with a range of different answers, to encourage thinking and creativity. Centres where no open-ended questions were heard would receive a low rating.



¹ Hodgen, E. (2007). Early childhood education and young adult competencies at age 16: Technical report 2 from the age-16 phase of the longitudinal Competent Children, Competent Learners study. Wellington: Ministry of Education.