

Australian Early Development Census (AEDC)

# Guide to language and cognitive skills (school-based)

Resources for Queensland  
early childhood education  
and care services



# Guide to language and cognitive skills (school-based)

This document has been designed to support early childhood education and care services to understand the AEDC domain ‘Language and cognitive skills (school-based)’ to inform curriculum programming, planning and quality improvement.

Children make sense of the world by linking and organising information into concepts. Numeracy concepts such as counting, sorting, classifying, comparing and patterning are all supported by language. Language helps to organise children’s thinking and allows them to develop skills such as memory, problem solving, creative thinking, predicting and hypothesising. Recognising the connection between written symbols and oral language, helps prepare children to be ready to read and write.

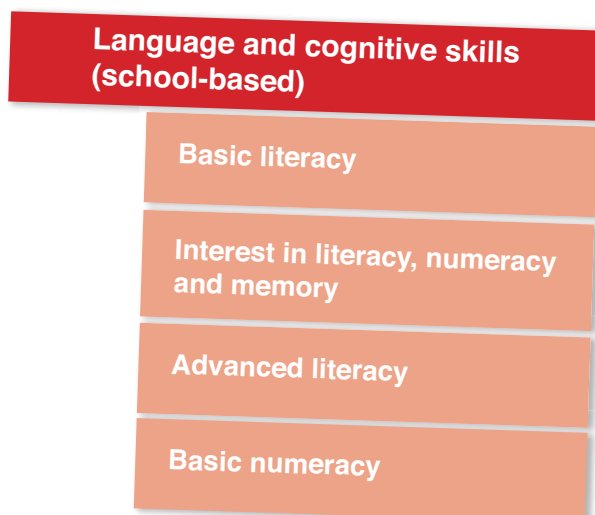
Responsive environments positively influence children’s learning, and significantly shape literacy dispositions. Literacy integrates speaking, listening, singing, viewing, and moving, with critical thinking to make meaning. Multi-literacies recognise the many diverse ways we seek to make meaning in the world (e.g. digital literacy, visual literacy, musical literacy).

The AEDC reveals four specific areas of language and cognitive skills which support children’s development, learning and engagement as they start school:

## Protective factors

Families and early childhood educators can help increase protective factors and reduce risk factors in a child’s life by providing an environment that stimulates learning and development and builds children’s confidence.

Children who have active involvement in learning and new experiences develop the tools to build positive understandings and dispositions about literacy and numeracy. Examples of protective factors for children include: a literacy-rich environment, having support in the home environment, active involvement by families and educators in learning experiences, and acknowledgement of progress and success. When children have positive and supportive relationships with family and educators, their chance of optimal development is improved. They can encourage children to explore and respond to new experiences in a safe and supportive environment.



## Supporting children's language and cognitive skills

Early experiences significantly influence children's brain development. Children access, refine and build on their knowledge, skills and dispositions while playing. Play provides boundless opportunities for children to develop their cognitive skills and concept formation. Observing, listening and talking with children, coupled with reflective thinking assists educators to understand young children's knowledge and theories of the world.

Throughout the day, many opportunities arise to enhance children's language, literacy and numeracy dispositions, skills and knowledge. Some examples might be:

- Read and re-read books with children. Repeated reading of stories and texts affords opportunities for memory and vocabulary building, along with exploring text structures, letters, phonics, rhyme, sentence formation and so forth. Similarly, pictures in the stories can predict the story and be critically re-examined, compared and discussed.
- Draw on local languages to support young children's sense of belonging and competence in literacy concepts (e.g. include an activity about how to say 'Hello' or count in different languages).
- Use pictures with text as signs to display job lists, areas of the environment such as bathroom or kitchen. Encourage children to make their own signs or lists for use in their games.
- Look for everyday experiences to model and embed numeracy and mathematical language (e.g. 'I can see you have sorted all the rectangular blocks together' or 'Let's count how many steps it takes to get to the sand pit').
- Make the most of packing up times. Intentionally allow time for children to engage in classifying play props into appropriate baskets, sorting pens and pencils, arranging blocks into shapes and so forth. Document the learning inherent in this everyday activity and share with families so tidying becomes a valuable rather than stressful and hurried aspect of the day.
- Engage children in class jobs such as setting tables, putting shoes into pairs, sorting library books, packing lunch boxes into the fridge. Talk explicitly about the maths concepts underpinning these activities.
- Encourage children to talk about the work they produce including who helped, the process they followed and what tools and resources they used.

### Leesa's story

The educational program at the Hatton Vale Community Kindergarten has gained greater depth through links to the AEDC data. As Centre Director, Leesa Woodall explains 'Our program is based on the children's interests, however, we look at their needs identified through the AEDC data as well, just to try and complement any experiences that we're presenting to them ... So it might be they're interested in the beach, and we might use a poster of a beach scene that's going to stimulate that language and cognitive development as well'.

### Reflection

- What do the AEDC results reveal about children's language and cognitive skill development in your community?
- What messages does your environment give to the children/families of your local community about the importance of language, literacy and numeracy?
- How are aspects of children's diverse culture and language represented in your environment?
- How could your service engage families to share home languages with you for use in the classroom? (e.g. photo books, recordings, storytelling, greetings).



## Partnerships with families and communities

Working closely and respectfully with families to develop their understanding of the significance of print and language-rich environments is crucial. Educators must be mindful of cultural diversities and seek out information and support.

Perhaps:

- send a toy from the centre for children to play with for the weekend and talk about their adventures on return to the centre
- ask families to contribute photos or stories about their play experiences
- encourage children or families to make simple lists for garden or park treasure hunts (e.g. two thin sticks, three green round leaves)
- share websites, apps and resources about literacy and numeracy with families
- share ways of incorporating numeracy concepts into everyday activities such as shopping or cooking.

Early childhood services can also form partnerships and help families to access community services. Some services that families and staff can access for support in language and cognitive skill development include:

- local schools
- libraries, toy libraries, museums
- cultural organisations
- playgroups.

### Reflection

- What local services exist to support children and families who are experiencing language and cognitive difficulties?
- How might your service encourage and support families to help children develop language and cognitive skills at home?



## Resources for educators and families

**Australian Government**, *Early childhood literacy and numeracy: Building good practice*, available at [www.education.gov.au/news/classic-literacy-and-numeracy-resource-available-download](http://www.education.gov.au/news/classic-literacy-and-numeracy-resource-available-download). A digital booklet and set of flashcards designed to help early childhood educators turn everyday activities into literacy and numeracy teaching opportunities.

**Early Childhood Australia**, *Becoming literate* factsheet, available at [www.earlychildhoodaustralia.org.au/nqsplp/wp-content/uploads/2012/05/EYLFPLP\\_E-Newsletter\\_No18.pdf](http://www.earlychildhoodaustralia.org.au/nqsplp/wp-content/uploads/2012/05/EYLFPLP_E-Newsletter_No18.pdf). An e-newsletter written for early childhood educators on the foundations of literacy with links to the *Early Years Learning Framework*.

**Early Childhood Australia**, *Play-based approaches to developing literacy and numeracy*, available at [www.earlychildhoodaustralia.org.au/nqsplp/wp-content/uploads/2013/11/NQS\\_PLP\\_E-Newsletter\\_No66.pdf](http://www.earlychildhoodaustralia.org.au/nqsplp/wp-content/uploads/2013/11/NQS_PLP_E-Newsletter_No66.pdf). An e-newsletter written for early childhood educators outlining the importance of play-based learning and how to incorporate teaching and learning about literacy and numeracy into a play-based program.

**Let's read**, available at [www.letsread.com.au](http://www.letsread.com.au). A compilation of resources and suggested book lists for children birth to five years.

**Mem Fox**, *Writing, teaching, learning, loving, living*, available at [www.memfox.com](http://www.memfox.com). Information for parents and educators, suggestions for reading, read-aloud stories.

**Queensland Curriculum and Assessment Authority (QCAA)**, *Literacy and numeracy*, available at [www.qcaa.qld.edu.au/28213.html](http://www.qcaa.qld.edu.au/28213.html). Resources to support the Queensland kindergarten learning guideline.

**Queensland Government**, *Foundations for Success*, a practical guideline to extend and enrich learning for Aboriginal and Torres Strait Islander children in the kindergarten year. The guideline supports educators to implement a program that connects with families and communities and builds on the cultural knowledge, strengths and perspectives of Aboriginal and Torres Strait Islander children. <http://deta.qld.gov.au/earlychildhood/service/foundations.html>.



To access further AEDC resources please visit [www.deta.qld.gov.au/earlychildhood](http://www.deta.qld.gov.au/earlychildhood).

To access the AEDC data please visit [www.aedc.gov.au](http://www.aedc.gov.au).

