



# LET'S COUNT LITERATURE REVIEW 2020-2022

Snapshot



*everyone's family*

## BACKGROUND TO THE REVISION OF *LET'S COUNT*

The Ian Potter Foundation and Equity Trustees – James Raymond Hartley Charitable Trust supported The Smith Family to revise the *Let's Count* program during 2020–2022. One goal of the revision was to ensure *Let's Count* reflects the latest research and incorporates First Nations Knowledges, making them inherent in the program design and appropriate for participants of all cultural backgrounds.

An early step in achieving this goal was The Smith Family's commissioning of Peridot Education Pty Ltd and the Stronger Smarter Institute to develop a comprehensive and exhaustive literature review.

## COMMENTARY ON RECOMMENDATIONS OF LITERATURE REVIEW

This snapshot comprises a commentary and recommendations from the *Let's Count* Literature Review.

### Recommendation 1

**That the revision of *Let's Count* maintains and enhances its strengths-based pedagogical approach for all participants.**

*Belonging, Being & Becoming: The Early Years Learning Framework for Australia* (EYLF) advocates strengths-based approaches that respond to children's strengths, abilities and interests, and build on these to ensure learning, motivation and engagement (DEEWR, 2009, p. 14). Such approaches, for children, families and educators, have been a constant feature of the *Let's Count* program since its inception. Many researchers and educators continue to advocate them in early mathematics learning.

### Recommendation 2

**That the revision of *Let's Count* continues its emphasis on high expectations of everyone involved: families; communities; early childhood educators and other community professionals; children; and Smith Family facilitators.**

Having high expectations in and for both young children's learning and the teaching of young children – is a key aspect of early childhood mathematics education. Such expectations support and challenge learners in ways that fit with their interests, contexts and needs, and that are also both firm and fair.

If young children are to thrive through programs such as *Let's Count*, early childhood educators and adult family and community members need to have high expectations, both of themselves and each other.

The Stronger Smarter Institute (2017, p. 6) defines

High-Expectations Relationships [as] authentic two-way relationships that are both supportive and challenging. The concepts of High-Expectations Relationships support educators to build strong relationships with their students, a collegiate work environment, and trusting and collaborative partnerships with parents and the local community.

### Recommendation 3

**That the revision of *Let's Count* uses culturally responsive pedagogies to develop learning and teaching approaches and materials that are culturally appropriate for all participants.**

Morrison et al. (2019, pp. 1–2) describe culturally responsive pedagogy as

those pedagogies that value, and mobilise as resources, the cultural repertoires and intelligences that students

bring to the learning relationship. Such pedagogies are taken to be intrinsically dialogic and critically conscious, opening up generative and decolonising possibilities. This conceptualisation rests on the premise that all curriculum and pedagogy are culturally based.

Rigney (2019a) outlines several elements of culturally responsive pedagogy relevant across early childhood contexts:

- high intellectual challenge
- strong connections to the life-worlds of children
- recognition of cultural difference as a positive asset
- critical engagement and activist orientation
- performance of learning and/or multimodal literacies.

Recognition of children's family and community contexts, their exposure to mathematical opportunities in these contexts, and their ways of interacting with mathematics are all important considerations for their teachers. Mathematics learning must be meaningful for those who are learning it.

### Recommendation 4

**That *Let's Count* incorporates Aboriginal and Torres Strait Islander knowledges, and learning and teaching approaches, into its pedagogical basis, and into specific examples.**

Culture is a fundamental aspect of Aboriginal and Torres Strait Islander learning and wellbeing. The importance of culture is not limited to the knowledge held by and practices of Indigenous Australians, but also the respect and recognition of that culture amongst the wider community. (SNAICC, 2020, p. 9)

Positive educational outcomes for Aboriginal and Torres Strait Islander children require that learning experiences and opportunities be connected strongly to their life-worlds. To achieve this, early childhood education needs to recognise, and provide space for Aboriginal and Torres Strait Islander worldviews: that is, ways of seeing, knowing and being. Connecting with children's life-worlds is one way for teachers to disrupt power relationships and provoke reflection on taken-for-granted practices.

### Recommendation 5

**That the development of strong, positive, collaborative, and respectful partnerships among family members, communities and early childhood educators or other community professionals be central to *Let's Count*.**

Relationships provide the context in which children grow, learn, and develop. It is within relationships that children form a sense of themselves, their identity, and their agency. Secure, respectful, and reciprocal relationships between and among children, families, and educators are characterised by sensitivity and responsiveness, care for and about each other, trust, and respect for all. Within such relationships, children are supported to

engage in relevant and appropriately challenging experiences, while at the same time receiving support from responsive adults.

## Recommendation 6

**That the elements of effective early years pedagogy be applied to the development of mathematical experiences within *Let's Count*.**

These elements are:

- child-led, child-initiated, and adult-supported experiences
- opportunities that are generated through the interests, curiosity, culture and experiences of children and family members to promote meaningful and relevant learning experiences and outcomes
- both planned and incidental activities
- high expectations, based on knowledge of individual children and their strengths
- children's rights, particularly their rights to have input into their experiences, to be listened to and to be treated as capable
- play as a context for learning
- a diverse range of materials and resources.

## Recommendation 7

**That *Let's Count* provides guidance for families to engage in sustained shared thinking in mathematics.**

Sustained shared thinking involves educators and children (or children together) working in an intellectual way to work through an issue, solve a problem or clarify understandings. It can be both child-initiated or adult-initiated. It is not a one-sided intervention, with the adult prompting all the interaction and providing all the guidance. Rather it is a mutual interaction where both parties contribute to the interaction and the thinking involved. Sustained shared thinking can only happen when there are responsive, trusting relationships between adults and children. (Arthur, Beecher, Death, Dockett & Farmer, 2021, p. 372)

## Recommendation 8

**That *Let's Count* maintains Notice, Explore and Talk About Mathematics as the program's mantra.**

One of the characteristics of an effective home numeracy environment is the presence of meaningful interactions between the child and at least one parent or family member. One feature of such meaningful interactions is communication. Effective home numeracy environments provide opportunities for parents/family members and children to interact in a warm, challenging and supportive way based on activities that are of interest to the children and that elicit substantial 'maths talk'.

So, there is mathematics all around young children, they are powerful mathematicians who learn through play, and the adults around them can support the children's mathematics

learning through noticing it, helping the children to play with it and, very importantly, provide the appropriate language to discuss the mathematics being learned. This is a very simple formula and it is the basis for *Let's Count*: **Notice, Explore and Talk About.** (Perry & Gervasoni, 2016, p. 10)

## Recommendation 9

**That *Let's Count* uses Bishop's six universal mathematical activities, the eight powerful mathematical ideas, and culturally responsive practice to determine mathematical content.**

Bishop (1988, p. 182) has argued that there are six fundamental mathematical activities that "are both universal, in that they appear to be carried out by every cultural group ever studied, and also necessary and sufficient for the development of mathematical knowledge". There are eight powerful mathematical ideas listed in the EYLF and supported by researchers. These constitute the breadth and depth of mathematical knowledge and processes necessary in all children's (and adults') lives. The focus on culturally responsive practice, including the development of the mathematical strengths derived from young children's cultures is well-established throughout the literature. Knowing what, how and why young children have learned their mathematics within their diverse cultures is critical to their future learning. "if you want to teach, first find out what the learners know" (Sullivan & Grootenboer, 2010, p. 1).

## Recommendation 10

**That *Let's Count* is underpinned by recognition that all participants can be powerful mathematicians.**

*Let's Count* regards children, early childhood professionals, parents and other family members as powerful mathematicians. It is not always the case that people see themselves in this way, but it is a direct outcome of adopting a strengths-based approach. By recognising the strengths of children and adults and promoting positive identities as learners, parents and educators develop and increase their confidence. All people display many identities, including identities as powerful mathematicians. These are nurtured in supportive but challenging environments with high expectations.







We acknowledge ancestors as the First Mathematicians. We also pay our respects to our emerging Elders, our future leaders, our strong and smart students. They are the Mathematicians of our future.



For early childhood professionals introducing programs for Jarjums, engaging authentically with community members is crucial. Community includes mothers, fathers, family, clan and wider community members who are part of the lives of Jarjums.<sup>1</sup>

Once you start it is ongoing, it's every day and it's everything you do. It's about the ability to talk to community and have open and honest conversations.

<sup>1</sup> Jarjums is a Bundjalung/ Yugambah word for children used on Australia's eastern coast.

For the full **Let's Count Literature Review 2022** go to <https://www.thesmithfamily.com.au/programs/numeracy/lets-count/literature-review>

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