# ‘The hands lead us to learning’: Enhancing and extending children’s fine motor development through playful learning experiences

This fact sheet is for educators who want to better understand:

* how educators can think more broadly and deeply about fine motor development in infants and children
* the interplay between fine motor development occurring in play and in relationships with adults, caregivers and peers
* the importance of routines as learning experiences with embedded fine motor learning opportunities.

## Introduction

Children’s fine motor skill development – that is, their ability to use their hands – is strongly connected to their play.

Infants’ efforts at motor control commence early. An example of this is the infant who actively reaches towards the face of a person who is physically close to them and engaged in a responsive and attuned relationship with them; the adult, carer or older sibling is perhaps smiling and ‘cooing’ while they are focusing their gaze on the face of the child, who reaches out towards their face.

We understand, in general terms, that the progression of motor development occurs from the centre of the body to the periphery, known as proximodistal progression, or from larger motor control to finer movements. However, over time we have gained a more balanced and nuanced understanding of motor development and we can now see early fine motor development before trunk control is consolidated. Gross motor development leading to core stability and support remains foundational, but earlier attention is now given to fine motor endeavours of infants, with an appreciation that ‘the hands lead us to to learning’.

We understand that gross motor development and fine motor development occur simultaneously and in the context of responsive relationships and purposeful learning spaces. Adults engaging in contingent and attuned interactions with infants provide ‘serve and return’ opportunities and rich responsive learning experiences. Children actively engage, using their growing fine motor dexterity and strength alongside their learning in other developmental domains such as language and cognitive capabilities. It is the interplay between these supportive relationships and children’s growing capabilities that fosters children’s wellbeing. This is now understood to increase the likelihood that infants will confidently explore their world and this exploration is in large part through their hands.

|  |
| --- |
| Can you explain the relationship between gross motor skill development and fine motor skill development? How does one support the other? |

When we consider that gross motor skill development and fine motor skill development occur simultaneously, we can see the importance of early childhood professionals providing positive and responsive interactions and relationships throughout the day. The way the early childhood professional engages with the infant or young child provides opportunities to progress development.

The early childhood professional who ensures regular ‘tummy time’ is providing opportunity for infants to strengthen muscles, leading to greater core stability. This core stability is foundational to the later skills of sitting up, crawling and walking. These are important skills indeed, however, there is a need to balance this ‘tummy time’ with opportunities for the infant to be positioned on their back, or in a supported sitting position, where they are freely able to explore with their hands.

Thinking of fine motor development at its beginning stages helps us to actively create opportunities for children to explore with their hands. This in turn promotes children’s sense of agency and wellbeing, which is often associated with using their hands. The more children actively do, the more they feel that they can build, create, explore and express themselves.

We are often quite mindful of assessing children’s physical skills progression. Learning experiences, including playful routine times, provide golden opportunities to assess children’s sequential fine motor development from reaching and releasing, from palmer grasping to pincer gripping and so on. Progression along trajectories of learning (including motor skill learning) becomes apparent and provides the basis for tailored learning experiences.

It is important to consider children who require additional support with gross and fine motor skills. Thoughtful planning ensures we set up environments in which all children can feel confident in developing their gross and fine motor skills and feel a sense of agency and control.

As we delight in their endeavours, with thoughtful planning we can build children’s sense of wellbeing, identity and connection to their world. Children become able to confidently explore and engage with social and physical environments through relationships and play.

|  |
| --- |
| What kind of playful fine motor learning experiences should educators consider when setting up early learning environments for children three to five years old? What are some effective playful strategies for supporting fine motor development? |

Three to five years is a fabulous age for more complex play scenarios, with children using multiple learning domains simultaneously and in increasingly sophisticated ways. Again, ‘the hands lead us to learning’ and this is expressed in so much more than just writing and drawing. Indeed, children are extending and consolidating an increasing range of skills at this age.

The work of researchers Susan Knox (2008), and Karen Stagnitti and Louise Jellie (2006), can be used here to consider planning for play in reference to four elements: **Space management**, **Materials management**, **Pretend play** and **Participation**. This research, while based in occupational therapy, aligns well with the Victorian Early Years Learning and Development Framework (VEYLDF) and places children’s wellbeing at the centre of play. Practitioners are encouraged to consider how to promote participation by all children, inclusive of all abilities, through careful consideration of the environment, materials and pretend-play opportunities. This research provides a thorough and holistic view of children’s learning, recognising that children bring increasing cognition, language, social skills, fine motor development, creativity and agency to their play. Child-led play is key, but the educator must also consider how to promote play opportunities that take children beyond their most frequented play spaces. This requires a more creative use of learning environments, inviting children to participate in spaces and skills they may not have previously sought out independently.

One example is to set up a restaurant, where children are invited to navigate the space and engage with a variety of fine motor skills during a complex pretend-play scenario. This embeds learning in meaningful ways, with multiple learning areas at play. Children can take on various characters while engaging, negotiating and problem-solving. Fine motor skills are practised purposefully as children take written orders, write or draw a menu, cut up paper to make money, set up a cash register, dress up as waiters, pour drinks, prepare food and set up tables. The opportunities are endless and can be tailored to children’s interest and skills to provide challenge, practice and delight. For example, bi-manual skills are promoted in this scenario when opening containers and stirring bowls of food, where hands undertake different tasks at once – one hand holding and stabilising while the other hand turns or stirs.

Educators need only a creative mind in planning for all four elements, and the learning opportunities are endless (‘Early childhood professionals … use intentional teaching strategies that are always purposeful and may be pre-planned or spontaneous, to support achievement of well considered and identified goals’ [VEYLDF p. 15]). Inclusive thinking may see this play space provided outdoors, inviting in children who may be less likely to engage indoors (intentional support strategies also promote equitable participation in play for all children and meaningful ways to demonstrate learning [VEYLDF p. 12]).

A creative and inclusive approach asks us to consider the environment in numerous ways, offering a wide variety of materials, setting up play spaces that invite self-management and challenge, and following the increasingly complex play scripts or pretend-play scenarios of young children.

|  |
| --- |
| What are some everyday routines for children that might provide opportunities for supporting fine motor development? |

Routines and transition times offer a wealth of fine motor experience and abundant opportunities for promoting children’s agency and self-responsibility. Additionally, they are highly repetitive daily experiences – treasures for practising fine motor skills. Encouraging independent skill development during these times, with warmth and high expectations for children, can turn a range of daily tasks into important learning rituals.

These rituals connect children to their peers and to their space, building confidence, connection and wellbeing. Children’s active participation provides many and varied fine motor movements at different times, such as taking care of their belongings at entry and departure times, dressing and undressing, setting up for meals, toileting and setting up play or rest areas.

Regular communication with families allows the progression in children’s skills to be shared between educators and families. This can reveal collaborative opportunities across home and the early years setting, and align our expectations for children. Playful and routine practice opportunities abound, with partnership between educators and families building children’s confidence and capacities (VEYLDF p. 9).

|  |
| --- |
| The development of fine motor skills is often linked to the progression of drawing skills in children, but how important is the development of fine motor skills in supporting other learning areas or outcomes, especially when we think about the holistic nature of children’s learning? |

Fine motor skills are a window to learning. There are significant alignments between the way that the VEYLDF and occupational therapists view a child’s learning.

From an occupational therapy lens, fine motor skills can be thoughtfully planned for using a framework called the Canadian Model of Occupational Performance and Engagement (CMOP-E). This framework places the child at the centre of planning and uses three key areas: **Self-care**, **Leisure** and **Productivity**. In short, self-care refers to skills connected to the bodily functions; leisure refers to free-time activities and in the context of children includes all types of play, such as cooking, sport/games, painting, creating their own play spaces and setting up a camping area; and productivity refers to the functional skills needed to engage in self-care and leisure activities. So, fine motor skills are linked to much more than simply writing and drawing: they can be linked to any of a large range of skills that are needed to creatively engage in self-care, leisure and productivity areas.

When we look at the play scenario we talked about earlier – creating a restaurant – we can consider these three areas and some of the skills under each category. The leisure skills could be cooking and preparing food and/or setting up a restaurant play area, the self-help skills could be dressing skills and eating skills, and the productivity skills might be any of the fine motor and large motor skills that help to create this experience, such as mixing, stirring, pouring, balancing handheld items, cutting with knives, drawing and writing.

This CMOP-E framework interlinks these three areas and a more holistic view of the child is gained. A few more examples of skills under each of the three areas are:

* self-care – skills such as dressing, buttoning, grooming, toileting, wiping self, eating, opening and closing jars, buttering toast, making a sandwich and pouring a drink
* leisure – skills such as cooking, playing with ball, painting, artwork, sport and carpentry
* productivity – skills such as drawing, cutting, writing, pouring, mixing, stirring and pasting.

We can now recognise the productivity skills needed for engaging in leisure areas and we can see that these leisure skills are supported by self-care skills. This reveals more ideas of how we can support children and how we can set up environments for learning across play, routines and transitions.

Similar to the VEYLDF, the intended outcome of this approach is not simply skill acquisition. Rather, the aim is towards increased engagement and increased participation.

A key takeaway here is that ‘the hands lead us to learning’. It is in using their hands that children gain greater control in their environment in meaningful ways, whether this is in play situations, in routines or in transitions throughout the day. These repetitive routines and play experiences help children develop a strong sense of agency and wellbeing. Making creative changes towards inclusive learning spaces accommodates all children’s needs for play and exploration. Partnering with other professionals and with parents reveals further collaborative opportunities across home and learning environments.

*This fact sheet was developed by Dr Anoo Bhopti.*

Anoo is a senior lecturer at Monash University and a paediatric occupational therapist. Her areas of interest and research include early childhood intervention, family-centred practice approaches, family quality of life and building capacity of caregivers to enable best outcomes for children with developmental disabilities.

This fact sheet supports information contained in the [videos about enhancing children’s fine motor development](https://www.vcaa.vic.edu.au/news-and-events/professional-learning/earlyyears-professional-learning/Pages/PastProfessionalLearningMaterials.aspx) published by the Victorian Curriculum and Assessment Authority (VCAA).

## References

Case-Smith, J (2009), ‘Play’ in Case-Smith, J & O’Brien, JC (eds), *Occupational Therapy for Children* (6th ed.), Mosby Elsevier, Maryland Heights, MO, pp. 540–554.

Knox, S (2008), ‘Development and current use of the Revised Knox Preschool Play Scale’ in Parham, LD & Fazio, LS (eds), *Play in Occupational Therapy for Children* (2nd ed.), Mosby, St Louis, MO, pp. 55–70.

Polatajko, HJ, Townsend, EA & Craik, J (2007), ‘Canadian Model of Occupational Performance and Engagement (CMOPE)’ in Townsend, EA & Polatajko, HJ, *Enabling Occupation II: Advancing an Occupational Therapy Vision for Health, Well-being, and Justice through Occupation*, CAOT Publications ACE, Ottawa, ON.

Stagnitti, K & Jellie, L (2006), *Play to Learn: Building Literacy in the Early Years*, Curriculum Corporation, Carlton South.

## Using the VEYLDF to inform your practice

As part of the *Education and Care Services National Law* (National Law) and the National Quality Standards, the Victorian Early Years Learning and Development Framework (VEYLDF) is an approved learning framework. As an approved learning framework, it has the potential to make you a better educator and your practice more contemporary.

The VEYLDF allows us to reflect on learning and development outcomes for children. As educators, we can reflect on our own practice in supporting all children by considering if our work aligns with the Practice Principles. The VEYLDF provides us opportunities to inform our pedagogical decisions and to critique or challenge our existing practices.

The VEYLDF also provides a shared language and understanding for all early childhood professionals and can inform conversations with families, colleagues and other professionals working with young children.

## Additional resources that might be useful

Download copies of [VCAA early years resources](https://www.vcaa.vic.edu.au/curriculum/earlyyears/ey-curriculum-resources/Pages/Index.aspx).

Order [free hard copies](https://www.vcaa.vic.edu.au/curriculum/earlyyears/ey-curriculum-resources/Pages/Birth-to-8years.aspx) of VCAA early years resources.

Keep up to date with new resources and professional learning opportunities by subscribing to the [VCAA Early Years Alert](https://v6.educationapps.vic.gov.au/em/forms/subscribe.php?db=696087&s=449602&a=97403&k=ZtEnSTb9XCqhrYLgAXYMIoaqtBfoM8BYs_QzogfLtIo).

Contact the Early Years Unit, VCAA:  
Email: [veyldf@education.vic.gov.au](mailto:veyldf@education.vic.gov.au)  
Phone: (03) 9059 5158