

LEAPS

learning eating active play sleep



Physical activity, learning and behaviour

There is a growing body of research in school-aged children that supports the benefits of physical activity beyond physical health, to learning, behaviour and academic performance in the classroom. In the early years, it is more difficult to assess the impact of physical activity on learning and behaviour. However, there is some evidence that participation in physical activity and development of gross motor skills are related to cognition, learning and behaviour in early childhood.

A recent review of studies showed that both short periods of physical activity and extended participation in physical activity resulted in improved executive function skills such as attention, self-regulation and working memory. It is proposed that the link between physical activity and cognitive outcomes may work indirectly through improving executive function and self-regulation skills.

Educators can also take advantage of children's enjoyment of physical activity by using movement to teach academic concepts. For example, one study showed that kindergarten children were able to retain more foreign language words when they incorporated physical exercises while they recited the words than when they were sitting. See the list below for further information on physical activity, learning and behaviour.

References and recommended reading list:

- Becker, D. R., et al. (2014). "Physical activity, self-regulation, and early academic achievement in preschool children." *Early Education & Development* **25**(1): 56-70.
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- Gehris, J., et al. (2015). "Teachers' perceptions about children's movement and learning in early childhood education programmes." *Child Care Health Dev* **41**(1): 122-131.
- Ginsburg K, et al. (2007). The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bonds, American Academy of Pediatrics.
- Mavilidi, M.-F., et al. (2015). "Effects of Integrated Physical Exercises and Gestures on Preschool Children's Foreign Language Vocabulary Learning." *Educational Psychology Review* **27**(3): 413.
- Tandon, P. S., et al. (2016). "The relationship between physical activity and diet and young children's cognitive development: A systematic review." *Preventive Medicine Reports* **3**: 379-390.
- Vazou, S., et al. (2016). "Self-perceptions and social-emotional classroom engagement following structured physical activity among preschoolers: A feasibility study." *Journal of Sport and Health Science*.

Executive function

includes attention, memory, planning and problem solving.

Development of these skills is particularly important in the preschool years.