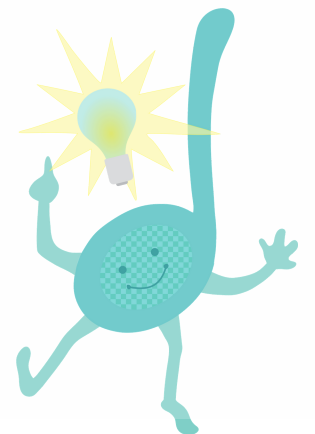


# THINK



## COGNITIVE-MOTOR References

CHILDREN AGES 6-12



# References

Bass, R. W., Brown, D. D., Laurson, K. R., & Coleman, M. M. (2013). Physical fitness and academic performance in middle school students. *Acta Paediatrica*, 102(8), 832-837.

Buzsáki, G., & Watson, B. O. (2012). Brain rhythms and neural syntax: implications for efficient coding of cognitive content and neuropsychiatric disease. *Dialogues in Clinical Neuroscience*, 14(4), 345–367.

Campbell, D. & Doman, A. (2012). *Healing at the Speed of Sound: How What We Hear Transforms Our Brains and Our Lives*. New York: Hudson Street Press.

Castelli, D. M., Hillman, C. H., Buck, S. M., Erwin, H. E. (2007). Physical fitness and academic achievement in third- and fifth-grade students. *Journal of Sport and Exercise Psychology*, 29:239–252.

Chaddock, L., Erickson, K. I., Prakash, R. S., Van Patter, M., Voss, M. W., Pontifex, M. B., et al. (2010). Basal ganglia volume is associated with aerobic fitness in preadolescent children. *Dev Neurosci*, 32(3):249–56.

Chaddock-Heyman, L., Erickson, K. I., Holtrop, J. L., Voss, M. W., Pontifex, M. B., Raine, L. B., et al. (2014). Aerobic fitness is associated with greater white matter integrity in children. *Front Hum Neurosci*, 8:584

Chaddock-Heyman, L., Erickson, K.I., Voss, M. W., Knecht, A. M., Pontifex, M.B., et al. (2013). The effects of physical activity on functional MRI activation associated with cognitive control in children: a randomized controlled intervention. *Front Hum Neurosci*, 7: 72.

Corriveau, K., Pasquini, E., & Goswami, U. (2007). Basic auditory processing skills and specific language impairment: A new look at an old hypothesis. *Journal of Speech Language and Hearing Research*, 50(3), 647–666.

Corriveau, K. H., & Goswami, U. (2009). Rhythmic motor entrainment in children with speech and language impairments: Tapping to the beat. *Cortex*, 45, 119–130.

Cotman, C. W., & Berchtold, N. C. (2002). Exercise: a behavioral intervention to enhance brain health and plasticity. *Trends Neurosci*, 25:295–301.

Das, J.P., Naglieri, J. & Kirby, J. (1994). *Assessment of Cognitive Processes: The PASS Theory of Intelligence*. Boston, MA: Allyn & Bacon.

# References

- Davis, C. L., Tomporowski, P. D., McDowell, J. E., Austin, B. P., Miller, P. H., Yanasak, N. E., ... Naglieri, J. A. (2011). Exercise Improves Executive Function and Achievement and Alters Brain Activation in Overweight Children: A Randomized Controlled Trial. *Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association*, 30(1), 91–98.
- Diamond, A. (2015). Effects of Physical Exercise on Executive Functions: Going beyond Simply Moving to Moving with Thought. *Annals of Sports Medicine and Research*, 2(1), 1011.
- Diamond, A., & Ling, D. S. (2016). Conclusions about interventions, programs, and approaches for improving executive functions that appear justified and those that, despite much hype, do not. *Developmental cognitive neuroscience*, 18, 34-48.
- Fedewa, A. L. & Ahn S. (2011). The effects of physical activity and physical fitness on children's achievement and cognitive outcomes: a meta-analysis. *Research Quarterly for Exercise & Sport*, 82(3):521–35.
- Flaugnacco, E., Lopez, L., Terribili, C., Zoia, S., Buda, S., Tilli, S., ... Schön, D. (2014). Rhythm perception and production predict reading abilities in developmental dyslexia. *Frontiers in Human Neuroscience*, 8, 392.
- Gordon, R. L., Magne, C. L., & Large, E. W. (2011). EEG Correlates of song prosody: A new look at the relationship between linguistic and musical rhythm. *Frontiers in Psychology*, 2, 352.
- Gordon R. L., Fehd, H. M., & McCandliss, B. D. (2015). Does music training enhance literacy skills? A meta-analysis. *Frontiers in Psychology*, 6, 1777.
- Goswami, U. (2012a). "Language, music, and children's brains: a rhythmic timing perspective on language and music as cognitive systems," in *Language and Music as Cognitive Systems*, eds P. Rebuschat, M. Rohrmeier, J. A. Hawkins, & I. Cross. Oxford: Oxford University Press, 292–301.
- Goswami, U. (2012b). Entraining the brain: applications to language research and links to musical entrainment. *Empir. Musicol. Rev.*, 7, 57–63.
- Grahn, J. A. (2012). Neural mechanisms of rhythm perception: current findings and future perspectives. *Topics in Cognitive Science*, 4(4), 585-606.
- Habib, M., Lardy, C., Desiles, T., Commeiras, C., Chobert, J., & Besson, M. (2016). Music and dyslexia: A new musical training method to improve reading and related disorders. *Frontiers in Psychology*, 1-15.

# References

- Haywood, H. C. (2013). What is cognitive education? The view from 30,000 feet. *Journal of Cognitive Education & Psychology*, 12(1).
- Hillman, C. H., Buck, S. M., Themanson, J. R., Pontifex, M. B., & Castelli, D. M. (2009). Aerobic fitness and cognitive development: event-related brain potential and task performance indices of executive control in preadolescent children. *Dev Psychol*, 45:114–29.
- Hillman, C. H., Pontifex, M. B., Raine, L. B., Castelli, D. M., Hall, E. E., & Kramer, A. F. (2009). The effect of acute treadmill walking on cognitive control and academic achievement in preadolescent children. *Neuroscience*, 159:1044–54.
- Ito, M. (2011). *The Cerebellum: Brain for an implicit self*. London: FT Press.
- Jensen, E. (2005). *Teaching with the Brain in Mind*. Virginia: ASCD.
- Kamijo, K., Pontifex, M. B., O’Leary, K. C., Scudder, M. R., Wu, C. T., et al. (2011). The effects of an afterschool physical activity program on working memory in preadolescent children. *Dev Sci*, 14: 1046–1058.
- Koziol, L. F., Budding, D., Andreasen, N., D’Arrigo, S., Bulgheroni, S., Imamizu, H., ... Yamazaki, T. (2014). Consensus Paper: The Cerebellum’s Role in Movement and Cognition. *Cerebellum* (London, England), 13(1), 151–177.
- Kraus, N., Slater, J., Thompson, E. C., Hornickel, J., Strait, D. L., Nicol, T., et al. (2014b). Music enrichment programs improve the neural encoding of speech in at-risk children. *J. Neurosci.*, 34, 11913–11918.
- Lakes, K. D., Hoyt, W.T. (2004). Promoting self-regulation through school-based martial arts training. *Journal of Applied Developmental Psychology*, 25:283–302.
- Leisman, G., Moustafa, A. A., & Shafir, T. (2016). Thinking, Walking, Talking: Integratory Motor and Cognitive Brain Function. *Frontiers in Public Health*, 4, 94.
- Lopes, L., Santos, R., Pereira, B., Lopes, V. (2013). Associations between gross motor coordination and academic achievement in elementary school children. *Human Movement Science*, 32:1, p. 9-20.
- Lubans, D., Richards, J., Hillman, C., Faulkner, G., Beauchamp, M., Nilsson, M., ... Biddle, S. (2016). Physical activity for cognitive and mental health in youth: A systematic review of mechanisms. *Pediatrics*, 138(3), [e20161642].

# References

- Mathai, A., & Smith, Y. (2011). The Corticostriatal and Corticosubthalamic Pathways: Two Entries, One Target. So What? *Frontiers in Systems Neuroscience*, 5, 64.
- McDonnell, M. N., Buckley, J. D., Opie, G. M., Ridding, M. C., Semmler, J. G. (2013). A single bout of aerobic exercise promotes motor cortical neuroplasticity. *J Appl Physiol*, 114(9):1174–82.
- Mendelson, J., White, Y., Hans, L., Adebari, R., Schmid, L., Riggsbee, J., ... Dawson, G. (2016). A Preliminary Investigation of a Specialized Music Therapy Model for Children with Disabilities Delivered in a Classroom Setting. *Autism Research and Treatment*, 1284790.
- Miendlarzewska, E. A., & Trost, W. J. (2013). How musical training affects cognitive development: Rhythm, reward and other modulating variables. *Frontiers in Neuroscience*, 7, 279.
- Murray, G. K., Jones, P. B., Kuh, D., & Richards, M. (2007). Infant developmental milestones and subsequent cognitive function. *Ann. Neurol*, 62, 128–136.
- National Association for Sport and Physical Education & American Heart Association. (2012). *Shape of The Nation Report*.
- Overy, K. (2003). Dyslexia and music: from timing deficits to musical intervention. *Ann. N. Y. Acad. Sci.*, 999, 497–505.
- Patel, A. D. (2010). *Music, Language, and the Brain*. New York, NY: Oxford University Press.
- Patel, A. D. (2011). Why would musical training benefit the neural encoding of speech? The OPERA hypothesis. *Front. Psychol.*, 2, 142.
- Patel, A. D. (2014). Can nonlinguistic musical training change the way the brain processes speech? The expanded OPERA hypothesis. *Hear. Res.*, 308, 98–108.
- Piek, J. P., Dyck, M. J., Nieman, A., Anderson, M., Hay, D., Smith, L. M. et al. (2004). The relationship between motor coordination, executive functioning, and attention in school aged children. *Archives of Clinical Neuropsychology*, 19, 1063–1076.
- Pontifex, M. B., Saliba, B. J., Raine, L. B., Picchiatti, D. L., Hillman, C. H. (2013). Exercise improves behavioral, neurocognitive, and scholastic performance in children with attention-deficit/hyperactivity disorder. *J Pediatr*, 162: 543–551.

# References

- Repp, B. H., & Su, Y. H. (2013). Sensorimotor synchronization: A review of recent research (2006–2012). *Psychon. Bull. Rev.*, 20, 403–452.
- Sallis, J. F., McKenzie, T. L., Kolody, B., Lewis, M., Marshall, S., & Rosengard, P. (1999). Effects of health-related physical education on academic achievement: Project SPARK. *Research Quarterly for Exercise & Sport*, 70, 127–134.
- Sarver, D.E., Rapport, M.D., Kofler, M.J. et al. (2015). Hyperactivity in Attention-Deficit/Hyperactivity Disorder (ADHD): Impairing Deficit or Compensatory Behavior? *J Abnorm Child Psychol*, 43: 1219.
- Schaefer, R. S. (2014). Auditory rhythmic cueing in movement rehabilitation: findings and possible mechanisms. *Phil. Trans. R. Soc. B*, 369(1658), 20130402.
- Schellenberg, E. G. (2006). Long-term positive associations between music lessons and IQ. *J Educ Psychol*, 98: 457–468.
- Schmidt, M., Benzing, V., & Kamer, M. (2016). Classroom-Based Physical Activity Breaks and Children's Attention: Cognitive Engagement Works! *Frontiers in Psychology*, 7, 1474.
- Shoecraft, S. (2016). *Teaching Through Movement: Setting Up Your Kinesthetic Classroom*. Charleston, South Carolina: Chicken Dance Publishing.
- Sibley, B. A., Etnier, J. L. (2003). The relationships between physical activity and cognition in children: A meta-analysis. *Pediatr Exerc Sci*, 15: 243–256.
- Statton, M. A., Encarnacion, M., Celnik, P., & Bastian, A. J. (2015). A Single Bout of Moderate Aerobic Exercise Improves Motor Skill Acquisition. *PLoS ONE*, 10(10), e0141393.
- Syvöja, H., Kantomaa, M. T., Ahonen, T., Hakonen, H., Kankaanpää, A., Tammelin, T. H. (2013). Physical activity, sedentary behavior, and academic performance in Finnish children. *Med Sci Sports Exerc* 45: 2098–2104.
- Thaut, M. H., McIntosh, G. C., & Hoemberg, V. (2014). Neurobiological foundations of neurologic music therapy: rhythmic entrainment and the motor system. *Frontiers in Psychology*, 5, 1185.
- Tierney, A., & Kraus, N. (2013). The ability to move to a beat is linked to the consistency of neural responses to sound. *The Journal of Neuroscience*, 33(38): 14981–14988.

# References

- Tierney, A., & Kraus, N. (2013). The ability to tap to a beat relates to cognitive, linguistic, and perceptual skills. *Brain Lang*, 124: 225–231.
- Tomporowski, P. (2003). Effects of acute bouts of exercise on cognition. *Acta Psychol* 112: 297–324.
- Tomporowski, P. D., Davis, C. L., Miller, P. H., & Naglieri, J. A. (2008). Exercise and Children's Intelligence, Cognition, and Academic Achievement. *Educational Psychology Review*, 20(2), 111–131.
- Tremblay, M. S., LeBlanc, A. G., Kho, M. E., Saunders, T. J., Larouche, R., et al. (2011). Systematic review of sedentary behaviour and health indicators in school-aged children and youth. *Int J Behav Nutr Phys Act* 8: 98.
- Viholainen, H., Ahonen, T., Lyytinen, P., Cantell, M., LicSSc, A. T. and Lyytinen, H. (2006). Early motor development and later language and reading skills in children at risk of familial dyslexia. *Developmental Medicine & Child Neurology*, 48: 367–373.
- Westendorp, M., Hartman, E., Houwen, S., Smith, J., & Visscher, C. (2011). The relationship between gross motor skills and academic achievement in children with learning disabilities. *Research in Developmental Disabilities*, 32(6), 2773-2779.
- Wexler, B. E., Iseli, M., Leon, S., Zaggle, W., Rush, C., Goodman, A., Imal, E., Bo, E. (2016). Cognitive Priming and Cognitive Training: Immediate and Far Transfer to Academic Skills in Children, *Scientific Reports*, 6: 32859.



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