Physical Literacy Proof of Concept Study in Child Care Settings

Executive Summary

Physical activity (PA) is essential for lifelong health and well-being defined as physical, mental, social, and spiritual well-being (World Health Organization). Insufficient PA puts children at risk for cardiovascular, musculoskeletal, and neurological disease later in life. **Children who are physically inactive may be more likely to experience anxiety and depression, and poor self-esteem.**

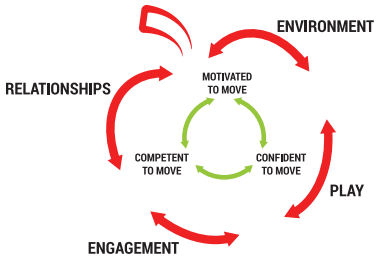
Regular opportunities for PA may increase preschool children's motivation, confidence and competence to be physically active for a lifetime, thus potentially reducing health risks later in life. Emerging research with preschool children is showing that PA and **physical literacy (PL) may improve school readiness** by **increasing executive function and social and emotional development specifically in the areas of attentiveness, peer relationships, confidence, persistence, and creativity.**

Study Design

The Physical Literacy Proof of Concept Study in Child Care Settings was designed to provide evidence of potential benefits to children who receive enhanced physical literacy (PL) programming in their child care settings in Alberta and British Columbia. The study compared data from consented children and educators in study centres where educators received professional development, resources, and mentorship, with those in control centres where educators provided their usual standard of care. A total of 39 centres participated.

Two phases of the study were conducted beginning in August 2018 and concluding in June 2020. Data were collected pre- and post-intervention using the Ages and Stages Questionnaire – Social Emotional (ASQ-SE2), the Physical Literacy Observation Tool (PLOT), online surveys, focus groups, and individual interviews. The APPLE Model and APPLE Seeds were used as the interventions.

A Leadership Team of fifteen senior stakeholders from a number of fields directly related to, or interested in, child care met quarterly throughout both Phases to support the study by engaging their networks, providing expertise, reviewing data, and offering potential policy directions.



Learn more about the APPLE Model at **earlyyearsphysicalliteracy.com**

COVID-19

The study was impacted by COVID-19. Child care centres were closing during the collection of post-intervention data in March 2020 resulting in a loss of about 30% of Phase Two control data. As a result, both phases of the study were combined.

Benefits for Children

The study sought to determine whether enhanced PL programming would provide benefits for young children in the areas of cognitive, social, emotional, and physical development. The data from ASQ-SE2 (n=663), PLOT (n=663), focus groups (n=48), and three online surveys (n=28, 16, 11) showed that **children experienced benefits in language and communication skills, ability to focus and pay attention, problem solving, cooperative and imaginative play, showing care and concern for others, emotional regulation resulting in fewer challenging behaviours, and increased PL skills.**

Changes in Educators' Practice

The study sought evidence of increased motivation, confidence, and competence among ECEs to provide PL programming for young children. These characteristics were key to ECEs adopting and continuing to provide PL programming after the end of the study.

Educators (n=60) experienced increased motivation, confidence, and competence to provide PL programming both indoors and out. There was evidence of specific changes in the educators' practice as defined in the APPLE Model framework: environment, play, engagement, and relationships. Educators reported providing more PL programming in both their indoor and outdoor spaces and observed that the **children were more physically active, played for longer periods of time during free play, played more independently, and exhibited more imagination and creativity during free play.** Educators were more actively engaged in play with the children and **relationships among children and staff, and with families were strengthened.**

Benefits for Educators

As the study progressed, study group ECEs spoke about the benefits they received as a result of providing increased PL programming for children. This is a significant finding as educators are more likely to continue PL programming if they themselves feel benefits.

ECEs reported that children were better able to adapt to change, problem solve, calm themselves in times of distress, and improve focus and concentration through increased PL programming. With children better able to communicate and self-regulate, **educators spent less time managing behaviours and more time engaging and interacting with children.**

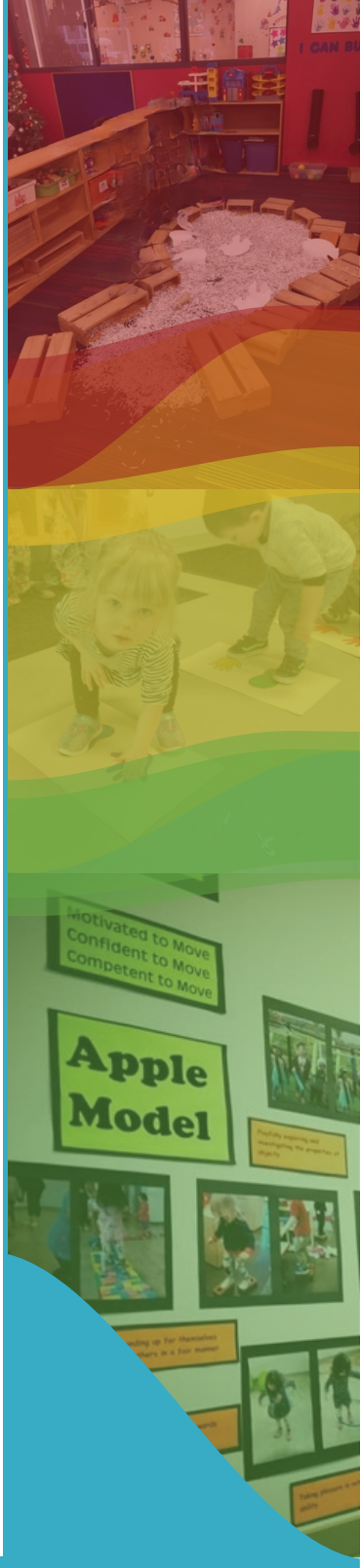
Parent and Family Engagement

Engaging parents and families is a crucial element for the success of any program in child care. The research team and educators focused on different ways to increase parent engagement and to invite all consented parents to be part of the journey to increase PL opportunities in their children's lives. These changes included enhanced communication to demonstrate the importance of PL for young children.

In workshops, parents commented that their **children demonstrated increased confidence and physical abilities at home.** They were better able to **regulate their emotions** which made transitions, such as saying goodbye in the morning, easier. **Parents reported that their children ate and slept better and enjoyed going outside to play where they engaged in active play.**

Conclusion

The study sought evidence of benefits for young children when offered enhanced PL programming in their child care settings. **Results indicated a wide range of developmental benefits for children, positive changes in educators' practices, benefits for educators, and increased confidence and physical abilities** among children at home. Educators reported that **PL programming was easy and inexpensive to incorporate** and required little preparation time, space, or equipment. As a result, **100% of study group educators indicated that they would continue PL programming in their centres after the end of the study.**



Please visit EYPLRT and ActiveforLife.com for articles, infographics, and other materials related to the study. The research team and Active for Life will sustain this work by advocating the inclusion of physical literacy in the 2020 review of child care regulations in Alberta. Study educators are also helping to develop two new resources: APPLE Seeds for Infants and Toddlers and Winter Activities for Indoors and Out.

This study, conducted by the Early Years Physical Literacy Research Team, has been an important opportunity to provide evidence that PL programming in child care settings is vital for young children and would not have been possible without the initiative, funding, and support of Active for Life (a social initiative of B2ten) and the Government of Canada's Social Development Partnership Program – Children and Families Component.

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