

Parents'/Caregivers' Participant Information Sheet

Dear Parent/Caregiver:

We would like to invite children aged 3 years to 5 years to participate in an online study conducted by researchers from the University of Wollongong. The project is entitled: ***Embedded storytelling through cognitively engaging physical activity to enhance executive function skills, and physical activity outcomes in preschool children.*** We write to invite children and parents to participate.

PURPOSE OF RESEARCH

Research suggests that physical activity can facilitate children's cognitive development. Given early childhood is an important period in the acquisition and learning of new skills, it is important to understand factors that enhance cognitive development. The purpose of this research is to examine whether physical (e.g., jumping, hopping, running, skipping) and cognitive activities (i.e., activities that require children to help the main character through an obstacle) embedded in a storybook for young children has physical and cognitive benefits. If so, this would provide a low- to no-cost way to engage and enhance young children's executive function (in particular, the ability to control our thoughts, behaviours, emotions and social interaction) and increase their physical activity levels during school time.

INVESTIGATORS

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METHOD AND DEMANDS ON PARTICIPANTS

If you agree for your child to be included in this study, your child will be asked to visit the Discovery Space twice for the assessments, and read a story online 2 times per week for 4 weeks.

Day 1 and day 16, your child will complete three iPad-based games to assess their executive functioning, in a single 20-minute session. These games require children to exert control over their thoughts and behaviours to catch fish, sort cards and identify cards that match verbal instructions. These tasks should take no longer than 20 minutes to complete. All hygiene measures will be ensured, in accordance to Covid-19 UOW Safety Work plan. In addition, the learning assessment will last 2 min each time, including counting from 1-20.

We would also like you to complete a short questionnaire on your child's everyday behaviour (self-regulation such as attention, behavioral control, social and emotional skills). This questionnaire will assess whether certain behaviours are common for your child (e.g., 'restless, overactive, cannot stay still for long' and 'Waits his/her turn in games'). Children will also wear an accelerometer during each reading session.



The accelerometer is a device that will measure your child's intensity of physical activity. It will be placed on children's waist.

In addition to this, if you agree for your child to be included in this study, your child will be read online a storybook two times per week for 4 weeks, lasting 30 min maximum. The book will be an Australian animal-based book involving a journey, in which children either listen as the book is read or actively interact (i.e., hop, skip, jump) with the story to help the main character. These activities have been developed so that they are both mentally stimulating and engaging for young children. We have found that children generally enjoy participating in these activities.

The three iPad games and questionnaire will again be administered online (as described above) after the 4 weeks of reading, to see if there has been any change as a result of the reading. Also, children will be asked to choose their answer from a 5-point Likert scale on whether they enjoyed the activities of the book and how difficult/easy they found the activities, shown to them virtually. Children whose parents do not consent for their child to participate in the research, children are still welcome to join story time.

POSSIBLE RISKS, INCONVENIENCES AND DISCOMFORTS

Apart the 20 minutes of your child's time completing the iPad tasks before and after the reading program, and the 15-20 minutes of reading time 2 times per week, we foresee no risks to your child as a result of participation in this study. In fact, feedback from previous research indicates that these activities are interesting and educationally stimulating to children.

Please note that your child's involvement in the study is entirely voluntary and you may withdraw your child from the study at any time (this includes withdrawal of any data that has been provided to that point). If your child decides to withdraw from the study during testing, their involvement in the study will be immediately discontinued and any data they have provided to that point will be destroyed. If you would like to withdraw your child's data from the study at a later date, please contact the Chief Investigator with this request and this data will be destroyed. In either event, declining to participate or withdrawing from the study will not affect your, or your child's, relationship with the researchers, the University of Wollongong or your child's preschool centre. Further, all data collected will be kept strictly confidential. You, your child and their preschool centre will not be identified in any part of the research.

FUNDING AND BENEFITS OF THE RESEARCH

The findings of this research can help to identify low- to no-cost ways for parents and educators to engage and enhance young children's executive functions and levels of physical activity. Participants names will be de-identified, replacing them with ID numbers, which will be used in the analyses, and dissemination of results (published in educational journals and conference presentations). However, at all times confidentiality will be assured, and you, your child and their preschool will not be identified in the reporting of this research. In addition, no individual results will be distributed to parents.

ETHICS REVIEW AND COMPLAINTS

This study has been reviewed by the Human Research Ethics Committee (Social Science, Humanities and Behavioural Science) of the University of Wollongong. If you have any concerns or complaints regarding the way the research is or has been conducted, you can contact the Ethics Officer on (02) 4221 3386 or e-mail rso-ethics@uow.edu.au.

Thank you for your time and interest in this study.

Parent/Caregiver Consent Form

Research Title: Embedded storytelling through cognitively engaging physical activity to enhance executive function skills, and physical activity outcomes in preschool children.

Researchers:

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I have read the Letter of Information to Parents/Caregivers and have had an opportunity to ask the researchers any further questions I may have. I understand that my child's participation in this study is voluntary and I, or they, may decline to participate or withdraw from the study at any time (as well as any data provided to that point) without affecting my or my child's relationship with the researchers, the University of Wollongong or their preschool centre.

I understand that the risks to my child are minimal in this study and have read the information sheet and asked any questions I have about the risks. I understand that my child will be asked to complete three iPad-based measures of executive functioning in a single 20-minute testing session, and 2 x 3-min learning assessments. In addition to this, my child will be read online an Australian animal-based story two times a week for 4 weeks. After that, they will again complete the three iPad-based measures of executive functioning to see if there has been any change. I understand that all information collected will be anonymous, will be kept strictly confidential and that my child will not be identified in any part of the research.

If I have any concerns or complaints regarding the way the research is or has been conducted I can contact the Ethics Officer, Human Research Ethics Committee, Office of Research, University of Wollongong on (02) 4221 3386 or email rso-ethics@uow.edu.au.

I understand that this study may result in publication in a peer-reviewed educational journal, in order to disseminate important findings to the wider educational community. However, data will not be reported for individual participants and no individual identifying information will be reported.

By signing below I am consenting to:

1. My child participating in two 20-minute online reading sessions and two 3-min learning assessment, in which they will be asked to play three iPad-based games involving executive functions; and,
2. My child being read online an Australian animal-based story two times per week for 4 weeks; and,
3. My child may perform simple physical activities (e.g., running, jumping, skipping, hopping)
4. My child will wear an accelerometer, placed as belt, during the reading sessions.
5. I will complete a self-regulation questionnaire about my child's everyday behaviours.

I give permission for my child _____ to participate in this research
(please print child's name)

Parent/ Guardian Signature _____ Date _____

Parent/Caregiver Name (please print) _____

Child's Date of Birth (Month/Year) _____ Child's Gender _____

Email _____

Parent mobile number _____

Please return this form to the researcher. Thank you!