

## **LITTLE MOVEMENTS ~ LOTS TO LEARN PROJECT: A PARENT QUESTIONNAIRE FOR PRESCHOOL CHILDREN**

### **Dear Parent or Guardian,**

We are writing you to tell you the results of a project that you participated in. We are very grateful for the time and energy you gave, and hope this report explains how valuable your role was.

### **Why did we do this study?**

Many children have movement skill problems that make it hard for them to learn new things, such as how to ride a bike or cut out a picture. This can get in the way of their play and making friends. These children may be left out of games and they may become less active if they start to avoid movement activities or sports. The sooner a family knows about these problems, the sooner they can support and encourage their child's movement skills. The child can grow up with more confidence and skills.



At Alberta Children's Hospital, we developed a parent questionnaire to help identify movement coordination problems in school aged children. After several years of being used in many countries, we realized how important it was to detect movement skill difficulties in preschool children. This research received the financial support of the Alberta Center for Child, Family and Community Research and the Alberta Children's Hospital Research Institute for Child and Maternal Health, and was approved by the Conjoint Health Research Ethics Board at the University of Calgary.

### **How did we design the study?**

We sent over 1000 questionnaires to eight daycares and preschool programs at 17 locations. We asked questions of the parents of children who seemed to be developing movement skills predictably, as well as the parents of children who were struggling with movement skill or language development, or who were born prematurely.

### **How many parents helped us?**

Parents of over 500 children returned the questionnaires. About two-thirds of the children were struggling to develop good movement or language skills. If parents gave us their contact numbers, we sent out a second questionnaire after a few weeks to see if the questionnaire showed the same results a second time.

### **What were the results?**

We found that the questionnaire was able to reliably give the same results at two different times. We also found that all of the items were equally important to the total score, and that they grouped naturally into two areas: 1) gross motor skills, and 2) fine motor skills. This shows that the questionnaire makes logical sense, as children's development is often measured through both gross and fine motor skills.

A second way to look at the accuracy of the questionnaire was to compare it to other tests. Parents of 119 children agreed to come for further movement testing to confirm the results of the questionnaire. We found that results of the questionnaire closely matched the most commonly used movement tests.

Finally, we pooled all the scores, without the children's names, and used an analysis which allowed us to take into account gender, age and the child's attention. From this we were able to develop scores that tell us if a child is struggling to develop movement skills and needs greater support. The scores were different for boys and girls.

### What did we learn?

We learned that by using the questionnaire, parents of preschool children can accurately tell whether their child is at risk of having movement skill challenges. This information will be shared with researchers, therapists, teachers and doctors so that children with movement problems can be found and can get help earlier.

# Thanks!

Thank you again for your time and commitment to this study. Special appreciation goes to the children and parents who agreed to come back for other tests.

If you have any questions, or if you would like further information about this study, please feel free to contact Dianne Creighton at 403-955-7963.



**Brenda Wilson, MSc OT(C)**  
Evidence Based Practice Facilitator, Alberta Health Services & Research Assistant Professor, Paediatrics, Cumming School of Medicine, University of Calgary

**Dianne Creighton, Ph.D., R. Psych.**  
Psychologist, Alberta Health Services & Research Assistant Professor, Paediatrics, Cumming School of Medicine, University of Calgary



Alberta **Children's** Hospital

