

Initial findings from a study on the impact of SKIP-Cymru (Successful Kinaesthetic Instruction for Pre-schoolers- Wales) on schools in West Wales

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Background

- Over 30 years of research in the field of motor development indicates the importance of motor skill development in early childhood.
- The Foundation Phase is a play-based curriculum for children aged 3-7 in Wales. The holistic development of the child is at the centre of the curriculum with an emphasis on the use of the outdoors to promote physical literacy and learning.
- Traditional subjects including physical education no longer exist, however it does retain some teacher-led physical development lessons alongside an increase in child-initiated learning.
- Research by Wainwright et al. (2018) suggests that the Foundation Phase does contribute towards pupils' physical literacy and improves locomotor skills. The children however, were not developing their object control skills.
- It has been suggested that young children need to develop object control skills during the early years to increase the likelihood of physical activity participation in adolescence (Barnett et al., 2009).
- In light of their findings, Wainwright et al. (2018) highlight the issues around professional development for early childhood teachers and practitioners in the Foundation Phase in relation to motor development, and the implications for lifelong physical activity.

Project SKIP

- The 'SKIP program' (Successful Kinaesthetic Instruction for Pre-schoolers) is aimed at developing fundamental motor skills (FMS) to contribute towards the physical literacy of young children.
- SKIP, a motor skill intervention, was developed by Ohio State University and has evolved from over twenty years of research.
- More recently in Wales, SKIP has been integrated into the playful pedagogy of the Foundation Phase to address the gap in relation to pupils' motor development, especially object control skills. It has led to the development of SKIP Cymru, which has several features:
 - Advocacy with leadership
 - Training day for Foundation Phase teachers
 - Mentoring and support
 - Parental engagement
 - Not resource driven



Aims and objectives

The purpose of this study is to assess the effectiveness of SKIP Cymru on the Foundation Phase in Wales. It will examine the relationship between children's:

- Motor competence
- Perceived motor competence
- Physical activity levels across the school day

A secondary purpose of the study will be to examine:

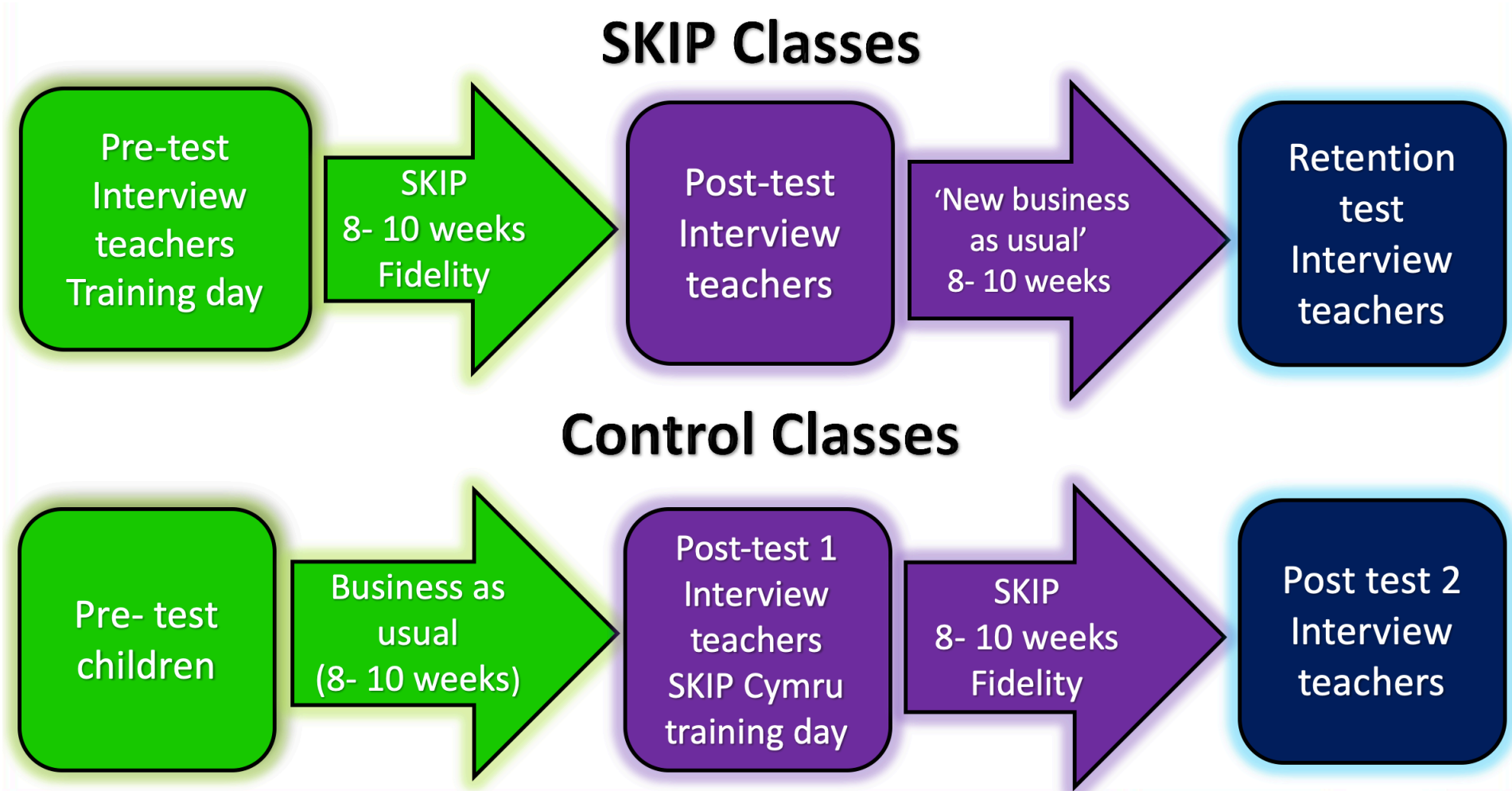
- The extent to which the teachers can implement SKIP Cymru with fidelity while they receive mentoring and support.
- The teacher and their experience, knowledge and understanding prior to and following the SKIP Cymru training.

Methods

The research adopts a mixed methods approach. It features experimental and control groups in a quasi-experimental repeated measures design to assess children's motor competence, perceived competence and physical activity levels. Teachers' experiences and fidelity was also measured.

Settings and participants:

- 94 Children age 4-7 (M=5.24, SD= 0.68)
 - 47 Girls (M=5.26, SD= 0.74), 47 Boys (M=5.23, SD= 0.63)
- 5 Teachers
- 4 Schools
- 3 SKIP classes (n= 52)
- 2 Control classes (n= 42)
- 3 English classes (n=60)
- 2 Welsh classes (n= 34)



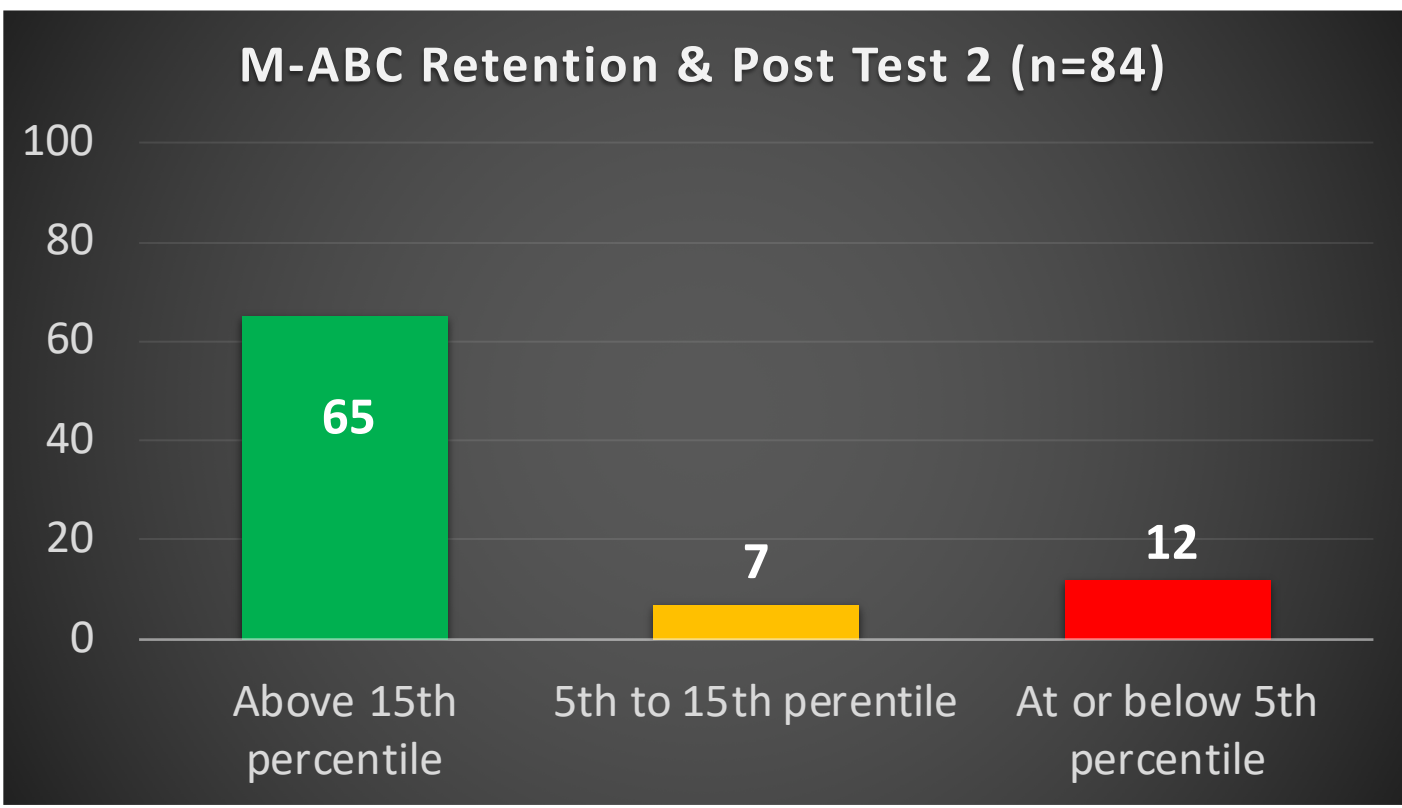
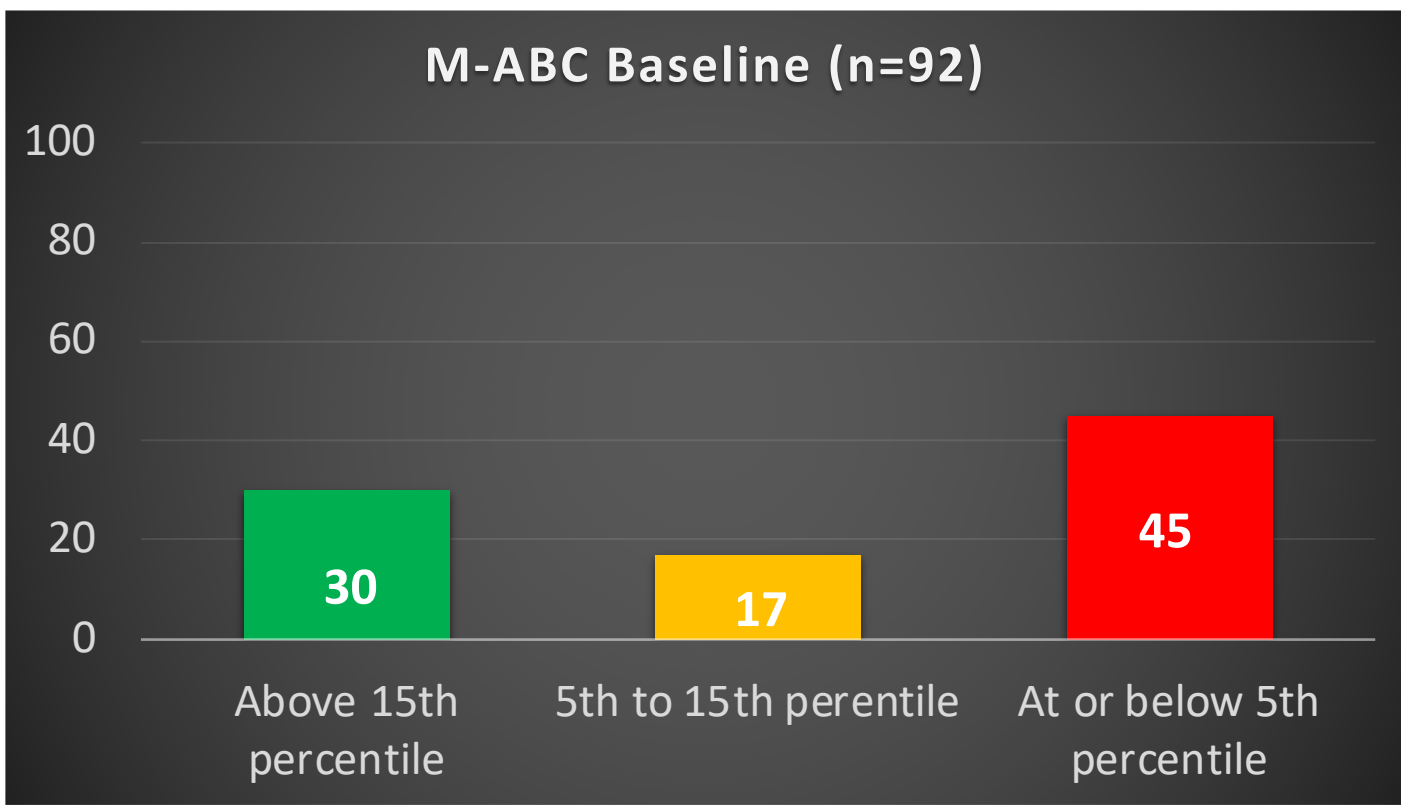
Data collection:

- Motor competence-** TGMD 2; Movement-ABC; Product measures- run, throw and jump
- Perceived motor competence-** Pictorial Scales of Perceived Competence and Social Acceptance; and the Pictorial Scale for Perceived Movement Skill Competence for Young Children
- Physical activity-** ActiGraph GT3X- BT monitor
- BMI-** School nurses
- Teacher experiences-** Semi structured interviews
- Lesson fidelity-** 30% calculated using a checklist and video recordings

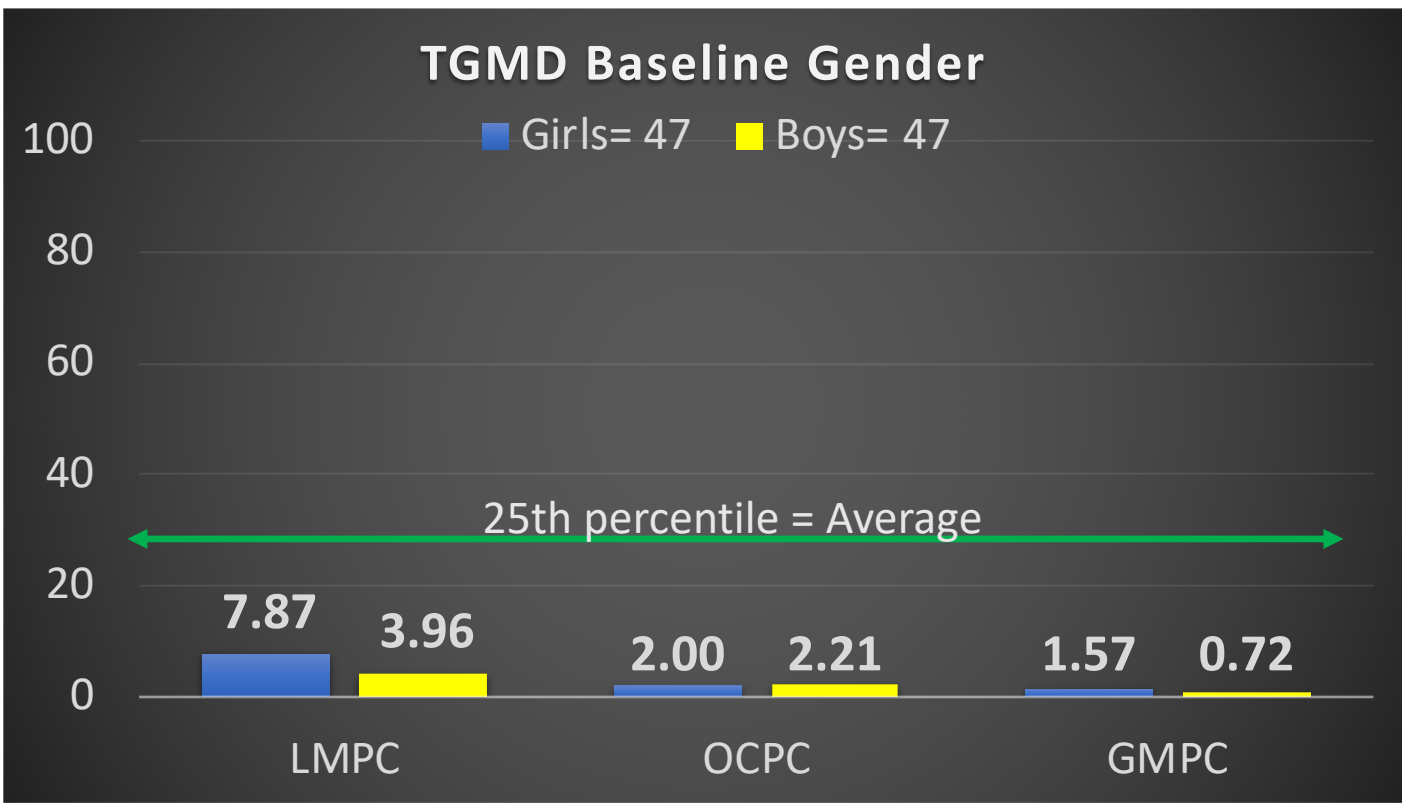
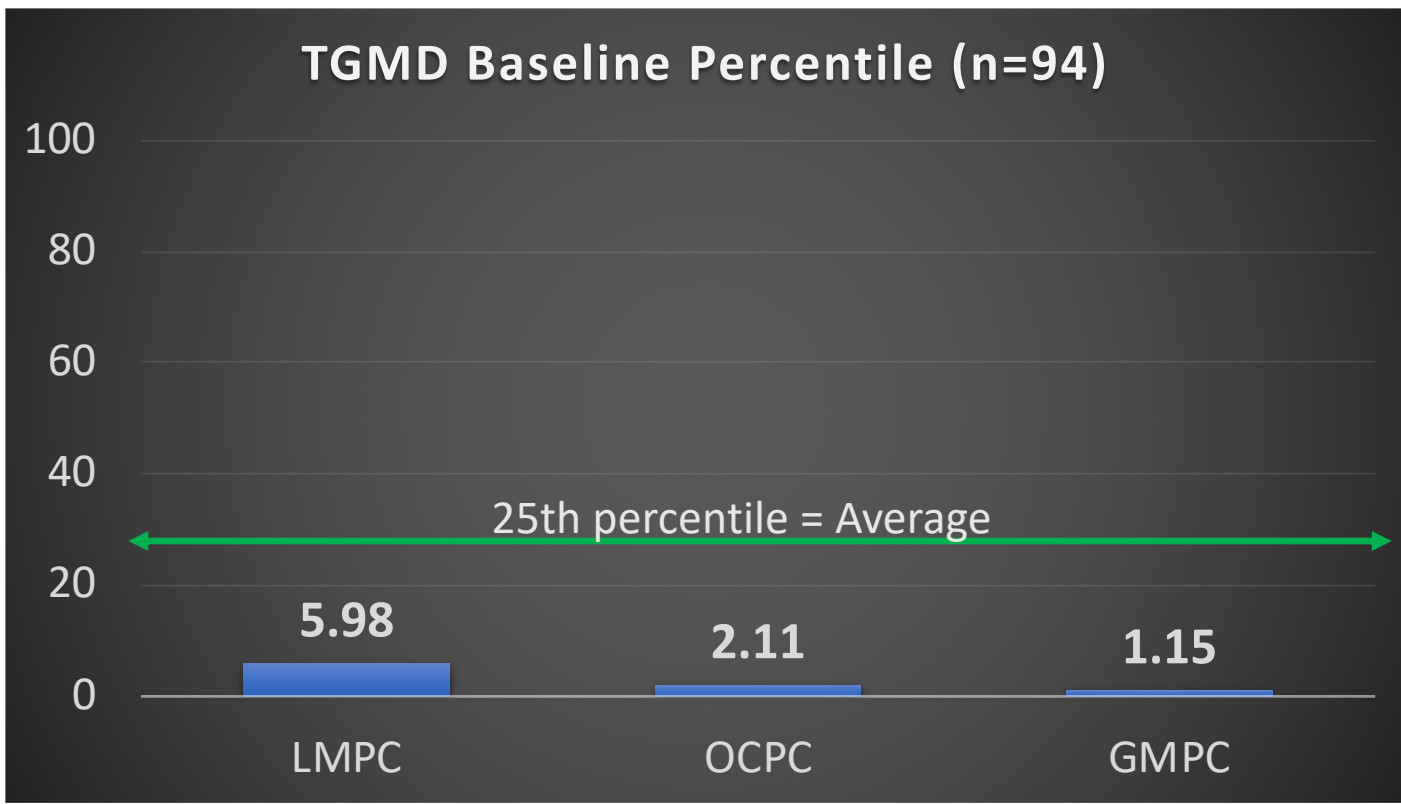


Initial findings

Data collection is now complete and are currently being scored. The children were nested within each class; therefore, this study is considered to be a multilevel design. Baseline scores have been completed and initial findings indicate that children are poor in their motor skills.



Movement-ABC has been scored at all data points, however statistics are yet to be analysed at class level. Scores at retention and post-test 2 show that there is an improvement compared with baseline scores.



Mean percentile scores for TGMD indicate that all children at baseline were under the 25th percentile, demonstrating developmental delay. Girls were higher in locomotor scores. There was no gender difference for object control skills.