BUKU PROFIL PENYELIDIKAN
SKIM PENYELIDIKAN FUNDAMENTAL (FRGS)
FASA 1/2007

Assessment & facilitation of motor proficiency for fundamental learning skills among children with motor disability enrolled in Malaysian preschool and early education system

FRGS0140-SSK-1/2007

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ABSTRACT

Acquisition of gross motor skill is a natural developmental process for children. This aspect of human development increases with one's chronological age, irrespective of any developmental conditions. The purpose of this study was to determine the level of gross motor skill development among elementary school-aged children with motor disability. In this study, a total of 769 children were recruited from peninsular Malaysia, Sabah and Sarawak. Inclusive of 150 normal children and 619 with motor-disability (age range six to 10 years old) participated in the study. Ulrich's Test of Gross Motor Development Test (version 2000) was used to screen the gross motor developmental level of the participants. Overall findings revealed a significant differences among children with a different types of motor disabilities, in terms of locomotor skills [df (3) = 8.39; p = 0.000], object manipulation skills [df (3) = 10.75; p = 0.000] and Gross Motor Development Quotient (GMDQ) index [df (3)=10.82; p=0.000]. Besides the ANOVA analysis also showed that the basic movement skills performance of motor disabled children were related to their age; locomotor skills [df (3) = 18.01; p = 0.000], object manipulation skills [df (3) = 21.54; p = 0.000] and Gross Motor Development Quotient (GMDQ) index [df (3)=22.41; p=0.000]. However, significant difference was not observed when the interaction effect of both age and type of disability were analyse on locomotor skills [df (3) = 1.64; p = 0.102], manipulative skill scores [df (3) = 2.14; p = 0.025], and Gross Motor Development Quotient (GMDQ) index [df (3)=2.04; p=0.034]. The results indicated that differences observed for both locomotor and manipulative skills among elementary school children with motor disability were purely a consequence of age, but the absence of significant difference in terms of GMDQ revealed that the differences were not in accordance to improvements that should be observed with participants' increased chronological age.

Keywords: *Gross Motor Development, Locomotor Skills, Manipulative Skills, Motor Disability*