



Journal Homepage: - www.journalijar.com
**INTERNATIONAL JOURNAL OF
 ADVANCED RESEARCH (IJAR)**

Article DOI: 10.21474/IJAR01/4882
 DOI URL: <http://dx.doi.org/10.21474/IJAR01/4882>



RESEARCH ARTICLE

AMPLIFICATION OF THE GROSS MOTOR SKILL AMELIORATION OF TODDLERS IN GAMPAHA DIVISIONAL SECRETARIAT, COLOMBO DISTRICT, SRI LANKA.

R. Dulanja Ruwan Kumara.

Assistant Lecturer, Sport Science and Physical Education Department, University of Kelaniya, Sri Lanka.

Manuscript Info

Manuscript History

Received: 18 May 2017

Final Accepted: 20 June 2017

Published: July 2017

Key words:-

Physical development, motor skills,
 Gross motor Skill

Abstract

This specific study titled “Amplification of the gross motor skill amelioration of toddlers in Gampaha Divisional Secretariat, Colombo District, Sri Lanka”. This study was methodically undertaken by the researcher by focusing on the problem how physical growth of children who are studying in kindergarten level is differ through gross motor skill. There were three objectives set to be achieved by this study, which include a key objective namely to determine the physical development level of children in Gampaha GN Division. Researcher carried out an extensive literature review to deliver a conceptual background of the study and to formulate hypotheses for this study. The stratified random sampling method was employed using 400 nursery children in this study. The researcher used ages and stages questionnaire (ASQ) which was recommended by the American Academy of Neurology, and the child Neurology to collect data. Data were analyzed with the association of SPSS 21.0 version and certain conclusions were made from the study after carrying out detailed scientific analysis of data using appropriate statistical tools. The result shows that there was significant percentage of nurseries’ Gross motor development level appears to be on schedule.

Copy Right, IJAR, 2017., All rights reserved.

Introduction:-

Early childhood which is refers birth to age five, is the most and rapid period of development in a human life. Moreover the development of the gross motor skill is imperative factor in this particular age (Glassman & Hadad, 2009). The UNICEF has been defined that, early childhood is a key component which can create the foundation for children’s future well-being and learning. In addition, Porter (2014) explained early childhood development has both positive and negative experiences for children’s health and social outcomes. According to the Callender (2007) “children are not just strengthening their muscles and improving their coordination when they engage in physical play. Every game and physical activity is a chance to learn concepts and to practice getting along with others. For all of these reasons, gross and fine motor activities are crucial to early childhood development” (p. 02). Children’s physical and psychological growth are critically influence for their developing lifelong healthy behaviors. Nevertheless, current society is facing a children’s lifestyle health problem due to reason of young kids are not moving enough. It seems that an effective physical development program for preschool children needs to be developmentally appropriate for children in the listed age range. The literature says that most of developed countries have national guidance for overcome this problem but there is lack of national guidance in developing countries including Sri Lanka. Therefore it has been created huge gap for the particular research field. Hence, this study has

Corresponding Author:- R. Dulanja Ruwan Kumara.

Address:- Assistant Lecturer, Sport Science and Physical Education Department, University of Kelaniya.

investigate the physical development level of Sri Lankan children special reference to Gampaha division. Basically, research has conducted evaluation criteria to find out physical development level of early childhood development centers which is relevant with motor skill (gross motor skill) and nursery environment (Indoor/Outdoor). This study was carried out by directing to attain following objectives, which were distributed in to two sorts, mainly key and specific objectives.

Methodology:-

The sample area of this study was Gampaha GN divisions of Gampaha divisional secretariat in Western Province of Sri Lanka. The researcher had been used simple random sampling method to select a sample from the target population by using the Solvin's formula and sample size selected by using online sample calculator with 13.28 confidence interval and 95% confidence level. Totally 400 sample has been Selected number of 40 sample preschools multiplied from the deviation of total population of age below 5 children and the population of each villages in Gampaha GN division. Selected random sample was 400 participants. The researcher has used both primary and secondary data to collect data. Basically, the researcher has been used questionnaire method to collect

Data, using recognized Ages and Stages Questionnaire which was developed in the United States. In addition, researcher has chosen ASQ4 questionnaire which was used to identify the children's physical development level. The questionnaire has been categorized to find out particular children's gross motor skill. These questions were adapted from earlier studies conducted in other countries and according to the pilot study researcher those were moderated according to the objectives (Oshani&Wijethissa2015).In addition, researcher was used Likert scale to evaluate ordinal data and it was consisted to five sub categories Researcher filled the questionnaire by observing children due to the understanding and writing difficulties of age four kids. Parallel to the specific objective, the researcher used another dichotomous questions (Nominal scale) and questions based on level of measurement (ordinal scale to evaluate Outdoor play area of preschool and to measure Indoor play equipment. In addition to questionnaire method, and observing method was also applied to collect data. This qualitative outcome of the study (qualitative variable) were converted in to numerical value as given in the table below. The analysis provide the standard of outdoor play area of the preschool. According to the reliability test of alpha coefficient showed .863, suggesting that the items have relatively high internal consistency. Afterwards independent and dependent variables were tested by applying the statistical tool of cross-tabulation within checking by using the chi square chart. The researcher had been used standard deviations, graphs and tabulations to present data. For the purpose of data analysis was descriptively statistical tools such mean, standard deviation etc. analysis were used. The computer soft wear, Excel 2013 and SPSS 22.0 were used to calculate the values for data presentation and analysis purpose.

Results:-

The results of this study has shown, the gross motor development level of particular children appears to be on schedule among 68% and for 27.8% need to provide learning activities and monitoring as well as for 4.3% further assessment with a professional may be needed. Furthermore the results indicate that, there is a relationship between the Outdoor play area and Gross motor skill of particular sample. When measuring the Indoor Play Equipment facilities among the nurseries, the researcher found 83% kindergartens following the standards and 17% preschools still not following the standards of outdoor play area facilities. The researcher has tested hypothesis through chi-square test which is given below. The hypothesis one is to identify the relationship between the outdoor play area and Gross motor skills of kindergarten children.

Table 01:- Gross Motor skill and Outdoor Play area cross tabulation in Gampaha Division.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	47.615 ^a	18	.000
5Likelihood Ratio	49.983	18	.000
Linear-by-Linear Association	.114	1	.736
N of Valid Cases	400		

a. 10 cells (33.3%) have expected count less than 5. The minimum expected count is .85.

The value of the chi-square statistic is given in the table (and the degrees of freedom) as is the significance value. The value of the chi-square statistic is 47.615. This value is highly significant ($p < .001$) indicating that a value of the test statistic that is this big is unlikely to have happened by chance, and therefore the strength of the relationship

is significant. Finally the output tells us the number of observations that the contributed to each cross tabulation coefficient. This proves that the hypothesis H₀ which is P>0.05 had been rejected. That means automatically H₁ was significantly accepted.

Conclusion:-

The current study examined the physical development level of nurseries in Gampaha divisional secretariat including Gross motor skill. Preschool level participants chosen for this study, the sample was 400 participants from 40 preschools. There were two independent variables and one depend variable had used in this study. Through the study the researcher found most of the preschools are on schedule with their physical programs within Gross Motor activities. And also their working environment, including indoor and outdoor play area, play equipment highly impact for their development of physical behavior. During these factors the researcher found highly significant relationship between those standards.

References:-

1. Anon., 2015. Cognitive Development - Piaget's stages of cognitive development, Modern views, [Online] [Accessed 1 December 2015].
2. Boeree, G. C., 2000. Freud and Psychoanalysis, <http://webspaceship.edu>. 30 03 2009
3. http://www.social-psychology.de/do/history_III.pdf
4. Callender, S. A., 2007. Gross and Fine motor act Activities for Early Childhood. Infants and Toddlers. Campbell, F. A., Pungello, E. P., Burchinal, M., Kainz, K., Pan, Y., Wasik, B. H. (2012) Adult outcomes as a function of an early childhood educational program: An Abecedarian Project followup, *Developmental Psychology*, volume 16
5. Glassman, W. E. & Hadad, M., 2009. Approaches to psychology, *Psychodynamic Approach*, Volume 1, pp. 223-274.
6. Matthew, S. & Goodman (2008) Disorders & Issues. Urie Bronfenbrenner and Child Development. National Scientific Council on the Developing Child. (2007) the science of early childhood development. www.developingchild.harvard.edu/library/.
7. Nurse-Family Partnership. (2013). Proven results: Published research: Trial outcomes. <http://www.nursefamilypartnership.org/proven-results/published-research>.
8. Oshani, P., A., L. and Wijethissa, K., G., C., P. (2015) Motives and Issues: Diyatha Uyana Urban Park Visitors in Sri Lanka, *International Journal of Scientific and Research Publications*, Volume 5, Issue 8, August 2015 1, ISSN 2250-3153, www.ijsrp.org
9. Porter, S. (2014) Position Statement on Early Childhood Development, Society of Pediatric nurses, Elsevier Inc. <http://dx.doi.org/10.1016/j.pedn.2013.12.006> Online article
10. Rintoul, B., Thorne, j., Wallace, I., Mobley, M., Goldman-Fraser, J., & Luckey, H. (1998) Factors in Child Development, Part I: Personal Characteristics and Parental Behavior, Centers for Disease Control and Prevention Public Health Service, Research Triangle Institute, U.S. Department of Health and Human Services.
11. Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C.R., & Nores, M. (2005). Lifetime effects: The HighScope Perry Preschool study through age 40. (Monographs of the High Scope Educational Research Foundation, 14). Ypsilanti, MI: High Scope Press. UNICEF (2001) State of the World's Children, UNICEF, New York, 2001.