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Analysis of Motor Proficiency between Urban and Rural Children

Varanasi Janardhana[1], Dr. S. Sethu[2], Dr. P. Manikandan[3]

[1] Research Scholar, Department of Physical Education and Sports, Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, India
[2] Assistant Professor, Department of Physical Education and Sports, Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, India
[3] Assistant Professor (T) Department of Physical Education and Sports, Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, India

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ABSTRACT

The purpose of the study was to analyse the Motor Proficiency between Urban and Rural Children. For this purpose, sixty (n=60) children were selected from Vivekananda Vidyashram Matriculation Higher Secondary School, Vannarpettai, Tirunelveli, Tamil Nadu, India and The Punjayat Union Primary School, Thenpathu, Tirunelveli, Tamil Nadu, India during the academic year 2017 - 2018. The subjects‟ age ranged between 6 to 8 years. The selected subjects were divided into two groups of thirty subjects each namely urban and rural children. The motor proficiency variables selected for this study are running ability, sliding ability, leaping ability, stationary dribbling ability, catching ability and kicking ability. The selected motor proficiency variables were assessed by using the standardized test manual (TGMD-2). The collected data on the selected variables were treated with independent „t‟ test 0.05 level of confidence. The results of the study indicates that the motor proficiency of rural children had registered significant level of difference on running ability, sliding ability, leaping ability, stationary dribbling ability, catching ability and kicking ability when compared to the urban children.

Keywords: Motor Proficiency, Urban, Rural, Children

1. INTRODUCTION

In addition to significant limitations in intellectual functioning and adaptive behaviour, children with intellectual disabilities (ID) are also characterised by delay of motor milestones and impairment of sensorimotor function that affects sensory, neuro musculoskeletal and motor systems (Hogan et al., 2000). For instance, children with Down's syndrome often present with hypotonic, sensory integrative dysfunction as a result of limited sensory experience from poor motor control, motor sequencing deficits, and specific verbal-motor difficulties (Charlton et al., 2000; Maraj et al., 2003; Uyanik et al., 2003), whereas Williams syndrome is associated with atypical postures, weakness in visuospatial cognition which has implications for a variety of tasks requiring gross or fine motor control, and visual-motor dysfunctions (Morris & Mervis 1999; Elliott & Bunn 2004). These sensory-motor deficits greatly impede the quality and quantity of the child's participation or performance in activities in school, at home and in the community (Dolva et al., 2004).

Previous studies of sensory motor dysfunction in children with ID have mainly focused on specific diagnoses with moderate, severe or profound ID. Sensory motor performance in relation to mild ID, unfortunately, has not been properly investigated and is largely unknown. Children with mild ID are infrequently recognized before school age and may begin to demonstrate the need for rehabilitation and special education services during early school years because of minor

difficulties with gross and fine motor tasks that interfere with their participation in school activities, academic performance, independence in daily living, as well as social acceptance by peers (Hamilton 2002). These unsuccessful school experiences may further retard social and emotional development in these children (Sherrill 1998). Therefore, an in-depth assessment of sensory-motor function is of paramount importance to provide a profile of a child's strengths and weaknesses in sensory motor development, based upon which an individualized therapy programme can be developed to facilitate his/her integration into school life, and reduce the immediate burden and future expense on the society (Wuang & Niew 2005).

Purpose of the Study

Keeping the above concept, the purpose of this study was to find out the analysis of motor proficiency such as running, sliding, leaping, dribbling, catching and kicking abilities between urban and rural children.

Selection of Subjects

To achieve the purpose of the study, 60 school children from Vivekananda Vidyashram Matriculation Higher Secondary School, Vannarpettai, Tirunelveli, Tamil Nadu, India and The Panjayat Union Primary School, Thenpathu, Tirunelveli, Tamil Nadu, India where selected as subjects at random and their age ranged between 6 to 8 years. The selected participants were assigned to two group (n=60) as Urban and rural with each thirty in the group. Member of these groups will consist of healthy school children.

Selection of Variables

Keeping in mind the opinion of the experts, availability of equipments, acceptability of the subjects and the time to be derived the following variables were selected namely:

1. Running Ability,
2. Sliding Ability
3. Leaping Ability
4. Dribbling Ability (Stationary)
5. Catching Ability
6. Kicking Ability

Selection of Tests

Table 1
Tests Selection

Criterion Variables	Test items	Units of measurement
Running Ability	TGMD-2*	In points
Sliding Ability	TGMD-2	In points
Leaping Ability	TGMD-2	In points
Stationary Dribbling Ability	TGMD-2	In points
Catching Ability	TGMD-2	In points
Kicking Ability	TGMD-2	In points

*(Ulrich, 2000).

Statistical technique

A static group comparison design was employed for this investigation. The selected subjects were formed into two group (urban and rural children) each group of 30 children. The collected data were analyzed by using the independent t-test with the help of SPSS software at 0.05 level of significance ($p<0.05$).

Analysis and Interpretations of the Data

Running Ability

Table 2
The summary of mean and independent t-test values for Urban and Rural Children on Running Ability

Group	Number	Mean	S.D	T- Ratio

Urban	30	5.83	1.31	
				2.44*
Rural	30	6.73	1.53	

*Significant at 0.05 level. The table value for t_{58} = 2.01

From the Table 2, the mean values of urban and rural children are 5.83 and 6.73 respectively. The obtained „t` value between urban and rural school children on running ability is 2.44 which is greater than the required table value of 2.01 with df 58 at 0.05 level of significance. Therefore, it was concluded that there was a significance difference between urban and rural children on running ability. Rural children showed better performance than urban children on running ability.

Sliding Ability

Table - 3
The summary of mean and independent t-test values for Urban and Rural Children on Sliding Ability

Group	Number	Mean	S.D	T- Ratio
Urban	30	6.10	2.33	
				2.51*
Rural	30	7.23	1.07	

*Significant at 0.05 level. The table value for t_{58} = 2.01

From the Table 3, the mean values of urban and rural children are 6.10 and 7.23 respectively. The obtained „t` value between urban and rural school children on sliding ability is 2.51 which is greater than the required table value of 2.01 with df 58 at 0.05 level of significance. Therefore, it was concluded that there was a significance difference between urban and rural children on sliding ability. Rural children showed better performance than urban children on sliding ability.

Leaping Ability

Table 4
The summary of mean and independent t-test values for Urban and Rural Children on Leaping Ability

Group	Number	Mean	S.D	T- Ratio
Urban	30	3.80	1.47	
Rural	30	4.87	0.93	

*Significant at 0.05 level. The table value for t_{58} = 2.01

From the Table 4, the mean values of urban and rural children are 3.80 and 4.87 respectively. The obtained „t` value between urban and rural school children on leaping ability is 2.51 which is greater than the required table value of 2.01 with df 58 at 0.05 level of significance. Therefore, it was concluded that there was a significance difference between urban and rural children on leaping ability. Rural children showed better performance than urban children on leaping ability.

Stationary Dribbling Ability

Table 5
The summary of mean and independent t-test values for Urban and Rural Children on Stationary Dribbling Ability

Group	Number	Mean	S.D	T- Ratio
Urban	30	4.60	2.01	
Rural	30	5.57	1.28	

*Significant at 0.05 level. The table value for t_{58} = 2.01

From the Table 5, the mean values of urban and rural children are 4.60 and 5.57 respectively. The obtained „t` value between urban and rural school children on stationary dribbling ability is 2.22 which is greater than the required table value of 2.01 with df 58 at 0.05 level of significance. Therefore, it was concluded that there was a significance difference

between urban and rural children on stationary dribbling ability. Rural children showed better performance than urban children on stationary dribbling ability.

Catching Ability

Table 6
The summary of mean and independent t-test values for Urban and Rural Children on Catching Ability

Group	Number	Mean	S.D	T- Ratio
Urban	30	4.00	1.58	
Rural	30	5.03	1.16	

*Significant at 0.05 level. The table value for t_{58} = 2.01

From the Table 6, the mean values of urban and rural children are 4.00 and 5.03 respectively. The obtained „t` value between urban and rural school children on catching ability is 2.89 which is greater than the required table value of 2.01 with df 58 at 0.05 level of significance. Therefore, it was concluded that there was a significance difference between urban and rural children on catching ability. Rural children showed better performance than urban children on catching ability.

Kicking Ability

Table 7
The summary of mean and independent t-test values for Urban and Rural Children on Kicking Ability

Group	Number	Mean	S.D	T- Ratio
Urban	30	5.00	1.76	
Rural	30	6.03	1.50	

*Significant at 0.05 level. The table value for t_{58} = 2.01

From the Table 7, the mean values of urban and rural children are 4.00 and 5.03 respectively. The obtained „t` value between urban and rural school children on kicking ability is 2.89 which is greater than the required table value of 2.01 with df 58 at 0.05 level of significance. Therefore, it was concluded that there was a significance difference between urban and rural children on kicking ability. Rural children showed better performance than urban children on kicking ability.

2. CONCLUSIONS

From the analysis of the data, the following conclusions were drawn.

1. There was significant difference between rural and urban children on Running Ability.
2. There was significant difference between rural and urban children on Sliding Ability.
3. There was significant difference between rural and urban children on Leaping Ability.
4. There was significant difference between rural and urban children on Stationary Dribbling Ability.
5. There was significant difference between rural and urban children on Catching Ability.
6. There was significant difference between rural and urban children on Kicking Ability.
7. Rural children were found to be good in all the motor proficiency skills when compared to the urban school children.

CONFLICTS OF INTEREST

None.

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