iJRASET
International Journal For Research in Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 13 **Issue:** VI **Month of publication:** June 2025

DOI: https://doi.org/10.22214/ijraset.2025.72667

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 13 Issue VI June 2025- Available at www.ijraset.com

Developmental Milestones of Preschool children: An Analytical Study on Berhampur City of Ganjam District

Dr. Narmada Padhy[1], Dr. Rita Hansdah[2]
P.G. Department of Home Science, S.B. R. Government Women's College,Berhampur, Odisha, India

Abstract: ***Pre-school is an ideal period for learning new skill. The period of pre-school begins after babyhood and continues up to the age of six. This is a very critical period for the child for his growth & development. The present study was aimed to assess the of children going to Preschool between 3-5 years age group was selected as sample for the study. The purpose of this study was to assess the gender-based differences inphysical, gross and fine motor skill development of children. Data were collected through personal interviews with the help of Anthropometric Measurement and the Observation methods. For the purpose of the data collection the researcher has personally gone to the villages and visited different play school in Ganjam district.For data analysis used statistical tools like mean and standard deviation graphics.4 points rating scoring procedure was used, frequencies and percentage were used to analyse the data. These findings provide valuable information that can be used to establish normative references for gross and fine motor skill of preschool children,in conclusion the gross and fine motor skill development of preschool children involved gender-based differences in object control skills. The strength of this study was that the gross and fine motor skills were assessed using a standardized process. Oriented assessment tool that evaluated performance techniques for each component of a skills. This study provided valuable information that can be used to establish normative references for the gross and fine motor skills of preschool children. In conclusion, the present data confirm that individual differences in children's activity choices and activity levels are associated with proficiency on several motor skills.***
Keywords: Physical, Gross motor, Fine Motor, Preschool Children

I. INTRODUCTION

The preschool children being the most vulnerable segment, their nutritional status will indeed reflect the health status this population. Health status especially that of preschool children is a sensitive indicator of health and psychological status of community. Preschool Children constitute the most vulnerable segment of any community. Preschool is an ideal period for learning new skills. Speech skill is developed during this period. During this period the child learns the fundamentals of social behaviour. First four to five years of life is very significant for cognitive development. The child's brain has reached 90 percent of adult size. They construct their own knowledge and understanding of the world through repeated interactions with people and materials in their environment. All kinds of facilities should be provided to the child to explore, to enquire, to play and to interact with his peers for optimum development. The extent of ultimate development. And achievement is practically fixed by the experience the child has already undergone during the preschool years. The period of pre-school begins after babyhood and continues up to the age of six. This is a very critical period for the child for his growth and development when especially the child starts showing his independent behaviour and working without others help. However, there are two basic assumptions. Which enable us to understand children during this period in a better way firstly; children are much more alike, than they are different. Important difficulties in culture, life style and communal needs and wishes must not be obscured however, three is a natural biological and evolutionary similarities in children's body and minds a similarity in their drives, feelings, wishes, and ideas that cuts across social, ethnic, racial and sexual distinction, secondly each child is a unique and precious individual. He/she has a specific endowment, as well as this own history and experience, all of which allow children to differ in their sensitivities and their ways of understanding reacting and coping..Logan et al. (2011) reported that there is a strong correlation between motor skill development and physical activity participation among children. This development of motor skills has also been associated activity as well as greater cardiovascular fitness and miniatous of a heathier body weight as an adult (Logon et al. 2011; Pope et al. 2011; Robinson et al. 2012). Fine motor development is the development and control of small movement skills, such as reaching and grasping, while gross motor development refers to control over larger movement skills that tend to be less refined, such as Crawling, standing and walking?(Berk, 2005).

©IJRASET: All Rights are Reserved

The present survey has been carried out to record the anthropometric profile of the preschool children and to assess their physical and psycho social status. The implications of the discussed research will help to promote social activities that appreciate and emphasize, select activities that involve the child's curiosity and creative abilities and formulating better recommendation for further research so as to reduce this nutritional burden.

II. OBJECTIVE OF THE STUDY

1) To assess the differences between physical and psychological perspectives of preschool boys and girls.
2) To know the child's ability to express their thoughts and feelings in fluent clear speech
3) To help children become involved learners, think critically, be creative collaborate, communicate and connect with their environment.

III. MATERIALS AND METHODS

1) Area of the study: Data were collected from four Anganwadi centre Chandramani peta sahi AWW, Badakhemundi sahi AWW, Golapali sahi AWW and Rampa sahi AWW of Berhampur city of Ganjam district.
2) Selection of the Sample: For conducting the present study, 100 (50 Boys &50Girls) preschool children (3 to 6 years) were selected for the study
3) Measures and Tests used:The data were adopted for the questionnaire cum observation methods.The researcher personally contacted deferent AWW centre of Berhampur town. After establishing a rapport, the researcher collected both primary and secondary data for her research.

Data were analysed using different statistical methods like mean, Standard deviation,frequency distribution tables, percentage, pie diagram, bar charts, and Microsoft excel application and accordingly, analysis, interpretation were made and inferences derived.

IV. RESULT & DISCUSSION

Table- 1.1 Personal and Family Demographic profile

Aspects	Boys		Girls	
	Mean	SD	Mean	SD
Age	4.24	0.43	4.24	0.43
Class	1.4	0.82	1.28	0.49
No of sibling	1.4	0.49	1.5	0.54
Father education	3.1	0.88	2.9	0.93
Mother education	2.78	0.73	2.58	0.78
Father occupation	1.76	0.87	1.96	0.94
Mother occupation	0.34	0.82	0.14	0.45

Personal and family demographic profile of boys and girls of preschool are studied. Mean age for preschool both boys and girls are same 4.24. it observed class which is different for boys and girls. Boys average class is 1.4 where as average class is 1.28. other aspects like no of sibling, father education, mother education, father occupation, mother occupation boys have higher mean score(1.4, 3.1, 2.78, 1.76, 0.34) than girls (1.5, 2.9, 2.58, 1.96, 0.14).

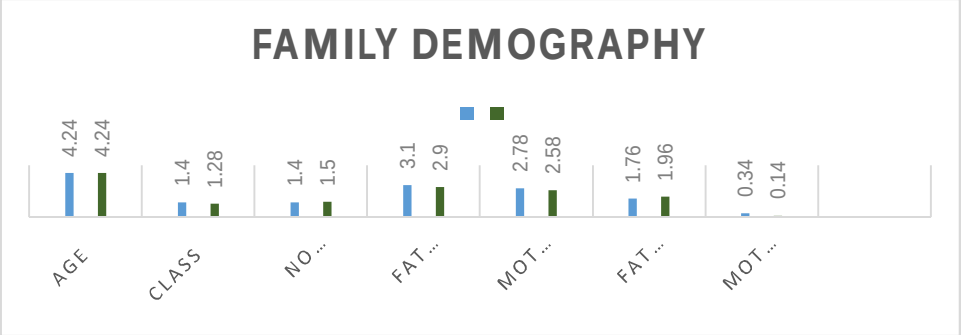


Figure1.1 – Personal and family demographic profile

Table 1.2 Physical development of the children

S.l No.	Aspect	Boys		Girls	
		Mean	S.D.	Mean	S.D.
1	Height(cm)	91.4	3.71	89.46	11.44
2	Weight(kg)	13.19	1.80	12.1	1.41
3	Head circumference	19.38	0.77	19.1	0.93
4	Chest Circumference	20.98	1.13	20.78	1.08
5	Mid arm Circumference	15.34	1.08	15.52	1.41

With regard physical development boys secured higher mean scores (91.4, 13.19, 19.38, 20.98 and 15.34) in all aspects like height, weight, head circumference, chest circumference and mid arm circumference than girls (89.46, 12.1, 19.1, 20.78, 15.52) .

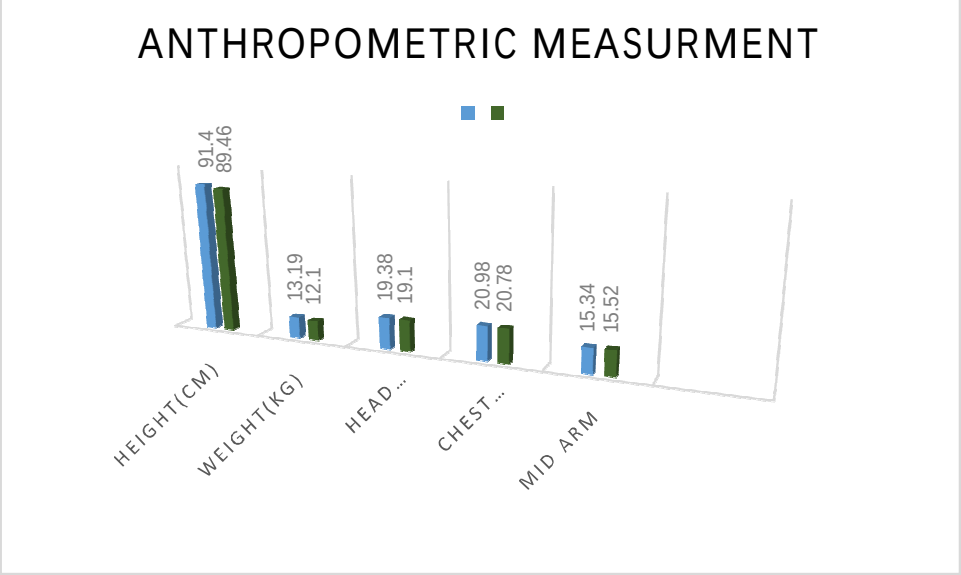


Figure 1.2 Physical development of the children

Table No. 1.3 Emotional state of children

S.l No.	Aspect	Boys		Girls	
		Mean	S.D.	Mean	S.D.
1	Anger	1.04	0.78	1.06	0.79
2	Fear	1	0.75	1.08	0.72
3	Grief	0.98	0.79	1.1	0.70
4	Jealousy	0.64	0.74	0.8	0.78
5	Anxiety	1.1	0.70	1.1	0.81
6	Aggression	1.1	0.70	1.3	0.67

Emotional state of children shows different negative emotions expressed by the boys and girls of early childhood year. With regard to anger girls show a score of 1.06 which is higher than that of the boy's score that is 1.04 . Other aspects like fear, grief, jealousy and aggression girls have higher mean score (1.1, 0.8, 1.3) than boys (1.04, 1, 0.98, 0.64, 1.1) . Boys and girls have scored similar mean value in anxiety 1.1.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 13 Issue VI June 2025- Available at www.ijraset.com

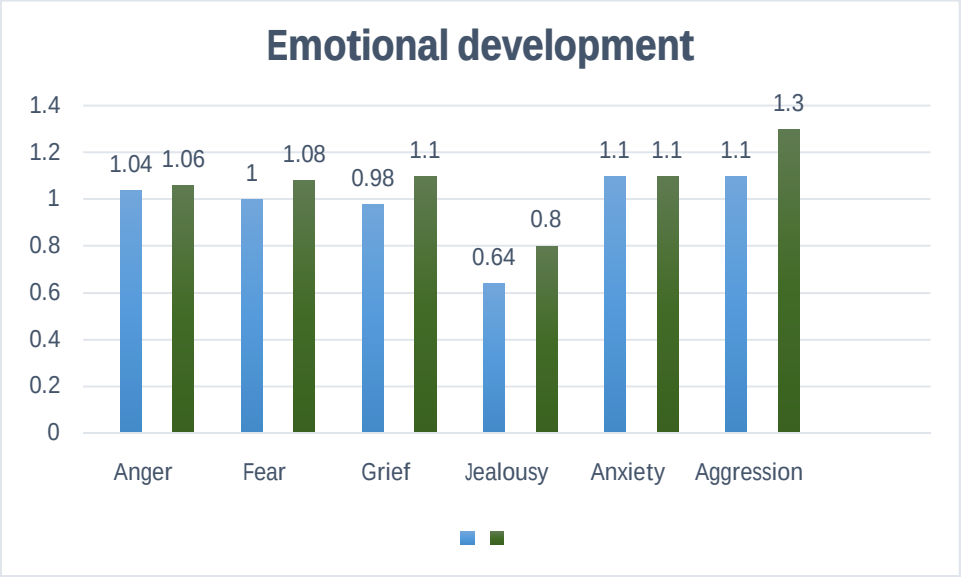


Figure 1.3 Emotional Development of Children

Table 1.4 – Social development of children

S.l. No.	Aspect	Boys		Girls	
		Mean	S.D.	Mean	S.D
1	Socializing	1.68	0.47	1.64	0.91
2	Helping other	0.96	0.47	0.9	0.70
3	Caring other	0.68	0.65	0.96	0.72
4	Sharing other	1	0.69	0.92	0.77

The above table shows that social development of children. In all aspects like socializing, helping other, caring other and sharing other boys have higher mean score (1.68, 0.96, 0.68, 1) than girls (1.64, 0.9, 0.96, 0.92). it seen that boys more socially active than the girls.

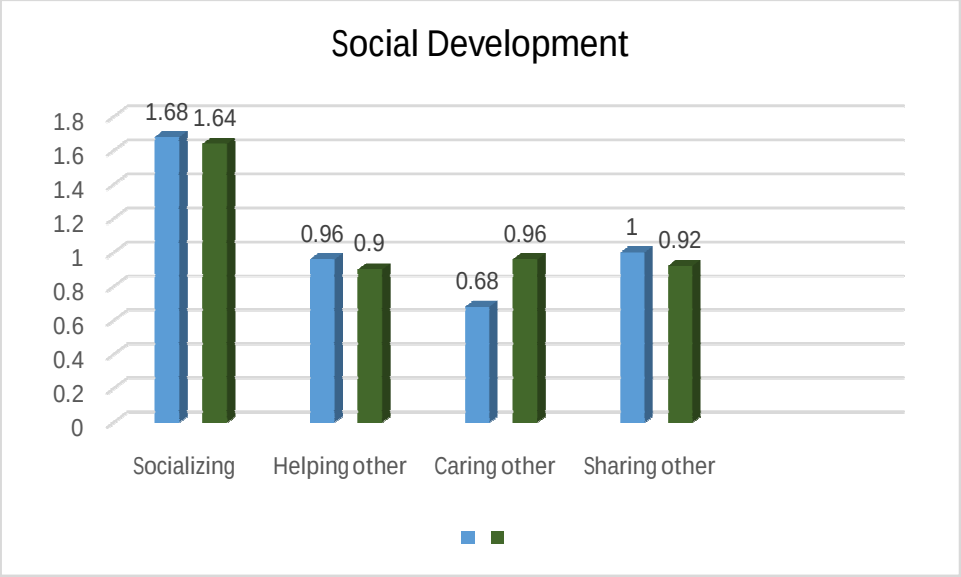


Figure No. 1.4 Social development of children

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 13 Issue VI June 2025- Available at www.ijraset.com

Table No. 1.5 Cognitive developments of the children

S.l. No.	Aspect	Boys		Girls	
		Mean	S.D.	Mean	S.D
1	Memory	1.3	0.64	1.3	0.64
2	Reading	1.4	0.67	1.36	0.63
3	Writing	1.58	0.67	1.44	0.73
4	arithmetic	1.7	0.67	1.68	0.68

The above table shows the cognitive development of children during early childhood years. aspects like reading, writing and arithmetic girls are better than boys. Girls mean score (1.36, 1.44, 1.68) than boys mean score (1.4, 1.58, 1.7) on the other hand with regard to memory both boys and girls have secured the same score 1.3 .

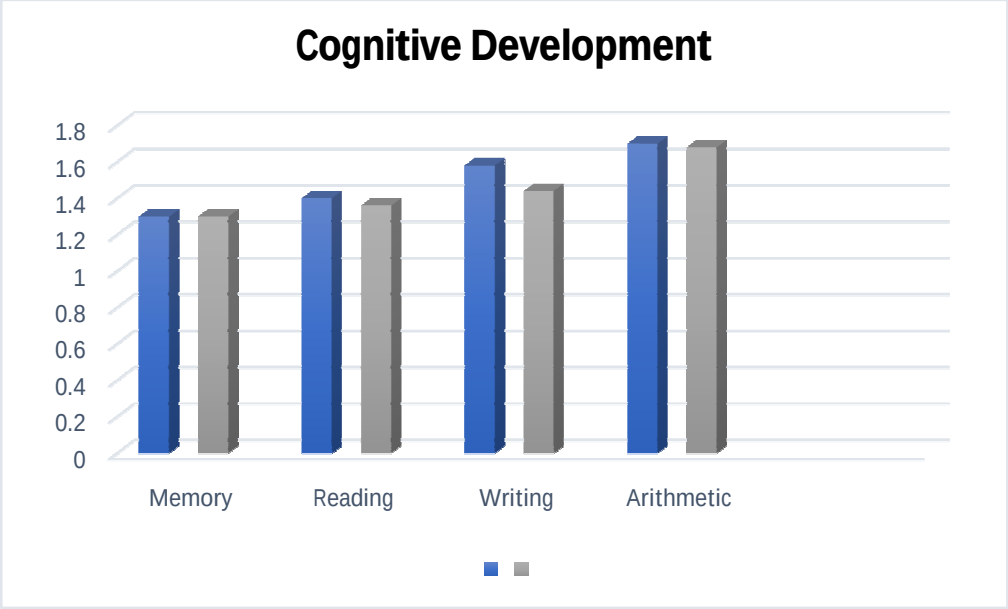


Figure no. 1.5 Cognitive developments of the children

Table no. 1.6 Language development of children

S.l. No.	Aspect	Boys		Girls	
		Mean	S.D.	Mean	S.D
1	Pronunciation	1.1	0.32	1.36	0.56
2	Vocabulary	1.44	0.61	1.54	0.61
3	Sentence formation	1.42	0.60	1.44	0.64
4	Gesture	1.5	0.64	1.6	0.63

The above table shows the language development of children. In all aspects like pronunciation, vocabulary, sentence formation and gesture girls have secured higher mean score (1.36, 1.54, 1.44, 1.6 respectively) than boy (1.1, 1.44, 1.42, 1.5) according to the girls are better in language development than boys.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

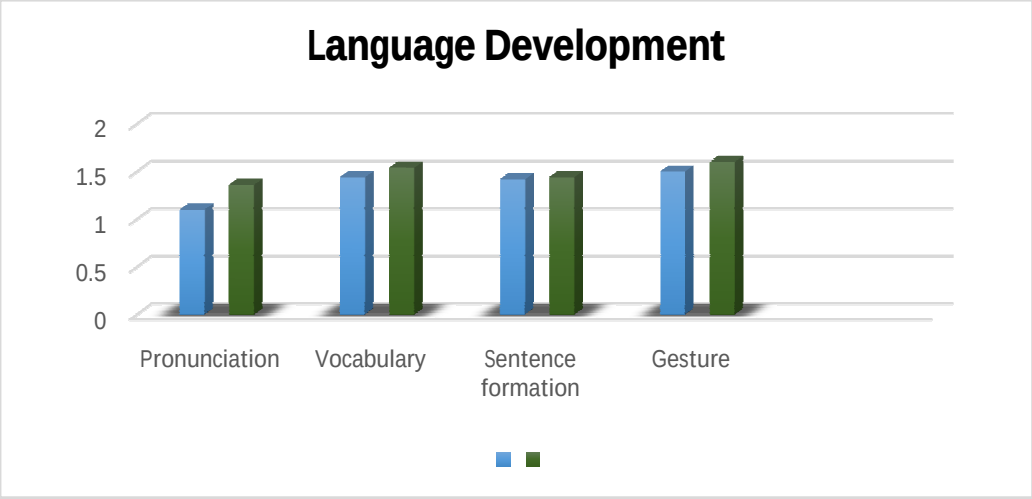


Figure 1.6 Language development of children

V. CONCLUSION

After analyses the data of preschool children by using different statistical tools it can be concluded that with regard to physical growth of pre-school children boy's secured higher scores than girls. Some Indian studies show boys get better care then girls. Different social development activities are studied boys have higher scores than girls. In finer motor skill girls secured better score than boys whereas in gross motor skill boys secured more score than girls. Due to better parental Education and good nutrition, it is possible to achieve better motor development. Emotional state of children shows different negative emotion expressed by the boys and the girls of early childhood years. In the present study boys show more negative emotion than girls. It is concluded that girls are more stable, relax and cool mind than boys so they more pleasant emotion.Different social development activities are studied in all social aspects both boys and girls are social active while boys create more friends compare to girls. As regard to different language skill of pre-school children it is observed that boys' language skill is better development than girls. Lastly cognitive development of pre-school children is studied and observed that both boys and girls have almost similar cognitive mental ability.

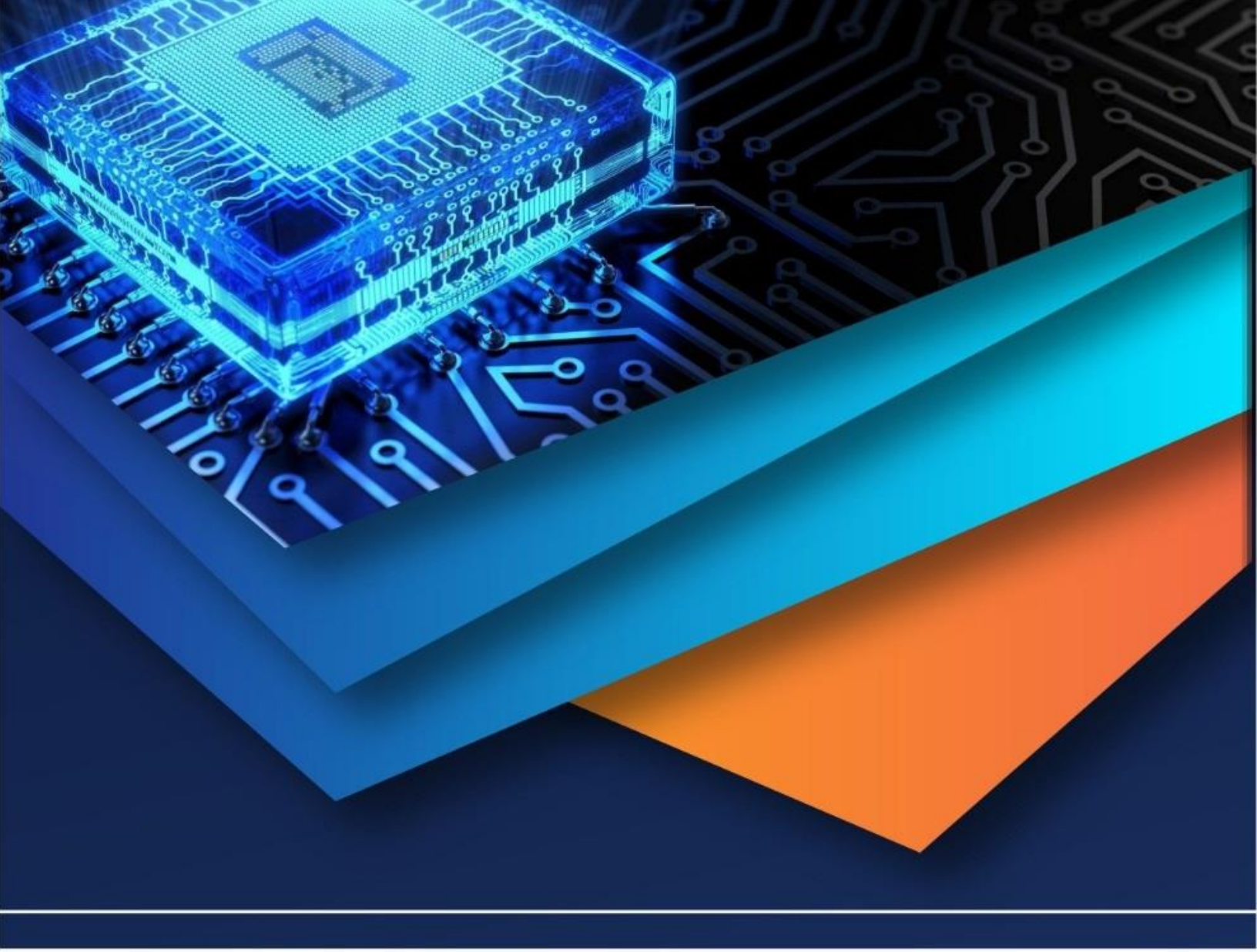
The present study has found that the usage of play was methodology was significant effective for the preschools and the developmental domains are interrelated to each other. The current research states that all developments – fine, gross, cognitive, language, socio-emotional and physical are independent and work together to promote a child's overall health and wellbeing. Emotional health and socio-emotional competence provide a solid foundation for emerging cognitive abilities and together they are the bricks and motor that comprises the foundation of human development. This means that how we nurture a child's heart is just as important as how we nurture his mind and his body.

Implication:

1) Provide patient guidance and encouragement for fine motor activities.
2) Introduction new physical activities that require coordination outdoor games.
3) Promote social activities that appreciate and emphasize.
4) Parents will be more supportive and cooperative with child care facilities in the future.

REFERENCES

[1] Silva, P. A., Birk beck, J., Russell, D.G. and Wilson, J. (1984). Some biological developmental and Social Correlates of gross and fine motor performance in Dunedin seven year olds. Journal of Human movement. Studies, 10, 35-51.
[2] Adolph et al., 2015 K.E. Adolph, W.G. Cole, B. Vereijken. Intraindividual Variability in the development of motor skills in childhood. M.Diehl, K. Hooker, M.J. Sliwinski (eds.), Handbook of in traindividual Variability across the life span, Routledge: Taylor & Francis (2015), pp. 59- 83.
[3] Raudsepp L, Ball P. The relationship between fundamental motor skills and outside- School Physical activity of elementary school children. Pediatr Exer. Sci. 2006; 18: 426 – 435.
[4] Payne G, Isaacs L: Fundamental Locomotion Skill of Childhood. In : Human motor development: A Lifespan approach, 8th ed. New York: McGraw Hill, 2012. Pp- 352-381.
[5] Barnett L M, Salmom J, Heskth K D: More active Pre School Children have better motor Competence at school starting age: am observational Cohort study. BMC Public Health, 2016, 16:1068.



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)