

Experimental Study On Evaluate The Effectiveness Of Act Out Method On Deficiency Of Outdoor Game Among School Children At Selected Areas Of Visnagar

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<p>Keywords Experimental study, Effectiveness, Act out method ,Outdoor game , School children</p>	<p>Abstract Background: outdoor play or simply spending time outdoors is beneficial for healthy growth and development among children. .Opportunities for children to engage with outdoor, natural environments may continue to decrease in a constantly evolving socio-environmental world. This prospect became realized with our current experience of the COVID-19 pandemic, where the mass home-confinement directives and restrictions on the use of public outdoor spaces are deterring outdoor play among children. Method: Pre-experimental research design was utilized, Where 60 school children selected through convenient sampling technique. The data collection entailed demographic information and assessment of act out method questionnaire which helps to assess the knowledge regarding outdoor game. Descriptive statistics and inferential statistics were employed for data analysis, where frequency distribution, percentage analysis, mean, standard deviation, and chi-square test of association were applied. Result: The pre-test results indicated that 75% of the participants had Inadequate, 25% moderate adequate, and 0% adequate. The post-test indicated a considerable decrease in score with 8.33% having Inadequate , 13.33% having moderate adequate, and 78.33% have adequate. A statistically significant difference between pre-test and post-test pain scores was noted ($p < 0.005$), indicating the effectiveness of act out method. Conclusion: The study were need of school children to conduct traning programme regarding outdoor game among school of visnagar. The study reveals that the level of knowledge regarding outdoor game was inadequate among school children. They concluded that need for providing knowledge on outdoor game is an important satatergy utilize school children as effective contribution toward Knowledge.</p>
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I. INTRODUCTION:

The unique characteristics and stimuli of the outdoor world provide a variety of play opportunities that are difficult to duplicate indoors. Children benefit from being exposed to sunlight, natural elements, and open air while playing outside, which helps with bone development, immune system strength, and physical activity. Also, higher levels of attention and well-being are promoted when children play in green outdoor spaces.

Outdoor time is linked to increased levels of physical activity. Physical activity delivers a myriad of health and wellbeing benefits for youngsters who engage in it on a regular basis. Spending time outdoors and engaging in activities such as play has been shown to promote emotional and social resilience in children, in addition to the relevance of Physical Activity for children's health and wellness.

A growing body of research has looked into the health effects of children who engage in outdoor play. For example, several studies have discovered that children's mental health, physical activity, academic achievement, social development, and cognitive development all improve when they participate in sports.

Physical activity, according to some studies, has a positive impact on cognition, as well as brain structure and function. Physical activity, fitness, cognition, and academic achievement all had positive correlations. Physical activity may have beneficial benefits on cognitive development during early childhood, according to a comprehensive analysis of natural play activities.

Due to the restriction of outdoor activities during Covid lockdown, children of all ages have become overly reliant on digital gadgets, putting them at risk for ocular disease and future myopia. Furthermore, constraints on outdoor movement have increased the amount of time spent on these gadgets for recreational purposes, such as playing video games and using social media.

II. METHOD

Research Approach

Pre-experimental study, a quantitative research approach will be employed to evaluate the effectiveness of the Act Out method in addressing the deficiency of outdoor games among N. M. Nootan Sarva Vidyalaya school children in Visnagar. This approach will involve a one-group pretest-post-test design, where data will be collected through structured questionnaires before and after the intervention. The pretest will assess the initial level of outdoor play among participants, while the Post test will measure any changes following the implementation of the Act Out method.

Research Design

Pre- test and post -test experimental research design was used in this study to, single group of participants who will be assessed for outdoor play deficiency before the intervention. The Act Out method, which includes structured activities aimed at encouraging outdoor play, will then be implemented over a designated period. After the intervention, participants will be reassessed using the same measurement tools to evaluate any changes in their outdoor play behavior. This design allows for a direct comparison of pre- and post-intervention data to determine the impact of the Act Out method, though it does not include a control group to account for external variables.

Variables

The study involved independent, dependent and control variable. Independent Variable was Act Out Method is the intervention being tested, which includes structured outdoor activities designed to increase children's engagement in outdoor play. Dependent Variable was Outdoor Play Deficiency is the outcome measure, assessed through the pretest and Post test questionnaires, which evaluates the level of deficiency in outdoor play among the school children. Control Variables was Demographic Factors Such as age, gender, and socioeconomic status, which should be controlled or accounted for to reduce potential biases.

Study Setting and population

The study was conducted in N. M. Nootan Sarva Vidyalaya Visnagar, Gujarat, and was targeted to school children. The Post test questionnaires to measure changes in outdoor play deficiency following the intervention. Ensure availability of resources required for the Act Out method, such as outdoor play equipment and instructional materials. This setting description provides a comprehensive view of where and when your study will take place, along with the resources and ethical considerations involved. These participants will be chosen based on convenience sampling, focusing on those who are available and willing to participate in the study.

Sample and Sampling Technique

60 school children was willingness to participate in the study. This sample will be divided evenly by gender and age to reflect a diverse group of participants. Within these schools, children will be selected based on their availability and consent from their parents or guardians.

Inclusion and Exclusion Criteria

The study included School children within a specified age 6-12 year. Children currently enrolled in schools within the selected areas. Children whose parents or guardians have provided informed consent for

participation in the study. Children who are willing to participate in both the pretest and Post test phases of the study. Exclusion was used on medical or physical conditions that may prevent them from participating in outdoor activities safely.

Data Collection and Tools

The Data collection was conducted by gathering demographic data and assessing outdoor activities using act out method .The observational Questionnaire will be used to directly observe and assess the children's engagement in outdoor play activities.The self-reported Questionnaire will allow participants to identify factors that influence their engagement in outdoor play. It consists of a total of 10 questions aimed at understanding the background factors that may influence outdoor play.

Validity and Reliability

To ensure validity and relevance, the data collection instrument was tested for validity and reliability.This multi-step process ensured that the tools possess strong content validity, making them suitable for accurately measuring the intended outcomes of the study.These measures ensured that the instruments used in the study provide consistent and dependable data, crucial for accurately evaluating the effectiveness of the Act Out method in addressing outdoor play deficiency.

Pilot Study

A pilot study was conducted to test the feasibility, reliability, and validity of the research tools and to refine the study procedures before the full-scale implementation. The feedback from participants and observations made during the pilot phase were crucial in identifying any ambiguities or issues with the tools.

Data Collection Procedure

Data collection for this study will be conducted at Nootan Sarv Vidhyalay in Visnagar, targeting a sample of school children to assess the effectiveness of the Act Out method in addressing outdoor play deficiency. The pretest phase, a structured questionnaire will be administered to gather baseline data on the current levels of outdoor play deficiency among students. This will be followed by the implementation of the Act Out method, which consists of structured outdoor activities designed to engage children and encourage increased participation in outdoor play. The Post test phase, the same questionnaire used in the pretest will be administered to measure any changes in outdoor play behavior resulting from the intervention.

Data Analysis

Data gathered were statistically analyzed using Descriptive and comparative Statistics analysis.Descriptive stastics in the Calculate means, standard deviations, and frequency distributions for key variables, including pretest and Post test scores on outdoor play deficiency, to understand the baseline levels and any changes observed.Comparative stastics in paired t-tests or non-parametric equivalents to determine if there are statistically significant differences in outdoor play deficiency scores before and after the intervention.

III. RESULTS

The study was undertaken to determine the effectiveness of game based learning on knowledge regarding outdoor game among the school children in selected school of visnagar. Pre-experimental one group Pre-test design was adopted for the study. The result and discussion of the study are based on the findings obtained from the statistical analysis.

Demographic Characteristics of Participants

The sample comprised 60 school children suffering from outdoor game deficiency.out of these, 116.67% of were in age of 7-8 years, 50.00% of school children were in age of 9-10 years, 33.33% of school children were in the age 11-12years.The gender split was such that 58.33% of male and 41.67% of female.The religion split was such that 75.00% of school children from Hindu family and 13.33% of school children from Muslim family.The mother education status split was such that 8.33% of school children from illiterate and 25.00% of school children from primary education, 41.67% of school children from secondary education, 15(25.00%) of school children from high secondary education.The class of study split was such that 33.33% of school children from 3rd-5th class of study, 41.67% of school children from 6th-7th class of study and 25.00% of school children from 8th-9th class of study. The income of family per month split was such that 16.67% school children having

less than 5000 family monthly income, 33.33% school children having 5000-10000 family monthly income , 41.67% school children having 10000-15000 family monthly income and 8.33% school children having above 15000 family monthly income. The number of child split was such that 25.00% of school children having one child, 41.67% of school children having two child, 16.67% of school children having three child and 16.67% of school children having more than three child. The type of family split was such that 50.00% of school children belongs to nuclear family and 41.67% of school children belongs to joint family. The area of resident split was such that 58.33% of school children leaving in rural area, 41.67% of school children leaving in urban area.

Table 1 : Demographic Characteristics of Participants

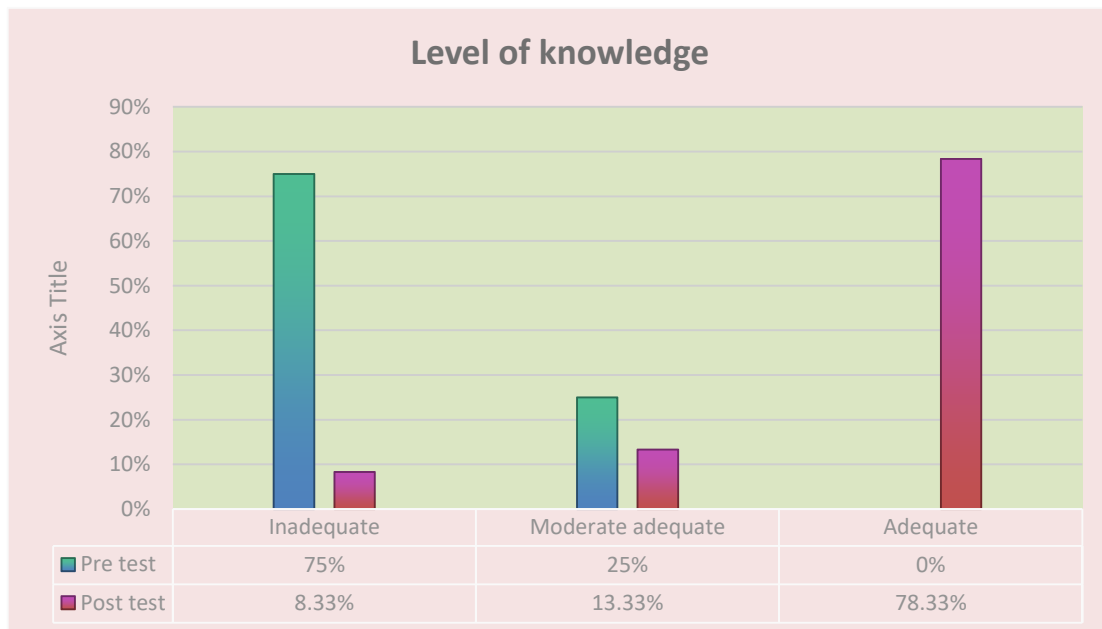
SR.NO	CHARACTERISTICS	CATEGORIES	FREQUENCY	PERCENTAGE(%)
1	Age in years	(a) 7-8	10	16.67%
		(b) 9-10	30	50.00%
		(c) 11-12	20	33.33%
2	Gender	(a) Male	35	58.33%
		(b) Female	25	41.67%
3	Religion	(a) Hindu	45	75.00%
		(a) Christian	5	8.33%
		(b) Muslim	8	13.33%
		(c) Other	2	3.33%
4	Mother educational status	(a) Illiterate	5	8.33%
		(b) Primary education	15	25.00%
		(c) Secondary education	25	41.67%
		(d) Higher secondary education	15	25.00%
5	Class of study	a) 3 rd -5 th	20	33.33%
		b) 6 th -7 th	25	41.67%
		c) 8 th -9 th	15	25.00%
6	Income of the family per month	(a) Less than 5000	10	16.67%
		(b) 5000-10000	20	33.33%
		(c) 10000-15000	25	41.67%
		(d) Above 15000	5	8.33%
7	Number of children	(a) One	15	25.00%
		(b) Two	25	41.67%
		(c) Three	10	16.67%
		(d) More than three	10	16.67%
8	Type of family	(a) Nuclear	30	50.00%
		(b) Joint	25	41.67%
		(c) Extended	5	8.33%
9	Area of residence	(a) Rural	35	58.33%
		(b) Urban	25	41.67%

Effect of act out method on outdoor activity

The pre-test results indicated that 75% of the participants had Inadequate, 25% moderate adequate, and 0% adequate. The post-test indicated a considerable decrease in score with 8.33% having Inadequate , 13.33% having moderate adequate, and 78.33% have adequate. A statistically significant difference between pre-test and post-test pain scores was noted ($p < 0.005$), indicating the effectiveness of act out method.

Table 2: Comparison of pre test and post test

Level of knowledge	Pre-test		Post-test	
	F	%	F	%
Inadequate (0-7)	45	75%	5	8.33%
Moderate adequate (8-14)	15	25%	8	13.33%
Adequate (15-20)	0	0%	47	78.33%



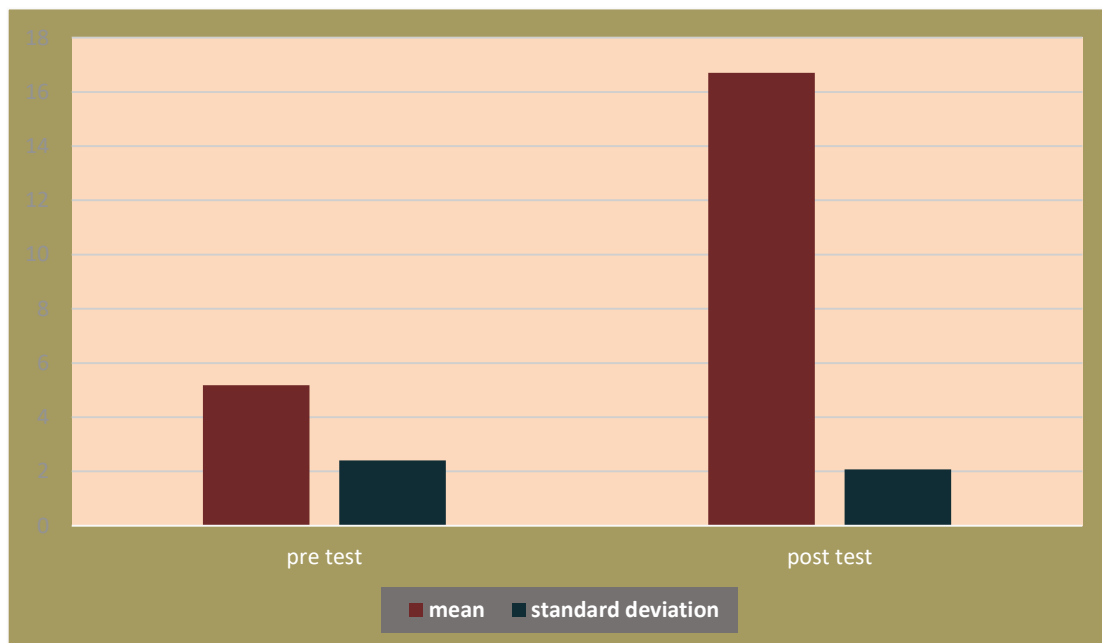
Graph 1 : Distribution of Act out method Before and After Knowledge

Mean and standard deviation of outdoor activity

The data presented in table 12 shows that mean post-test knowledge score (16.7) was higher than the mean pre-test knowledge score (5.18) .The calculated value (9.42) was greater than the value (2.0) at 0.5 level of significance that shows the game based leaning was effective in increasing of school children regarding outdoor game.

Table 3: Mean and Standard Deviation Of Act Out Knowledge Before and After

Parameter	Mean	Standard deviation	Mean difference	t value	Table value	Level of significance
Pre-test	5.18	3.68	11.52	9.42	1.67	NS
Post-test	16.7	3.31				



Graph 2: Mean and Standard Deviation Of Act Out Method

Association Between Demographic Variables and Reduction of outdoor deficiency:

The relationship between demographic factor and post test intensity was examined using the chi square test. The result indicated that age, gender, religion, education, class of study, monthly income, number of children, type of family and area of residence were not significantly related to post test.

Table 4: Association Between Demographic Variables and Chi-Square value

Demographical variables	Chi square value	significance
Age	0.53	Not significant
Gender	0.068	Not significant
Religion	0.222	Not significant
Education	0.373	Not significant
Class of study	0.106	Not significant
Monthly income	0.64	Not significant
Number of children	0.50	Not significant
Type of family	0.24	Not significant
Area of residence	0.617	Not significant

IV. DISCUSSION

The importance of outdoor play in fostering healthy development cannot be overstated, as it encourages not only physical fitness but also social interaction, creativity, and problem-solving skills. In light of the growing deficiency in outdoor play, innovative educational strategies are being explored to reintegrate these activities into children's daily routines. One such approach is the "Act Out Method," a pedagogical technique that combines physical activity with educational content, encouraging children to engage in active learning through role-playing, dramatization, and interactive games. This method aims to address the deficiency of outdoor play by making physical activity an integral part of the learning process, thereby enhancing children's overall development.

Outdoor play and independent, neighborhood activity, both linked with healthy childhood development, have declined dramatically among Western children in recent decades. This study examines how social, cultural and environmental factors may be hindering children's outdoor and community-based play. A comprehensive survey was completed by 826 children (aged 10–13 years) and their parents from 12 schools (four each urban, suburban and rural) from a large county in Ontario, Canada. Five multilevel regression models, controlling for any school clustering effect, examined associations between outdoor play time per week and variable sets representing five prevalent factors cited in the literature as influencing children's outdoor play (OP).

provided a more recent perspective by examining the impact of the COVID-19 pandemic on outdoor play in schools. Their research found that the pandemic exacerbated many of the existing barriers to outdoor play, as schools implemented strict social distancing measures and limited the use of shared spaces, including playgrounds. Nguyen and Robinson (2022) noted that many schools reduced recess time or eliminated it altogether in an effort to minimize the risk of virus transmission.

Development of fundamental movement skills in early childhood supports lifelong health. The potential for outdoor play with loose parts to enhance fundamental movement skills has not been investigated. A multi-methods randomized controlled design was used to determine the efficacy of integrating outdoor loose parts play into Nova Scotia childcare centers. Movement skills were assessed over a 6-month period to investigate changes in fundamental movement skills over time and between groups.

In summary, Research underscores the significant impact of outdoor play deficiency on child development, linking it to physical, cognitive, and social challenges. Play-based learning methods have proven effective in boosting engagement, creativity, and academic outcomes, demonstrating the value of integrating play into education. However, barriers such as limited space, safety concerns, and socio-economic disparities hinder outdoor play in schools. Structured interventions, including community partnerships and well-organized programs, address these barriers by enhancing access to and quality of outdoor play, thereby improving children's physical health, cognitive skills, and social-emotional well-being. Together, these insights highlight the necessity of fostering outdoor play through strategic interventions to support holistic child development.

V. CONCLUSION

The finding of the study were need of school children to conduct training programme regarding outdoor game among school of visnagar. The study reveals that the level of knowledge regarding outdoor game was inadequate among school children. They concluded that need for providing knowledge on outdoor game is an important strategy utilize school children as effective contribution toward knowledge. By employing a quantitative research approach with a one-group pretest-post-test design, the study is structured to provide empirical evidence on the impact of the intervention. The careful consideration of sampling techniques, the development of valid and reliable instruments, and the detailed plan for data analysis ensure that the study's outcomes will be robust and meaningful. Through this methodology, the research aims to contribute valuable insights into the role of structured interventions in enhancing children's engagement in outdoor activities, ultimately supporting their holistic development.

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