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Assessment of Sports Interest Using The IPQ in Primary School

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Abstract**:** *The aim of this study was to examine the level of interest and motivation for sports among primary school students using the Interest in Physical Activity Questionnaire (IPQ) and to investigate the relationship between self-perceived interest and the frequency of sports participation. The sample consisted of 85 students aged 10 to 12 years (42 boys and 43 girls). Data were collected using the IPQ, which assesses domains related to physical activity, interest in sports, and motivation. Statistical analyses included descriptive statistics, independent samples t-tests, one-way analysis of variance (ANOVA), and Pearson correlation analysis. The results indicated that students demonstrated a moderately high level of interest in sports, while the overall interest score was positively associated with the frequency of participation in physical activities ($r = 0.48$; $p < 0.001$). No significant differences were observed according to gender or grade level, suggesting a stable level of interest during this developmental period. The findings emphasize the importance of motivation and interest as factors supporting children's engagement in sports and may contribute to the development of effective school-based and extracurricular programs.*

Keywords— IPQ, Motivation, Physical Activity, Self-Perception

1. INTRODUCTION

Physical activity represents a fundamental component of healthy child development, and the World Health Organization recommends at least 60 minutes of moderate-to-vigorous physical activity per day for children and adolescents aged 5 to 17 years in order to promote physical and mental well-being (Demetriou et al., 2019). Despite these recommendations, many students fail to achieve the minimum recommended levels of physical activity. This issue is particularly evident in school settings, where the structure of educational programs and students' motivation to engage in physical activity are often influenced by curricula and pedagogical approaches (Demetriou et al., 2019). Interest and motivation toward physical activity are psychological factors that play a significant role in initiating and maintaining participation in physical activity among children. A decline in these factors may lead to reduced overall activity levels and long-term adverse health consequences (Antunes et al., 2024). Motivation encompasses both intrinsic and extrinsic dimensions, with intrinsic motivation—such as enjoyment and satisfaction derived from participation—being particularly important for encouraging children to remain physically active beyond mandatory school activities (Bajamal, Abou Hashish, & Robbins, 2024).

Interest in physical activity during the primary school years is especially important because its benefits extend beyond physical health and contribute to cognitive development and emotional well-being (Xiang, McBride, & Guan, 2004). Previous studies have demonstrated that positive perceptions of physical competence and enjoyment of physical activity are associated with higher levels of engagement and more stable interest throughout the school year (Borrego Balsalobre et al., 2022). Theoretical frameworks such as the Expectancy-Value Model and Achievement Goal Theory suggest that students who perceive value in physical activities and develop positive expectations of success are more likely to remain engaged in physical activity over time (Xiang et al., 2004).

Although motivation is frequently emphasized in research involving adolescents and secondary school students, its role during the early years of primary education is equally important because lifelong behavioral habits are often established during this period (Antunes et al., 2024). Furthermore, the school environment can function as a motivational context in which teacher support and social inclusion stimulate students' interest in physical activity (Zhang et al., 2025). This pedagogical motivational climate includes autonomy support, encouragement, and positive feedback, which may indirectly influence students' overall physical activity levels and psychophysical well-being (Zhang et al., 2025).

Within the school context, children's interest in physical activity depends not only on physical education classes but also on extracurricular activities and various forms of active play that contribute to daily physical activity levels (Demetriou et al., 2019). Several authors have highlighted that participation in extracurricular sports and recreational programs further enhances motivation and activity levels, as students develop a sense of belonging and achievement through team sports and structured activities (Demetriou et al., 2019). Motivational factors such as enjoyment of physical activity and self-perceived physical competence are positively associated with overall activity levels and are predictive of continued participation during later stages of development (Borrego Balsalobre et al., 2022; Bajamal et al., 2024).

Research has consistently shown that children who are motivated and enjoy participating in physical activities tend to be more actively involved, whereas those lacking intrinsic motivation generally demonstrate lower levels of physical activity (Bajamal et al., 2024). Therefore, understanding interest and motivation during early school years may provide a foundation for the development of effective programs and strategies aimed at increasing engagement in activities that promote healthy growth

and development (Antunes et al., 2024).

Despite these findings, several challenges remain within educational practice, including varying levels of support for physical activity, limited resources, and changes in school curricula that may affect the quality of physical education instruction (Demetriou et al., 2019). Consequently, there is a need for empirical research examining factors related to interest and motivation and their relationship with actual levels of physical activity among primary school students.

2. METHODS

Respondent sample

The study was conducted on a sample of 85 primary school students aged 10 to 12 years (Grades 4–6). The sample consisted of 42 boys and 43 girls. Participants were selected using a purposive sampling method from three classes within the same school, following approval from the school administration and informed consent obtained from both parents and students. All participants were physically capable of engaging in physical activities and had no medical conditions or restrictions that would prevent their participation in the study. The research was conducted in accordance with ethical standards for studies involving children, and all data were collected anonymously.

Instruments and Measurement Tools

Students' interest in physical activity was assessed using the Interest in Physical Activity Questionnaire (IPQ), a standardized instrument designed to evaluate motivation, interest, and participation in physical activity among children.

Questionnaire Structure:

1. The IPQ consists of 12 Likert-type items distributed across three domains::
    - Physical Activity (4 items) – assesses the frequency and intensity of participation in physical activities.
    - Interest in Sports (4 items) – evaluates the extent to which students enjoy and are interested in different types of sports activities.
    - Motivation (4 items) – measures both intrinsic and extrinsic motivation for participation in sports and physical activity..
2. **Scoring Procedure:**
    - Each item is rated on a 4-point Likert scale (1 = lowest level of interest/rarely participates; 4 = highest level of interest/frequently participates).
    - The total IPQ score ranges from 12 to 48 points, with higher scores indicating greater levels of interest and motivation toward physical activity and sports participation.
    - Physical activity domain: 4–16 points
    - Sports interest domain: 3–12 points
    - Motivation domain: 5–20 points

Statistical Analysis

Data were analyzed using IBM SPSS Statistics version 28.0 (IBM Corp., Armonk, NY, USA). The following statistical procedures were performed:

- Descriptive statistics (mean, standard deviation, minimum, and maximum values) were calculated for the total IPQ score and for each individual domain.
- Independent samples t-test was used to compare mean IPQ scores between boys and girls.
- One-way analysis of variance (ANOVA) was conducted to examine differences in IPQ scores across grade levels (Grades 4–6).
- Pearson product–moment correlation analysis was performed to investigate the relationship between the total IPQ score and the frequency of physical activity participation, including the assessment of the strength and significance of the association.
- Graphical analysis included a scatter plot with a fitted regression line to visually represent the correlation between variables.

Statistical significance was established at $p < 0.05$. Additionally, the distribution of numerical values within and between

groups was examined to provide insight into the central tendency and variability of the obtained results.

3. RESULTS AND DISCUSSION

Hypothesis One: There is no significant relationship between visual learning styles and academic adjustment among public senior secondary school students in Rivers East Senatorial District, Rivers State.

Table 1. Descriptive Statistics of IPQ Scores

Variable	N	Min	Max	Mean	SD
Total IPQ Score	85	12	48	32,7	7,4
IPQ Physical Activity	85	4	16	10,2	2,8
IPQ Interest in Sports	85	3	12	7,9	2,1
IPQ Motivation	85	5	20	14,6	3,5

The average total IPQ score of 32.7 indicates that the majority of students demonstrated a moderately high level of interest in physical activity. The lowest recorded score was 12, while the highest was 48, suggesting the presence of individuals with substantially different levels of interest. The distribution of scores showed that the central tendency was concentrated between 30 and 35 points, indicating that most students exhibited a similar level of interest. The greatest variability was observed in the Motivation domain (SD = 3.5), whereas the lowest variability was found in the Interest in Sports domain (SD = 2.1). These differences suggest that students perceive motivation for physical activity differently, while their general level of interest remains relatively homogeneous. These findings provide a basis for further comparisons according to gender and grade level.

Table 2. Gender Comparison (Independent Samples t-test)

Variable	Gender	N	Mean	SD	t	p
Total IPQ Score	Boys	42	33,5	7,1	1,24	0,22
	Girls	43	31,9	7,6		

Boys demonstrated a slightly higher average IPQ score (33.5) than girls (31.9); however, the difference was not statistically significant (p = 0.22). Standard deviation values indicated a comparable degree of variability between genders (7.1 vs. 7.6), suggesting a similar range of interest levels in both groups. The score distribution revealed that most participants were clustered around the mean values, with no extreme deviations. These findings suggest that gender is not a key determinant of interest in physical activity within this sample. This result is consistent with previous studies indicating that basic interest in sports can develop similarly among boys and girls. The gender comparison also provides a useful context for further analyses involving grade level and participation patterns.

Table 3. Comparison Across Grade Levels (One-Way ANOVA)

Variable	Grade	N	Mean	SD	F	p
Total IPQ Score	4th.	28	31,8	7,2	0,95	0,42
	5th.	30	33,1	7,5		
	6th.	27	33,0	7,6		

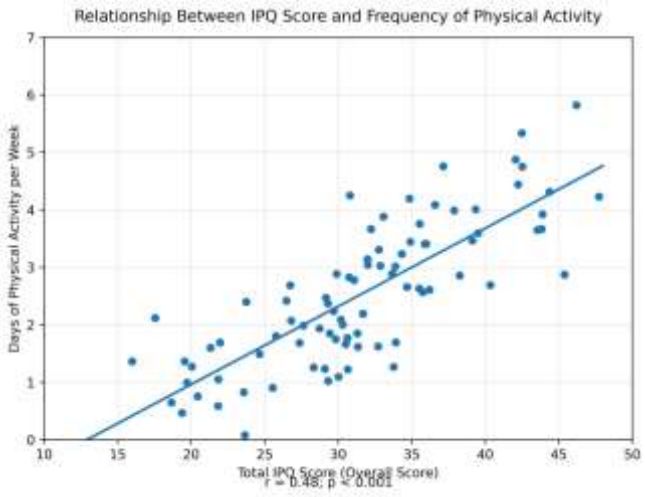
No statistically significant differences were observed in total IPQ scores across grade levels (F = 0.95, p = 0.42). Mean values indicated a slight increase from Grade 4 (31.8) to Grade 5 (33.1), while Grade 6 students exhibited a similar score (33.0), suggesting a stable level of interest throughout these school years. Standard deviations indicated a comparable dispersion of scores across grades (7.2–7.6). Score distributions confirmed that the majority of students were concentrated within the average range of 30–35 points. These findings suggest that interest in physical activity is not substantially influenced by age within the primary school period examined. Consequently, the results may support the development of sports programs that equally target students across different grade levels.

Table 4. Correlation Between IPQ Scores and Frequency of Physical Activity

Variables	r	p
Total IPQ Score – Frequency of Sports Participation	0,48	<0,001

The correlation coefficient of 0.48 indicates a moderate positive relationship between overall interest scores and the

frequency of physical activity participation. Students reporting higher levels of interest were more likely to engage regularly in sports and recreational activities. The relationship was statistically significant ($p < 0.001$), confirming an association between self-perceived interest and actual behavioral engagement. Examination of score distributions revealed that students with lower scores (below 25) reported minimal involvement in sports, whereas those with higher scores (above 40) participated almost daily. This finding supports the notion that the questionnaire may serve as a useful predictor of real-world physical activity behavior.



The results of the present study indicate that overall interest in physical activity among primary school students was moderately high, while the relationship between total IPQ score and frequency of physical activity participation was moderate, positive, and statistically significant ($r = 0.48$, $p < 0.001$). This finding suggests that students expressing greater interest in physical activity are also more likely to participate regularly, which is consistent with previous studies demonstrating that motivation and interest are important predictors of physical activity engagement (Antunes, Rodrigues, Sabino, Alves, Correia, & Lopes, 2024).

No statistically significant differences in interest levels were found between boys and girls, indicating that gender was not a determining factor in students' interest in physical activity within the present sample. This finding is consistent with previous research suggesting that gender differences in sports participation frequency and preferences are not universally observed across all age groups and cultural contexts (Đokić, 2013).

Furthermore, grade level did not significantly influence students' interest or reported participation in physical activity. This finding implies that, between the ages of 10 and 12 years, interest in physical activity remains relatively stable, without substantial fluctuations across grades. Similar studies have reported that physical activity generally declines during later adolescence, whereas this trend is not yet evident during the early primary school years (Li & Moosbrugger, 2021).

In addition, the present study confirms the importance of interest and motivation as potential predictors of actual participation in physical activity. This observation is consistent with broader evidence indicating that social and psychological support, including encouragement from peers, teachers, and parents, may positively influence physical activity engagement among children and adolescents (European Fitness Study, 2022).

The practical implications of these findings should also be emphasized. The positive association between interest and participation suggests that increasing students' interest through motivational interventions or by involving children in the selection of activities may potentially enhance actual participation rates. Furthermore, since no significant differences were observed according to gender or grade level, such interventions may be broadly applicable across the primary school population.

Several limitations should be acknowledged. The study relied exclusively on self-reported questionnaire data to assess both interest and participation frequency, which may be influenced by subjective perceptions and reporting bias. Future studies should incorporate objective measures of physical activity, such as accelerometers, to further validate the relationship between questionnaire scores and actual physical activity behavior.

4. CONCLUSION

The findings of this study indicate that primary school students exhibit a moderately high level of interest in physical activity and that greater interest is associated with more frequent participation in sports and recreational activities. No statistically significant differences were identified according to gender or grade level, suggesting that interest in physical activity remains relatively stable during the early primary school years and is similarly expressed among boys and girls. The analysis revealed that most students demonstrated comparable levels of interest, whereas motivation varied across individuals. These findings highlight the importance of fostering interest and motivation as key factors for promoting children's engagement in physical activity. The results provide practical guidance for schools and teachers in the development of inclusive and universally applicable physical education programs. Future research should incorporate objective measures of physical activity in order to further examine the relationship between self-perceived interest and actual behavioral engagement. Overall, the study suggests that simple questionnaire-based assessments can serve as effective tools for evaluating interest and predicting physical activity participation among school-aged children.

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