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Football Knowledge Among Fifth-Grade Students at SD IT Iqro Stabat: A Descriptive Survey

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ABSTRACT

Objectives: This study aimed to determine the level of football knowledge among fifth-grade students at SD IT Iqro Stabat.

Materials and Methods: A quantitative descriptive survey was conducted using total sampling. All 118 fifth-grade students completed a 27-item objective knowledge test scored dichotomously (0 = incorrect; 1 = correct). The test addressed the nature and rules of football and basic locomotor, non-locomotor, and manipulative techniques. Expert review, item-validity testing, and internal-consistency testing were reported during instrument development, although the associated coefficients were not available in the source records. Data were analyzed using descriptive statistics and percentage-based categories.

Results: Scores ranged from 9 to 27, with a mean of 22.94, median of 24, mode of 24, and standard deviation of 2.99. Of the 118 students, 87 (73.73%) were classified as having very high knowledge, 26 (22.03%) high knowledge, four (3.39%) moderate knowledge, one (0.85%) low knowledge, and none very low knowledge.

Conclusions: Most fifth-grade students demonstrated high or very high football knowledge. Nevertheless, the distribution indicates that a small group requires targeted reinforcement. Teachers should combine explicit instruction about rules and techniques with game-based questioning and formative assessment. Because the study was descriptive and used a locally developed test, the results should not be interpreted as evidence that any particular instructional approach caused the observed knowledge level.

Keywords: assessment; elementary school; football; physical education; sports knowledge

INTRODUCTION

Physical education contributes to children's physical, cognitive, social, and affective development. In games and sports, learning is not limited to performing movements; students also need declarative knowledge of rules, terminology, techniques, and tactical principles. This knowledge supports informed decision-making and helps learners connect what they know with what they do during play. In invasion games, primary-school students may already possess basic tactical concepts, but knowledge and performance do not develop uniformly across learners (Gutiérrez & García-López, 2012).

Football is a prominent component of elementary physical education and requires knowledge of game rules, basic techniques, player roles, and simple tactical problems. Declarative knowledge refers to knowing what to do, whereas procedural knowledge concerns knowing how and when to act. Research on school football shows that prior playing experience can shape both forms of knowledge (García-Ceberino et al., 2020a), while assessment studies emphasize the importance of valid tools that represent authentic game situations (Sánchez-López et al., 2022; Machado & Teoldo, 2020).

At SD IT Iqro Stabat, football is taught through classroom explanation and practical field activities. Preliminary observation suggested variation in students' attention, independent review, and ability to demonstrate expected football skills. However, the school had no descriptive profile of students' football knowledge. Without such information, teachers have limited evidence for identifying topics that require reinforcement or students who may need additional support.

Previous studies have largely examined instructional interventions, tactical decision-making, and game performance rather than providing a simple school-level profile of foundational football knowledge. The present study therefore aimed to determine the level and distribution of football knowledge among fifth-grade students at SD IT Iqro Stabat.

MATERIALS AND METHODS

Study Design

This study employed a cross-sectional quantitative descriptive survey. The design was selected to summarize the existing level of football knowledge without manipulating instruction, assigning an intervention, or testing causal effects.

Study Participants

The study included all 118 fifth-grade students enrolled at SD IT Iqro Stabat. Total sampling was used, making the sample identical to the accessible population. The source manuscript did not report age, sex distribution, inclusion and exclusion criteria, or the data-collection date; these details should be added before submission to support interpretation and reproducibility.

Study Organization

Football knowledge was assessed with a 27-item objective test scored 1 for a correct answer and 0 for an incorrect answer, producing a possible score range of 0–27. Content covered the definition and rules of football and fundamental locomotor, non-locomotor, and manipulative techniques. The instrument was reported to have undergone expert review, product-moment



item-validity testing, and Cronbach's alpha reliability testing. However, the number of experts, pilot sample, retained-item criteria, item coefficients, and reliability coefficient were not available and should be reported in the final submission.

Statistical Analysis

Data were summarized using minimum, maximum, mean, median, mode, standard deviation, frequencies, and percentages. Percentage scores were interpreted using five categories: very high (81–100%), high (61–80%), moderate (41–60%), low (21–40%), and very low (0–20%). The reported category frequencies were checked against the total sample, and percentages were recalculated as frequency divided by 118 multiplied by 100.

Ethical Considerations

The source manuscript did not provide research-ethics approval, school authorization, parental consent, or child-assent information. These statements and any approval number must be supplied before journal submission because the participants were minors.

RESULTS

The observed scores ranged from 9 to 27. The mean score was 22.94 (SD 2.99), and both the median and mode were 24, indicating that scores were concentrated near the upper end of the scale. Table 1 presents the distribution across the five predetermined categories.

Very high	81–100	87	73.73%
High	61–80	26	22.03%
Moderate	41–60	4	3.39%
Low	21–40	1	0.85%
Very low	0–20	0	0.00%
Total	—	118	100.00%

Table 1. Distribution of football-knowledge categories among fifth-grade students (N = 118).

Overall, 113 students (95.76%) were in the high or very high categories, whereas five students (4.24%) were in the moderate or low categories. No student was classified in the very low category. These findings describe performance on the study test and do not, by themselves, identify why individual students achieved particular scores.

DISCUSSION

The principal finding was that nearly three quarters of the students were classified in the very high category and more than 95% were in the combined high and very high categories. This pattern suggests broad familiarity with the football content represented by the test. However, knowledge scores should be distinguished from technical execution and tactical behavior. Primary-school learners can demonstrate basic tactical understanding, yet relationships between decision-making and skill execution vary across game situations (Gutiérrez & García-López, 2012). Accordingly, a high written score should be viewed as one component of football learning rather than a complete indicator of game competence.

The result is consistent with research showing that experience matters for football knowledge. García-Ceberino et al. (2020a) found that football experience differentiated declarative and procedural knowledge in school settings. Other studies comparing instructional approaches have shown that technical and tactical learning may respond differently to direct instruction and game-centered teaching (García-Ceberino et al., 2019, 2020b; Sierra-Ríos et al., 2020). Thus, students' strong scores may plausibly reflect a combination of formal instruction, informal play, and media exposure, but the present dataset did not measure those sources and cannot determine their relative contribution.

The small group in the moderate or low categories remains educationally important. A single whole-class percentage can conceal students who have difficulty with specific rules, concepts, or techniques. Reviews of declarative tactical knowledge assessment recommend validated, context-sensitive instruments rather than relying solely on decontextualized verbal items (Sánchez-López et al., 2022). Video-based tools such as TacticUP also illustrate how authentic scenarios can assess decisions with and without the ball (Machado & Teoldo, 2020). Although such tools were developed for soccer players rather than elementary classrooms, their design principles support adding pictures, short video situations, or guided game problems to school assessment.

Game-centered pedagogy offers one route for connecting knowledge with action. Two Teaching Games for Understanding lessons improved game performance, knowledge, and psychosocial outcomes among elementary students in the study by Arias-Estero et al. (2020). Tactical models use modified games and purposeful questioning to help students recognize problems before refining the necessary skills. Systematic reviews report generally positive effects across cognitive, motor, and affective outcomes, while also noting variation in intervention quality and implementation (Barba-Martín et al., 2020; Wang et al., 2024; Ortiz et al., 2023). Recent work likewise supports the assessment of tactical learning through authentic tasks and emphasizes that declarative and procedural knowledge should be considered together (Calle et al., 2024).

The pedagogical implication is not to replace explicit teaching with games, but to align explanation, practice, questioning, and assessment. Teachers can briefly introduce a rule or technical principle, observe its use in a modified game, ask students to justify decisions, and then provide targeted practice. Research on identifying transferable tactical tasks across invasion games supports this progression (Memmert & Harvey, 2010). Motivation and perceived competence also matter; hybrid game-centered units have produced favorable motivational responses in physical education, including among elementary learners



(Gil-Arias et al., 2020). A recent meta-analysis further indicates that Teaching Games for Understanding can improve sport decision-making, although effects depend on study and program characteristics (González-Valero et al., 2024). Several limitations should temper interpretation. The study was conducted in one school and reported no demographic characteristics, so generalizability is limited. The instrument-development narrative lacked item-level validity results and a reliability coefficient. Category thresholds were adopted rather than empirically validated for this population, and no item-domain analysis was available to show whether students knew rules, history, or techniques equally well. The cross-sectional design cannot identify causal influences or learning gains. Future research should report complete psychometric evidence, analyze item domains, include demographic and prior-experience variables, and combine written knowledge with observed decision-making and skill performance.

CONCLUSIONS

Football knowledge among fifth-grade students at SD IT Iqro Stabat was predominantly very high: 87 of 118 students (73.73%) were in the very high category, and 26 (22.03%) were in the high category. Four students (3.39%) demonstrated moderate knowledge, one (0.85%) low knowledge, and none very low knowledge. Teachers should maintain instruction for the majority while providing diagnostic reinforcement for the small group below the high category. Future assessment should use fully reported, validated instruments and combine declarative knowledge with authentic game-based evidence.

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AUTHOR CONTRIBUTIONS

Yuda Hadi Pwira: conceptualization, methodology, investigation, data curation, and project administration. Eka Abdurrahman: formal analysis, interpretation, writing—review and editing, and supervision. Both authors approved the final manuscript and accept responsibility for its integrity.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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DATA AVAILABILITY AND ETHICS STATEMENTS

Data availability, research-ethics approval, school authorization, parental consent, and child assent were not reported in the source manuscript and must be completed by the authors before submission.

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