



Perceptions of the sports community toward gymnastics achievement in Semarang City

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- B – Collection and/or assembly of data
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ABSTRACT

Background: Gymnastics is a fundamental sport that supports physical fitness development and long-term athletic performance through complex physical demands such as strength, flexibility, balance, coordination, and explosive power. However, its development as an achievement sport often receives limited structural and institutional support at the local level.

Objectives: : This study aimed to analyze the perceptions of the sports community toward gymnastics achievements in Semarang City and to identify discrepancies between conceptual support and perceived developmental conditions.

Methods: A quantitative descriptive survey design was employed involving 60 respondents from the sports community, including sport science students, physical education teachers, and sports practitioners. Data were collected using a validated and reliable closed-ended questionnaire measuring three perception indicators: acceptance, understanding, and appraisal of gymnastics as an achievement sport. Responses were assessed using a four-point Likert scale. Data analysis was conducted using descriptive statistics alongside validity and reliability testing.

Results: Item-level analysis indicated positive perceptions, with mean scores ranging from 3.05 to 3.79, reflecting strong recognition of gymnastics' value and potential. However, classification of total perception scores showed that 58.33% of respondents rated the current condition of gymnastics development as very poor. This contrast highlights a clear gap between conceptual appreciation and perceived realities, particularly regarding infrastructure availability, coaching quality, and competition opportunities.

Conclusions: The sports community in Semarang City demonstrates strong conceptual support for gymnastics as an achievement sport, yet perceives substantial limitations in its practical development. Strengthening facilities, coaching systems, and competitive structures is essential to transform positive perceptions into sustainable athletic performance.

Keywords: coaching and infrastructure, gymnastics achievement, semarang city, sport development, sports community perception.

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INTRODUCTION

Sport is a systematic activity encompassing structured efforts to develop both the physical and psychological potential of individuals and groups. These efforts are manifested through games, competitions, and intensive physical activities aimed at achieving personal satisfaction and competitive success (Rohmat, 2022). In contemporary contexts, sport extends beyond recreational and health-related purposes to function as a strategic instrument for achieving performance outcomes at local, national, and international levels.

Achievement-oriented sports are characterized by planned, systematic, and professional processes designed to optimize competitive outcomes. Athletes engaged in performance sports are required to demonstrate superior physical fitness and advanced technical skills beyond average standards (Angga et al., 2025). Achieving peak athletic performance is widely recognized as a long-term developmental process, typically requiring sustained and structured training over a period of 8–10 years, particularly during critical developmental phases often referred to as the “golden age” (Lloyd et al., 2015).

In the context of gymnastics, athletic achievement is not solely determined by individual athlete capability but is also shaped by broader social support systems. Public and community perceptions play a crucial role in influencing participation rates, facility provision, and policy development related to sport. Perception is defined as an internal cognitive process through which individuals interpret stimuli derived from social interaction, media exposure, and cultural values (Pitcher, 2015). Consequently, understanding how the sports community perceives gymnastics achievement is essential for evaluating its developmental trajectory, particularly in specific local contexts such as Semarang City.

Gymnastics is a multifaceted sport encompassing various disciplines, including artistic, rhythmic, aerobic, and acrobatic gymnastics (de Gymnastique, 2017). Each discipline emphasizes complex physical components such as strength, flexibility, balance, coordination, and explosive power (Budiarti, 2015). Despite these comprehensive physical and developmental benefits, gymnastics has received comparatively limited public attention and recognition when contrasted with more popular sports. A positive public perception, however, has been shown to enhance participation levels, stimulate investment in coaching systems, and strengthen the sport's image within the community.

Understanding public perceptions of gymnastics achievement is therefore critical, as such perceptions directly influence coaching initiatives, promotional strategies, and long-term sport development. Positive perceptions can foster community engagement and support athlete regeneration, whereas negative perceptions may constrain development and reduce policy-level attention. Accordingly, examining these perceptions is vital for advancing gymnastics at the regional level, including in Semarang City.

Previous studies have explored public perceptions of sporting achievement across various contexts. Ardiyanto (2019) with his study, the challenge of maintaining and improving athletes' performance after the 2018 Asian Games. Other studies have emphasized the importance of government–community synergy in fostering achievement sports (Prasetyo, Damrah, & Marjohan, 2018) and highlighted the role of social media in shaping perceptions of elite athletes (Mia et al., 2025).

Distinct from prior research, the present study focuses specifically on the perceptions of the sports community toward gymnastics achievement in Semarang City, a region with considerable potential for sport development yet limited empirical attention in gymnastics research. This focus is particularly relevant given gymnastics' relatively marginal position amid the dominance of sports such as football and badminton.

The novelty of this study lies in three aspects: (1) its micro-level focus on local sports community perceptions of gymnastics; (2) the application of a structured quantitative approach to systematically measure perception dimensions; and (3) the interpretation of perception formation through social, media, and cultural lenses. Accordingly, this study aims to analyze how the sports community perceives gymnastics achievement in Semarang City. The findings are expected to contribute theoretically to the literature on sport perception and practically to policy formulation, coaching strategies, and educational planning aimed at strengthening gymnastics development.

METHODS

Study Design and Participants

This study employed a quantitative survey design aimed at examining numerical data derived from respondents' perceptions of gymnastics achievement. A probability sampling technique using simple random sampling was applied, ensuring that each individual in the population had an equal opportunity to be selected as a respondent. This approach was adopted to enhance sample representativeness and reduce selection bias, thereby enabling a more accurate depiction of perceptions within the sports community.

The study population comprised three distinct groups within the sports community of Semarang City: sport science students, physical education and health (PJOK) teachers, and sports practitioners or figures. A proportional sampling strategy was used, with approximately 5% of individuals from each group selected as respondents. The target population consisted of individuals aged between 18 and 40 years, an age range considered to represent a productive phase characterized by active involvement in sport-related activities and sufficient cognitive and emotional maturity to provide informed responses.

Data were collected by administering structured questionnaires directly to respondents who met the established inclusion criteria. Participants completed the questionnaire independently to provide information regarding their perceptions of gymnastics achievement in Semarang City.

Ethical approval statement

This study received approval from the research supervisor and expert assistants representing Semarang State University. In addition, informed consent was obtained from all respondents prior to data collection. Accordingly, the research instruments were deemed appropriate for use and complied with established ethical standards. Participants were assured of the confidentiality and anonymity of their responses.

Research Instruments

Data were collected using a closed-ended questionnaire designed to measure perceptions across three dimensions: acceptance of the object, understanding or comprehension of the object, and appraisal of the object. The instrument was developed based on theoretical indicators proposed by Bimo Walgito (2004) and underwent validity and reliability testing prior to distribution.

Responses were measured using a four-point Likert scale ranging from strongly agree to strongly disagree. While Likert scales may employ either five or four response categories (Rachman et al., 2024), a four-category format was intentionally selected to minimize neutral or hesitant responses and to encourage clearer evaluative judgments.

The questionnaire consisted of 30 items distributed evenly across the three dimensions: (1) acceptance of the object (10 items), reflecting awareness and recognition of gymnastics; (2) understanding or comprehension of the object (10 items), assessing respondents' knowledge of gymnastics and its benefits; and (3) appraisal of the object (10 items), evaluating respondents' judgments and value assessments of gymnastics achievement.

Data Analysis

Data analysis was conducted using descriptive statistical techniques to summarize the distribution and central tendencies of sports community perceptions. Instrument validity was assessed through item analysis by correlating individual item scores with the total score. Reliability analysis was performed using Cronbach's alpha to evaluate the internal consistency of the questionnaire. An instrument was considered reliable when responses demonstrated stability and consistency across items, indicating its suitability as a data collection tool.

RESULTS

This study examined the perceptions of the sports community in Semarang City toward gymnastics achievement using a questionnaire consisting of 30 items (V1–V30). Responses were obtained from 60 participants, including sport science students, physical education teachers, and sports practitioners. Individual perception scores were calculated by summing item scores for each respondent, followed by descriptive statistical analysis.

At the item level, all mean scores exceeded 3.00, indicating generally positive evaluations of gymnastics as an achievement sport. The highest mean score was observed for items related to the perceived importance of gymnastics for achievement development ($M = 3.79$), while the lowest mean score was associated with items concerning the availability and adequacy of gymnastics facilities ($M = 3.05$). These findings suggest that respondents conceptually acknowledge the value and potential of gymnastics, although certain structural aspects received lower evaluations.

To further examine overall perception patterns, total perception scores were classified into four categories: Very Good, Good, Poor, and Very Poor, based on predetermined score intervals. The distribution of respondents across categories is presented in Table 1 and illustrated in Figure 1.

As shown in Table 1, the largest proportion of respondents (58.33%, $n = 35$) fell into the Very Poor category, followed by the Poor category (18.33%, $n = 11$). In contrast, fewer respondents were classified as having Very Good (16.67%, $n = 10$) and Good

perceptions (6.67%, n = 4). This distribution indicates that although item-level responses tend to be positive, the overall evaluation of gymnastics development in Semarang City remains predominantly low when assessed holistically.

Table 1. Classification of Semarang City Sports Society’s Perception of Gymnastics in 2025

Criteria	Frequency	Percentage (%)
Very Good	10	16.67
Good	4	6.67
Poor	11	18.33
Very Poor	35	58.33
Total	60	100

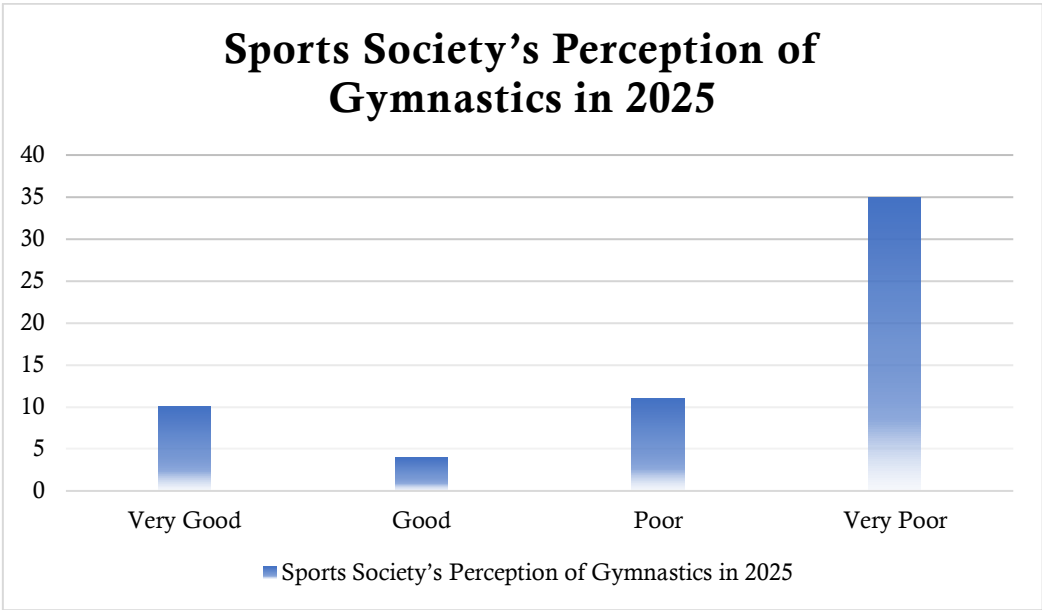


Figure 1. Classification of Semarang City Sports Society’s Perception of Gymnastics in 2025

The graphical representation in Figure 1 further confirms the dominance of the Very Poor category compared to the other perception levels. This imbalance highlights a discrepancy between positive recognition of gymnastics at the conceptual level and respondents’ assessments of its current developmental conditions.

DISCUSSION

The research findings indicate that students' eating habits for health and their physical fitness levels do not show a statistically significant connection at the rural junior high school. Student physical fitness results from various factors that extend beyond their dietary habits, according to the research findings.

The present study reveals a pronounced discrepancy between conceptual recognition and practical evaluation of gymnastics as an achievement sport within the sports community of Semarang City. At the item level, respondents consistently demonstrated positive perceptions, with mean scores exceeding 3.00 and a maximum value of 3.79, indicating strong acknowledgment of gymnastics as beneficial for character development, physical fitness, and athletic achievement. However, the classification of total perception scores showed that a majority of respondents (58.33%) assessed the current condition of gymnastics development as very poor.

This contrast highlights a clear gap between theoretical appreciation and perceived empirical realities.

Several interrelated factors may explain this discrepancy. Limited training infrastructure, including inadequate gymnastics mats, training facilities, and competition-standard equipment, appears to be a primary constraint. Additionally, the limited availability of certified coaches likely contributes to uneven coaching quality and restricts athlete development. The low frequency of organized gymnastics competitions at both school and local levels further reduces opportunities for performance progression and athlete motivation. Moreover, the relatively limited integration of gymnastics into formal physical education and extracurricular programs restricts early exposure and skill development among students. These findings are consistent with previous studies emphasizing the critical role of infrastructure and coaching quality in shaping student interest and performance in gymnastics (Suparno, Hidayanto, & Labulan, 2020; Nurulita, Hasyim, & Arfanda, 2024).

The present findings also align with broader literature on sports achievement development. Syahroni & Sukartidana (2025) underscored the importance of systemic support from government and sports organizations in fostering sustainable achievement pathways, while Pitnawati & Damrah (2019) highlighted the necessity of coordinated efforts among schools, clubs, and local authorities in early-stage athlete development.

Understanding sports community perceptions is particularly important because this group constitutes the core actors within the athlete development ecosystem, including coaches, teachers, students, and sports administrators. Positive perceptions among these stakeholders are closely associated with active participation, advocacy, and collaborative initiatives that support talent identification and development. Consequently, the observed discrepancy between recognition and evaluation suggests untapped potential for improving gymnastics development if structural constraints are adequately addressed. For policy makers, these findings indicate that increased budgetary and institutional support for gymnastics is not only necessary but also anticipated by the sports community.

From a practical standpoint, this study provides an evaluative foundation for local governments and relevant agencies to prioritize improvements in training infrastructure, expand access to certified coaching, and increase the regularity of gymnastics competitions. Educational institutions are encouraged to integrate gymnastics more systematically into physical education curricula and extracurricular programs, thereby enhancing early exposure and skill acquisition. Furthermore, sports organizations such as KONI and regional gymnastics federations should strengthen partnerships with schools and community stakeholders to establish structured and sustainable coaching networks.

Limitations of the study

Despite its contributions, this study has several limitations. The sample size was relatively small ($n = 60$) and restricted to members of the sports community, limiting the generalizability of the findings to the broader public in Semarang City. In addition, the descriptive quantitative design did not allow for in-depth exploration of individual motivations, experiences, and perceived barriers. Future research should therefore involve larger and more diverse samples, include the general public, and

adopt qualitative approaches such as in-depth interviews or focus group discussions. Comparative studies across different regions may also provide a broader perspective for informing national-level gymnastics development policies.

CONCLUSIONS

This study reveals a clear divergence between conceptual evaluations and overall perception classifications regarding gymnastics as an achievement sport in Semarang City. While item-level responses indicate that respondents generally acknowledge the value and potential benefits of gymnastics, the overall classification shows that the majority of the sports community assesses its current developmental conditions as low. This discrepancy highlights structural and systemic limitations that hinder the translation of conceptual recognition into positive holistic evaluations. Addressing gaps in infrastructure, coaching availability, and competitive opportunities is therefore essential to align community perceptions with the acknowledged potential of gymnastics and to support sustainable athlete development.

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DATA AVAILABILITY

All data supporting the findings of this study are included in the article and its supplementary materials. Additional datasets are available from the corresponding author upon reasonable request.

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CONFLICT OF INTEREST

The authors hereby declare that this research is free from any conflict of interest with any party.

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