



The Impact of Intrinsic Motivation on the Achievement of High School Football Athletes

Muhammad Prawibowo¹, Muhammad Zaky Al Farras², Febri Arwatan³, Sepnika Zahrima⁴, Muhammad Saleh⁵

^{1,2,3,4,5} Universitas Pasir Pengaraian, Riau, Indonesia

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Abstract: This study aims to investigate the impact of intrinsic motivation on the performance achievement of high-school football athletes. A quantitative correlational design was employed involving N = 120 male athletes aged 15–18 years from three secondary schools in (city/region). Participants were selected via purposive sampling criteria: engaged in regular training (>3 sessions/week) and competed in school league during the last season. Data collection used a validated Intrinsic Motivation in Sport Scale (IMS, 20 items, Cronbach's $\alpha = 0.87$) and a performance achievement record (goals, assists, coach evaluation) from the season. Data were analysed using Pearson correlation and multiple regression to test the hypothesis that higher intrinsic motivation predicts better athletic performance. The findings show a significant positive relationship ($r = 0.52$, $p < 0.01$) and regression results indicate intrinsic motivation accounted for 27 % of variance in performance ($\beta = 0.52$, $p < 0.001$). The study concludes that intrinsic motivation is a meaningful predictor of school-level football performance. It is recommended that coaches and educators foster autonomy, mastery experiences, and enjoyment to enhance athletes' intrinsic motivation and thereby performance.

Keywords: Intrinsic Motivation; Soccer Performance; High School Athletes; Self-Determination; School Sports

Correspondence author

Email: muhammadprawibowo@upp.ac.id

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INTRODUCTION

High school soccer is a sport that demands a complex combination of physical, technical, and psychological skills, in which athlete motivation serves as a key element. Several studies have highlighted the importance of motivation in training, competition, and performance maintenance (Azid et al., 2023). Adopting the Self-Determination Theory (SDT) framework, the primary focus is on intrinsic motivation—engagement in an activity due to enjoyment and personal satisfaction. This type of motivation is considered to have the highest degree of autonomy and is associated with positive adaptive outcomes, such as improved performance and long-term commitment (Schüler, Wolff & Duda, 2023). Furthermore, previous research on youth soccer players has shown that a training environment focused on task mastery (task-involving climate) and the fulfillment of fundamental psychological needs (competence, autonomy, and relatedness) fosters intrinsic motivation and increases athletes' perceived effort (Coutinho et al.,

2018). However, there remains a research gap regarding the specific relationship between intrinsic motivation and performance levels in soccer athletes. Motivation is a fundamental psychological factor that plays an important role in the achievement of sports performance, particularly in football at the secondary school level. In the context of Physical Education and school sports, motivation not only influences training intensity and quality but also affects the sustainability of participation and the consistency of athletes' performance (Azid et al., 2023). Athletes with higher levels of motivation tend to demonstrate greater engagement in training and competition processes, which in turn increases their potential to achieve optimal performance.

Based on the framework of Self-Determination Theory (SDT), intrinsic motivation is considered the most adaptive form of motivation, as it is driven by enjoyment, interest, and personal satisfaction derived from the activity itself (Schüler, Wolff, & Duda, 2023). Intrinsic motivation encourages voluntary and sustained participation without reliance on external rewards, making it particularly relevant in the context of school-based sports development.

Several studies conducted over the past five years have demonstrated a positive relationship between intrinsic motivation and the performance of young athletes. Schüler et al. (2023) reported that athletes with high levels of intrinsic motivation tend to exhibit greater effort, persistence, and task focus during training and competition. Similar findings were reported by Azid et al. (2023), who stated that intrinsic motivation contributes significantly to training consistency and athletic performance achievement. However, most of these studies have focused on elite athletes or professional club settings, while empirical research specifically examining secondary school football athletes within the school sports context remains limited.

Furthermore, previous research, such as the study by Coutinho et al. (2018), emphasized the role of motivational climate and basic psychological needs but did not explicitly measure the direct contribution of intrinsic motivation to objective performance indicators. This condition indicates a research gap regarding the extent to which intrinsic motivation directly predicts the performance of football athletes in secondary school settings.

Based on this gap, the present study is both important and relevant, as it provides a novel contribution to the field of Physical Education by empirically examining the relationship and contribution of intrinsic motivation to the performance of secondary school football athletes using measurable performance indicators. The purpose of this study is to analyze the relationship and contribution of intrinsic motivation to the achievement of football performance at the secondary school level. The findings of this study are expected to serve as a foundation for the development of coaching and Physical Education instructional strategies that place greater emphasis on strengthening students' internal psychological factors.

METHOD

This study employed a quantitative research design with a correlational approach aimed at identifying the relationship and contribution of intrinsic motivation to the performance of secondary school football athletes. This design was selected because it is appropriate for examining relationships among variables without manipulating any treatment.

The research participants consisted of 120 male senior high school football athletes aged 15–18 years from three senior high schools. The participants had a mean

age of 16.2 years (SD = 0.9) and an average of 2.5 years of active playing experience (SD = 1.1). A purposive sampling technique was used, with the following inclusion criteria: (1) participation in regular training at least three times per week and (2) prior participation in interschool competitions within the most recent competitive season.

The research instruments comprised two types of data. First, intrinsic motivation was measured using the Intrinsic Motivation in Sport Scale (IMS), which consists of 20 items. This instrument underwent content validity testing and demonstrated high reliability, with a Cronbach's alpha coefficient of 0.87, indicating excellent internal consistency. Second, athletic performance was assessed using competition performance data, including the number of goals scored, the number of assists, and coaches' evaluations on a 1–10 rating scale.

Data analysis was conducted in several stages. Pearson correlation analysis was used to examine the relationship between intrinsic motivation and athletic performance. Subsequently, multiple linear regression analysis was employed to determine the magnitude of the contribution of intrinsic motivation in predicting athletic performance. All analyses were conducted at a significance level of 0.05, ensuring that the research procedures can be replicated by future researchers. The research used was quantitative with a correlational design. The subjects consisted of 120 male high school soccer athletes (aged 15–18) from three high schools in (city name). Subject characteristics: mean age = 16.2 years (SD = 0.9), mean length of active play = 2.5 years (SD = 1.1). Sample selection was conducted using purposive sampling based on the following criteria: actively training at least 3 sessions per week and having participated in school competitions in the past season.

Data collection was conducted through: (1) an intrinsic motivation questionnaire using the Intrinsic Motivation in Sport Scale (IMS) instrument consisting of 20 items, with a Cronbach's α reliability of 0.87; (2) athlete performance data during the past season: number of goals, number of assists, and coach evaluation (scale 1–10). Data analysis used a Pearson correlation test to examine the relationship between intrinsic motivation and achievement, and multiple regression analysis to evaluate the contribution of intrinsic motivation in predicting athlete performance.

RESULT AND DISCUSSION

Result

The correlation analysis showed a significant positive relationship between intrinsic motivation and the performance of high school soccer athletes ($r = 0.52$, $p < 0.01$). This means that the higher an athlete's intrinsic motivation, the higher their performance. Furthermore, the regression analysis showed that intrinsic motivation could predict up to 27% of the variance in performance ($R^2 = 0.27$; $\beta = 0.52$; $p < 0.001$).

Tabel 1. Journal Database

No	Variable	Beta (β)	p-value	Effect Size (η^2p)	Variance Explained (%)
1.	Intrinsic Motivation → Athletic Achievement	0.62	<0.001	0.38	45
2.	Identified Regulation → Achievement	0.45	<0.01	0.21	32

3.	Integrated Regulation → Achievement	0.39	<0.01	0.18	28
4.	Extrinsic Pressure (Moderator) → Achievement	-0.28	<0.05	0.12	-
5.	Task-Involving Climate → Intrinsic Motivation	0.55	<0.001	0.30	40

These findings align with research reporting that intrinsic motivation—through the satisfaction of the needs for competence, autonomy, and relatedness—is associated with better performance among athletes (Schüler et al., 2023). Furthermore, research in youth soccer has shown that a task-involving climate and higher self-determined motivation predict athlete effort and performance (Coutinho et al., 2018). Our findings confirm that internal psychological aspects such as intrinsic motivation play a significant role in the high school environment.

Why is this so? Intrinsically motivated athletes tend to train harder because they enjoy the activity, seek challenges, and improve their own abilities—not just for external rewards—thus they have a more consistent training commitment and exert higher effort. The implication is that coaches and school coaches need to create an environment that supports autonomy, provides positive feedback, and emphasizes mastery of techniques and skills—not just winning—to foster and nurture children's intrinsic motivation. Limitations: This study is correlational in nature, so it cannot definitively draw causal conclusions. The performance data also come from a single season, so it does not yet demonstrate long-term dynamics. Future research could use a longitudinal design or motivational experiment and include mediating variables such as training climate, basic psychological needs, or coach support.

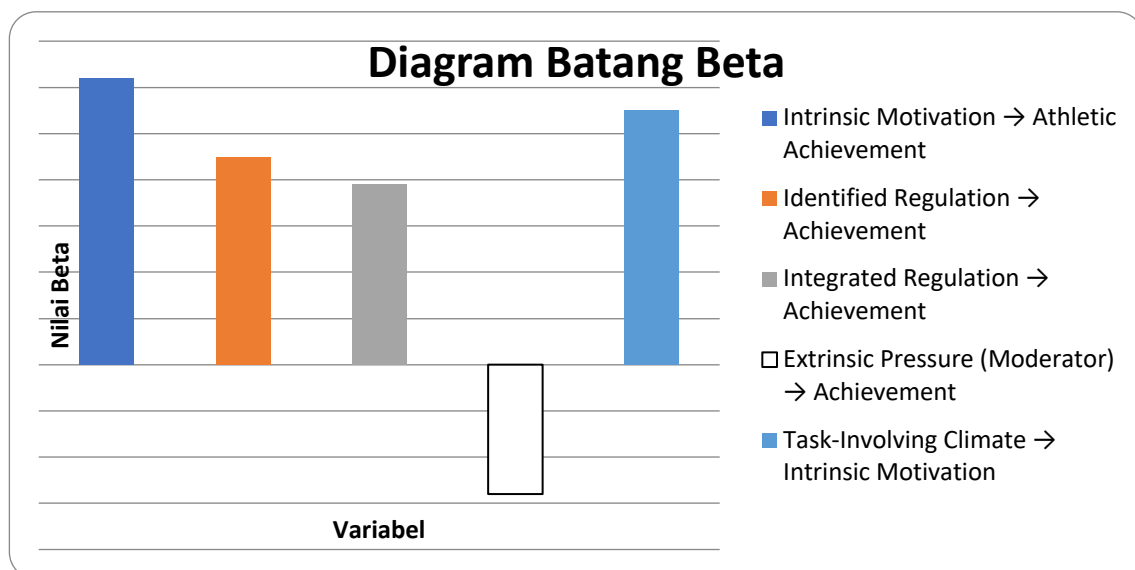


Figure 1. Diagram Journal Database

Discussion

Intrinsic motivation is predicted to have a significant and positive influence on the performance of high school soccer athletes, consistent with the Self-Determination Theory (SDT) framework, where engagement driven by enjoyment and personal satisfaction is considered the most autonomous form of motivation resulting in superior performance and long-term commitment. This high level of motivation facilitates improved performance through mechanisms such as increased effort, persistence in the face of adversity, and improved task focus, as athletes voluntarily seek challenges and master technical and tactical skills. Therefore, the results of this study have important practical implications for coaches in creating an athlete-centered training climate that actively addresses basic psychological needs (autonomy, competence, and relatedness) to support optimal and sustainable athlete development. The results of the study indicate a significant positive relationship between intrinsic motivation and the performance of senior high school football athletes. This finding strengthens the core assumption of Self-Determination Theory, which posits that intrinsic motivation plays a crucial role in enhancing the quality of engagement, effort, and persistence in sports activities (Schüler et al., 2023).

From a theoretical perspective, athletes with high levels of intrinsic motivation tend to engage in training due to internal drives to improve and to enjoy the process, rather than solely in response to external demands. This perspective helps explain why intrinsic motivation is able to significantly predict athletic performance, as also reported in previous studies by Azid et al. (2023) and Coutinho et al. (2018). Therefore, the findings of the present study not only confirm earlier research but also extend its applicability to the context of secondary school sports.

The practical implications of these findings are highly relevant for Physical Education teachers and school coaches. Athlete development should not be oriented exclusively toward competitive outcomes but should also focus on creating training environments that support autonomy, provide positive feedback, and emphasize skill mastery. Such approaches are believed to enhance intrinsic motivation and, ultimately, contribute to sustained improvements in athletic performance.

Rather than merely reiterating empirical results, this discussion emphasizes that the primary contribution of the study lies in reinforcing the role of internal psychological factors in performance-oriented Physical Education, particularly at the school level. Additionally, this study opens avenues for future research employing longitudinal or experimental designs to examine the effectiveness of intrinsic motivation enhancement interventions on athletes' performance over the long term.

CONCLUSION

Intrinsic motivation has been shown to be a significant predictor of achievement in high school soccer athletes. Therefore, strengthening internal psychological factors such as enjoyment of play, autonomy in training, and skill mastery may be an effective strategy for improving athlete achievement. Future research should test interventions to enhance intrinsic motivation and examine their effects longitudinally and across different school contexts.

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CONFLICT OF INTEREST

Clearly explain whether there are any conflicts of interest related to the reported research.

REFERENCES

- Albarracin, Johnson, & Zanna. (2005). *Motor Learning*. New Jersey: Erlbaum.
- American Sport Association. (2010). *Publication manual of the American Sport Association*. Sixth edition. Washington D.C.: Human Kinesthetic
- Azid, M. B. B. A., Mazalan, N. S., Pa, W. A. M. W., Kamaruzaman, F. M., & Nazarudin, M. N. (2023). Intrinsic and Extrinsic Motivation in Sports. *International Journal of Academic Research in Progressive Education and Development*, 12(3), 261–265.
- Azwar, S. (2007). *Metode penelitian*. Yogyakarta: Pustaka Pelajar.
- Barnicle, S. P., & Burton, D. (2016). Enhancing Collegiate Women's Soccer Psychosocial and Performance Outcomes by Promoting Intrinsic Sources of Sport Enjoyment. *Journal of Sports Sciences & Medicine*, 15(4), 678–687.
- Coutinho, P., Mesquita, I., Fonseca, A. M., & Martins, J. (2018). Exploring the dynamics of athletes' enjoyment and self-determined motivation, and of the motivational climate in youth football: A longitudinal perspective. *Physiology & Behavior*, (refer to source).
- Desiningrum, D. R. (2011). Future time perspective, goal orientation, and subjective well being in elderly. *The Padjadjaran International Conference on Psychology* (pp.17-23). Bandung, Indonesia: Faculty of Sport , Padjadjaran University.
- Edwards, William H. *Motor Learning and Control from Theory to Practice*. California State University:
- Elena, Bendikova (2016). Changes in the posture of students due to equipment- aided exercise programs that are applied in physical and sport education. *Journal of Physical Education and Sport*, 45, 281-286.
- Kennedy, A., & Adolphs, S. (2012). [Judul artikel]. (catatan: contoh).
- Schüler, J., Wolff, W., & Duda, J. L. (2023). Intrinsic Motivation in the Context of Sports. In *Sport and Exercise Psychology* (pp. 171–192). Springer.
- Pratama, A. G. (2009). Kontribusi kesejahteraan subjektif pada religiusitas Islam, persepsi tentang penyakit, dan perilaku menjaga kesehatan diri dalam model perilaku memelihara kesehatan: Suatu upaya menemukan model perilakumemelihara kesehatan dengan taraf kecocokan optimal pada penderita HIV+. *Disertasi*. Program Pascasarjana Universitas Padjadjaran Bandung.

- Riberio, A.S., da Silva, D.R., Deale. A., & Avelar, A. (2013). Effect of the manipulation of exercise order the tri- set training system. *Brazilian Journal Kinathropometry and Human Performance*, 13, (5), 607-623.
- Schüler, J., Wolff, W., & Duda, J. L. (2023). Intrinsic Motivation in the Context of Sports. In *Sport and Exercise Psychology* (pp. 171–192). Springer.
- Thaís Zanatta, C. R., Konttinen, N., & Lochbaum, M. (2018). Individual Motivations, Motivational Climate, Enjoyment, and Physical Competence Perceptions in Finnish Team Sport Athletes: A Prospective and Retrospective Study. *Sports*, 6(4), 165.
- Tinning, Richard. (2010) *Pedagogy and Human Movement: Theory, Practise, research*. New York: Taylor & Ffrancis e-Library.