



## **Leadership Support for Training Environment in Extracurricular Sports Activities: Analysis in Junior High Schools - Indonesia**

**Trisnar Adi Prabowo<sup>1\*</sup>, Nevitaningrum<sup>2</sup>, Sekar Pudak Wangi<sup>3</sup>**

<sup>1</sup>Physical Education of Study Program, Universitas Muhammadiyah Brebes, Indonesia

<sup>2</sup>Department of Physical Education, Universitas Siliwangi, Indonesia

<sup>3</sup>Physical Education of Study Program, Universitas Pendidikan Mandalika, Indonesia

### **Article Info**

Article History :

Received : February 2026

Revised : March 2026

Accepted : March 2026

### **Keywords:**

leadership support,  
sport development  
sports extracurricular  
activities,  
training environment.

### **Abstract**

Although the coaching climate or leadership within the principal is very important, there is limited evidence in the junior high school context, especially in Indonesian studies, which examine the direct relationship between leadership support and training environment in extracurricular sports activities. This study aims to analyze the relationship between leadership support and training environment in extracurricular sports activities in junior high schools in Indonesia. This study used a descriptive quantitative design with a purposive sampling technique. The sample consisted of 133 students (aged 12–14 years) actively participating in extracurricular sports: 43 students from Brebes Regency, 47 students from Tasikmalaya City, and 43 students from Mataram City. The leadership support instrument was adapted from the Leadership for Sport Scale (LSS), while the training environment was adapted from the Student Athlete Training Environment Scale. Data analysis was performed using Spearman's rank correlation and Kruskal-Wallis test to compare scores across regions. The results showed a strong and significant positive relationship between leadership support and the training environment ( $\rho = 0.715$ ; sig. = 0.009). The Kruskal-Wallis test showed no significant difference in leadership support scores (sig. = 0.460) and the training environment (sig. = 0.255) based on region. In conclusion, improving the quality of the extracurricular coaching environment in junior high schools can be prioritized by strengthening supportive leadership practices among coaches. Future research could increase the sample size, include more specific sports, include mediator variables, and expand the research model to include psychological factors, coach competence, organizational culture, or motivational climate.

## INTRODUCTION

The training environment is a set of physical, social, and psychological conditions that shape an athlete's training experience and influence the learning process and development of sport skills. In the context of extracurricular sports in schools, the training environment includes facilities, training schedules, group norms, student interactions, and coach behavior, which together determine the quality of the student's training experience (Chu et al., 2020). Recent studies emphasize that students' perceptions of the training environment, including motivational aspects (Resmi Ningrum et al., 2024). Then social support is an important determinant in the involvement and retention of extracurricular participation (Wibowo et al., 2024).

A supportive training environment has been shown to increase training satisfaction, intrinsic motivation, and address the basic psychological needs of young athletes, which in turn leads to improved performance and well-being (Prabowo, 2024; Salsabila et al., 2024). In schools, good exercise conditions also contribute to students' academic engagement, social skills, and quality of life through increased physical activity and character development (Prabowo et al., 2025). Empirical studies show that when coaches create a climate of learning pressure, skill improvement, and social

support, the impact is that burnout levels decrease and students' motivation to continue participating in extracurricular activities increases (Mandan et al., 2024).

Several factors that influence the quality of the training environment include the quality of facilities and equipment, the structure of the training program, group norms, and the coaching style applied by the coach or sports teacher (Setiawan et al., 2023). In addition to physical and programmatic factors, the social behavior of important agents (coaches, teachers, parents, and peers) directly shapes the motivational climate that students experience (Castillo-Jiménez et al., 2022). In a school environment, leadership (principal, extracurricular coordinator, coaches) plays a key role in determining resource allocation, training policies, and organizational culture (Yenen et al., 2023). So that it can positively support or hinder the creation of a conducive training environment.

Effective leadership in a training environment can create an empowering climate, providing autonomy, emotional support, and learning opportunities, which in turn enhances the motivation and development of young athletes (Yenen et al., 2023). Conversely, an authoritarian or overly controlling leadership style can create a debilitating climate, increasing competitive anxiety and the risk of participants dropping out of extracurricular programs (Sridana et

al., 2024). Recent research also shows that support-based coach or coordinator leadership (supportive leadership) is positively related to relationships between team members and the quality of the internal climate that facilitates learning and achievement (Nagata et al., 2025).

Although international literature underscores the importance of coaching climate and coach leadership, there is limited evidence in the junior high school (SMP) context, particularly in Indonesian studies, that examines the direct relationship between leadership support and the extracurricular coaching environment. Few local studies indicate variations in the quality of extracurricular programs, and the lack of research impacts school policies related to the management and development of non-curricular sports activities (Ma'mun et al., 2025; Jauhari & Nurochman, 2025). Therefore, research examining the influence of leadership support on the training environment at the junior high school level is needed to fill this gap and provide basic evidence for managerial and training practices in schools.

This study aims to analyze the influence of leadership support on the quality of the training environment in extracurricular sports activities in junior high schools. The novelty of this study lies in its contextual focus, which is to examine the relationship between leadership support and the specific training environment at the junior high school level which is relatively under-researched, as well as leadership practices

relevant to junior high school policies in Indonesia.

## **METHODS**

### *Research Design*

This study employed a descriptive quantitative approach. This approach was chosen to describe the level of Leadership Support and Training Environment in extracurricular sports activities in junior high schools, as well as to analyze the relationships between variables and differences in measurement results based on the study area. Data were collected using a closed-ended questionnaire completed by students participating in the extracurricular sports activities, then analyzed using non-parametric statistical techniques according to the data characteristics and research objectives.

### *Population and Sample*

The population in this study were junior high school students in three regions in Indonesia, namely Brebes Regency, Tasikmalaya City, and Mataram City, specifically students who participated in extracurricular sports activities at school. Sample selection was carried out using a purposive sampling technique based on the following inclusion criteria: (1) students with junior high school status, and (2) still actively participating in extracurricular sports activities at the time of the study. Based on these criteria, a sample of 133 students was obtained, consisting of 43 junior high school students in Brebes Regency, 47 junior high school students in Tasikmalaya City, and 43 junior high school students in Mataram City. All

respondents participated voluntarily and completed the questionnaire according to the instructions given by the researcher.

*Instrument*

This study used a closed-ended questionnaire to measure two variables: Leadership Support and Environmental Training in extracurricular activities in junior high schools. The questionnaire was scored on a scale of 1–4.

The Leadership Support variable was measured by adapting the Leadership Scale for Sports (LSS) based on (Fletcher & Roberts, 2013). This instrument was used to assess students' perceptions of the leadership behavior of extracurricular mentors/coaches. In this study, leadership support indicators focused on the dimensions that best represent aspects of support, namely social support (social support/concern from mentors/coaches) and positive feedback (reinforcement/positive feedback).

The Training Environment variable was measured by adapting the Student Athlete Training Environment Scale from Resmi Ningrum et al., (2024). This instrument was used to elicit students' perceptions regarding the quality of the

training environment in extracurricular activities. This study used the Training Facilities/Training Environment subscale (items representing the training context), which includes indicators such as training methods, curriculum/training materials, coach-athlete relationships, relationships between athletes, team discipline, and training equipment or facilities.

*Statistical Analysis*

Data analysis was conducted using non-parametric statistics. First, to test the relationship between the Leadership Support and Training Environment variables, this study used the Spearman rank correlation test. Second, to test the differences in scores of the Leadership Support and Training Environment variables based on the three research areas (Brebes Regency, Tasikmalaya City, and Mataram City), the Kruskal–Wallis test was used. The Kruskal–Wallis test is used to compare more than two independent groups on ordinal data or data that does not meet parametric assumptions. All tests were conducted at a significance level of  $\alpha = 0.05$ .

**RESULT**

Based on the results of the research data analysis, the first stage is

the results of the Spearman correlation analysis which are shown in table 1 below.

Table 1. Correlation results between variables

		Leadership Support	Training Environment
Leadership Support	Correlation Coefficient	1,000	0,715
	Sig. (2-tailed)		0,009
	N	133	133
Training Environment	Correlation Coefficient	0,715	1,000

Sig. (2-tailed)	0,009	
N	133	133

Based on the results of Table 1, the Spearman rank correlation at Sig. (2-tailed) is 0.009 and the Correlation Coefficient is 0.715. So there is a significant relationship between the leadership support variable and the training environment variable with a positive direction.

The next analysis was a test of differences in the leadership support and training environment variables across three regions (Brebes Regency, Tasikmalaya City, and Mataram City). The following are the results of Table 2 for the leadership support variable.

Table 2. Results of the Leadership Support based region

Leadership Support	
Kruskal-Wallis H	1,555
df	2
Asymp. Sig.	0,460

Based on the results of table 2, it shows that there is no significant difference in Leadership Support scores based on the research area (Brebes,

Tasikmalaya, and Mataram),  $H(2) = 1.555$ ;  $p = 0.460$ . Then, the following are the results of table 3 on the Training Environment variable.

Table 3. Results of the Training Environment based region

Lingkungan Pelatihan	
Kruskal-Wallis H	0,313
df	2
Asymp. Sig.	0,255

Based on the results of table 3, it can be seen that there is no significant difference in the Training Environment

score based on the research area (Brebes, Tasikmalaya, and Mataram),  $H(2) = 0.313$ ;  $p = 0.255$ .

## DISCUSSION

The results of the study indicate a strong and significant positive relationship between Leadership Support and the Training Environment (Spearman's  $\rho = 0.715$ ;  $p = 0.009$ ). This finding reinforces the logic that supportive coach or trainer leadership behaviors (e.g., social attention and positive feedback) tend to shape students' perceptions of a more conducive training environment, ranging from coach-student relationships, team discipline, to the quality of the training process.

Conceptually, these results align with studies that emphasize that coach leadership plays a role in "setting the climate" of training through daily interactions, the quality of communication, and the coach's way of providing direction and reinforcement. Recent empirical evidence also indicates that coach leadership behaviors are related to the quality of the coach-athlete relationship and the psychological consequences or performance of athletes, ultimately shaping a more positive

training experience (Liu., 2024; Indarto et al., 2025).

Furthermore, this positive correlation finding is also consistent with the literature on autonomy-supportive coaching and motivational climate. Studies examining coach autonomy support have shown that when athletes perceive coaches as providing choices, being rational, and respecting their perspectives, engagement/motivation and the quality of the training experience tend to be higher (Jakobsen, 2023; Yusup et al., 2025). In the context of junior high school extracurricular activities, leadership support such as social support and positive feedback can be understood as “social energy” that makes students feel safe, valued, and brave enough to try, so that they perceive the training environment as more focused, more comfortable, and more supportive of development (Putro et al., 2025).

These findings also make sense when compared to the ‘talent development’ framework which emphasizes environmental features (e.g., social quality, support, communication, and psychological safety) as important predictors of athlete-related outcomes (Zakaria et al., 2025). For example, research on talent training pathways has shown links between environmental features and social climates and various athlete development outcomes, reinforcing that “environmental quality” is not just about facilities, but also the social relationships and processes within training (Hauser et al., 2024). In line with this, the Student Athlete Training Environment Scale instrument used by the researcher does indeed summarize the core aspects of the training environment (methods, curriculum/materials, coach-athlete relationships, relationships between athletes, discipline, equipment), so it is natural that leadership support is strongly correlated with training

environment scores (Resmi Ningrum et al., 2024).

Interestingly, the Kruskal–Wallis results showed no significant differences in Leadership Support or Coaching Environment scores across regions (Brebes, Tasikmalaya, Mataram). Interpretatively, this could mean that extracurricular sports coaching practices in the three regions share relatively similar patterns (e.g., coach/mentor communication style, training structure, or minimum facility standards), resulting in statistically insignificant differences in student perceptions. Another possibility is that there is a “leveling” of perceptions due to similar respondent characteristics (all junior high school students actively involved in extracurricular activities), as well as the relatively limited sample size per region, making small differences difficult to detect. However, these insignificant results do not eliminate the existence of practical variation; they simply indicate that such variation is not yet sufficiently statistically robust. In the literature, leadership quality or coach-athlete relationships are often influenced by situational factors such as team culture, school policies, and coach experience, which can be similar across schools if coaching practices use the same general patterns (Pan & Sui, 2025).

The implications of this research suggest that improving the extracurricular coaching environment in junior high schools can begin with a relatively low-cost yet impactful intervention: strengthening leadership support from the principal or coach. Short coaching training programs could focus on skills most closely related to support, such as supportive communication, providing specific positive feedback, addressing student needs, and creating a coaching climate that rewards effort and growth. This approach aligns with evidence that supportive leadership and a supportive

climate are associated with engagement, psychological well-being, and the quality of the coaching experience (Hodge et al., 2023). Additionally, since there are no differences between regions, capacity building programs for coaches or instructors can be designed as relatively uniform modules for different regions, then contextually adapted at the school level (e.g., schedule, type of sport, and available facilities).

Limitations of this study include its descriptive quantitative design and self-report data, which make the results

## CONCLUSION

The research findings indicate a strong and significant positive relationship between leadership support and the training environment. This study confirmed that the higher the leadership support perceived by students, such as attention, care, and positive feedback from their mentors or coaches, the more conducive the training environment they perceived. Based on the Kruskal-Wallis test, this study also found no significant differences in leadership support scores

## ACKNOWLEDGEMENT

The researcher would like to thank the Junior High School (SMP) which has allowed the author to conduct

## REFERENCES

Castillo-Jiménez, N., López-Walle, J. M., Balaguer, I., Tomás, I., Tristán, J., & Duda, J. L. (2022). Empowering and Disempowering Motivational Climates, Mediating Psychological Processes, and Future Intentions of Sport Participation. *International Journal of Environmental Research and Public Health*, 19(2). <https://doi.org/10.3390/ijerph19020896>

associative (unable to infer cause and effect) and potentially influenced by perceptual/social bias. Second, the small sample size per region may reduce the test's power to detect differences between regions. Future research suggests increasing sample sizes, incorporating mediator variables such as the coach-athlete relationship or motivational climate, and using longitudinal designs to examine whether increased leadership support is indeed accompanied by changes in the coaching environment over time.

between study regions and no significant differences in training environment scores between regions. Thus, despite variations between regions, statistically, the level of leadership support and the quality of the training environment tend to be relatively similar. The implication is that efforts to improve the quality of extracurricular activities can be prioritized by strengthening the leadership competencies of mentors or coaches to build a more positive training environment.

research and collect data on students who participate in extracurricular activities.

Chu, T. L. (Alan), Zhang, T., Thomas, K. T., Zhang, X., & Gu, X. (2020). School environments predict Hispanic children's physical education related outcomes through basic psychological need satisfaction. *Learning and Individual Differences*, 80. <https://doi.org/10.1016/j.lindif.2020.101844>

Fletcher, R. B., & Roberts, M. H. (2013). Longitudinal stability of the leadership scale for sports. *Measurement in Physical*

- Education and Exercise Science*, 17(2), 89–104. <https://doi.org/10.1080/1091367X.2013.761021>
- Hauser, L. L., Höner, O., & Wachsmuth, S. (2024). Links between environmental features and developmental outcomes of elite youth athletes: A cross-sectional study within the German talent pathway. *Psychology of Sport and Exercise*, 71. <https://doi.org/10.1016/j.psychsport.2023.102569>
- Hodge, K., Chow, G. M., Luzzi, M., Scanlan, T., & Scanlan, L. (2023). Commitment in sport: Motivational climate, need satisfaction/thwarting and behavioural outcomes. *Asian Journal of Sport and Exercise Psychology*, 3(2), 121–129. <https://doi.org/10.1016/j.ajsep.2023.03.004>
- Indarto, A. V., Prabowo, T. A., Afifah, M., Hamzah, A. A. L., & Antoro, W. P. (2025). Coach-Athlete Intimacy Towards Athlete Psychology: A Scoping Review. *Jurnal Pendidikan Jasmani (JPJ)*, 6(1), 108–118. <https://doi.org/10.55081/jpj.v6i1.4117>
- Jakobsen, A. M. (2023). How Can Autonomy Support from a Coach, Basic Psychological Needs, and the Psychological Climate Explain Ego and Task Involvement? *International Journal of Environmental Research and Public Health*, 20(21). <https://doi.org/10.3390/ijerph20216977>
- Jauhari, M. S., & Nurochman, S. (2025). SURVEI MOTIVASI, STATUS GIZI DAN HASIL BELAJAR PJOK PESERTA KEGIATAN EKSTRAKURIKULER OLAHRAGA PERMAINAN TAHUN PELAJARAN 2023/2024 DI SMP NEGERI 4 LAMONGAN. *Riyadhoh : Jurnal Pendidikan Olahraga*, 8(1), 47. <https://doi.org/10.31602/rjpo.v8i1.18478>
- Liu, R., Wang, S., & Li, J. (2024). How coach leadership behavior influences athletes' performance: the chain-mediated role of the coach-athlete relationship and psychological fatigue. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1500867>
- Alimandan, S., & Prabowo, T. A. (2024). Analyzing Coaches' Skills: A Survey of Table Tennis Coaches in Riau Province and DIY Province, Indonesia. <https://doi.org/https://doi.org/10.52188/ijpess.v4i2.591>
- Nagata, J. M., Wong, J. H., Helmer, C. K., Diep, T., Domingue, S. K., Al-shoaibi, A. A. A., ... Pettee Gabriel, K. (2025). Social epidemiology of sports and extracurricular activities in early adolescents. *Pediatric Research*, 98(4), 1313–1322. <https://doi.org/10.1038/s41390-025-04099-6>
- Pan, F., & Sui, W. (2025). Research on coach-athlete relationship and team performance based on 3Cs theory: the chain mediating role of emotional intelligence and athletic engagement. *Frontiers in Psychology*, 16. <https://doi.org/10.3389/fpsyg.2025.1587900>
- Prabowo, T. A. (2024). Athletes' Satisfaction Towards Sport Training: an Initial Investigation and Development of Questionnaire. *European Journal of Physical Education and Sport Science*, 11(1), 80–95.

- <https://doi.org/10.46827/ejpe.v1i1i1.5365>
- Prabowo, T. A., Indarto, A. V., Cahyo, F. D., Afifah, M., Zakaria, A., Jasmani, P. P., & Brebes, U. M. (2025). WELL-BEING IN SECONDARY SCHOOL STUDENT : SCOPING REVIEW. *Riyadhoh : Jurnal Pendidikan Olahraga*, 2(6), 72–79. <https://doi.org/10.31602/rjpo.v8i1.18623>
- Putro, K. H., Suharjana, S., Marhaendro, A. S. D., Fauzi, F., Wicaksono, D., Irianto, S., & Prabowo, T. A. (2025). Exploratory Factor Analysis on the Talent Development Environment Questionnaire (TDEQ-5) for Basketball in Indonesia. *Physical Education Theory and Methodology*, 25(1), 156–165. <https://doi.org/10.17309/tmf.v.2025.1.19>
- Resmi Ningrum, N., Tomoliyus, Fauzi, Kurniawan, F., Rini Sukamti, E., Alim, A., & Edison Putra, M. (2024). Exploring the validity and reliability of the student athlete training environment scale: a second-order CFA model analysis of items. *Retos*, 60, 110–118. <https://doi.org/10.47197/retos.v60.107633>
- Salsabila, N. A., Nasrulloh, A., Prabowo, T. A., & Chandrika, W. M. R. (2024). A Correlation Study : The Influence of Service Quality to Satisfaction at Fitness Facilities in Sleman Regency, Yogyakarta. *J Adv Sport Phys Edu*, 7(12), 286–293. <https://doi.org/https://doi.org/10.36348/jaspe.2024.v07i12.002>
- Setiawan, I., Tomoliyus, T., Juita, A., Wijayanti, N. P. N., & Prabowo, T. A. (2023). Analysis of Basketball Coach Competency: A Case Study of Student Level Basketball Coaches in Yogyakarta. *International Journal of Multidisciplinary Research and Analysis*, 06(07), 3215–3221. <https://doi.org/10.47191/ijmra/v6-i7-47>
- Sridana, R., Tomoliyus, T., Sukamti, E. R., Prabowo, T. A., & Abrori, R. B. (2024). The Effect of Coaching Style on Performance of Athletes Through Anxiety as Mediating Variable in Adolescent Swimmers. *Retos*, 55, 241–248. <https://doi.org/10.47197/retos.v55.103150>
- Wibowo, M. S. R., Prasetyo, Y., Sriwahyuniati, C. F., Yulianto, W. D., & Prabowo, T. A. (2024). The effect of self-efficacy, social support, and achievement motivation on archery athlete's performance. *Retos*, 54, 348–354. <https://doi.org/10.47197/retos.v54.102211>
- Yulinar, Y., Ma'mun, A., Yudiana, Y., -, N., -, R., & -, A. (2025). Analisis Pembinaan dan Pengembangan Olahraga Pendidikan di Provinsi Aceh. *Journal of SPORT (Sport, Physical Education, Organization, Recreation, and Training)*, 9(3), 719–732. <https://doi.org/10.37058/sport.v9i3.16972>
- Yenen, E., Atamturk, H., & Atamturk, N. (2023). Exploring leadership behaviors of the coaches of champion teams. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1091703>
- Yusup, N. F., Prabowo, T. A., Azhari, H., & Ari, M. A. (2025). Influencing Perceptions of Sport Coach Performance : A Scoping Review. *Kinestetik: Jurnal Ilmiah Pendidikan Jasmani*, 9(2), 318–

327.  
<https://doi.org/https://doi.org/10.33369/jk.v9i2.41925>  
Zakaria, A., Prabowo, T. A., Jumadi, J., Hakim, A. A., & Abror, I. (2025). Analysis of Talent Development Environment in Basketball in Indonesia. *Jurnal Pendidikan Jasmani (JPJ)*, 6(2), 334–344. <https://doi.org/10.55081/jpj.v6i2.4375>.