

The Dynamics of Education and Athlete Development: Coaches' Perceptions of Karate Athletes Studying Outside Their Home Region

Sonia Ider Prasetia*, Eri Barlian, Yogi Setiawan, Pringgo Mardesia

Universitas Negeri Padang, Indonesia

*Corresponding Author: idersonia49@gmail.com

Received September 21, 2024; Revised November 23, 2024; Accepted December 27, 2024

Copyright©2024 by authors, all rights reserved. Authors agree that this article remains permanently open access under the terms of the Creative Commons Attribution License 4.0 International License

Abstract

Background and Aim. The increasing number of karate athletes pursuing higher education outside their home region has introduced new dynamics in both education and athlete development. Educational mobility offers opportunities for academic growth, independence, and broader life experience, yet it also raises challenges related to training continuity, coach athlete communication, and performance development. In this context, coaches' perceptions play a crucial role in understanding how athlete development is shaped. This study aims to explore coaches' perceptions of karate athletes studying outside their home region and to examine the dynamics between education and athlete development.

Methods. This study employed a qualitative research approach. Data were collected through in-depth interviews, observations, and documentation involving nine participants, consisting of karate coaches, karate athletes, and sport administrators affiliated with FORKI in Sungai Penuh City. The data were analyzed thematically to identify patterns of perception and coaching experiences related to out-of-region education.

Results. The findings indicate that coaches generally perceive studying outside the home region as beneficial for athletes' academic development, independence, and expanded perspectives. However, coaches also reported challenges in athlete development, particularly limited training supervision, conflicts between academic schedules and training programs, and reduced communication intensity. These conditions were perceived to potentially affect training consistency as well as athletes' physical and technical development.

Conclusion. The study concludes that the relationship between education and athlete development among karate athletes studying outside their home region is dynamic and complex. Adaptive coaching strategies, sustained communication, and flexible training management are essential to support sustainable athlete development amid increasing educational mobility.

Keywords: *Athlete Development; Coach Perceptions; Dual Career; Educational Mobility; Karate Athletes.*

1. Introduction

The current development of competitive sports shows that formal education is increasingly seen as an integral part of an athlete's journey path of digital technology empowering the sustainable development of alumni football—A study based on ordina (Stambulova et al., 2021; Thompson et al., 2022). Athletes are no longer only focused on achieving competitive success, but are also expected to be able to build academic and professional readiness for the future outside the world of sport (Blake & Solberg, 2023). In the context of karate athletes pursuing a career in performance development, the demands of maintaining optimal performance often overlap with the obligation to pursue formal education. This situation becomes

more complex when athletes choose to continue their education outside their home region, creating a complex dynamic between education and athlete development.

Karate athletes' decisions to pursue education outside their hometowns have various consequences. On the one hand, educational mobility provides opportunities for developing academic capacity, increasing independence, and broadening social and personal experiences (Alenezi, 2023; Wainwright & Watts, 2021). The experience of being in a new environment can also encourage an athlete's adaptability and maturity (Davids et al., 2023; Nikander et al., 2024). However, at the same time, athletes face challenges in maintaining regular training, adjusting academic

schedules to coaching programs, and facing limited direct supervision from coaches.

This situation places coaches in an increasingly strategic position in the athlete development process. Coaches are not only tasked with designing and implementing training programs, but also with continuously monitoring the physical, technical, and mental development of athletes (Lindsay & Spittle, 2024; E. Ribeiro et al., 2024). When athletes are far from their home area, the frequency and quality of direct interaction between coach and athlete tends to decrease (Timmerman et al., 2024; Wekesser et al., 2021). This situation has the potential to influence how coaches assess athletes' commitment, readiness, and development, which in turn impacts coaching decisions and the support provided.

Despite this, many studies in the field of athlete development and coaching still base coaching success on structural and quantitative indicators, such as competitive performance, the stability of athlete participation, or the level of managerial professionalism of sports organizations. In karate athlete coaching, this approach often starts from the assumption that training conditions are stable and centralized, making it less sensitive to the dynamics that arise when athletes undergo training outside their home region. As a result, the subjective experiences of athletes and coaches in dealing with limited interaction, geographic distance, and coaching challenges are not fully accommodated.

As sports development studies develop, a number of studies have begun to emphasize the importance of non-structural factors in the athlete development process. (Robles-Palazón et al., 2022; Xu et al., 2025) shows that the quality of communication between coaches and athletes plays an important role in maintaining the continuity of long-term coaching. (Caregnato et al., 2025; Maciel et al., 2025) revealed that limited supervision and irregular training can hinder athletes' ongoing physical and technical development (Cammalleri et al., 2024; Mena-Guacas et al., 2025). Highlighted that educational experiences and athletes' involvement in new environments contribute to the formation of athletes' independence and intrinsic motivation.

However, these studies still tend to position athletes as passive subjects analyzed in terms of outcomes or impacts, without delving deeply into how coaches interpret the conditions of athletes undergoing education outside their home regions in

the context of daily coaching. Therefore, there remains a gap in research that integrates coaches' perspectives, the context of overseas education, and the dynamics of karate athlete coaching within a single qualitative analytical framework.

Based on this gap, this study aims to examine coaches' perceptions of karate athletes studying outside their home region and to understand the dynamics of the interaction between educational demands and the athlete development process. Through a qualitative approach, this study seeks to describe how coaches interpret, assess, and respond to these conditions in their coaching practices. This is expected to enrich the contextual understanding of karate athlete coaching in cross-regional educational settings.

2. Materials and Method

Design

This study adopted a qualitative research design with a descriptive–interpretative orientation to examine coaches' perceptions of karate athletes who pursue formal education outside their home region. A qualitative approach was considered appropriate because the study aimed to explore subjective experiences, interpretations, and contextual meanings rather than to test hypotheses or quantify relationships among variables. Through this design, the research sought to capture how coaches understand and respond to the dynamic interaction between educational mobility and athlete development within everyday coaching practices. The descriptive–interpretative framework enabled the study to document participants' perspectives as they were expressed, while also allowing the researcher to interpret these perspectives within the broader context of athlete development. This approach is particularly relevant for investigating complex situations involving limited supervision, altered communication patterns, and the balancing of academic and athletic demands. Such dynamics are difficult to explain solely through structural or quantitative indicators. The overall research process followed a systematic qualitative procedure, as illustrated in Figure 1.



Figure 1. Flowchart of the qualitative research process examining coaches' perceptions of karate athletes studying outside their home region.

Participants

Participants consisted of nine individuals selected through purposive sampling based on their relevance to the research focus. Karate coaches served as the primary informants due to their direct involvement in athlete development and experience coaching athletes studying outside their home region. Karate athletes and sport organization administrators were included as supporting informants to provide contextual insights and strengthen data triangulation. All participants were drawn from the karate development environment in Sungai Penuh City and participated voluntarily after receiving information about the study's purpose and procedures.

Instruments

The primary instrument was a semi-structured interview guide designed to explore coaches' perceptions of training continuity, communication with athletes, supervision challenges, and the perceived impact of education-related mobility on athlete development. Observation guidelines and a document review checklist were used as supporting instruments.

Data Collection

Data were collected through in-depth interviews, non-participant observations, and document review. Interviews were conducted face-to-face and, when necessary, via online communication platforms, with each session lasting approximately 30–60 minutes and audio-recorded with participants' consent. Observations were carried out during training sessions to capture coaching contexts and interactions. Relevant documents, such as training schedules and organizational records, were examined to enrich contextual understanding.

Research Procedure

The research began with obtaining permission from relevant sport organizations. Participants were then informed about the research objectives and procedures, and informed consent was obtained. Interviews and observations were conducted according to mutually agreed schedules. Field notes were maintained throughout the data collection process to document contextual details and preliminary reflections.

Data Analysis

Data analysis was conducted using thematic analysis. Interview transcripts, observation notes, and documents were read repeatedly to achieve data familiarization. Initial coding was performed to identify meaningful units related to coaches' perceptions, education, and athlete development. Codes were then organized into broader themes. To enhance the credibility of the findings, data triangulation was applied by comparing interview, observation, and document data, as reflected in the analytical stages shown in Figure 1.

3. Results and discussion

Results

The findings of this study are presented through qualitative summary tables that capture coaches' perspectives on karate athletes who pursue education outside their home region. Rather than quantifying responses, the tables synthesize recurring observations and meanings derived from interviews, observations, and document review. This presentation reflects the qualitative nature of the data while allowing the results to be communicated in a clear and structured manner.

Table 1. Coaches' Views on Training Practices of Athletes Studying Outside Their Home Region

Focus of Observation	Description Based on Coaches' Accounts
Training continuity	Coaches indicated that training routines tended to become less stable once athletes left their home region
Program alignment	Training activities undertaken elsewhere were often perceived as not fully aligned with the original development plan
Training intensity	Variations in intensity were reported and were difficult for coaches to regulate from a distance
Training environment	Differences in coaching culture and training atmosphere influenced athletes' adaptation processes
Monitoring of progress	Coaches experienced limitations in tracking technical and physical development consistently

These findings reflect shared experiences reported by coaches when discussing changes in athletes' training conditions.

Table 2. Perceived Effects of Studying Outside the Home Region on Athlete Development

Developmental Aspect	Perceived Effects According to Coaches
Technical development	Skill progression was viewed as uneven across training contexts
Physical conditioning	Physical development depended heavily on the quality of available training facilities
Mental readiness	Coaches expressed uncertainty in assessing competitive readiness remotely
Discipline and commitment	Levels of discipline were more difficult to evaluate without regular face-to-face contact
Personal growth	Studying outside the home region was associated with greater independence and maturity
Time management	Athletes faced ongoing challenges in balancing academic and training demands

The effects summarized here represent coaches' interpretations of athletes' development rather than objective performance measurements.

Table 3. Coaching Adjustments in Response to Athletes' Educational Mobility

Area of Adjustment	Forms of Response Reported by Coaches
Performance expectations	Expectations were adjusted in consideration of athletes' academic responsibilities
Communication practices	Coaches relied on situational and informal remote communication
Training supervision	Supervision was conducted in a limited and non-routine manner
Competition preparation	Support was intensified during periods leading up to key competitions
Athlete evaluation	Assessments were made contextually rather than based solely on attendance
Structural support	No formal cross-regional coaching system was reported

Coaching responses were largely shaped by individual initiative rather than standardized guidelines. Overall, the results indicate that coaches perceive education outside the home region as a condition that introduces both constraints and opportunities within the athlete development process. While educational mobility was associated with personal growth and broader life skills, it also posed challenges related to training continuity, supervision, and consistency of support. Coaches responded to these challenges through adaptive but largely informal strategies, highlighting the absence of structured mechanisms to accommodate athletes' educational mobility.

Discussion

This study demonstrates that education and karate athlete development are closely intertwined in everyday coaching practice, particularly when athletes pursue their studies outside their home region. The findings summarized in Tables 1–3 indicate that educational mobility brings tangible changes to training routines, coach–athlete relationships, and the ways coaches interpret the athlete development process. These results suggest that athlete development cannot be understood solely as a technical process, but rather as a social practice shaped by educational context and

individual mobility (Loka Øydna et al., 2024; Vaughan et al., 2021).

One of the most salient issues identified by coaches concerns the continuity of training and supervision. As shown in Table 1, coaches perceived that training programs followed by athletes in their study locations were often not fully aligned with the original development plans. This misalignment was not necessarily attributed to a lack of athlete commitment, but rather to differences in coaching approaches, training environments, and the absence of structured cross-regional coordination. These findings reinforce the view that consistent supervision and program continuity are crucial elements in sustaining long-term athlete development pathways (Thrower et al., 2024; Till et al., 2022).

Limitations in supervision were also found to affect the quality of coach–athlete interactions. As reflected in Table 2, coaches reported difficulties in assessing athletes' mental readiness, discipline, and commitment when direct face-to-face contact was reduced. Remote communication was perceived as situational and insufficient to replace the observational depth typically achieved through in-person interactions. This condition highlights that coach–athlete relationships function not only as technical mechanisms for skill development, but also as spaces for building trust and holistic understanding of athletes (Jowett, 2024; Newland et al., 2023).

Despite these challenges, education outside the home region was not perceived solely as an obstacle. The results also reveal that coaches acknowledged several non-technical benefits gained by athletes, including increased independence, personal maturity, and improved time-management skills. This recognition points to an ambivalent perception among coaches. On the one hand, education is viewed as an important investment in athletes' long-term futures; on the other, academic demands are seen as potential sources of disruption to stable training processes. This ambivalence reflects an unresolved tension between educational systems and elite sport development structures that have yet to be fully integrated (Mahla, 2025; Raw et al., 2022).

Such tensions prompted coaches to adopt adaptive strategies in their coaching practices. As summarized in Table 3, these responses included adjusting performance expectations, intensifying communication prior to competitions, and evaluating athletes in relation to their academic

circumstances. While these strategies demonstrate coaches' adaptive capacity, they remain largely informal and dependent on individual initiative. Consequently, support systems become inconsistent across athletes, potentially leading to unequal treatment. This finding indicates that athlete educational mobility has not yet been systematically accommodated within formal development frameworks (Olesen & Treumer Gregersen, 2023).

From an applied perspective, the findings highlight the need for more adaptive and coordinated athlete development approaches. Sport organizations and educational institutions should begin to recognize educational mobility as an integral component of modern athlete development. Strengthening cross-regional coordination mechanisms, aligning training programs, and formally acknowledging athletes' academic responsibilities are essential steps toward sustaining athlete development without compromising educational opportunities (Kang, 2025; Wang, 2025).

Nevertheless, these findings should be interpreted in light of several limitations. This study focused on coaches' perceptions within a specific regional context and was not intended to produce broad generalizations. In addition, the study did not incorporate objective performance measures, meaning that the results primarily reflect subjective coaching experiences and evaluations. These limitations suggest that current understanding of the relationship between educational mobility and athlete development remains partial (J. Ribeiro et al., 2021; Tompsett & Knoester, 2021).

Based on these findings and limitations, future research is encouraged to incorporate athletes' perspectives more explicitly and to extend investigations across diverse regional contexts. Subsequent studies may also benefit from combining qualitative and quantitative approaches to explore the relationship between educational mobility, coaching practices, and athlete performance more comprehensively. Cross-sector collaboration between education and sport is expected to contribute to the development of more sustainable and inclusive athlete development models (Kolovou et al., 2024; Rossi & Breuer, 2025).

4. Conclusion

This study sought to understand how coaches perceive karate athletes who continue their formal education outside their home region and how these circumstances influence the athlete development process. The findings suggest that coaches view educational mobility as a condition that reshapes training supervision, limits direct monitoring, and alters patterns of interaction between coaches and athletes, which in turn affects how athletes' commitment and developmental progress are evaluated. At the same time, coaches also acknowledge that studying outside the home region supports athletes' personal growth, particularly by fostering independence and the ability to manage multiple responsibilities. Taken together, these perceptions indicate that athlete development in this context is understood by coaches as a negotiated process, situated between the need for structured training oversight and the recognition of education as an important component of long-term athlete development.

5. Acknowledgment

The authors would like to express their sincere gratitude to the karate coaches who participated in this study for sharing their experiences and perspectives openly. Their willingness to reflect on coaching practices and athlete development provided valuable insights for this research. Appreciation is also extended to all parties who facilitated the data collection process and supported the completion of this study. Any views expressed in this article are solely those of the authors.

6. Author Contributions Statement

SIP conceptualized the study, conducted the fieldwork, collected and analyzed the qualitative data, and prepared the initial draft of the manuscript. EB contributed to the research design, provided methodological guidance, and critically reviewed the manuscript for intellectual content. YS assisted in data interpretation, contributed to the discussion of findings, and supported the revision of the manuscript. PM contributed to the literature review, helped refine the analytical framework, and reviewed the final version of the manuscript. All authors have read and approved the final manuscript.

7. Conflict of Interest

The authors declare that there are no competing financial, professional, or personal interests that could have influenced the design, execution, interpretation, or reporting of the research presented in this article. This study was conducted independently and without involvement from commercial entities, funding agencies, or institutions that could be perceived as having a vested interest in the outcomes of the research. All analyses and interpretations were carried out objectively, and the views expressed in this article are solely those of the authors.

References

- Alenezi, M. (2023). Digital learning and digital institution in higher education. *Education Sciences*, 13(1), 88. <https://doi.org/10.3390/educsci13010088>
- Blake, M., & Solberg, V. S. H. (2023). Designing elite football programmes that produce quality athletes and future-ready adults: Incorporating social emotional learning and career development. *Soccer & Society*, 24(6), 896–911. <https://doi.org/10.1080/14660970.2022.2149505>
- Cammalleri, A. A., Perrault, A. A., Hillcoat, A., Carrese-Chacra, E., Tarelli, L., Patel, R., Baltzan, M., Chouchou, F., Dang-Vu, T. T., Gouin, J.-P., & Pepin, V. (2024). A pilot randomized trial of combined cognitive-behavioral therapy and exercise training versus exercise training alone for the management of chronic insomnia in obstructive sleep apnea. <https://doi.org/10.1123/jsep.2023-0139>
- Caregnato, A. F., Costa, I. P., Ordonhes, M. T., & Cavichioli, F. R. (2025). Transition from sports career to post-sport career: A study with high-performance Brazilian Olympic ex-athletes. *Movimento*, 31, e31046. <https://doi.org/10.22456/1982-8918.142228>
- Dauids, K., Rothwell, M., Hydes, S., Robinson, T., & Dauids, C. (2023). Enriching athlete–environment interactions in youth sport: The role of a department of methodology. *Children*, 10(4), 752. <https://doi.org/10.3390/children10040752>

- Jowett, S. (2024). The coach–athlete relationship within a cross-boundary team of experts: A conceptual analysis. *International Review of Sport and Exercise Psychology*, 1–16. <https://doi.org/10.1080/1750984X.2024.2416968>
- Kang, J. (2025). From rising stars to early retirees: The accelerated career trajectories of League of Legends esports players. *Team Performance Management*, 31(5–6), 290–313. <https://doi.org/10.1108/TPM-09-2024-0108>
- Kolovou, V., Bolton, N., Crone, D., Willis, S., & Walklett, J. (2024). Systematic review of the barriers and facilitators to cross-sector partnerships in promoting physical activity. *Perspectives in Public Health*, 144(6), 369–380. <https://doi.org/10.1177/17579139231170784>
- Lindsay, R., & Spittle, M. (2024). The adaptable coach: A critical review of the practical implications for traditional and constraints-led approaches in sport coaching. *International Journal of Sports Science & Coaching*, 19(3), 1240–1254. <https://doi.org/10.1177/17479541241240853>
- Loka Øydna, M., Nielsen, J. C., & Bjørndal, C. T. (2024). Power, discourse, and practice: Exploring athlete development as an educational discursive practice in a Norwegian lower secondary sports school. *Sport, Education and Society*, 1–15. <https://doi.org/10.1080/13573322.2024.2387799>
- Maciel, L. F. P., Ibáñez, S. J., Beirith, M. K., & Folle, A. (2025). Social dynamics established through sport: Implications for the sports training of young Brazilian basketball athletes. *Sports*, 13(3), 84. <https://doi.org/10.3390/sports13030084>
- Mahla, D. (2025). Europe as promise and problem: Interdependent ambivalence in Israeli public discourse. *Mediterranean Politics*, 1–23. <https://doi.org/10.1080/13629395.2025.2562641>
- Mena-Guacas, A. F., López-Catalán, L., Bernal-Bravo, C., & Ballesteros-Regaña, C. (2025). Educational transformation through emerging technologies: Critical review of scientific impact on learning. *Education Sciences*, 15(3), 368. <https://doi.org/10.3390/educsci15030368>
- Newland, A., Cronin, C., Cook, G., & Whitehead, A. (2023). Developing coaches' knowledge of the athlete–coach relationship through formal coach education: The perceptions of football association coach developers. <https://doi.org/10.1123/iscj.2022-0108>
- Nikander, J. A. O., Tolvanen, A., & Ryba, T. V. (2024). The selection of sports schools: The influence of the environment on the development of youth athletes' career adaptability. *Scandinavian Journal of Medicine & Science in Sports*, 34(12), e14767. <https://doi.org/10.1111/sms.14767>
- Olesen, J. S., & Treumer Gregersen, M. (2023). Exploring how education and sport are brought together in two different dual career programs for Danish soccer players. *Soccer & Society*, 24(2), 223–234. <https://doi.org/10.1080/14660970.2022.2061469>
- Raw, K., Sherry, E., & Schulenkorf, N. (2022). Managing sport for development: An investigation of tensions and paradox. *Sport Management Review*, 25(1), 134–161. <https://doi.org/10.1016/j.smr.2020.09.002>
- Ribeiro, E., Farias, C., & Mesquita, I. (2024). “The game changers”: How equity-driven pedagogical scaffolding reduces participation disparities in physical education. *Education Sciences*, 14(10), 1077. <https://doi.org/10.3390/educsci14101077>
- Ribeiro, J., Davids, K., Silva, P., Coutinho, P., Barreira, D., & Garganta, J. (2021). Talent development in sport requires athlete enrichment. *Sports Medicine*, 51(6), 1115–1122. <https://doi.org/10.1007/s40279-021-01437-6>
- Robles-Palazón, F. J., Ayala, F., Cejudo, A., De Ste Croix, M., Sainz de Baranda, P., & Santonja, F. (2022). Effects of age and maturation on lower extremity range of motion in male youth soccer players. *Journal of Strength & Conditioning Research*, 36(5), 1417. <https://doi.org/10.1519/JSC.00000000000003642>
- Rossi, L., & Breuer, C. (2025). Strategic collaboration in sports: Analyzing multiple cross-sectoral partnerships in non-profit boxing. *Managing Sport and Leisure*, 30(4), 563–577. <https://doi.org/10.1080/23750472.2023.2216233>

- Stambulova, N. B., Ryba, T. V., & Henriksen, K. (2021). Career development and transitions of athletes: ISSP position stand revisited. *International Journal of Sport and Exercise Psychology*, 19(4), 524–550. <https://doi.org/10.1080/1612197X.2020.1737836>
- Thompson, F., Rongen, F., Cowburn, I., & Till, K. (2022). A case study of a UK sports-friendly school. *PLOS ONE*, 17(11), e0278401. <https://doi.org/10.1371/journal.pone.0278401>
- Thrower, S. N., Barker, J. B., Bruton, A. M., Coffee, P., Cumming, J., Harwood, C. G., Howells, K., Knight, C. J., McCarthy, P. J., & Mellalieu, S. D. (2024). Enhancing wellbeing and performance in youth sport. *Journal of Applied Sport Psychology*, 36(3), 519–541. <https://doi.org/10.1080/10413200.2023.2274464>
- Till, K., Lloyd, R. S., McCormack, S., Williams, G., Baker, J., & Eisenmann, J. C. (2022). Optimising long-term athletic development. *PLOS ONE*, 17(1), e0262995. <https://doi.org/10.1371/journal.pone.0262995>
- Timmerman, W. P., Abbiss, C. R., Lawler, N. G., Stanley, M., & Raynor, A. J. (2024). Athlete monitoring perspectives: A scoping review. *International Journal of Sports Science & Coaching*, 19(4), 1813–1832. <https://doi.org/10.1177/17479541241247131>
- Tompsett, J., & Knoester, C. (2021). The making of a college athlete. <https://doi.org/10.1123/ssj.2020-0142>
- Vaughan, J., Mallett, C. J., Potrac, P., López-Felip, M. A., & Davids, K. (2021). Football, culture, skill development and coaching. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.635420>
- Wainwright, E., & Watts, M. (2021). Social mobility in the slipstream. *Educational Review*, 73(1), 111–127. <https://doi.org/10.1080/00131911.2019.1566209>
- Wang, J. (2025). Digital technology and sustainable development in football. *Frontiers in Sports and Active Living*, 7. <https://doi.org/10.3389/fspor.2025.1613339>
- Wekesser, M. M., Harris, B. S., Langdon, J., & Wilson, C. H., Jr. (2021). Coaches' impact on youth athletes' intentions. *International Journal of Sports Science & Coaching*, 16(3), 490–499. <https://doi.org/10.1177/1747954121991817>
- Xu, Y., Garcia, J. D.-C., Sarmiento, H., Zhong, Y., Gong, B., Yi, Q., & Gómez-Ruano, M. A. (2025). Social network analysis in football match analysis. *International Journal of Sports Science & Coaching*. <https://doi.org/10.1177/17479541251377548>