



Evaluation of the Achievement Coaching Program for PSHT Pencak Silat Athletes at Pondok Candra Using the CIPP Method

Ahmad Harsya Zidan Afandi^{1A-E*}, Heri Wahyudi^{2B-D}, Pudjijuniarto^{3B-D}, Shidqi Hamdi Pratama Putera^{4B-D}

^{1,2,3,4} Universitas Negeri Surabaya, Jawa Timur, Indonesia

ahmadharsya.21008@mhs.unesa.ac.id¹, heriwahyudi@unesa.ac.id², pudjijuniarto@unesa.ac.id³, shidqiputera@unesa.ac.id⁴

ABSTRACT

High-performance sports development requires a structured and sustainable management system to produce optimal competitive results. This research is motivated by the fluctuating performance of PSHT Pondok Candra pencak silat athletes, despite the high enthusiasm of training participants. This study aims to evaluate the effectiveness of the high-performance development program using the CIPP (Context, Input, Process, Product) evaluation model. The study employed a mixed-methods design with a descriptive quantitative and qualitative approach. The population encompassed all aspects of development, with a sample of 15 respondents selected through purposive sampling, consisting of the head, coaches, and athletes. Data collection techniques included observation, interviews, documentation studies, and questionnaires. Data were analyzed using descriptive statistics and Miles & Huberman interactive analysis. The results showed that the Context component (3.71), Input (3.29 in the coach competency and facilities aspect), and Process (3.53) were in the "Very Good" category, indicating optimal organizational management, coach qualifications, and training implementation. However, the Product component (3.17) and the athlete quality aspect (3.25 in the Input aspect) remained in the "Good" category. These findings indicate a time gap between the quality of governance and the conversion of performance results. It was concluded that the development program is managerially professional, but requires increased tryout frequency and a more selective athlete recruitment system to maximize medal achievements sustainably.

ARTICLE HISTORY

Received: 2026/02/24

Accepted: 2026/02/26

Published: 2026/02/28

KEYWORDS

CIPP Model;
Program Evaluation;
Achievement Development;
Pencak Silat;
Sports Management.

AUTHORS' CONTRIBUTION

A. Conception and design of the study;
B. Acquisition of data;
C. Analysis and interpretation of data;
D. Manuscript preparation;
E. Obtaining funding

Cites this Article : Afandi, A.H.Z.; Wahyudi, H.; Pudjijuniarto, P.; Putera, S.H.P. (2026). Evaluation of the Achievement Coaching Program for PSHT Pencak Silat Athletes at Pondok Candra Using the CIPP Method. **Competitor: Jurnal Pendidikan Kepeleatihan Olahraga**. 18 (1), p.1617-1628

INTRODUCTION

High-performance sports require a gradual, structured, and sustainable development system supported by adequate infrastructure, human resources, and the application of sports science. This principle aligns with the mandate of Law of the Republic of Indonesia Number 11 of 2022 concerning Sports, which emphasizes the



importance of planned and tiered development to achieve optimal performance at the regional, national, and international levels. In the context of Pencak Silat—historically a cultural identity and a competitive sport contested in the SEA Games and Asian Games—achievement development requires a systematic integration of technique, physical fitness, mental strength, and character.

However, the reality on the ground demonstrates fluctuating performance dynamics across various schools and branches. At the Persaudaraan Setia Hati Terate (PSHT) Pondok Candra, participant enthusiasm is high, but achievement has not been consistent at the regional or national levels. Initial observations indicate stagnant performance, irregular program documentation, and suboptimal evaluation of the training curriculum and resource utilization. This phenomenon aligns with literature findings that indicate that coaching success is heavily influenced by long-term planning, continuous monitoring, and data-driven evaluation (Handoko et al., 2022; Bempa & Buzzichelli, 2019).

From a modern sports management perspective, evaluation serves as a mechanism for quality control and strategic decision-making (Stufflebeam & Zhang, 2017). Without systematic evaluation, training programs risk being routinely implemented but ineffective. Lubis & Wardoyo (2016) emphasized that coaches play a central role in developing basic techniques, but their effectiveness is highly dependent on the program's monitoring and reflection system. Therefore, the main problem in this study lies in the lack of integration of a comprehensive evaluation system in the coaching of PSHT Pondok Candra athletes, resulting in the failure to achieve optimal and sustainable performance goals.

Program evaluation in sports organizations is evolving in line with increasing demands for accountability and management professionalism. An evidence-based coaching approach emphasizes that training programs must be systematically designed, implemented, and evaluated (Côté & Gilbert, 2019; Cushion et al., 2018). In the context of martial arts, research over the past 10 years has shown that success factors include periodization planning, facility availability, coach competence, and a tiered competition system (Suchomel et al., 2018; Turner et al., 2020).

One widely used evaluation model is the CIPP (Context, Input, Process, Product) model developed by Stufflebeam. This model assesses the suitability of objectives (context), resource readiness (input), program implementation (process), and final outcome (product). A study by Zulfikar et al. (2024) demonstrated that the CIPP model is effective in evaluating school sports coaching programs and providing data-driven recommendations for improvement. Other studies in soccer and volleyball have also found that CIPP-based evaluations are able to identify discrepancies between planning and implementation on the field (Rahman et al., 2021; Prasetyo et al., 2023).

In pencak silat, several studies have highlighted the importance of integrating biomotor abilities, techniques, and psychological aspects (Hidayat et al., 2020; Nugroho et al., 2022). However, most research still focuses on the influence of training methods on physical or technical performance, rather than on evaluating the overall coaching system. However, according to the systemic approach in the sport development pathway

(De Bosscher et al., 2015; Henriksen et al., 2020), successful performance is greatly influenced by the synergy of policies, organizational management, and the quality of program implementation.

Therefore, conceptually, the CIPP model offers a comprehensive framework capable of analyzing the linkages between organizational vision, resource readiness, implementation processes, and competition outcomes. This approach aligns with the Total Quality Management paradigm in sport, which emphasizes continuous evaluation for long-term performance improvement. Although the CIPP model has been widely used in the evaluation of educational programs and several sports disciplines, its application to sports organizations at the sub-district or college level remains relatively limited. Most previous research has focused on schools or professional clubs, rather than community-based organizations like PSHT. Furthermore, research that simultaneously integrates the four CIPP dimensions within the context of grassroots pencak silat development is still rare in the SINTA and Scopus literature over the past 10 years.

Another limitation lies in the lack of administrative data and systematic documentation in sub-district organizations, resulting in evaluations often being descriptive and not based on measurable performance indicators (Key Performance Indicators). The literature also indicates that many sports organizations experience a gap between strategic planning and actual implementation on the ground (Winand et al., 2019; Parent & Chappelet, 2017). In the context of PSHT Pondok Candra, there has been no empirical research specifically examining the relevance of development objectives, resource readiness, training quality, and achievement through a comprehensive evaluation framework. Thus, a significant scientific gap exists: there has been no integrated study analyzing the barriers to pencak silat development at the branch level using the CIPP model as an evaluative instrument to generate data-based strategic recommendations. This gap provides an important foundation for research that is not only descriptive, but also solution-oriented and applicable in strengthening sports development management.

Based on these issues and research gaps, this study aims to evaluate the pencak silat athlete performance development program at PSHT Pondok Candra using the CIPP (Context, Input, Process, Product) approach. Specifically, this study analyzes: (1) the alignment of the development vision and objectives with the needs of athletes and the demands of competition; (2) the readiness of human resources, facilities, and training curriculum; (3) the effectiveness of training program implementation; and (4) achievement and its impact on program sustainability. The novelty of this research lies in the integration of the four CIPP dimensions into a single evaluation framework applied to a community-based branch-level pencak silat organization. This approach not only produces a descriptive picture of the development conditions but also formulates evidence-based recommendations for improvement to strengthen the management system and improve sustainable performance.

Theoretically, this research expands the application of the CIPP model in the context of traditional martial arts management. Practically, the research findings are

expected to serve as a strategic reference for PSHT administrators and similar organizations in designing a more measurable, accountable, and adaptive coaching system to the dynamics of modern competition. Thus, this research contributes to strengthening the governance of competitive sports development based on comprehensive evaluation, in line with national sports policies and the demands of globalized sports performance management.

METHODS

Research Type and Design

This study employed a mixed-methods design with quantitative and qualitative descriptive approaches to produce a comprehensive analysis through the integration of numerical and narrative data. A mixed-methods approach is considered effective in evaluative research because it captures both objective dimensions (numbers, scores, percentages) and the contextual meaning behind program implementation (Creswell & Plano Clark, 2018; Nurislaminingsih & Rizal, 2016). Conceptually, this design aligns with the evidence-based program evaluation paradigm, which emphasizes triangulation of sources and methods to enhance the validity of findings (Fetters et al., 2017; Johnson et al., 2020). The evaluation framework adopts the CIPP (Context, Input, Process, Product) model developed by Stufflebeam, which is widely used in education and sports evaluation (Zulfikar et al., 2024; Rahman et al., 2021). The context dimension evaluates the coaching environment at PSHT Pondok Candra; input assesses the readiness of coaches, athletes, facilities, and budget; and process assesses the quality of program implementation. and product to assess athlete achievement. The research was conducted at the PSHT Pondok Candra Secretariat from November 20–December 2, 2025.

Population and Sample

The research population included all coaching elements involved in the PSHT Pondok Candra training program, including administrators, coaches, and active athletes. The sample was determined using a purposive sampling technique, selecting respondents based on relevance and direct involvement in the program (Etikan & Bala, 2017).

Research Instruments

The main instrument was a questionnaire based on a 4-point Likert scale (Excellent–Poor), modified to evaluate indicators in each CIPP dimension (Yasin et al., 2024). The use of an even scale aimed to avoid neutral answers and increase the clarity of responses (Taherdoost, 2019). In addition to the questionnaire, other instruments included: Observation guidelines to assess facility conditions, training intensity, and coach-athlete interactions. Unstructured interview guidelines to elicit in-depth perceptions regarding coaching barriers. Documentation included performance data, training schedules, and organizational structure.

Validity was tested using expert judgment and item-total correlation analysis, while reliability was assessed using a Cronbach's Alpha coefficient with a criterion of ≥ 0.70 (Hair et al., 2019). The test results indicated that all items were valid and reliable.

Data Collection Techniques

Data collection used triangulation methods to increase the credibility of the results (Denzin, 2017; Carter et al., 2014). The techniques used included: Direct observation of training sessions. Unstructured interviews with administrators and coaches. Documentation study of achievement and administrative archives. Written questionnaires were administered to all respondents. The triangulation approach allowed for cross-confirmation between quantitative and qualitative data, thereby strengthening the internal validity of the study.

Data Analysis Techniques

The analysis was conducted in an integrated manner. Quantitative data were processed using SPSS Statistics version 25 to obtain descriptive statistics in the form of means, percentages, and evaluative categories (Field, 2018). Interpretation of the results referred to the evaluation category intervals (excellent, good, sufficient, poor).

Qualitative data were analyzed using the Miles & Huberman interactive model, which includes data reduction, data presentation, and conclusion drawing/verification (Miles et al., 2018). The results were integrated using data convergence techniques to assess consistency between quantitative and narrative findings (Fetters et al., 2017).

This integrated analysis approach ensured that the evaluation of the PSHT Pondok Candra coaching program produced not only numerical figures but also evidence-based strategic recommendations for continuously improving the effectiveness of achievement coaching.

RESULTS AND DISCUSSION

Result

Descriptive Test

Score interpretation uses the following criteria:

Table 1.

Criteria for Interpreting Program Evaluation Scores

No	Percentage Score (Mean)	Criteria
1	3.26 – 4.00	Very Good
2	2.51 – 3.25	Good
3	1.76 – 2.50	Poor
4	1.00 – 1.75	Very Poor

Table 2.

Results of Program Evaluation Based on the CIPP Model

Component	Variables	Chairman	Coach	Athlete	Total	Mean	Criteria
CONTEXT	Background	4.00	3.50	-	7.50	3.75	Very Good
	Vision and Mission	3.75	3.56	-	7.31	3.66	Very Good
	Program Planning	3.60	3.30	-	6.90	3.45	Very Good
INPUT	Coach Competence	3.38	3.31	3.24	9.93	3.31	Very Good
	Athlete Quality	3.50	3.19	3.05	9.74	3.25	Good
	Facilities & Infrastructure	3.17	3.33	3.32	9.82	3.27	Very Good
	Funding	3.57	3.18	3.23	9.98	3.33	Very Good
PROCESS	Training Implementation	3.40	3.27	3.35	10.02	3.34	Very Good
	Monitoring & Evaluation	4.00	3.58	3.53	11.12	3.71	Good
PRODUCTS	Achievements & Results	3.30	3.12	3.09	9.52	3.17	Criteria

Table 3.
 Summary of Average Values of Each Component

Component	Mean	Category
Context	3.62	Excellent
Inputs	3.29	Very Good
Process	3.52	Very Good
Products	3.17	Good

In general, the Context, Input, and Process components were in the Very Good category, while the Product component was in the Good category, indicating that achievement still requires optimization.

Normality Test

The normality test used the Shapiro–Wilk test because the sample size was <50.

Table 4.
 Normality Test (Shapiro–Wilk)

Variable	Sig. (p)	Description
Context	0.214	Normal
Input	0.189	Normal
Process	0.233	Normal
Product	0.167	Normal

All variables had a p-value > 0.05, indicating that the data were normally distributed.

Homogeneity Test

The homogeneity test used Levene's Test.

Table 5.
 Homogeneity Test (Levene's)

Variabel	Sig. (p)	Description
Context	0.301	Homogeneous
Input	0.276	Homogeneous
Process	0.344	Homogeneous
Product	0.258	Homogeneous

All p-values were > 0.05, indicating that the variance between respondent groups was homogeneous.

Evaluative Hypothesis Testing

The test was conducted using a One Sample t-test with a comparison value of 2.51 (the limit for the Good category).

Table 6.
 Hypothesis Testing (One Sample t-test)

Variabel	Mean	t-Value	Sig. (2-tailed)	Decision
Context	3.62	8.45	0.000	Homogeneous
Input	3.29	7.88	0.000	Homogeneous
Process	3.52	9.11	0.000	Homogeneous
Product	3.17	6.74	0.000	Homogeneous

All components showed a p-value < 0.05, so statistically the coaching program was in the Good to Very Good category.

The evaluation results indicate that the PSHT Pondok Candra coaching system has a strong foundation of vision, planning, coach competency, and monitoring processes.

However, the Product (achievement) component remains in the Good category, not Very Good, indicating a gap between the quality of the process and competitive outcomes.

This finding implies the need to strengthen competition periodization, increase the intensity of quality sparring, and implement a data-based performance evaluation system to improve the consistency of achievement at the regional and national levels. Overall, the coaching program can be considered effective, but it still requires a continuous improvement strategy to ensure that the product dimension aligns with the quality of the context, input, and process.

Discussion

Context Evaluation

The evaluation results show that the Context component is in the Very Good category, with the highest scores for the Background & Structure (3.75) and Vision & Mission (3.66) indicators. This indicates that the PSHT Pondok Candra organizational structure has been solidly established, has a clear policy direction, and is understood by all coaching elements. Within the CIPP theoretical framework, context evaluation serves to diagnose needs, establish priorities, and ensure alignment between goals and the operational environment (Stufflebeam & Zhang, 2017). These findings indicate that PSHT Pondok Candra has a strong institutional foundation, which, according to De Bosscher et al. (2015), is a key determinant of a high-performance sports coaching system. Organizations with a clear vision and structure tend to be more adaptive to changes in the competitive environment (Winand et al., 2019). Furthermore, modern sports management literature emphasizes that vision and mission are not merely formal documents but must be internalized as organizational culture (Parent & Chappelet, 2017; Shilbury & Ferkins, 2020). High scores on this dimension indicate alignment between leadership, coaches, and athletes. Research by Henriksen et al. (2020) on the athletic talent development environment confirms that an organizational environment with clear goals and structural cohesion contributes significantly to long-term coaching stability. In the context of pencak silat, the support of a clear organizational structure is also crucial because this sport combines aspects of tradition, culture, and achievement (Nugroho et al., 2022). Therefore, strength in the context component serves as a strategic asset for sustainable development.

Input Evaluation

The Input component performed predominantly in the Very Good category, particularly in the Coach Competence (3.31) and Facilities & Infrastructure (3.27) aspects. This demonstrates that the quality of human resources and training infrastructure is relatively adequate. The literature indicates that coaches are central actors in transforming potential into achievement (Côté & Gilbert, 2019; Cushion et al., 2018). Coach competency encompasses not only technical mastery but also pedagogical skills, training management, and sports psychology (Turner et al., 2020). A high score on this dimension indicates that PSHT Pondok Candra has coaches with sufficient capacity to systematically implement the training curriculum. The facilities aspect, which is in the

Very Good category, also strengthens the readiness of the training environment. A study by Suchomel et al. (2018) confirmed that the availability of standard facilities supports the optimal development of biomotor abilities. Adequate infrastructure contributes to effective periodization and injury prevention (Lloyd et al., 2016). However, there is a slight gap in the Athlete Quality aspect (3.25), which is only in the Good category. These findings are consistent with the theories of periodization and talent identification (Bompa & Haff, 2009; Baker et al., 2019), which emphasize the importance of early talent identification based on biomotor and anthropometric indicators. Rohmad (2017), in his study on sports resource evaluation, also stated that athlete quality is a key differentiating factor in accelerating performance. Therefore, despite relatively strong organizational input, improving athlete quality through a sports science-based scouting and talent identification system is a strategic necessity.

Process Evaluation

The Process component demonstrated excellent operational consistency, with scores for Monitoring & Evaluation (3.71) and Training Implementation (3.34). This reflects management's commitment to regular oversight and structured curriculum implementation. In sports quality management theory, the implementation process is at the heart of program effectiveness (Aprita et al., 2020; Shilbury et al., 2020). Systematic monitoring allows for early detection of program deviations and tactical adjustments (Ferkins & Shilbury, 2015). Miles et al. (2018) also emphasized that ongoing evaluation enhances organizational accountability. Consistency in training implementation indicates that the principles of periodization and progressive overload have been applied with relative stability. The exercise physiology literature emphasizes that the consistency of training stimuli determines long-term performance adaptations (Suchomel et al., 2018; Issurin, 2016). In the context of martial arts, consistency in technique and sparring are determinants of competitive performance (Hidayat et al., 2020). These findings also demonstrate that managerial functions at the branch level have been effective and transparent. Parent & Chappelet (2017) emphasize that community-based sports organizations with strong monitoring systems tend to produce sustainable programs. Therefore, the process dimension is a key strength of PSHT Pondok Candra because it ensures that the quality of planning (context) and resource readiness (input) are effectively translated into practice on the ground.

Product Evaluation

Unlike the previous three components, the Product aspect (Achievements & Results) is in the Good category with a score of 3.17. This indicates a time lag between improving management quality and converting results into medals or championship achievements. Warju (2016) explains that in long-term program evaluations, final results often lag behind improvements in process quality. This phenomenon aligns with the theory of long-term athlete development (Lloyd et al., 2016; Henriksen et al., 2020), which states that competitive results require time to mature. Furthermore, competitive experience plays a significant role in developing a winning mentality (Gucciardi et al., 2017; Gledhill et al., 2018). Therefore, increasing the frequency of tryouts and tournament

participation is an important strategy for converting process quality into concrete achievements. The SPLISS literature (De Bosscher et al., 2015) also shows that competitive experience and international competition support are determinants of achievement success. Therefore, although the PSHT Pondok Candra coaching system is managerially effective, increased competitive exposure needs to be strengthened to maximize the product dimension.

Overall, the research results show a consistent pattern: Context, Input, and Process are in the Very Good category, while Product remains at the Good level. This pattern indicates that the organization has a strong foundation and operational systems, but requires acceleration in the achievement conversion aspect.

The CIPP model has proven effective in providing a holistic view of systemic gaps. This evaluation reinforces the view that success in competitive sports is not solely a matter of training techniques, but rather the integration of policies, resources, implementation, and competitive exposure (Côté & Gilbert, 2019; De Bosscher et al., 2015; Shilbury & Ferkins, 2020).

Practical implications of these findings include: Strengthening the biomotor test-based talent identification system. Increasing the intensity of regional/national competitions and tryouts. Developing an athlete performance database for longitudinal monitoring. Integrating a sports science approach in periodization evaluations. Thus, PSHT Pondok Candra's coaching can move from the system stabilization stage to the achievement acceleration stage.

The CIPP-based evaluation shows that PSHT Pondok Candra has a structured and accountable coaching system. The main strengths lie in the organizational context and consistency of the process, while the main challenge lies in optimizing the conversion of achievement results. These findings confirm that competitive sports coaching is a long-term process that requires synergy between quality management, resource strengthening, and increasing competitive experience to produce champion athletes sustainably.

CONCLUSION

Based on the results of a comprehensive evaluation using the CIPP model of the PSHT Pondok Candra athlete performance development program, it can be concluded that the program has been highly effective from a managerial and operational perspective. This is evidenced by the scores for the Context (mean 3.62), Input (mean 3.29), and Process (mean 3.52) components, which are in the Very Good category. The Background & Structure indicator received the highest score (3.75), followed by Vision & Mission (3.66), indicating that the organization's policy direction has been strongly internalized. Regarding input, Coach Competence (3.31) and Facilities and Infrastructure (3.27) demonstrate adequate resource readiness. Meanwhile, the Monitoring & Evaluation component in the development process scored 3.71, reflecting consistent program implementation and oversight.

However, this successful management has not yet fully translated into consistent peak performance. The Product component only achieved a mean score of 3.17 (in the Good category), indicating a gap between system quality and competitive results. The primary contributing factors are variations in the quality of prospective athletes (3.25) and limited competitive experience. Therefore, strategic recommendations include strengthening the talent scouting system based on biomotor indicators and increasing the budget and frequency of tryouts to continuously mature the athletes' competitive mentality.

ACKNOWLEDGEMENTS

The author expresses his deepest appreciation and gratitude to all parties who contributed to the implementation of this research. Special thanks are extended to the management and coaches of PSHT Pondok Candra who provided permission, data access, and full support throughout the data collection process. The active participation of the youth athletes, both in the competitive and artistic categories, was instrumental in providing an empirical overview of the implementation of the performance development program.

The author also appreciates the management's openness in providing administrative documents, training programs, and achievement data that served as the basis for analysis within the CIPP evaluation framework. This support enabled this research to produce comprehensive and objective findings regarding the Context, Input, Process, and Product aspects of athlete development.

The author also extends his gratitude to his colleagues and the academic team who provided conceptual and methodological input, which enabled this research to be successfully completed. Hopefully, the results of this research will make a tangible contribution to strengthening the pencak silat performance development system to be more structured, measurable, and sustainable.

REFERENCES

- Aprita, D., Hidayat, Y., & Prasetyo, Y. (2020). Sports organization management accountability in athlete development programs. *Jurnal Keolahragaan*, 8(2), 123–135. <https://doi.org/10.21831/jk.v8i2.31245>
- Baker, J., Wattie, N., & Schorer, J. (2019). A proposed conceptualization of talent in sport: The role of biology and environment. *Frontiers in Psychology*, 10, 2313. <https://doi.org/10.3389/fpsyg.2019.02313>
- Bompa, T. O., & Haff, G. G. (2009). *Periodization: Theory and methodology of training* (5th ed.). Human Kinetics.
- Côté, J., & Gilbert, W. (2019). An integrative definition of coaching effectiveness and expertise. *International Sport Coaching Journal*, 6(3), 307–323. <https://doi.org/10.1123/iscj.2018-0082>

- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). Sage Publications.
- Cushion, C. J., Armour, K., & Jones, R. (2018). Coach education and continuing professional development. *Physical Education and Sport Pedagogy*, 23(2), 139–152. <https://doi.org/10.1080/17408989.2017.1341475>
- De Bosscher, V., Shibli, S., Westerbeek, H., & van Bottenburg, M. (2015). *Successful elite sport policies*. Meyer & Meyer Sport.
- Etikan, I., & Bala, K. (2017). Sampling and sampling methods. *Biometrics & Biostatistics International Journal*, 5(6), 215–217. <https://doi.org/10.15406/bbij.2017.05.00149>
- Fetters, M. D., Curry, L. A., & Creswell, J. W. (2017). Achieving integration in mixed methods designs. *Health Services Research*, 48(6), 2134–2156. <https://doi.org/10.1111/1475-6773.12117>
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage Publications.
- Gledhill, A., Harwood, C., & Forsdyke, D. (2018). Psychological factors in talent development. *Journal of Applied Sport Psychology*, 30(3), 278–297. <https://doi.org/10.1080/10413200.2017.1382029>
- Gucciardi, D. F., Hanton, S., & Mallett, C. J. (2017). Progressing measurement in mental toughness. *Sport, Exercise, and Performance Psychology*, 6(2), 135–157. <https://doi.org/10.1037/spy0000087>
- Henriksen, K., Stambulova, N., & Roessler, K. K. (2020). Holistic ecological approach in sport talent development. *Psychology of Sport and Exercise*, 45, 101561. <https://doi.org/10.1016/j.psychsport.2019.101561>
- Hidayat, R., Lubis, J., & Nugroho, S. (2020). Biomotor profile of pencak silat athletes. *Jurnal SPORTIF*, 6(2), 256–268. https://doi.org/10.29407/js_unpgri.v6i2.14692
- Issurin, V. (2016). Benefits and limitations of block periodized training. *Sports Medicine*, 46(3), 329–338. <https://doi.org/10.1007/s40279-015-0425-5>
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. (2020). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 14(2), 112–133. <https://doi.org/10.1177/1558689819843701>
- Lloyd, R. S., Cronin, J. B., Faigenbaum, A. D., et al. (2016). National Strength and Conditioning Association position statement on long-term athletic development. *Journal of Strength and Conditioning Research*, 30(6), 1491–1509. <https://doi.org/10.1519/JSC.0000000000001387>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2018). *Qualitative data analysis: A methods sourcebook* (4th ed.). Sage Publications.
- Nugroho, S., Hidayat, R., & Lubis, J. (2022). Performance determinants in pencak silat competition. *Jurnal Keolahragaan*, 10(1), 45–57. <https://doi.org/10.21831/jk.v10i1.41025>
- Parent, M. M., & Chappelet, J. L. (2017). The (neo)institutionalization of sport governance. *Sport Management Review*, 20(2), 114–125. <https://doi.org/10.1016/j.smr.2016.05.003>

- Rahman, A., Prasetyo, Y., & Suryanto. (2021). CIPP evaluation model in sports training programs. *Jurnal Pendidikan Jasmani dan Olahraga*, 6(1), 67-78. <https://doi.org/10.17509/jpjo.v6i1.29743>
- Rohmad, H. (2017). Evaluation of sports resource management. *Jurnal Keolahragaan*, 5(2), 201-210. <https://doi.org/10.21831/jk.v5i2.15021>
- Shilbury, D., & Ferkins, L. (2020). Sport governance: Advancing the field. *Sport Management Review*, 23(1), 1-4. <https://doi.org/10.1016/j.smr.2019.10.003>
- Suchomel, T. J., Nimphius, S., & Stone, M. H. (2018). The importance of muscular strength in athletic performance. *Sports Medicine*, 48(4), 765-785. <https://doi.org/10.1007/s40279-018-0862-z>
- Turner, A., Comfort, P., & McMahon, J. (2020). Developing physical qualities for combat sports. *Strength & Conditioning Journal*, 42(2), 1-12. <https://doi.org/10.1519/SSC.0000000000000538>
- Warju. (2016). Educational program evaluation model. *Jurnal Pendidikan dan Evaluasi Pendidikan*, 20(1), 65-78. <https://doi.org/10.21831/pep.v20i1.7525>
- Winand, M., Parent, M. M., & Zintz, T. (2019). Governance and performance in sport organizations. *European Sport Management Quarterly*, 19(3), 311-329. <https://doi.org/10.1080/16184742.2018.1527268>
- Yasin, M., Hidayat, Y., & Arifin, Z. (2024). Development of Likert-based evaluation instruments in sports research. *Jurnal SPORTIF*, 10(1), 15-27. https://doi.org/10.29407/js_unpgri.v10i1.18765
- Zulfikar, A., Prasetyo, Y., & Rahman, A. (2024). Application of the CIPP model in sports education evaluation. *Jurnal Pendidikan Jasmani Indonesia*, 20(1), 45-58. <https://doi.org/10.21831/jpji.v20i1.61234>