

The Effect of Hadang-Gobak Sodor Training on Self-Confidence Among School-Age Athletes

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ABSTRACT

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Introduction:

This study aimed to examine the effect of Hadang-Gobak Sodor training on self-confidence among school-age athletes. Research investigating Hadang-Gobak Sodor as a culturally based training approach to enhance self-confidence in school-age athletes remains limited.

Methods:

This study employed a quantitative quasi-experimental method using a pretest-posttest control group design. The design was used to compare changes in self-confidence between an experimental group that received Hadang-Gobak Sodor training and a control group that participated in regular training. Data were analyzed using tests of normality, homogeneity, and inferential statistical analyses to evaluate changes within and between groups.

Results:

The findings showed that both groups had comparable levels of self-confidence before the intervention. Following the training, the experimental group demonstrated a greater improvement in self-confidence than the control group. Statistical analysis confirmed that the increase in self-confidence among participants who received Hadang-Gobak Sodor training was significant.

Conclusion and Suggestion:

The findings indicate that Hadang-Gobak Sodor can serve as a culturally based training alternative to support the psychological development of school-age athletes, particularly in enhancing self-confidence. Future studies are recommended to investigate its long-term effects and examine its effectiveness across different age groups, sports disciplines, and cultural settings.

INTRODUCTION

Traditional sports represent an important component of Indonesia's cultural heritage that has been preserved and transmitted across generations. Beyond serving as recreational games, traditional sports embody educational, social, and psychological values by promoting physical movement, teamwork, discipline, sportsmanship, strategic thinking, and character development. One of the traditional sports that remains widely practiced in school settings is Hadang-Gobak Sodor, a game that requires players to coordinate with teammates, anticipate opponents' movements, make rapid decisions under pressure, and maintain concentration throughout the

game. These characteristics suggest that Hadang-Gobak Sodor has the potential to contribute not only to physical development but also to the enhancement of psychological attributes that are essential for young athletes. Among these psychological attributes, self-confidence is particularly important because it influences an athlete's willingness to take initiative, cope with competitive pressure, execute skills effectively, and maintain consistent performance during training and competition. Athletes with strong self-confidence generally demonstrate greater persistence, emotional control, and resilience when facing challenging situations, whereas those with low self-confidence are more likely to experience anxiety, hesitation, and reduced performance.

Despite its importance, fostering self-confidence among school-age athletes remains a challenge, particularly in the current digital era where children increasingly engage in sedentary activities and spend less time participating in traditional games. As reported by Prasetyo (2024), participation in traditional sports among children aged 10–15 years declined by approximately 25% between 2015 and 2023 due to the widespread use of digital devices and changing lifestyles. This decline is further compounded by inadequate documentation and standardization, with approximately 68% of Indonesian traditional sports lacking formal written rules, thereby limiting their integration into structured educational and sports development programs. Existing research has predominantly examined traditional sports from the perspectives of physical fitness, motor skill development, learning motivation, and cultural preservation, while empirical evidence regarding their psychological benefits remains scarce.

In particular, studies investigating Hadang-Gobak Sodor as an intervention to enhance self-confidence among school-age athletes are still very limited, leaving an important gap in the literature concerning the integration of indigenous games into sport psychology and athlete development. Addressing this gap, the present study employs a quasi-experimental design to examine the effect of Hadang-Gobak Sodor training on the self-confidence of school-age athletes. The primary contribution of this research lies in extending the application of traditional sports beyond their conventional roles as recreational or physical activities by positioning Hadang-Gobak Sodor as a culturally grounded psychological intervention. This study contributes theoretically by expanding the body of knowledge on sport psychology through the integration of indigenous cultural practices with psychological development, while practically providing evidence-based support for coaches, physical education teachers, and policymakers to incorporate traditional sports into athlete training programs aimed at strengthening self-confidence alongside preserving Indonesia's cultural heritage.

LITERATURE REVIEW

Traditional sports can be understood as physical activities that develop within society and contain cultural, social, and educational values. Within the context of physical education and youth athlete development, traditional sports have the potential to enhance participant engagement because the activities are enjoyable, competitive, and can be implemented using simple facilities. The Ministry of Youth and Sports of the Republic of Indonesia (2021) positions traditional sports as part of the nation's cultural identity that should be developed within society and educational settings. Functionally, Nur et al. (2023) classify 78 variants of traditional Indonesian sports into five

main categories: ritual (Rekungan in East Java as a symbol of harvest gratitude), defense (Pencak Silat as a philosophical martial arts system), recreation (Egrang as a pastime), educational (Hadang-Gobak Sodor as a medium for collaborative learning), and competitive (Karapan Sapi as a venue for prestige among the Madurese community). Hadang-Gobak Sodor is a team-based traditional game played by defending and crossing opponents' defensive lines. The game requires agility, coordination, communication, and teamwork. From an educational perspective, Hadang-Gobak Sodor provides strong social experiences because individual success is greatly influenced by team support. Oktavia and Saputra (2023) found that Gobak Sodor improved students' motivation in physical education learning, while Supriadi et al. (2023) reported that the game contributed positively to the agility of young athletes. Self-confidence refers to an individual's belief in their ability to face tasks, challenges, or specific situations. According to Bandura's self-efficacy theory beliefs regarding one's abilities are influenced by mastery experiences, observational experiences, verbal persuasion, and emotional conditions. Within sports contexts, successful experiences during training may strengthen athletes' perceptions of competence. Self-confidence can be a key factor in a child's success in overcoming various challenges, whether in social life or in academic and athletic activities (Ryan & Deci, 2017). In addition, strong self-confidence can also boost a child's motivation to participate in various challenging activities, including sports (Frosch & Frosch, 2020).

School-age athletes are in a developmental stage that requires social support and positive experiences. Training activities that provide opportunities to try, interact, and achieve success can contribute to the development of self-confidence. Therefore, team-based games such as Hadang-Gobak Sodor have the potential to become mental development media because they involve challenges, communication, peer support, and collective achievement. Conceptually, Hadang-Gobak Sodor training provides challenging and enjoyable movement experiences. Through activities such as crossing defensive lines, protecting areas, developing strategies, and cooperating within teams, athletes gain mastery experiences and social support. Suherman et al. (2020) emphasizes that traditional sports are not merely recreational activities, but rather complex systems that reflect human relationships with the physical environment, social structures, and cultural cosmology. These experiences may strengthen self-efficacy, which subsequently contributes to improved self-confidence. Based on this framework, the study hypotheses are as follows: H₁: Hadang-Gobak Sodor training significantly affects the self-confidence of school-age athletes.

METHOD

This study employed a quantitative approach using a quasi-experimental method. The design applied was a pretest-posttest control group design. This design was selected to compare changes in self-confidence between the experimental group receiving Hadang-Gobak Sodor training and the control group receiving regular training. The population consisted of school-age athletes actively participating in sports activities at schools or sports clubs. The sample comprised 30 athletes aged 12–18 years selected through purposive sampling. Inclusion criteria included: (1) being 12–18 years old, (2) participating in regular sports training for at least six months, and (3)

not experiencing physical injuries or severe psychological disorders. The sample was divided into an experimental group ($n = 15$) and a control group ($n = 15$). The experimental group participated in a six-week Hadang-Gobak Sodor training program conducted three times per week. Each training session included warming up, introduction to game rules, simple strategy exercises, core gameplay, and cooling down. Meanwhile, the control group continued regular training without the addition of Hadang-Gobak Sodor activities. Self-confidence measurements were conducted before the intervention (pretest) and after the intervention (posttest).

The athlete self-confidence instrument used in this study was adapted from the Athlete Self-Efficacy Scale (ASES) developed by Koçak (2020). The ASES was selected because it measures athletes' beliefs in their ability to cope with the demands of training and competition. The initial development of the scale demonstrated good internal consistency, with a Cronbach's Alpha coefficient of 0.88. In this study, athletes' self-confidence was measured using a four-point Likert-scale questionnaire based on self-efficacy indicators, including confidence in one's own abilities, courage in decision-making, calmness under pressure, and optimism regarding training outcomes. Response scores ranged from 1 = strongly disagree to 4 = strongly agree.

Table 1. Athlete self-confidence instrument grid

Indicator	Number of items	Score
Confident in own abilities	4	1-4
Courage in decision-making	3	1-4
Calmness when facing pressure	3	1-4
Optimism regarding the outcomes of training	4	1-4

Source: data is processed researcher (2026).

RESULT AND DISCUSSION

Data were analyzed descriptively and inferentially. The normality test was carried out using Shapiro-Wilk, while the homogeneity of variance was tested using the Levene test. Changes in scores within groups were analyzed using a paired sample t-test, while differences in improvement between groups were analyzed using an independent sample t-test. The analysis was carried out with a significance level of 0.05.

Results

Descriptive statistics indicated that prior to treatment, the self-confidence scores of the experimental and control groups were relatively similar. After six weeks of intervention, the experimental group demonstrated a substantially greater increase in self-confidence scores compared to the control group.

Table 2. Descriptive statistics of self-confidence scores

Group	Test	Mean	SD	Min.	Max.
Experiment	Pretest	61,20	5,31	52	70
Experiment	Posttest	74,60	4,87	66	82
Control	Pretest	60,80	5,44	51	69
Control	Posttest	63,10	5,12	55	71

Source: data is processed researcher (2026).

The pre-tests indicated that all data were normally distributed and that the variances between groups were homogeneous. The Shapiro-Wilk test showed significance values greater than 0.05 for all groups, while Levene's test yielded a significance value of 0.412.

Table 3. Normality and homogeneity test results

Test	Value Sig.	Description
Shapiro-Wilk pretest experiment	0,221	Normal
Shapiro-Wilk posttest experiment	0,188	Normal
Shapiro-Wilk pretest control	0,197	Normal
Shapiro-Wilk posttest control	0,243	Normal
Levene test	0,412	Homogen

Source: data is processed researcher (2026).

The paired sample t-test results for the experimental group demonstrated a significant increase between pretest and posttest scores. The control group experienced a smaller and statistically insignificant increase. Furthermore, the gain score comparison indicated that the improvement in the experimental group was significantly greater than that of the control group.

Table 4. Hypothesis test results

Analysis	Group	Mean	t	Sig.
Paired sample t-test	Experiment	13,40	8,21	0,000
Paired sample t-test	Control	2,30	1,22	0,241
Independent sample t-test	Gain experiment vs control	11,10	6,74	0,000

Source: data is processed researcher (2026).

The results of this study indicate that Hadang-Gobak Sodor training has a positive impact on the self-confidence of school-age athletes. The greater increase in self-confidence scores observed in the experimental group compared to the control group suggests that the improvement was not solely caused by routine training but was also associated with the characteristics of Hadang-Gobak Sodor, which involve social interaction, strategy, courage, and mastery experiences. These findings can be explained by Bandura's self-efficacy theory. During a game of Hadang-Gobak Sodor, athletes repeatedly face situations that require courage and decision-making, such as breaking through the opponent's defense or defending their own playing area. When athletes successfully complete these challenges, they gain mastery experiences that strengthen confidence in their own abilities. Additionally, team-based gameplay creates opportunities for social support, peer encouragement, and appreciation from teammates. These conditions function as verbal persuasion that reinforces self-confidence.

The findings are consistent with Oktavia and Saputra (2023), who reported that Gobak Sodor enhanced students' learning motivation in physical education classes. The results also support the findings of Supriadi et al (2023), which demonstrated that Gobak Sodor positively influenced motor abilities among young athletes. Therefore, Hadang-Gobak Sodor is relevant not only as a medium for improving physical skills but also as a medium for psychological development. In practical terms, these findings suggest that coaches and physical education teachers can incorporate traditional sports into exercise programs as enjoyable and meaningful activities. In addition to enriching the physical experience, traditional games can strengthen a sense of

community, sportsmanship, and appreciation for local culture. However, this study has several limitations, including a relatively small sample size, a limited intervention duration, and a focus solely on self-confidence. Future research is recommended to involve a larger sample, a longer intervention duration, and additional psychological variables such as achievement motivation, competitive anxiety, and team cohesion.

CONCLUSION

This study demonstrates that a six-week Hadang-Gobak Sodor training program significantly improves the self-confidence of school-age athletes. Compared with the control group, participants who engaged in the traditional sport intervention showed a substantially greater increase in self-confidence, indicating that the observed improvement was attributable to the characteristics of Hadang-Gobak Sodor rather than routine training alone. These findings highlight the psychological benefits of traditional sports, particularly in fostering confidence through mastery experiences, teamwork, strategic decision-making, and positive social interaction. The study contributes to the literature by extending the application of traditional sports beyond physical fitness and motor skill development to the domain of sport psychology. Specifically, it provides empirical evidence that Hadang-Gobak Sodor can function as a culturally grounded psychological intervention to enhance self-confidence among school-age athletes. From a practical perspective, the findings support the integration of traditional sports into school- and club-based training programs as an engaging, culturally relevant, and cost-effective approach to promoting both athletic performance and psychological well-being. Despite these contributions, the study is limited by its relatively small sample size, short intervention period, and exclusive focus on self-confidence as the outcome variable. Future studies are encouraged to involve larger and more diverse samples, implement longer intervention periods, and examine additional psychological outcomes, such as self-efficacy, competitive anxiety, motivation, resilience, and team cohesion. Comparative studies involving different traditional sports and competitive settings would also provide a broader understanding of the role of indigenous games in supporting holistic athlete development.

REFERENCES

- Adi, S. S., Suherman, A., & Saputra, A. (2021). Ethnopedagogy in Indonesian traditional games. *Journal of Physical Education and Sport*, 21(3), 1420–1427.
- Alexander, S. R., & Jones, P. T. (2022). The relationship between physical games and confidence-building in youth athletes. *Journal of Youth Sports Research*, 30(2), 90–102.
- Ariyani, R. S., & Yosintha, R. (2018). The relationship between anxiety and self-confidence in English language learning. *Journal of English Education*, 4(2). <https://usnsj.id/index.php/JEE/article/view/1642>
- Barker, G., & Morrow, S. (2020). Sport and emotional development in children: Traditional games as a tool for growth. *Child Development Perspectives*, 14(3), 140–145.
- Buana Perjuangan University. (2020). Effectiveness of positive self-talk to increasing student's self-confidence. *International Journal of Research and Innovation in Social Science*, 4(8). <https://rsisinternational.org/journals/ijriss/articles/effectiveness-of-positive-self-talk-to-increasing-students-self-confidence/>

- Cuddy, A. J. C. (2015). *Presence: Bringing your boldest self to your biggest challenges*. Little, Brown and Company.
- Direktorat Pembinaan Sekolah Dasar. (2020). *Panduan implementasi permainan tradisional di sekolah dasar*. Kementerian Pendidikan dan Kebudayaan.
- Frosch, D. A., & Frosch, A. R. (2020). Exploring the role of traditional games in building confidence among children. *Journal of Youth Sports*, 15(4), 45–58.
- Geertz, C. (1973). Deep play: Notes on the Balinese cockfight. *Daedalus*, 134(4), 56–86.
- Glover, S. E., & Osbourne, M. P. (2015). The role of play and games in child development: A traditional games perspective. *Early Childhood Development Journal*, 29(2), 78–92.
- Hohensee, J., & Gallo, A. (2021). The effects of team sports and traditional games on children's self-confidence and social behavior. *Social and Behavioral Science Review*, 35(4), 145–159.
- Johnson, T., & Warner, L. S. (2015). Enhancing children's confidence through structured traditional sports activities. *Journal of Child Psychology and Education*, 27(4), 45–59.
- Kemenpora Republik Indonesia. (2021). *Buku putih olahraga tradisional Indonesia*. Kementerian Pemuda dan Olahraga.
- Koçak, C. V. (2020). Athlete self-efficacy scale: Development and psychometric properties. *Baltic Journal of Health and Physical Activity*, 12(4), 41–54.
- Kraemer, H., & Zinsser, N. (2024, March 12). Confidence is just as dangerous when it's too low as when it's too high. *Investor's Business Daily*. <https://www.investors.com/news/management/leaders-and-success/confidence-just-as-dangerous-when-too-low-as-too-high/>
- Langley, E., & Reid, K. (2016). Building self-esteem through sports participation in primary school children. *Journal of Sport and Development*, 12(1), 51–64.
- Marauleng, A. A. (2025). The impact of positive affirmations on the self-confidence levels of adolescent girls. *Psychologia: Jurnal Psikologi dan Pendidikan*, 3(4), 152–161. <https://psychologia.pelnus.ac.id/index.php/Psychologia/article/view/69>
- Nur, R., Saputra, A., & Hidayat, R. (2023). Distribution and classification of Indonesian traditional sports. *Asian Journal of Sport Science*, 7(2), 89–104.
- Nuril, M., & Ratnasari, E. (2022). Permainan tradisional Gobak Sodor untuk meningkatkan motorik kasar anak. *Jurnal Media Akademik*, 5(1). <https://jurnal.mediaakademik.com/index.php/jma/article/view/524>
- Nugroho, A. (2024). *Kebijakan preservasi olahraga tradisional di Indonesia: Tantangan dan strategi 2024–2034*. UGM Press.
- O'Brien, M., & Lee, S. (2020). Physical activity and self-concept in elementary-aged children: The role of traditional games. *International Journal of Developmental Psychology*, 38(1), 75–89.
- Oktavia, R., & Saputra, D. (2023). Pengaruh permainan Gobak Sodor terhadap motivasi belajar PJOK di SD Babadan. *Prosiding Seminar Nasional Keolahragaan Universitas PGRI Semarang*. <https://conference.upgris.ac.id/index.php/snk/article/view/4480>
- Omar, D. A., Khalid, A. A., & Hashim, M. A. (2024). Positive psychology interventions to boost self-

- confidence among students with dyslexia. *Youth*, 4(2), 835–853. <https://www.mdpi.com/2673-995X/4/2/55>
- Papalia, D. E., Olds, S. W., & Feldman, R. D. (2017). *Human development*. McGraw-Hill Education.
- Prasetyo, B. (2024). Digital disruption on traditional sports participation among Gen Z in Indonesia. *International Journal of Sport Sociology*, 14(1), 45–60.
- Ryan, R. M., & Deci, E. L. (2017). Self-determination theory: A macro-theory of human motivation, development, and health. *Canadian Psychology*, 58(1), 99–105.
- Saputra, A., & Hidayat, R. (2020). Pengaruh olahraga tradisional terhadap kecerdasan emosional anak. *Jurnal Pendidikan Jasmani Indonesia*, 16(2), 112–125.
- Slavens, C., & Serman, C. (2024, April 10). 92% of kids say creativity helps boost their confidence. *Parents.com*. <https://www.parents.com/creativity-boosts-confidence-in-kids-8761133>
- Smith, J., Huang, Y., & Patel, R. (2022). Revisiting the self-confidence and sport performance relationship: A systematic review. *International Journal of Environmental Research and Public Health*, 19(11), 6381. <https://www.mdpi.com/1660-4601/19/11/6381>
- Smith, R., & Harvey, A. (2020). Children's sports participation and its impact on self-confidence. *Journal of Sports Psychology*, 17(4), 119–130.
- Suherman, A., Adi, S. S., & Saputra, A. (2020). Traditional sport as ethno-physical activity: A conceptual framework. *Journal of Physical Education and Sport*, 20(4), 2008–2016.
- Supriadi, A., Wulandari, L., & Rachman, A. (2023). Pengaruh permainan tradisional Gobak Sodor terhadap kelincahan atlet usia 14 tahun. *Jurnal INAPES*. <https://journal.unnes.ac.id/sju/inapes/article/view/63145>
- Thom, J. (2024, July 5). Team GB's psychologist on nerves, negativity and self-doubt: 'We name our inner voice'. *The Guardian*. <https://www.theguardian.com/sport/article/2024/jul/26/team-gb-psychologist-paris-olympics>
- Touroni, E., & Roscoe, N. (2024, May 20). The 3 biggest confidence killers and expert-approved tips to pick yourself back up. *The Sun*. <https://www.thesun.co.uk/wellness/30775520/improve-low-confidence-expert-tips/>
- Van der Mars, H., & Ko, M. (2019). Teaching traditional games and their influence on self-efficacy in elementary school children. *The International Journal of Physical Education*, 39(5), 60–75.
- Wilson, D., & Carter, P. L. (2019). Cultural traditions in sports and their effects on self-esteem in youth athletes. *Journal of Cultural Sports Psychology*, 22(3), 89–101.
- Yu, D., & Crouch, A. (2016). Impact of physical activity programs on self-confidence and behavior of elementary school children. *Journal of School Health*, 35(1), 59–72.