

Motivation instruments in the martial arts of karate

Salsabilah Salsabilah¹, Devi Tirtawirya², Fauzi Fauzi², Fitri Agung Nanda³

¹ Sports Coaching Masters Program, Faculty of Sports Health Sciences. Yogyakarta State University. Indonesia. ² Department of Sports Coaching Education, Faculty of Sports Health Sciences. Yogyakarta State University. Indonesia. ³ Department of Physical Education and Health, Faculty of Teacher Training and Education, Sriwijaya University, Indonesia.

Abstract

Received:
April 08, 2023

Accepted:
June 13, 2023

Published online:
July 01, 2023

Psychological skills, especially motivation, are an important component in supporting athlete success. Many current studies regarding motivation reveal instruments for measuring motivation but there is nothing specific for karate athletes, especially for karate athletes. This study aimed to reveal the research results of the development of a motivational measurement instrument in karate that could later be used. This research method uses ADDIE development (1) Analysis, (2) Design, (3) Development, (4) Implementation, and (5) Evaluation. This research was carried out from November 2022 to March 2023. The data obtained in this research is qualitative data and quantitative data. Qualitative data in the form of data obtained based on the results of Aiken's V validation by 2 material experts, 2 instrument experts, and 2 practitioner experts in the form of comments, input, or suggestions to determine the feasibility level of karateka motivational instrument products. The results showed that if it shows validity using Aiken's V, the results obtained for the validity of all indicators were greater than 0.77 ($p > 0.77$). Indicator 1 showed the Aiken's V coefficient value of 0.9, indicator 2 showed the Aiken's V coefficient value of 0.9, indicator 3 showed the Aiken's V coefficient value of 0.9, indicator 4 showed the Aiken's V coefficient value of 0.93, indicator 5 showed an Aiken's V coefficient of 0.93, indicator 6 shows an Aiken's V coefficient of 0.9, and indicator 7 shows an Aiken's V coefficient of 0.9. From these results, it is said that all indicators on the instrument explore/identify the motivational factors of karateka in karate martial arts valid and have high validity.

Keywords: Athletes, instruments, motivation, karate.

Introduction

Sports coaching, the psychological aspect is one of the factors that influence the success of achieving an achievement. Some of the benefits of sports psychology in improving athlete performance are being able to explain and understand athlete behavior and psychological symptoms that occur in sports in general, and being able to predict or make predictions correctly about the possibilities that can occur in athletes (Effendi, 2016).

Juriana et al. (2018) explained that in swimming athletes' success in competition is also influenced by the knowledge and application of training regarding athlete psychology, athletes who understand and can develop psychological skills within themselves will be better in competitions compared to athletes who lack the application sports psychology skills training. Nanda & Dimiyati (2019) revealed that the psychological skills possessed by athletes are an important factor to be explored more and given good training because these

✉ F. A. Nanda, e-mail: fitriagungnanda16@gmail.com

factors have an important influence on the success of athletes in sports.

Reviewing the success of athletes associated with psychological skills, several studies and theories reveal that motivation is one aspect that greatly influences the success of athletes. Mili (2016) revealed that motivation is an important aspect in determining sports success. Muskanan (2015) revealed that the analysis of the coefficient of determination (R^2) shows that the contribution or contribution of the aspects of the intrinsic and extrinsic variables to the achievement motivation of athletes has a significant contribution to the achievement motivation of PPLP athletes. Khan & Aziz (2015) explained that basketball players and runners did not show significant differences in competition anxiety and motivation in their achievements, motivation and anxiety are important aspects that support the success and achievement of both. Lestari et al. (2021) reveals that athlete achievement is the result of a combination of training and athlete motivation, so this motivation is seen as important in achieving goals, namely athletes with maximum achievement. There are two types of motivation in sports, namely intrinsic and extrinsic motivation.

Aguss & Fahrizqi (2020) revealed that an athlete who has high self-confidence, and high achievement motivation will always be optimistic by thinking positively that he is capable according to his abilities and capacities. Training motivation is strongly influenced by extrinsic and extrinsic factors without these factors there will be no will in athletes to change for the better (Gani et al., 2022). Wafiroh et al. (2022) said that the lack of motivation in athletes will also hinder the achievement of maximum performance. An athlete who does not have great motivation when facing competition will feel burdened it affects the ability to play and provides obstacles for athletes to achieve maximum performance. Mulyani (2016) revealed that if it is an encouragement to do something both intrinsic and extrinsic, motivation acts as a driving force, regulates, and provides energy for athlete behavior to achieve achievements. According to Winario et al. (2023), motivation from the athletes themselves is also needed in training. Motivation can be interpreted as encouragement. Encouragement is a movement of the soul and behavior of a person to act. Meanwhile, motive can be interpreted as something that

can move people to take action or behavior, and in that action, there is a specific purpose.

Although motivation is an important component in determining the success of athletes, currently the instruments for measuring motivation are very diverse and varied. Instrument development is also very important in karate martial arts. Based on existing literary studies, this research will test the development of karate instruments to increase athlete motivation. This development is carried out to be able to see how the level of motivation of karate athletes increases the results of success in matches. The products designed in this study can be used to explore or identify motivational factors for karateka in karate martial arts. The karateka motivational instrument development model uses the ADDIE development model.

Methods

Research on the development of karateka motivational instruments in karate martial arts uses research and development methods. The products designed in this study can be used to explore or identify motivational factors for karateka in karate martial arts. The karateka motivational instrument development model uses the ADDIE development model. The ADDIE development model used is the ADDIE development model based on Branch (2009). Five stages need to be carried out in this development model, namely: (1) Analyzing, (2) Design, (3) Development, (4) Implementation), and (5) Evaluation. This research was carried out from November 2022 to March 2023. The data obtained in this research is qualitative data and quantitative data. Qualitative data in the form of data obtained based on the results of Aiken's V validation by 2 material experts, 2 instrument experts, and 2 practitioner experts in the form of comments, input, or suggestions to determine the feasibility level of karateka motivational instrument products. Instruments used by experts to measure the feasibility of products developed using Aiken's V test will later be used to conclude validity categories and continue with reliability tests using Cronbach's Alpha.

Results

The research used is development research; this research is to explore/identify the motivational factors of karateka

in the martial art of karate. Research development is a process to develop existing products and produce new products. Product development in this study uses the ADDIE model. The selection of this model is based on the consideration that this model is simple and developed systematically and is based on a theoretical foundation of learning design. The data collected in this study is karateka's motivation in karate martial arts. Collecting data in this development research using a questionnaire method. This method is carried out by providing a written statement to be answered by the respondent which is presented in the form of a questionnaire. The instrument explores/identifies the motivational factors of karateka in the martial art of karate which was developed according to the research of Teo et al. (2015). Before making the assessment instrument, formulate the indicators and sub-indicators of karateka motivation in karate martial arts that have been determined as shown in Table 1.

In Table 1, the factors and indicators of karateka motivation in karate martial arts have been formulated. Based on the factors and indicators that have been compiled, then the sub-indicators and items of the questionnaire statements are formulated which are shown in Table 2.

After the instrument is made, then the instrument is analyzed with descriptive statistics. The parts of the descriptive analysis include the validity test and reliability test so that the instrument is feasible to use. The instrument explores/identifies the motivational factors of karateka in the art of karate martial arts that have been developed totaling 48 statements, and then a content validity test is carried out with two experts as assessors. The results of the analysis show that all statements totaling 48 items are declared valid. The analysis of the validity test of Aiken's V by 2 material experts, 2 instrument experts, and 2 practitioner experts are seen in Table 3.

Table 1

Formulation of karateka motivation factors and indicators.

Factors	Indicators	Sub indicators
Intrinsic	To Know	Explore
		Learn
		Understand
	To Accomplish Things	a. Increase
		b. Control
		c. Feel competent
	Experience Stimulation	a. Interest
		b. aesthetic experience
		c. Enjoy
Extrinsic	External Regulation	a. Material rewards
		b. Constraints imposed by others (punishment, criticism)
	introjection	a. View of yourself
		b. Fear of incompetence
		c. views from others
	Identification	a. Awareness of trading values
		b. aware of the role it plays in sports
Amotivation	Amotivation	-

Table 2

Formulation of karate sub-indicators and statements of motivation.

Sub indicators	Statement
Explore	1. I want to explore a new experience in karate. 2. Karate has unique techniques and movements
Study	3. I want to learn the techniques that exist in karate. 4. I want to learn something new that I've never learned
Understand	5. I wanted to understand the values of karate 6. I wanted to understand the aesthetics of the movements in karate
Increase	7. I want to improve my skills especially in kumite martial arts karate. 8. I want to improve my skills, especially in word numbers, martial arts, karate. 9. I want to improve my fitness through karate training
Control	10. I want to master punching techniques in karate 11. I want to master kicking techniques in karate 12. I want to master assault techniques in karate 13. I want to master the technique of defending in karate 14. I want to master counter attack and counter-attack techniques in karate 15. I want to master the technique of word movements in karate
Feel competent	16. I feel that I have competence in karate to excel 17. I want to feel competent at difficult karate moves or techniques
Interest	18. I feel the pleasure of doing something new that I've never done. 19. Being happy in karate makes me release the emotions / pressure / stress that I face at school / college / work.
Aesthetic Experience	20. I feel good when I do karate martial arts moves. 21. I felt challenged in the process of training when dealing with difficult movements / techniques in karate
Enjoy	22. I find it enjoyable to master certain techniques in karate. 23. Because I feel enjoy when I complete the karate training program
Material rewards	24. Because I want to get a prize if I win in a karate martial arts competition that I participate in 25. Because I get pocket money / snacks if I go to karate training
Constraints imposed by others (punishment, criticism)	26. My parents told me to take training in karate 27. My parents / brother / brother are karateka, so I follow karate 28. I had a bad experience of being bullied / bullied by criminals / pickpocketed / and other forms of crime, so I took karate training 29. I was afraid that the coach would get angry with me if I didn't attend karate training
View of oneself	30. I feel very comfortable if I take karate training when I arrive early 31. I trained in karate to be better than others
Fear of incompetence	32. I was afraid that I would be no better than others if I didn't take part in karate training 33. I'm afraid I don't have the ability to do karate
Views from others	34. I want to show other people about my karate skills 35. I want to be great at karate
Awareness of the value of pricing	36. To get fit through karate martial arts training 37. Practicing Karate Martial Arts Can Meet People 38. Joining karate I made new friends 39. Practicing karate can make me more confident
Aware of his role towards the sport followed	40. As a color belt (brown/black), will be a model/example followed by the level of belt color below (white, yellow, green, blue) 41. As a karate coach, I realized that I had to keep training to maintain my skills in karate 42. As an athlete, I have to keep training to maintain/improve my skills in karate 43. As a karateka must still take the time to keep training in karate martial arts
Amotivation	44. I feel bored practicing karate because the training program does not vary 45. I felt unable to master karate techniques 46. I felt unable to improve my skills in karate 47. I always failed my belt ascension exams in karate 48. I felt incompetent in karate, because I couldn't perform

Table 3

Aiken's V Validation results.

Validator	I1		I2		I3		I4		I5		I6		I7	
	Score	S	Score	S	Score	S	Score	S	Score	S	Score	S	Score	S
EXPERT 1	5	4	6	5	6	5	5	4	6	5	6	5	5	4
EXPERT 2	5	4	5	4	5	4	6	5	6	5	5	4	6	5
EXPERT 3	6	5	6	5	5	4	6	5	6	5	6	5	5	4
EXPERT 4	5	4	5	4	5	4	6	5	6	5	5	4	6	5
EXPERT 5	6	5	5	4	6	5	5	4	5	4	5	4	6	5
EXPERT 6	6	5	6	5	6	5	6	5	5	4	6	5	5	4
ΣS	27		27		27		28		28		27		27	
V	0.9		0.9		0.9		0.93		0.93		0.9		0.9	

Based on Table 3, shows the validity of using Aiken's V which results in the validity of all indicators being greater than 0.77 ($p > 0.77$). Indicator 1 shows the Aiken's V coefficient value of 0.9, indicator 2 shows the Aiken's V coefficient value of 0.9, indicator 3 shows the Aiken's V coefficient value of 0.9, indicator 4 shows the Aiken's V coefficient value of 0.93, indicator 5 shows an Aiken's V coefficient of 0.93, indicator 6 shows an Aiken's V coefficient of 0.9, and indicator 7 shows an Aiken's V coefficient of 0.9. From these results it is said that all the indicators on the instrument exploring/identifying the motivational factors of karateka in the art of karate are valid and have high validity. Furthermore, the reliability test was carried out with Alpha –Cronbach (Table 4). Based on the results of the reliability test with Alpha –Cronbach showed a result of 0.934 which is in the high criteria. These shows the results of stability measurements over time (can be used).

Table 4

Reliability test results.

Cronbach's Alpha	N of Items
0.934	48

Discussion

The results of the study revealed that the development of the instrument carried out had a high validity and reliability value, it could be implied that this instrument could be used to measure motivation in karate athletes. If it is related to previous research, it has a similar

correlation. In other words, this instrument can be used to explore/identify the motivational factors of karateka in the art of karate martial arts. According to Azwar (in Arissaryadin & Arimbawaa, 2020) the reliability coefficient is getting closer to 1, meaning that the reliability is also getting higher. Conversely, the closer is the coefficient to 0, the lower is the reliability. Based on this, it can be said that the motivational instrument has a very high validity and reliability value.

Based on the phenomena of several articles and research in the field about athletes read by researchers, most research examines athletes' achievements in sports (Erdiyanti & Febriyanto, 2019). However, no one has researched how much motivation athletes have in learning activities at the formal education level, while formal education also has a very important role in the future of athletes, for this reason the development of an instrument to measure motivation is very well done. In theory, achievement motivation has several main constructs. This is described in Atkinson's opinion, namely: 1) Need for achievement (Desire/Need to achieve). 2) Expectancies (hope and dream). 3) Incentives (Bonuses/awards). 4) Approach success (business approach to achieve success)/avoid. 5) failure (attempt to avoid failure) (Bastian, 2020). Jannah et al. (2022) revealed that the achievement motivation scale instrument was compiled based on the theory of achievement motivation by (Bastian, 2020). The achievement motivation scale consists of 16 items based on two aspects, namely achievement thoughts and achievement behaviors. The validity test used on the

achievement motivation scale is using the Pearson product-moment technique with the result that 13 items are valid and 3 items are not valid.

Rohendi et al. (2021) revealed that anxiety that can be overcome creates high motivation to excel, therefore in every disaster or other condition, the role of the coach is very vital to be able to deal with the mental aspects of the athletes so they can give the best in every situation. Motivation in sports is a psychological aspect that plays an important role for trainers, teachers, and sports coaches because motivation is the basis for moving and directing one's actions and behavior in sports (Da'i & Cahyaningrum, 2023). Putra (2021) explains that most athletes who compete in a competition have experienced failure; therefore motivation plays an important role in helping determine the success or failure of athletes in the process of training and competition. Failure of athletes to achieve achievements is caused by low motivation to win.

Conclusion

Based on the results of the analysis carried out in the development of this motivational instrument, it can be concluded that the motivational instrument developed to be applied to karate athletes has good results so it can be used. This instrument is also expected to be an instrument for other sports who want to know the motivation of athletes to compete and how big the impact of this motivation is on the success of athletes. This study has a slight weakness because it was tested only on DNA karate athletes in the Riau area. The results are expected to be used for advanced research in the field of sports psychology.

References

- Aguss, R. M., & Fahrizqi, E. B. (2020). Analisis Tingkat Kepercayaan Diri Saat Bertanding Atlet Pencak Silat Perguruan Satria Sejati. *Multilateral Jurnal Pendidikan Jasmani Dan Olahraga*, 19(2), 164-174.
- Arissaryadin, A., & Arimbawaa, P. (2020). Validitas dan reliabilitas instrumen efikasi diri petani. *Prosiding Seminar Nasional Agribisnis*, 149-154.
- Bastian, Y. (2020). Efek daya ledak otot tungkai dan motivasi berprestasi dalam keterampilan smash pada atlet bola voli. *Inspiree*, 1(2), 66-74.
- Da'i, M., & Cahyaningrum, V. D. (2023). Pengaruh self efficacy dan dukungan sosial terhadap motivasi berprestasi atlet rugby unugiri. *Jurnal Nusantara of Research*, 10(2), 165-178.
- Effendi, H. (2016). Peranan psikologi olahraga dalam meningkatkan prestasi atlet. *Nusantara (Jurnal Ilmu Pengetahuan Sosial)*, 1(1), 22-30.
- Erdiyanti, Y. P., & Febriyanto, B. D. (2019). Bimbingan belajar untuk meningkatkan motivasi berprestasi atlet bola voli o2sn kabupaten majalengka. *Jurnal Educatio FKIP UNMA*, 5(1), 19-26.
- Gani, R. A., Setiawan, E., Mahardhika, D. B., & Syamsudar B. (2022). Menyelidiki persepsi atlet, peran orang tua, dan pelatih tentang tingkat motivasi latihan renang di masa Pandemi Covid-19. *Jurnal Porkes*, 5(1), 105-116.
- Jannah, M., Dwi Permadani, F., & Karina, T. A. (2022). Motivasi berprestasi siswa sekolah menengah olahraga pada saat Pandemi Covid-19. *Journal On Teacher Education*, 3(2), 262-269.
- Juriana, J., Tahki, K., & Zulfitranto, G. (2018). pengetahuan psikologi olahraga pada pelatih renang indonesia. *Jurnal Ilmiah Sport Coaching and Education*, 3(2), 31-38.
- Khan, N., & Aziz, K. (2015). Comparative study of sports competitive anxiety and sports achievement motivation between basketball players and all india intervarsity running events athletes. *International Journal of Modern Chemistry and Applied Science*, 2(235), 235-237.
- Lestari, N., Firdausi, D. K. A., Sari, K., Sagita, P., Cahyati, C., Karianto, D., ... Irawan, D. (2021). Tingkat kecemasan dan motivasi atlet basket bangka belitung saat menjelang pertandingan. *Riyadhoh: Jurnal Pendidikan Olahraga*, 4(2), 10-16.
- Mili, A. (2016). A comparison of sports achievement motivation between the medal winning and non-medal winning athletes in the inter college sports tournaments. *International Journal of Physical Education, Sports and Health*, 3(6), 72-73.
- Muliyani, S. E. (2016). Pengaruh motivasi terhadap prestasi atlet pemula petanque undikma. *Jurnal Mandalika*, 3(1), 66-71.
- Muskanan, K. (2015). Analisis motivasi berprestasi atlet pusat pendidikan dan latihan olahraga pelajar provinsi Nusa Tenggara Timur. *Jurnal Kebijakan Dan Administrasi Publik*, 19(2), 105-113.
- Nanda, F. A., & Dimiyati, D. (2019). The psychological skills of basketball athletes: Are there any differences based on the playing position? *Jurnal Keolahraaan*, 7(1), 74-82.
- Putra, M. R. (2021). The effect of pick-up sprint and running exercises with maximum effort on the results of the 100-

- meter runnin. *Jurnal Pendidikan Jasmani*, 2(1), 7–14.
- Rohendi, A., Budiman, A., & Cipta, M. G. (2021). The relationship between anxiety and motivation and achievement of volleyball athletes during the Covid-19 Pandemic. *Journal of Physical and Outdoor Education*, 3(1), 34–41.
- Wafiiroh, A. N., Purnamasari, A. D., & Dwi Lestari, D. W. (2022). Literatur review: Hubungan emosi dan motivasi terhadap prestasi olahraga beladiri. *Physical Activity Journal*, 3(2), 169.
- Winario, M., Pani, A., & Mailiza, D. (2023). pengaruh sarana prasarana dan motivasi terhadap prestasi olahraga pada atlet komite olahraga nasional indonesia (koni) provinsi riau. *SHARING: Journal of Islamic Economics, Management and Business*, 1, 102–116.