

Developing The Creativity of Pencak Silat: A Systematic Literature Review

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Abstract. Creativity is a very important element for students of pencak silat to have. This is because creativity contributes to helping a person achieve his desires. Given the importance of creativity which is needed in almost all aspects, this needs to be achieved through self-development. Based on this, this study aims to find out how to develop creativity in pencak silat. The method used in this study is a systematic literature review. Search range for articles in 2018-2023. The keywords used are "Pencak silat" OR "Martial art" OR "Martial arts" AND "creativity". The results of the literature review show that currently, the method that can be used to develop the creativity of pencak silat students is the alphabet method. This method is very important because it can shape the creativity of pencak silat students. Currently, the alphabet method is the only method found in this literature study. Therefore, these findings can also be used as a reference for developing other creativity development methods to increase the creativity of pencak silat students.

Keywords: Creativity; Pencak Silat; Development

INTRODUCTION

Creativity is one aspect that is very important for human life because it has contributed to helping someone achieve goals (Kaufman, 2018), such as personal development, economic growth, and societal progress, especially in the new millennium when people are facing rapid development of new technologies, accelerated life changes (Tang, 2021) work environment (Mattarelli et al., 2022) (Volery & Tarabashkina, 2021), education (Ha & Ha, 2022) (Henriksen et al., 2021) (Katz-Buonincontro & Anderson, 2020), art (Barth et al., 2021) (Wang, 2022), culture (Da, 2021) (Klein et al., 2021) (Czifusz, 2018), sports (Rasmussen et al., 2017) (García-Peñas et al., 2021).

Especially in pencak silat one of the Indonesian sports, creativity is an element that is highly valued among a series of standard pencak silat movements that must be mastered when practicing. (Purwanto & Saputra, 2020). This is to the ideology of the pencak silat school which adheres to liberal rationalism, that silat is a science that must develop. They equate it with the principle of life that is never static, if life is static then humans die (Maryono, 2000). This is similar to the concept of transformation stated by (Daszko & Sheinberg, 2017), that transformation is motivated by survival, by the awareness that things need to change or the organization will die, and that significant breakthroughs in mindset are needed to pursue new opportunities.

It is now widely accepted that creativity is a domain-specific skill (Richard & Runco, 2020).

Creative behavior in one domain, such as music, math, or art, is often unrelated to creative behavior in other domains (Gardner, 1993). Therefore, creativity training needs to target domains where increased creativity is desired, and assessment needs to focus on specific elements of creative performance (Baer, 2015) (Baer, 2017).

Especially related to efforts to develop creativity, (Balyi et al., 2013) emphasize the need to have coaches who can encourage children's creativity from an early age. Several previous researchers have also attempted to make suggestions for the development of sports creativity, for example (Memmert & Roca, 2019) with the model name 7D to encourage tactical creativity in team and racquet sports (Santos et al., 2016) with the concept of Creativity Development to support creative behavior in team sports, and (Subotnik et al., 2021) under the name mega model talent development to develop productive creative talents.

The question in this research is how to develop creativity in pencak silat. To be able to answer this question, a literature review method is needed by collecting various types of research that have been studied by previous researchers with the topic of research on increasing creativity in pencak silat. This is because the Systematic Literature Review is a method for summarizing and synthesizing existing literature findings on a topic or field of research (Donthu et al., 2021). So that the method is considered the right method to be able to answer the questions in this study.

METHODS

The research method used is Systematic Literature Review (Moher et al., 2009) modified by (Azril et al., 2019). The tool used to retrieve

article data is Publish or Perish version 8 via Google Scholar Search and Scopus Search. They can provide sufficient coverage stability to be used for more detailed and comprehensive cross-disciplinary comparisons (Gusenbauer, 2019).

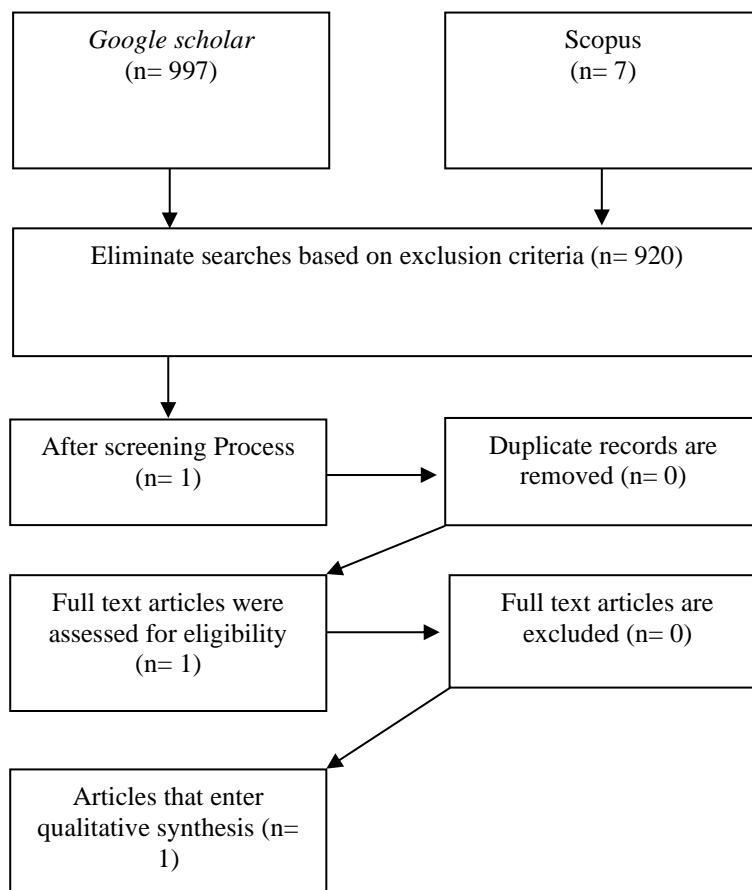


Figure 1. Prism analysis of proposed modifications by (Azril et al., 2019)

The keywords used in this research are "Pencak silat" OR "Martial art" OR "Martial arts" AND "creativity". Furthermore, the findings in each article will be evaluated and interpreted (Donthu et al., 2021). Articles were taken based

on the inclusion and exclusion criteria that have been set in Table 1. All relevant article findings with the inclusion criteria will be taken. While articles that meet the exclusion criteria will be discarded.

Table 1. Inclusion and Exclusion criteria

Criterion	Inclusion Criteria	Exclusion Criteria
Literature type	Articles published in international journals and proceedings	Review articles, books, or chapters book
Language	English	Non-English
Timeline	Study in 2018 to 2023	Studies before 2018
Article purpose	Developing the creativity of martial arts	Has a goal other than developing the creativity of pencak silat

RESULTS AND DISCUSSION

The following shows the findings of the literature that match the inclusion criteria and

have gone through a process of evaluation and interpretation. This study only found 1 article worthy of further analysis. The articles in question can be seen in Table 1 below.

Table 1. List of scientific literature related to the development of pencak silat creativity

Author and year	Titles	Method	Finding	Publication Type
(Trizkyana & Siswantoyo, 2022)	Learn Pencak Silat Like Write a Book : Innovative Training Method Development to Increase HOTS CREATIVITY in the Industrial Revolution Era 4 . 0	Research and Development	A WRITE ALPHABETH Method to shape the creativity of Pencak Silat	Proceedings

Research by (Trizkyana & Siswantoyo, 2022) is the only research that is relevant to the inclusion criteria that have been made. This is at the same time proof that creativity research in pencak silat is a very limited study. This research resulted in a product in the form of an alphabetic method for practicing Pencak Silat which teaches basic techniques such as someone writing letters of the alphabet from a to z. Students are given the freedom to assemble movements such as stringing words into a sentence which then assembles the sentence into a narrative according to student creativity (Higher Order Thinking Skill).

Underlining "the freedom to string together movements is like stringing words into a sentence", then is the key to the research findings (Trizkyana & Siswantoyo, 2022). That is because the freedom in carrying out activities that are not bound by rules or restrictions is an indication of a creative person (Bowers et al., 2014). Such characteristics are also related to one trait that is highly correlated with creativity, namely openness to experience. Openness to experience has basic tendencies of action such as the need for variety, novelty, and change (McCrae & Costa, 2008). Openness to experience was found to have the most consistent effect with a positive correlation with creative behavior (McCrae & Ingraham, 1987) (Carson et al., 2005) (Guastello, 2009). A study says that openness to experience is a personality trait that can predict 10–50% of creativity (Sawyer, 2012).

Recent creativity studies have also provided strong evidence supporting the role of the personality trait openness to experience creativity (Puentes-díaz et al., 2022) (Zaeske, 2022) (Ivcevic & Hoffmann, 2022) (Al-Samarrai & Alsalhi, 2023). For example, such as research on the sport of American football (Piepiora et al., 2021). Regarding idea generation as a key element of creative ability, the general finding is that openness to experience is the strongest predictor

(Puentes-díaz et al., 2022). Besides that, (Richard & Runco, 2020) also added that openness to experience (openness to experience) is an important personality factor to support the creation of genuine movements. Thus, this personality trait has the potential to fulfill motor creativity.

Especially in martial arts, participants in risky sports are characterized by a higher degree of openness to experience (Tok, 2011). For example, in the martial sport of judo, which recently in a study showed that openness to experience in the sport of judo martial arts was seen to be higher compared to team sports such as football, handball, and water polo. (Stanković et al., 2022). Other studies in the martial arts of Kyokushin karate and kickboxing also show that the level of openness to experience in these two martial arts is at the same level. (Piepiora et al., 2022).

CONCLUSION

Based on the results of the research and discussion, it can be concluded that increasing the creativity of current pencak silat students can be done through a method, namely the alphabet method. The alphabet training method gives freedom for students to assemble movements based on a series of alphabets arranged into sentences freely by pencak silat students.

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REFERENCES

- Al-Samarrai, B. N., & Alsalhi, N. R. (2023). Openness to Experience, Divergent

- Thinking, and Gender Differences: Domain and Facet Traits. *Information Sciences Letters*, 12(1), 269–276. <https://doi.org/10.18576/isl/120122>
- Azril, H., Shaffril, M., Abu, A., Farid, S., & Ali, Z. (2019). Mirror-mirror on the wall , what climate change adaptation strategies are practiced by the Asian ' s fi shermen of all ? *Journal of Cleaner Production*, 232, 104–117. <https://doi.org/10.1016/j.jclepro.2019.05.262>
- Baer, J. (2015). The Importance of Domain-Specific Expertise in Creativity. *Roeper Review*, 37(3), 165–178. <https://doi.org/10.1080/02783193.2015.1047480>
- Baer, J. (2017). Why You are Probably More Creative (and Less Creative) Than You Think. In *The Creative Self: Effect of Beliefs, Self-Efficacy, Mindset, and Identity*. Elsevier Inc. <https://doi.org/10.1016/B978-0-12-809790-8.00014-5>
- Balyi, I., Way, R., & Higgs, C. (2013). *Long-Term Athlete Development* (Vol. 9, Issue 6). Human Kinetics. <https://doi.org/10.1249/jsr.0b013e3181fe3c44>
- Barth, B., Tucunduva, P., Barth, B., & Tucunduva, P. (2021). An integrative methodology for circus training based on creativity and education on physical expression An integrative methodology for circus training based on creativity and education on physical expression. *Theatre, Dance and Performance Training*, 12(4), 499–513. <https://doi.org/10.1080/19443927.2021.1899973>
- Bowers, M. T., Green, B. C., Hemme, F., Chalip, L., & Bowers, M. T. (2014). Assessing the Relationship Between Youth Sport Participation Settings and Creativity in Adulthood Assessing the Relationship Between Youth Sport Participation Settings and Creativity in Adulthood. *Creativity Research Journal*, 26(3), 314–327. <https://doi.org/10.1080/10400419.2014.929420>
- Carson, S. H., Peterson, J. B., & Higgins, D. M. (2005). Reliability, validity, and factor structure of the creative achievement questionnaire. *Creativity Research Journal*, 17(1), 37–50. https://doi.org/10.1207/s15326934crj1701_4
- Czifrusz, M. (2018). Creativity and culture in reproducing uneven development across Central and Eastern Europe. In G. Lux & G. Horváth (Eds.), *The Routledge Handbook to Regional Development in Central and Eastern Europe* (1st ed., pp. 106–119). Routledge.
- Da, Y. (2021). Digital Art Into the Design of Cultural and Creative Products. *Journal of Physics: Conference Series*, 1852, 1–7. <https://doi.org/10.1088/1742-6596/1852/3/032042>
- Daszko, M., & Sheinberg, S. (2017). Survival is optional: Only leaders with new knowledge can lead the transformation. *Transformation*, 408, 1–12.
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133(May), 285–296. <https://doi.org/10.1016/j.jbusres.2021.04.070>
- García-Peñas, V., García-García, C., de los Fayos, E. J. G., & Corbalán, J. (2021). Creativity in Sports: A Systematic Review . *Cuadernos de Psicología Del Deporte*, 21(2), 85–111. <https://doi.org/10.6018/cpd.468251>
- Gardner, H. (1993). *Multiple intelligences: The theory in practice* (pp. 1–304). Basic Books.
- Guastello, S. J. (2009). Creativity and personality. In T. Rickards, M. A. Runco, & S. Moger (Eds.), *The Routledge Companion to Creativity* (pp. 267–278). Routledge/Taylor & Francis Group.
- Gusenbauer, M. (2019). Google Scholar to overshadow them all? Comparing the sizes of 12 academic search engines and bibliographic databases. *Scientometrics*, 118(1), 177–214. <https://doi.org/10.1007/s11192-018-2958-5>
- Ha, H., & Ha, M. (2022). Exploring Korean scientists ' perceptions of scientific creativity and education for scientific creativity. *International Journal of Science Education*, 44(11), 1769–1791. <https://doi.org/https://doi.org/10.1080/09500693.2022.2095680>
- Henriksen, D., Creely, E., Henderson, M., & Mishra, P. (2021). Creativity and technology in teaching and learning : A literature review of the uneasy space of implementation. *Educational Technology Research and Development*, 64(4), 2091–2108. <https://doi.org/10.1007/s11423-020-09912-z>

- Ivcevic, Z., & Hoffmann, J. D. (2022). The Creativity Dare: Attitudes Toward Creativity and Prediction of Creative Behavior in School. *Journal of Creative Behavior*, 56(2), 239–257. <https://doi.org/10.1002/jocb.527>
- Katz-Buonincontro, J., & Anderson, R. C. (2020). A Review of Articles Using Observation Methods to Study Creativity in Education (1980 – 2018). *Journal of Creative Behavior*, 54(3), 508–524. <https://doi.org/10.1002/jocb.385>
- Kaufman, J. C. (2018). Finding meaning with creativity in the past, present, and future. *Perspectives on Psychological Science*, 13(6), 734–749. <https://doi.org/10.1177/1745691618771981>
- Klein, M., Gutowski, P., Gerlitz, L., & Gutowska, E. (2021). Creative and culture industry in baltic sea region condition and future. *Sustainability*, 13(8), 1–17. <https://doi.org/10.3390/su13084239>
- Maryono, O. (2000). *Pencak Silat Merentang Waktu* (pp. 1–412). Galang press.
- Mattarelli, E., Cochis, C., Bertolotti, F., & Ungureanu, P. (2022). How designed work environment and enacted work interactions impact creativity and work – life balance. *European Journal of Innovation Management*. <https://doi.org/10.1108/EJIM-01-2022-0028>
- McCrae, R. R., & Costa, P. T. J. (2008). The five-factor theory of personality. In R. W. R. O. P. John & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 159–181). The Guilford Press.
- McCrae, R. R., & Ingraham, L. J. (1987). Creativity, Divergent Thinking, and Openness to Experience. *Journal of Personality and Social Psychology*, 52(6), 1258–1265. <https://doi.org/10.1037/0022-3514.52.6.1258>
- Memmert, D., & Roca, A. (2019). Tactical creativity and decision making in sport. In A. M. Williams & R. C. Jackson (Eds.), *Anticipation and Decision Making in Sport* (1st ed., Issue March, pp. 201–214). Routledge. <https://doi.org/10.4324/9781315146270-11>
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *BMJ (Online)*, 339(7716), 332–336. <https://doi.org/10.1136/bmj.b2535>
- Pieporia, P., Komarnicka, N., Gumienka, R., & Maslinski, J. (2022). Personality and gender of people training in Kyokushin karate and kickboxing. *Ido Movement for Culture*, 22(1), 35–45. <https://doi.org/10.14589/ido.22.1.6>
- Pieporia, P., Kwiatkowski, D., Bagińska, J., & Agouridas, D. (2021). Sports level and the personality of american football players in Poland. *International Journal of Environmental Research and Public Health*, 18(24), 1–12. <https://doi.org/10.3390/ijerph182413026>
- Puente-díaz, R., Cavazos-arroyo, J., & Puente-sierra, L. (2022). The contribution Openness to Experience and its two aspects to the explanation of idea generation , evaluation and selection : A metacognitive perspective. *Personality and Individual Differences*, 185(August 2021), 111240. <https://doi.org/10.1016/j.paid.2021.111240>
- Purwanto, S. A., & Saputra, A. R. (2020). Authenticity and creativity: The development of pencak silat in Sumedang. *ETNOSIA : Jurnal Etnografi Indonesia*, 5(1), 15. <https://doi.org/10.31947/etnosia.v5i1.9641>
- Rasmussen, L. J. T., Østergaard, L. D., & Glăveanu, V. P. (2017). Creativity as a developmental resource in sport training activities. *Sport, Education and Society*, 24(5), 491–506. <https://doi.org/10.1080/13573322.2017.1403895>
- Richard, V., & Runco, M. A. (2020). Creativity: The Emergence of a New Dimension of Sport Expertise. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of Sport Psychology* (4th ed., pp. 632–649). Wiley.
- Santos, S. D. L., Memmert, D., Sampaio, J., & Leite, N. (2016). The spawns of creative behavior in team sports: A creativity developmental framework. *Frontiers in Psychology*, 7(AUG), 1–14. <https://doi.org/10.3389/fpsyg.2016.01282>
- Sawyer, R. K. (2012). *Explaining Creativity The Science of Human Innovation* (2nd ed.). Oxford University Press, Inc. <https://doi.org/10.4324/9781351199797>
- Stanković, N., Todorović, D., Milošević, N., Mitrović, M., & Stojiljković, N. (2022). Aggressiveness in Judokas and Team Athletes: Predictive Value of Personality Traits, Emotional Intelligence and Self-Efficacy. *Frontiers in Psychology*, 12(January), 1–8. <https://doi.org/10.3389/fpsyg.2021.824123>

- Subotnik, R. F., Olszewski-Kubilius, P., & Worrell, F. C. (2021). The Talent Development Megamodel: A Domain-Specific Conceptual Framework Based on the Psychology of High Performance. In R. J. Sternberg & D. Ambrose (Eds.), *Conceptions of Giftedness and Talent* (pp. 425–442). Palgrave Macmillan.
- Tang, M. (2021). Creativity and innovation: Basic concepts and approaches. In M. Tang & C. H. Werner (Eds.), *Handbook of the management of creativity and innovation: Theory and practice* (Issue 48, pp. 3–32). World Scientific Publishing Co. Pte. Ltd. <https://doi.org/10.31174/send-hs2021-261ix48-08>
- Tok, S. (2011). The big five personality traits and risky sport participation. *SOCIAL BEHAVIOR AND PERSONALITY*, 39(8), 1105–1111. <https://doi.org/http://dx.doi.org/10.2224/sbp.2011.39.8.1105>
- Trizkyana, C. K., & Siswantoyo, S. (2022). Learn Pencak Silat Like Write a Book : Innovative Training Method Development to Increase HOTS CREATIVITY in the Industrial Revolution Era 4 . 0. *Conference on Interdisciplinary Approach in Sports in Conjunction with the 4th Yogyakarta International Seminar on Health, Physical Education, and Sport Science (COIS-YISHPESS 2021)*, 43, 328–332. <https://doi.org/https://doi.org/10.2991/ahsr.k.220106.061>
- Volery, T., & Tarabashkina, L. (2021). The impact of organisational support, employee creativity and work centrality on innovative work behaviour. *Journal of Business Research*, 129(February), 295–303. <https://doi.org/10.1016/j.jbusres.2021.02.049>
- Wang, Z. (2022). Evaluation of Creativity in Contemporary Dance in Terms of Audience Perception. *Creativity Research Journal*, 1–7. <https://doi.org/10.1080/10400419.2022.2107849>
- Zaeske, L. M. (2022). How personality moderates the relationships between childhood environment , flow metacognitions , and creative ideational behavior : A preliminary study. *Thinking Skills and Creativity*, 44(June). <https://doi.org/10.1016/j.tsc.2022.101040>