

# 16

*by* Edu Sportivo

---

**Submission date:** 19-Jan-2024 01:33PM (UTC+0700)

**Submission ID:** 2265247914

**File name:** 16.\_Scopus\_Q3\_Retos.pdf (155.72K)

**Word count:** 5803

**Character count:** 35066

## Technology Readiness and Psychological Correlate with Academic Achievement of Elite Student-Athletes at the College Level? ¿La preparación tecnológica y la psicología se correlacionan con el rendimiento académico de los estudiantes-atletas de élite a nivel universitario?

\*Mochamad Ridwan, \*Abdul Rachman Syam Tuasikal, \*Fransisca Januarumi Marhaendra, \*Kolektus Oky Ristanto, \*\*Novri Gazali, \*\*\*Armando Monterrosa-Quintero, \*\*\*\*Francisco Javier Gil-Espinosa, \*\*\*\*\*Arumugam Raman, \*\*\*\*\*Edi Setiawan

\*Universitas Negeri Surabaya (Indonesia), \*\*Universitas Islam Riau (Indonesia), \*\*\*Universidad Surcolombiana (Colombia), \*\*\*\*University of Malaga (Spain), \*\*\*\*\*Universiti Utara Malaysia (Malaysia), \*\*\*\*\*Universitas Suryakencana (Indonesia)

**Abstract.** After the COVID-19 period, academic achievement among elite student-athletes has not shown any improvement and it is not yet known exactly the main factors that contributed to academic achievement. In addition, limited evidence in previous research that analyzed the relationship between technological and psychological readiness with academic achievement among elite student athletes at the college level became a gap in this study. Therefore, this study investigated the relationship between technological and psychological readiness variables and academic achievement. Correlational research was adopted in this study which involved eighty-five elite first-year student-athletes from the Universitas Negeri Surabaya (Indonesia). Technological and psychological readiness was measured using a questionnaire while academic achievement was measured by filling out questions about soccer, basketball and volleyball. Spearman's rank was used to investigate the relationship of each variable. We observed several findings in this study. First, there was a relationship between the variable technological readiness and academic achievement. Second, there was a psychological relationship between academic achievement. Third, there was relationship between technological and psychological readiness and academic achievement. Thus, we highlight that the level of academic achievement among elite student athletes in the first year was closely related to technological and psychological readiness.

**Keywords:** Technological, Psychological, Academic Achievement, Elite Student-Athletes

**Resumen.** Después del período COVID-19, el rendimiento académico entre los estudiantes-atletas de élite no ha mostrado ninguna mejora y aún no se conoce exactamente los principales factores que contribuyeron al rendimiento académico. Además, la evidencia limitada en investigaciones previas que analizaron la relación entre la preparación tecnológica y psicológica con el rendimiento académico entre estudiantes atletas de élite a nivel universitario se convirtió en un vacío en este estudio. Por lo tanto, este estudio investigó la relación entre las variables de preparación tecnológica y psicológica y el rendimiento académico. En este estudio se adoptó una investigación correlacional en la que participaron ochenta y cinco estudiantes-atletas de élite de primer año de la Universitas Negeri Surabaya (Indonesia). La preparación tecnológica y psicológica se midió mediante un cuestionario, mientras que el rendimiento académico se midió respondiendo preguntas sobre fútbol, baloncesto y voleibol. Se utilizó el rango de Spearman para investigar la relación de cada variable. Observamos varios hallazgos en este estudio. Primero, hubo una relación entre la variable preparación tecnológica y el rendimiento académico. En segundo lugar, había una relación psicológica entre el rendimiento académico. En tercer lugar, hubo una relación entre la preparación tecnológica y psicológica y el rendimiento académico. Así, destacamos que el nivel de rendimiento académico entre los estudiantes deportistas de élite en el primer año estuvo estrechamente relacionado con la preparación tecnológica y psicológica.

**Palabras clave:** Tecnológico, Psicológico, Rendimiento Académico, Estudiantes-Deportistas de Élite

Fecha recepción: 15-04-23. Fecha de aceptación: 27-07-23

Mochamad Ridwan  
mochamadridwan@unesa.ac.id

### Introduction

The physical education programmes in several countries have experienced significant transformations due to the global impact of the COVID-19 pandemic (Fang, Teng & Wang, 2021; López-Valenciano, Suárez-Iglesias, Sanchez-Lastra & Ayán, 2021; Mendes, Fachada, Melo, Campos, Nobre & Machado-Rodrigues, 2023; Mujriah et al., 2022). Prior to the onset of the COVID-19 pandemic, the predominant mode of instruction within the university setting involved in-person interactions. However, in response to the pandemic, there was a swift transition to an online learning paradigm (Jumareng et al., 2021; Fierro et al., 2022). According to Butt, Mahmood & Saleem, (2022), empirical evidence has substantiated that online learning throughout the epidemic fostered more inventive and innovative learning environments compared to face-to-face

instruction. One potential rationale is that elite student-athletes have the ability to conveniently and expeditiously obtain and fulfil several advantages associated with online physical education training, such as the acquisition of knowledge (Prasetyanto, Rizki & Sunitiyoso, 2022). However, prior research has yielded conflicting results about the impact of online physical education classes, with some studies highlighting negative consequences such as unreliable internet connections and expensive data limitations (Jumareng et al., 2022). Furthermore, it should be noted that the advent of online learning has had a significant impact on individuals' psychological well-being, as evidenced by previous research (Rahman, Hamka & Lin, 2020; Teresa, Guss & Boyd, 2021; Ahmad, Ismail & Husain, 2022). This, in turn, has been found to have an indirect effect on elite students' academic achievement, leading to a steady deterioration (Hashemi, 2021; Yuda et al., 2022).

Academic achievement is a crucial element that necessitates the accomplishment of all elite student-athletes within the university setting (Abdullah, Shamsi, Jenatabadi, Ng & Mentri, 2022). The academic achievement of elite student-athletes can be assessed using a parameter that indicates their level of success or failure (Moore, 2019). Zanevskyy & Zanevska (2021) claim that there exists a positive correlation between exceptional academic achievement and proficiency in athletics among elite student-athletes. According to Tentama & Abdillah (2019), prior research has indicated that achieving good academic achievement might enhance elite student-athletes employability prospects, while a lack thereof may provide challenges in securing employment. Moreover, Yuda et al. (2022), found that those with lower academic achievement may experience prolonged periods of unemployment. According to Fokkens-Bruinsma, Vermue, Deinum & van Rooij (2021), the primary determinant of student-athletes success both in the present and in the long term is their academic achievement. Various aspects have been purported or hypothesised to serve as indicators of academic achievement, specifically, the readiness of technology and the psychological well-being of elite student-athletes.

Technology readiness was identified as the initial component for predicting elite student-athletes academic achievement (Wang, Xia, Guo, Xu & Zhao, 2022). The concept of technology readiness has been construed by certain scholars as an individual's preparedness, consciousness, disposition, engagement, or inclination to use technology within domestic, professional, or educational settings (Blut & Wang, 2020; Andarwulan, Al Fajri & Damayanti, 2021). According to the research conducted by Warden, Yi-Shun, Stanworth & Chen (2022), the concept of technological preparedness encompasses a positive aspect. Specifically, optimism is characterised as a favourable perception of technology, while innovativeness refers to the proficiency in utilising novel technical advancements to foster innovation. The negative dimension referred to as discomfort is characterised by an individual's unwillingness or reluctance to engage with technology. Insecurity, on the other hand, is defined as a lack of trust or confidence in technology (Mukerjee, Deshmukh & Prasad, 2019). According to Geng, Law & Niu (2019)), a study indicated that there has been a rise in research on technology readiness in education due to the assertion that it may effectively facilitate learning objectives. The awareness and active engagement of elite student-athletes in learning technology within the context of physical education is significantly influenced by the level of technology readiness. This readiness encompasses the familiarity and proficiency with various technological tools such as laptops, computers (Yosser, Idrus & Ali, 2020), as well as internet platforms like zoom meetings, google meet, and google classroom (Jumareng et al., 2021). Prior research has elucidated the manifold advantages of technology readiness. For instance, it fosters enhanced

literacy among elite student-athletes, instills a sense of comfort in utilising technology, and facilitates their engagement in the learning process. Conversely, a lack of readiness among elite student-athletes poses obstacles to their involvement and presents challenges in effectively utilising technology (Chang, Yu, Chao & Lin, 2020). The findings of a recent study indicate a deficiency in the preparedness for technology use. Indeed, it is observed that a significant number of elite student-athletes in India lack proficiency in digital technology skills, resulting in a decline in their academic achievement (Wang, Xia, Guo, Xu & Zhao, 2022).

Psychological well-being was the second factor estimated to predict elite student-athletes academic achievement. Psychological well-being was conceptualised as the ability to develop potential independently and determine life goals in a more positive direction (Muqodas et al., 2020; Rahman, Hamka & Lin, 2020; Li, 2021). According to Ku-Johari, Bali-Mahomed, Mahmud, Amat & Saadon (2022), psychological well-being is welfare that is free from negative feelings and turns into positive ones. Psychology well-being has several dimensions, including self-acceptance, positive relationships with others, desire to develop, ability to make their own choices, environmental mastery, life goals and personal growth (Tran et al., 2022; Wahyuningsih, Novitasari & Kusumaningrum, 2022). Previous research has documented the benefits of Psychology well-being, for example, related to the level of stress (Tan, Huang, Geng, Cheung & Zhang, 2021), depression and happiness of a person (Ilhan & Otman, 2020).

Prior research has separately investigated the constructs of academic achievement, technology preparedness, and psychological well-being. Nevertheless, there remains a need to ascertain the potential correlation between technological preparedness and psychological well with regards to academic achievement. To address the existing disparity, this study endeavours to introduce an innovative approach that explores the interplay of technological preparedness, psychological welfare, and academic achievement within the context of physical education. This study enhances our comprehension of the perspectives held by many stakeholders, such as lecturers, faculty members, and government officials, on the importance of technology readiness and psychological well-being in attaining academic achievement among student-athletes in the present period.

The objective of this research was to investigate the correlation between technological readiness and the psychological well-being, as well as the academic achievement of elite student-athletes.

## Methods

### Participants

This study involved eighty-five participants who were elite athlete students from Universitas Negeri Surabaya as one of the reputable universities in Indonesia.

Participants were recruited by sending invitations via WhatsApp to first year until fourth year student athletes, with a total of 156 people. Students who responded and willing to be involved in this study was first-year student athletes who followed football, basketball and volleyball courses, comprises male ( $n=40$ , age =  $19.70 \pm 1.18$  years, weight =  $55.25 \pm 2.91$  kg, height =  $160.12 \pm 5.81$  cm) and female ( $n=45$ , age =  $19.64 \pm 1.13$  years, weight =  $55.09 \pm 2.84$  kg, height =  $160.18 \pm 5.95$  cm). Meanwhile, student athletes in the second, third and fourth years revealed that they were not able to take part in this study because uninterested and some of them were participating in several sports competitions. All participants must sign a letter of intent to be involved in all activities in this study.

### Research instrument

#### Technology readiness

The instrument employed to assess technology readiness in this study was derived from a prior investigation conducted by (Ferreira, da Rocha & da Silva, 2013). Item test encompasses multiple aspects, namely optimism (consisting of 5 question items), innovativeness (comprising of 5 question items), discomfort (comprising of 4 question items), and insecurity (comprising of 4 question items). The respondents completed the survey using a Likert scale ranging from 1 (indicating strong disagreement) to 5 (indicating strong agreement) (Chang, Yu, Chao & Lin, 2020).

#### Psychological:

The present instrument was derived from prior scientific investigations conducted by previous studies (Simons & Bird, 2022; Gani et al., 2023). The instrument consists of a total of 14 question items, which were divided into three subscales. The initial subscale pertains to subjective well-being and consists of three items. For instance, one item inquires about the frequency of feeling happiness while engaging in sports activities within the past week. The second subscale pertains to social well-being and consists of five items. For instance, one item in this subscale asks participants to reflect on their feelings of contribution to a sports team or community over the last week. The third subscale pertains to psychological well-being and comprises six items. For instance, one of the items in this subscale asks participants to indicate the frequency with which they have experienced a sense of purpose in athletics during the last week. Participants have the option to respond to this questionnaire by using a Likert scale, ranging from 0 (never) to 5 (every day).

#### Academic achievement:

The assessment tool used to measure elite student-athletes academic achievement was test results. The average score of exam results was considered as a measure to observe the progress among elite student-athletes academic achievement (Gustems-Carnicer, Calderon, Calderon-Garrido & Martin-Pinol, 2020; Fokkens-Bruinsma,

Vermue, Deinum & van Rooij, 2021; Yuda et al., 2022). The tests were carried out in three subjects, namely the knowledge test of football, basketball and volleyball.

### Design and Procedures

This research was conducted from 6<sup>th</sup> to 8<sup>th</sup> October 2022 at the Universitas Negeri Surabaya (Indonesia) and received approval from the head of the physical education study program with permit number: 08/UNESA-11/2022. Researchers conducted this study according to the World Medical Association (Helsinki Declaration), namely the rules of research with human subjects. All test activities were carried out from 08.00-10.00 in the morning. On 6<sup>th</sup> October 2022, the participants carried out a technology readiness test. On 7<sup>th</sup> October 2022, all participants took a psychological well-being test. Then in the final activity on 8<sup>th</sup> October 2022, participants carried out an assessment in terms of academic achievement which includes knowledge tests on football (5 questions), basketball (5 questions) and volleyball (5 questions). For example, participants must answer questions about "what is football". The score for each correct answer was 5 and an incorrect answer was 0.

### Statistical analysis

Data obtained from the questionnaire were processed through IBM SPSS v 25.0 (Armonk, NY: IBM Corp) (Jumareng & Setiawan, 2021), with the following steps: searching for descriptive statistics ( $M \pm SD$ ) (Mouloud & Nawal, 2020), testing data normality (Kolmogorov-Smirnov), because the data was not normally distributed, nonparametric calculation was used to determine whether there was a relationship between the variables. We used Spearman's rank correlation coefficient ( $r$ ). The level of significance was 0.05.

### Results

This study shows that the data from technology readiness variables, psychology well-being and academic performance variables are not normally distributed ( $p \leq 0.05$ ). Table 1 shows the descriptive statistical results of the technology readiness variables, psychology well-being and academic performance ( $Mean \pm Std. Deviation$ ). The results of the Spearman's rank correlation coefficient indicate that there is a positive relationship between technological readiness ( $p \leq 0.05$ ), psychological well-being ( $p \leq 0.05$ ) and academic achievement ( $p \leq 0.05$ ) (Table 2).

Table 1.  
Descriptive statistics for each variable

Variables	N	Mean	Std. Deviation
TR-Optimism	85	19.09	2.767
TR-Innovativeness	85	19.19	2.962
TR-Discomfort	85	20.46	2.998
TR-Insecurity	85	19.33	3.080
PW-Subjective	85	12.60	2.094
PW-Social	85	12.94	2.206
PW-Psychological	85	13.12	2.286
AA-Football	85	13.14	2.300
AA-Basketball	85	13.16	2.344
AA-Volleyball	85	13.15	2.363

Note: TR: technological readiness, PW: psychological well-being AA: academic achievement

Table 2.  
Correlation Spearman's rho test results between variables (N=85)

Variables		1	2	3	4	5	6	7	8
TR-Optimism	Correlation	1							
	p-values								
TR-Innovativeness	Correlation	0.875**	1						
	p-values	0.000							
TR-Discomfort	Correlation	0.451**	0.597**	1					
	p-value	0.000	0.000						
TR-Insecurity	Correlation	0.993**	0.860**	0.443**	1				
	p-values	0.000	0.000	0.000					
PW-Subjective	Correlation	0.364**	0.376**	0.268*	0.369**	1			
	p-values	0.001	0.000	0.013	0.001				
PW-Social	Correlation	0.429**	0.439**	0.253*	0.432**	0.763**	1		
	p-values	0.000	0.000	0.019	0.000	0.000			
PW-Psychological	Correlation	0.479**	0.495**	0.302**	0.484**	0.651**	0.870**	1	
	p-values	0.000	0.000	0.005	0.000	0.000	0.000		
AA	Correlation	0.378**	0.402**	0.346**	0.378**	0.614**	0.723**	0.832**	1
	p-values	0.000	0.000	0.001	0.000	0.000	0.000	0.000	

Note: TR: technological readiness, PW: psychological well-being AA: academic achievement, \*\*Correlation is significant at the 0.01 level (2-tailed), \*Correlation is significant at the 0.05 level (2-tailed).

## Discussion

This study is a pioneering effort to investigate the association between technological readiness and the psychological well-being of elite student-athletes, specifically in relation to their academic achievement.

The first finding from this correlational study indicates that technological readiness has a strong relationship with the achievement of first year elite student-athlete in football, basketball and volleyball courses. The significance of technological readiness as a crucial determinant in facilitating elite student-athletes' effective engagement in the learning process is evident. According to the research conducted by Warden, Yi-Shun, Stanworth & Chen (2022), there is evidence to suggest that technology preparedness has a positive impact on elite student-athletes' engagement and their inclination to actively participate in the learning process. Elite student-athletes with a high level of positive technology readiness exhibit a willingness and awareness to embrace and engage in technology-based learning, as they are able to recognize and acquire the necessary skills (Blut & Wang, 2020). According to Geng, Law & Niu (2019), the effectiveness of the contemporary educational system, which incorporates technology, relies on the preparedness of elite student-athletes to ensure the optimal execution of the learning process. Moreover, the preparedness to utilize technology can enhance elite student-athletes' ability to engage in discussions and connect with both peers and instructors. Additionally, it enables them to efficiently complete assignments that are provided by instructors through online platforms (Bubou & Job, 2020; Jumareng et al., 2021). The findings of this investigation align with prior research indicating that the ongoing COVID-19 pandemic has the potential to negatively impact academic achievement (Kuhfeld et al., 2020). This can be attributed to elite student-athletes' limited readiness to engage in technology-mediated learning, such as inadequate technology literacy or unfamiliarity with computer usage (Hanif et al., 2021), laptops, smartphones, or online platforms (Wang, Xia, Guo, Xu & Zhao, 2022). On the other hand, elite student-athletes who had the readiness to

use technology could get more benefits, such as increased motivation and movement performance (Juliantine, Setiawan, Jumareng, Gani & Asnaldi, 2022; Jumareng, Setiawan, & Németh, 2022) and academic performance (Calabuig-Moreno, González-Serrano, Fombona & García-Tascon, 2020; Jastrow, Greve, Thumel, Diekhoff & Sußenbach, 2022).

The second finding of this study revealed that psychological well-being exhibited a favorable correlation with academic achievement among elite student-athletes. Psychological well-being has been identified as a significant determinant of elite student-athletes' ability to manifest their potential. For instance, studies have found that psychological well-being is associated with the inclination to cultivate positive interpersonal connections (Deng & Yang, 2021), the capacity to exercise autonomy in decision-making (Priambodo, Prakoso & Setyorini, 2022), as well as the attainment of environmental mastery and life goals (Jeoung, 2020). According to Piñeiro-Cossio, Fernández-Martínez, Nuviola & Pérez-Ordás (2021), empirical evidence suggests that there exists a positive correlation between elite student-athletes' level of positive psychological well-being and their academic success. Moreover, the cultivation of positive psychological well-being among elite student-athletes has been found to exert a mitigating influence on many mental health concerns, including depression, anxiety, and stress (Roy & Gupta, 2022). Additionally, it has been observed to alleviate the burden of academic pressure (Ahmad, Ismail & Husain, 2022). Likewise, research by Ríos Garit et al. (2021), reported similar results, psychological aspects highly contributed to athletes' performance. Research by Lochbaum et al. (2022), supported this study results, in competitive sports the psychological aspect has an important role for student athletes to succeed in gaining high achievements.

Finally, the uniqueness and novelty found in this study is that technological readiness and psychological are important factors for producing high academic achievement among elite student-athletes in the first year who are studying football, basketball or volleyball.

## Conclusions

Based on the findings and results of our study, it can be concluded that the main finding of this research is the positive correlation between technological readiness and psychological and academic achievement among first-year elite student-athletes enrolled in physical education courses, specifically in soccer, basketball, and volleyball, at the university level.

The main limitation of this analysis is the lack of involvement of participants from the second, third, and fourth years of Universitas Negeri Surabaya, which hinders the ability to generalize the findings to the entire population. Hence, further research should involve a larger number of participants or even include participants from several universities. This study contributes to the academic literature by providing valuable information and insights to stakeholders, such as faculty members and government officials, regarding the importance of technological readiness and psychological well-being in enhancing the academic performance of elite student-athletes enrolled in university-level physical education programs.

## References

- Abdullah, N. A., Shamsi, N. A., Jenatabadi, H. S., Ng, B. K., & Mentri, K. A. C. (2022). Factors Affecting Undergraduates' Academic Performance during COVID-19: Fear, Stress and Teacher-Parents' Support. *Sustainability (Switzerland)*, *14*(13). <https://doi.org/10.3390/su14137694>
- Ahmad, N. S., Ismail, A., & Husain, Z. (2022). Psychological well-being impacts among university students on online learning during the COVID-19 pandemic. *International Journal of Public Health Science*, *11*(3), 1037–1045. <https://doi.org/10.11591/ijphs.v11i3.21413>
- Andarwulan, T., Al Fajri, T. A., & Damayanti, G. (2021). Elementary teachers' readiness toward the online learning policy in the new normal era during Covid-19. *International Journal of Instruction*, *14*(3), 771–786. <https://doi.org/10.29333/iji.2021.14345a>
- Blut, M., & Wang, C. (2020). *Technology-readiness-a-metaanalysis-of-conceptualizations-of-the-construct-and-its-impact-on-technology-usage* *Journal-of-the-Academy-of-Marketing-Science.pdf*. 649–669.
- Bubou, G. M., & Job, G. C. (2020). Individual innovativeness, self-efficacy and e-learning readiness of students of Yenagoa study centre, National Open University of Nigeria. *Journal of Research in Innovative Teaching & Learning*, *15*(1), 2–22. <https://doi.org/10.1108/JRIT-12-2019-0079>
- Butt, S., Mahmood, A., & Saleem, S. (2022). The role of institutional factors and cognitive absorption on students' satisfaction and performance in online learning during COVID 19. *PLoS ONE*, *17*(6 June), 1–30. <https://doi.org/10.1371/journal.pone.0269609>
- Calabuig-Moreno, F., González-Serrano, M. H., Fombona, J., & García-Tascón, M. (2020). The emergence of technology in physical education: A general bibliometric analysis with a focus on virtual and augmented reality. *Sustainability (Switzerland)*, *12*(7), 1–23. <https://doi.org/10.3390/su12072728>
- Chang, Y. Z., Yu, C. W., Chao, C. M., & Lin, F. C. (2020). Influences on medical app adoption by patients: the unified theory of acceptance and use of technology model and the moderating effects of technology readiness. *Social Science Journal*, *00*(00), 1–14. <https://doi.org/10.1080/03623319.2020.1848338>
- Deng, X., & Yang, Z. (2021). Digital proficiency and psychological well-being in online learning: Experiences of first-generation college students and their peers. *Social Sciences*, *10*(6). <https://doi.org/10.3390/socsci10060192>
- Fang, J. D. D., Teng, P. C., & Wang, F. J. (2021). The impact of physical education classes on health and quality of life during the covid-19. *Applied Sciences (Switzerland)*, *11*(19). <https://doi.org/10.3390/app11198813>
- Ferreira, J. B., da Rocha, A., & da Silva, J. F. (2013). Impacts of technology readiness on emotions and cognition in Brazil. *Journal of Business Research*, *67*(5), 865–873. <https://doi.org/10.1016/j.jbusres.2013.07.005>
- Fierro, A. A., Philominraj, A., Vitoria, R. V., & Grisales, N. E. M. (2022). Teaching in Physical Education during Pandemic COVID-19: A Study of University Teachers. *International Journal of Human Movement and Sports Sciences*, *10*(5), 973–981. <https://doi.org/10.13189/saj.2022.100514>
- Fokkens-Bruinsma, M., Vermue, C., Deinum, J. F., & van Rooij, E. (2021). First-year academic achievement: the role of academic self-efficacy, self-regulated learning and beyond classroom engagement. *Assessment and Evaluation in Higher Education*, *46*(7), 1115–1126. <https://doi.org/10.1080/02602938.2020.1845606>
- Gani, R. A., Setiawan, E., Achmad, I. Z., Aminudin, R., Purbangkara, T., & Hofmeister, M. (2023). Virtual reality-based tabata training: a professional method for changing levels physical fitness and psychological well-being on student-athletes. *Pedagogy of Physical Culture and Sports*, *27*(2):91-101. <https://doi.org/10.15561/26649837.2023.0201>
- Geng, S., Law, K. M. Y., & Niu, B. (2019). Investigating self-directed learning and technology readiness in blending learning environment. *International Journal of Educational Technology in Higher Education*, *16*(1). <https://doi.org/10.1186/s41239-019-0147-0>
- Gustems-Carnicer, J., Calderon, C., Calderon-Garrido, D., & Martin-Piñol, C. (2020). Academic progress, coping strategies and psychological distress among teacher education students. *International Journal of Educational Psychology*, *9*(3), 290–312. <https://doi.org/10.17583/ijep.2020.4905>

- Hanif, A. S., Amelia, S. R., Nurdin, F., Hernawan, Maslikah, U., Usra, M., Gani, R. A., Setiawan, E., & Jumareng, H. (2021). Investigating lecturers' perceptions of the performance of computer-based and paper pencils-based for assessing sports training program during covid-19. *International Journal of Human Movement and Sports Sciences*, 9(5), 1004–1010. <https://doi.org/10.13189/saj.2021.090522>
- Hashemi, A. (2021). Effects of COVID-19 on the academic performance of Afghan students' and their level of satisfaction with online teaching. *Cogent Arts and Humanities*, 8(1). <https://doi.org/10.1080/23311983.2021.1933684>
- Ilhan, A., & Otman, N. (2020). Analysis of Psychological Well-Being and Happiness Levels of University Students Who Do Swimming and Fitness. *African Educational Research Journal*, 8(8), 273–278. <https://doi.org/10.30918/AERJ.8S2.20.056>
- Jastrow, F., Greve, S., Thumel, M., Diekhoff, H., & Süßenbach, J. (2022). Digital technology in physical education: a systematic review of research from 2009 to 2020. *German Journal of Exercise and Sport Research*, October 2021. <https://doi.org/10.1007/s12662-022-00848-5>
- Jeoung, B. (2020). Correlation of physical fitness with psychological well-being, stress, and depression in Korean adults. *Journal of Exercise Rehabilitation*, 16(4), 351–355. <https://doi.org/10.12965/jer.2040454.227>
- Juliantine, T., Setiawan, E., Jumareng, H., Gani, R. A., & Asnaldi, A. (2022). Do Fundamental Movement Skills, Physical Activity And Enjoyment Among Inactive Student During The Covid-19 Era Improve After Exergame? *Journal of Physical Education (Maringa)*, 33(2), e-3327. <https://doi.org/10.4025/jphyseduc.v33i1.3327>
- Jumareng, H., & Setiawan, E. (2021). Self-esteem, adversity quotient and self-handicapping: Which aspects are correlated with achievement goals? *Cakrawala Pendidikan*, 40(1), 147–157. <https://doi.org/10.21831/cp.v40i1.37685>
- Jumareng, H., Setiawan, E., Asmuddin, A., Rahadian, A., Gazali, N., & Badaruddin, B. (2022). Online Learning for Children with Disabilities During the COVID-19: Investigating Parents' Perceptions. *The Qualitative Report*, 27(2), 591–604. <https://doi.org/https://doi.org/10.46743/2160-3715/2022.4926>
- Jumareng, H., Setiawan, E., & Németh, Z. (2022). Augmented pokemon go in times of COVID-19 : does it have any effect on promoting teenagers' physical activity? *Teoriâ Ta Metodika Fizičnogo Vihovannâ*, 22(3), 360–365. <https://doi.org/10.17309/tmfv.2022.3.09>
- Jumareng, H., Setiawan, E., Patah, I. A., Aryani, M., Asmuddin, A., & Gani, R. A. (2021). Online Learning and Platforms Favored in Physical Education Class during COVID-19 Era: Exploring Student' Perceptions. *International Journal of Human Movement and Sports Sciences*, 9(1), 11–18. <https://doi.org/10.13189/saj.2021.090102>
- Ku-Johari, K. ., Bali-Mahomed, N. ., Mahmud, M. ., Amat, S., & Saadon, S. (2022). Psychological Well-Being of School Counsellors Model. *European Journal of Educational Research*, 11(1), 325–337.
- Kuhfeld, M., Soland, James, Tarasawa, B., Johnson, A, Ruzek, E., & Liu, J. (2020). Projecting the Potential Impact of COVID-19 School Closures on Academic Achievement. *Educational Researcher*, 49(December). <https://doi.org/10.3102/0013189X20965918>
- Li, S. (2021). Psychological Well-being, Mindfulness, and Immunity of Teachers in Second or Foreign Language Education: A Theoretical Review. *Frontiers in Psychology*, 12(July), 1–9. <https://doi.org/10.3389/fpsyg.2021.720340>
- Lochbaum, M., Stoner, E., Hefner, T., Cooper, S., Lane, A. M., & Terry, P. C. (2022). Sport psychology and performance meta-analyses: A systematic review of the literature. *PLoS ONE*, 17(2 February), 1–22. <https://doi.org/10.1371/journal.pone.0263408>
- López-Valenciano, A., Suárez-Iglesias, D., Sanchez-Lastra, M. A., & Ayán, C. (2021). Impact of COVID-19 Pandemic on University Students' Physical Activity Levels: An Early Systematic Review. *Frontiers in Psychology*, 11(January), 1–10. <https://doi.org/10.3389/fpsyg.2020.624567>
- Mendes, P. C., Fachada, M., Melo, R., Campos, F., Nobre, P., & M. Machado-Rodrigues, A. (2023). El impacto de la pandemia del COVID-19 en las clases de Educación Física portuguesas (The COVID-19 pandemic impact on the Portuguese Physical Education classes). *Retos*, 49, 674–684. <https://doi.org/10.47197/retos.v49.98282>
- Mohd Faizal, S., Jaffar, N., & Mohd nor, A. S. (2022). Integrate the adoption and readiness of digital technologies amongst accounting professionals towards the fourth industrial revolution. *Cogent Business and Management*, 9(1). <https://doi.org/10.1080/23311975.2022.2122160>
- Moore, P. J. (2019). Academic achievement and social and emotional learning. *Educational Psychology*, 39(8), 981–983. <https://doi.org/10.1080/01443410.2019.1643971>
- Mouloud, K., & Nawal, K. (2020). The relationship between the social responsibility and the job. *Pedagogy of Physical Culture and Sports*, 24(4), 0–4. <https://doi.org/10.15561/26649837.2020.0408>
- Mujriah, Siswantoyo, Sukoco, P., Rosa, F. ., Susanto, E., & Setiawan, E. (2022). Traditional Sport Model to Improve Fundamental Movement Skills And Social Attitudes Of Students During COVID-19. *Physical Education Theory and Methodology*, 22(3), 309–315. <https://doi.org/10.17309/tmfv.2022.3.02>
- Mukerjee, H. S., Deshmukh, G. K., & Prasad, U. D. (2019). Technology Readiness and Likelihood to Use Self-Checkout Services Using Smartphone in Retail

- Grocery Stores: Empirical Evidences from Hyderabad, India. *Business Perspectives and Research*, 7(1), 1–15. <https://doi.org/10.1177/2278533718800118>
- Muqodas, I., Kartadinata, S., Nurihsan, J., Dahlan, T., Yusuf, S., & Imaddudin, A. (2020). Psychological Well-being: A Preliminary Study of Guidance and Counseling Services Development of Preservice Teachers in Indonesia. *International Conference on Educational Psychology and Pedagogy*, 399(Icepp 2019), 56–60. <https://doi.org/10.2991/assehr.k.200130.080>
- Piñeiro-Cossio, J., Fernández-Martínez, A., Nuviala, A., & Pérez-Ordás, R. (2021). Psychological well-being in physical education and school sports: A systematic review. *International Journal of Environmental Research and Public Health*, 18(3), 1–16. <https://doi.org/10.3390/ijerph18030864>
- Prasetyanto, D., Rizki, M., & Sunitiyoso, Y. (2022). Online Learning Participation Intention after COVID-19 Pandemic in Indonesia: Do Students Still Make Trips for Online Class? *Sustainability (Switzerland)*, 14(4). <https://doi.org/10.3390/su14041982>
- Priambodo, A., Prakoso, B. B., & Setyorini. (2022). Correlation Between Psychological Well-being and Satisfaction of Life on Physical Education Teachers. *Proceedings of the International Joint Conference on Arts and Humanities 2021 (IJCAH 2021)*, 618(Ijcah), 400–404. <https://doi.org/10.2991/assehr.k.211223.069>
- Rahman, F. F., Hamka, & Lin, K. (2020). The Psychological Well-Being of Newly-Arrived Indonesian Students in Taiwan Kesejahteraan Psikologis Mahasiswa Baru Indonesia di Taiwan. *Journal of International Students*, 1(S3), 44–57. [https://doi.org/10.32674/jis.v10iS\(2\).2713](https://doi.org/10.32674/jis.v10iS(2).2713)
- Ríos Garit, J., Pérez Surita, Y., Fuentes Domínguez, E., Soris Moya, Y., & Borges Castellanos, R. (2021). Anxiety and psychological variables of sports performance related to injuries in high-performance sportsmen. *Apunts Sports Medicine*, 56(211). <https://doi.org/10.1016/j.apunsm.2021.100358>
- Roy, M. L., & Gupta, K. (2022). A Study of Impact of Culture on Psychological Wellbeing among the Teaching Faculty Members of Private University in Raipur. *Journal of Positive School Psychology*, 6(3), 10136–10152.
- Tan, Y., Huang, C., Geng, Y., Cheung, S. P., & Zhang, S. (2021). Psychological Well-Being in Chinese College Students During the COVID-19 Pandemic: Roles of Resilience and Environmental Stress. *Frontiers in Psychology*, 12(May), 1–9. <https://doi.org/10.3389/fpsyg.2021.671553>
- Tentama, F., & Abdillah, M. H. (2019). Student employability examined from academic achievement and self-concept. *International Journal of Evaluation and Research in Education*, 8(2), 243–248. <https://doi.org/10.11591/ijere.v8i2.18128>
- Teresa, M. T., Guss, C. D., & Boyd, L. (2021). Thriving during COVID-19: Predictors of psychological well-being and ways of coping. *PLoS ONE*, 16(3 March), 1–19. <https://doi.org/10.1371/journal.pone.0248591>
- Tran, N. T., Franzen, J., Jermann, F., Rudaz, S., Bondolfi, G., & Ghisletta, P. (2022). Psychological distress and well-being among students of health disciplines in Geneva, Switzerland: The importance of academic satisfaction in the context of academic year-end and COVID-19 stress on their learning experience. *PLoS ONE*, 17(4 April), 1–13. <https://doi.org/10.1371/journal.pone.0266612>
- Wahyuningsih, H., Novitasari, R., & Kusumaningrum, F. A. (2022). Emotional and psychological well-being in Indonesian adolescents: Translation and construct validation of the Stirling Children's Well-being Scale in a college student sample. *Cogent Education*, 9(1). <https://doi.org/10.1080/2331186X.2022.2060165>
- Wang, Y., Xia, M., Guo, W., Xu, F., & Zhao, Y. (2022). Academic performance under COVID-19: The role of online learning readiness and emotional competence. *Current Psychology*, 0123456789. <https://doi.org/10.1007/s12144-022-02699-7>
- Warden, C. A., Yi-Shun, W., Stanworth, J. O., & Chen, J. F. (2022). Millennials' technology readiness and self-efficacy in online classes. *Innovations in Education and Teaching International*, 59(2), 226–236. <https://doi.org/10.1080/14703297.2020.1798269>
- Yosser, I. M., Syed Idrus, S. Z. Bin, & Ali, A. A. E. (2020). Technology Readiness Index 2.0 as Predictors of E-Health Readiness among Potential Users: A Case of Conflict Regions in Libya. *Journal of Physics: Conference Series*, 1529(3), 0–9. <https://doi.org/10.1088/1742-6596/1529/3/032009>
- Yuda, A. K., Resita, C., Nurwansyah, R., Gani, R. A., Németh, Z., & Setiawan, E. (2022). Confidence, Academic Stress, Coping Strategies as Predictors of Student Academic Achievement in Physical Education Classes During Covid-19. *Teorià Ta Metodika Fizičnogo Vihovannà*, 22(2), 180–187. <https://doi.org/10.17309/tmfv.2022.2.05>
- Zanevskyy, I., & Zanevska, L. (2021). Academic and sport achievements of the physical culture and sports university students. *Pedagogy of Physical Culture and Sports*, 25(3), 165–171. <https://doi.org/10.15561/26649837.2021.0304>



---

ORIGINALITY REPORT

---

9%

SIMILARITY INDEX

9%

INTERNET SOURCES

7%

PUBLICATIONS

5%

STUDENT PAPERS

---

MATCH ALL SOURCES (ONLY SELECTED SOURCE PRINTED)

---

5%

★ Submitted to Universitas Tanjungpura

Student Paper

---

---

Exclude quotes Off

Exclude bibliography On

Exclude matches < 1%