

**HUBUNGAN KEBUGARAN JASMANI DENGAN KONSENTRASI
ATLET SENAM**

SKRIPSI

Diajukan untuk memenuhi sebagian syarat dari syarat memperoleh gelar sarjana
pendidikan program studi Pendidikan Jasmani Kesehatan dan Rekreasi



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Sebuah skripsi yang diajukan untuk memenuhi salah satu syarat memperoleh gelar Sarjana Pendidikan pada Fakultas Pendidikan Olahraga dan Kesehatan

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Penulis,

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ABSTRAK
HUBUNGAN KEBUGARAN JASMANI DENGAN KONSENTRASI
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Penelitian ini bertujuan untuk mengetahui hubungan antara kebugaran jasmani dengan konsentrasi atlet senam Jawa Barat. Metode yang digunakan dalam penelitian ini adalah deskriptif kuantitatif dengan menggunakan desain korelasional. Dalam pengambilan sampel menggunakan teknik *sampling jenuh* dengan menjadikan sampel atlet senam Jawa Barat yang tergabung dalam pelatda, PPLP, dan club tera. Instrumen yang digunakan dalam penelitian ini menggunakan tes kondisi fisik (*sit and reach test, trunk lift test, standing stork test, whole body reaction, hurdle jump test, 12 core stability test, and multi stage fitness/beep test*) untuk variabel bebas kebugaran jasmani dan *Concentration Grid Test* untuk variabel terikat konsentrasi. Berdasarkan pengolahan dan analisis data ditemukan korelasi sebesar $r = 0.50$ dengan p-value 0,041 dan koefisien determinasi sebesar 25%. Jadi dapat disimpulkan bahwa terdapat hubungan yang signifikan antara kebugaran jasmani dengan konsentrasi atlet senam Jawa Barat.

Kata kunci: Kebugaran Jasmani, Konsentrasi, Senam

ABSTRACT
**CORRELATION OF PHYSICAL FITNESS ON THE CONCENTRATION
OF GYMNASTICS ATHLETES**

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This study aims to determine the relationship between physical fitness and the concentration of West Java gymnastics athletes. The method used in this research is descriptive quantitative using a correlational design. In taking samples using a saturated sampling technique by making samples of West Java gymnastics athletes who are members of the Pelatda, PPLP, and tera club. The instrument used in this study used a physical condition test (sit and reach test, trunk lift test, standing stork test, whole body reaction, hurdle jump test, 12 core stability test, and multi stage fitness/beep test) for the independent variable of physical fitness. and Concentration Grid Test for the concentration dependent variable. Based on data processing and analysis found a correlation of $r = 0.50$ with a p-value of 0.041 and a coefficient of determination of 25%. So it can be concluded that there is a significant relationship between physical fitness and the concentration of West Java gymnastics athletes.

Keywords: Physical Fitness, Concentration, Gymnastics

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DAFTAR PUSTAKA

- Abdollahipour, R., Wulf, G., Psotta, R., & Palomo Nieto, M. (2015). Performance of gymnastics skill benefits from an external focus of attention. *Journal of Sports Sciences*, 33(17), 1807–1813. <https://doi.org/10.1080/02640414.2015.1012102>
- Abraham, H., Lavoie, G., & Montreuil, A. (2008). *Long term Athlete Development*. Canada: Gymnastics Canada Gymnastique. Retrieved from http://www.gymcan.org/uploads/gcg_ltad_en.pdf
- Allesøe, K., Lau, C. J., Buhelt, L. P., & Aadahl, M. (2021). Physical activity, self-rated fitness and stress among 55,185 men and women in the Danish Capital Region Health survey 2017. *Preventive Medicine Reports*, 22. <https://doi.org/10.1016/j.pmedr.2021.101373>
- Amenya, P. C. A., Annan, R. A., Apprey, C., & Kpewou, D. E. (2021). Physical fitness and cognitive function among school-aged children in selected basic schools in the Ho Municipality of Ghana. *Heliyon*, 7(3), e06324. <https://doi.org/10.1016/j.heliyon.2021.e06324>
- Ana-Maria, G., & Ionuț, C. (2014). Significance of the Transition from One Sport Category to Another in Men's Junior Artistic Gymnastics. *Procedia - Social and Behavioral Sciences*, 117, 414–419. <https://doi.org/10.1016/j.sbspro.2014.02.237>
- Apruebo, R. A. (2005). *Sport psychology*. Manila, Philippines: UST Publishing House.
- Arifin, Z. (2018). Pengaruh Latihan Senam Kebugaran Jasmani (Skj) Terhadaptingkat Kebugaran Siswa Kelas V Di Min Donomulyo Kabupaten Malang. *Journal AL-MUDARRIS*, 1(1), 22. <https://doi.org/10.32478/al-mudarris.v1i1.96>
- Blair, S. N., Cheng, Y., & Scott Holder, J. (2001). Is physical activity or physical fitness more important in defining health benefits? In *Medicine and Science in Sports and Exercise*. <https://doi.org/10.1097/00005768-200106001-00007>
- Buehner, M., Krumm, S., Ziegler, M., & Pluecken, T. (2006). Cognitive abilities and their interplay: Reasoning, crystallized intelligence, working memory

- components, and sustained attention. *Journal of Individual Differences*, 27(2), 57–72. <https://doi.org/10.1027/1614-0001.27.2.57>
- Chen, W., Hammond-Bennett, A., Hypnar, A., & Mason, S. (2018). Health-related physical fitness and physical activity in elementary school students. *BMC Public Health*, 18(1), 1–12. <https://doi.org/10.1186/s12889-018-5107-4>
- Chuang, L. Y., Huang, C. J., & Hung, T. M. (2013). The differences in frontal midline theta power between successful and unsuccessful basketball free throws of elite basketball players. *International Journal of Psychophysiology*, 90(3), 321–328. <https://doi.org/10.1016/j.ijpsycho.2013.10.002>
- Chun, M. M., Golomb, J. D., & Turk-Browne, N. B. (2011). A Taxonomy of external and internal attention. *Annual Review of Psychology*, 62, 73–101. <https://doi.org/10.1146/annurev.psych.093008.100427>
- Colcombe, S., & Kramer, A. F. (2003). Fitness effects on the cognitive function of older adults: A meta-analytic study. *Psychological Science*, 14(2), 125–130. <https://doi.org/10.1111/1467-9280.t01-1-01430>
- Corbin, C. B., Welk, G. J., Corbin, W. R., & Welk, K. A. (1997). *Concepts of Physical Fitness. The McGraw-Hill Companies* (14th ed., Vol. 51). New York: The McGraw-Hill Companies. <https://doi.org/10.1080/00971170.1980.10622318>
- Corlaci, I. (2013). Study on the Implications of Attention in Gymnastics. *Procedia - Social and Behavioral Sciences*, 84, 1691–1696. <https://doi.org/10.1016/j.sbspro.2013.07.015>
- Cox, R. H. (2011). *Sport Psychology Concepts and Applications* (7th ed.). New York: McGraw-Hill Education. Retrieved from [Online] <http://gen.lib.rus.ec/book/index.php?md5=6859d9cf36735f7abbe1a92f05d86097>
- Darmawan, A. G., & Suharjana. (2019). The Physical Fitness Gap between Strikers and Defenders in Football Extracurricular Programs. *Jurnal Pendidikan Jasmani Dan Olahraga*, 4(2), 155–159. <https://doi.org/10.17509/jpjo.v4i2.18678>
- Davis, C. L., & Cooper, S. (2011). Fitness, fatness, cognition, behavior, and academic achievement among overweight children: Do cross-sectional

associations correspond to exercise trial outcomes? *Preventive Medicine*, 52(SUPPL.), S65–S69. <https://doi.org/10.1016/j.ypmed.2011.01.020>

- de Greeff, J. W., Bosker, R. J., Oosterlaan, J., Visscher, C., & Hartman, E. (2017). Effects of physical activity on executive functions, attention and academic performance in preadolescent children: a meta-analysis. *Journal of Science and Medicine in Sport*, 21(5), 501–507. <https://doi.org/10.1016/j.jsams.2017.09.595>
- Desai, N., Vance, D. D., Rosenwasser, M. P., & Ahmad, C. S. (2019). Artistic gymnastics injuries; Epidemiology, evaluation, and treatment. *Journal of the American Academy of Orthopaedic Surgeons*, 27(13), 459–467. <https://doi.org/10.5435/JAAOS-D-18-00147>
- Devenney, K. E., Guinan, E. M., Kelly, Á. M., Mota, B. C., Walsh, C., Olde Rikkert, M., ... Lawlor, B. (2019). Acute high-intensity aerobic exercise affects brain-derived neurotrophic factor in mild cognitive impairment: A randomised controlled study. *BMJ Open Sport and Exercise Medicine*, 5(1), 1–8. <https://doi.org/10.1136/bmjsem-2018-000499>
- Di Cagno, A., Baldari, C., Battaglia, C., Monteiro, M. D., Pappalardo, A., Piazza, M., & Guidetti, L. (2009). Factors influencing performance of competitive and amateur rhythmic gymnastics-Gender differences. *Journal of Science and Medicine in Sport*, 12(3), 411–416. <https://doi.org/10.1016/j.jsams.2008.01.006>
- Dirajlal-Fargo, S., Webel, A. R., Longenecker, C. T., Kinley, B., Labbato, D., Sattar, A., & McComsey, G. A. (2016). The effect of physical activity on cardiometabolic health and inflammation in treated HIV infection. *Antiviral Therapy*, 21(3), 237–245. <https://doi.org/10.3851/IMP2998>
- Dobrescu, T., & Dobreci, L. D. (2014). Contributions Regarding the Learning of the Specific Motor Content of Artistic Training in the Aerobic Gymnastics. *Procedia - Social and Behavioral Sciences*, 137, 25–31. <https://doi.org/10.1016/j.sbspro.2014.05.247>
- Donnelly, J. E., Hillman, C. H., Castelli, D., Etnier, J. L., Lee, S., Tomporowski, P., ... Szabo-Reed, A. N. (2016). Physical activity, fitness, cognitive function,

- and academic achievement in children: A systematic review. *Medicine and Science in Sports and Exercise*, 48(6), 1197–1222. <https://doi.org/10.1249/MSS.0000000000000901>
- Donti, O., Tsolakis, C., & Bogdanis, G. C. (2014). Effects of baseline levels of flexibility and vertical jump ability on performance following different volumes of static stretching and potentiating exercises in elite gymnasts. *Journal of Sports Science and Medicine*, 13(1), 105–113.
- Douda, H. T., Toubekis, A. G., Avloniti, A. A., & Tokmakidis, S. P. (2008). Physiological and anthropometric determinants of rhythmic gymnastics performance. *International Journal of Sports Physiology and Performance*, 3(1), 41–54. <https://doi.org/10.1123/ijsp.3.1.41>
- Dupuy, O., Gauthier, C. J., Fraser, S. A., Desjardins-Crèpeau, L., Desjardins, M., Mekary, S., ... Bherer, L. (2015). Higher levels of cardiovascular fitness are associated with better executive function and prefrontal oxygenation in younger and older women. *Frontiers in Human Neuroscience*, 9(FEB), 1–12. <https://doi.org/10.3389/fnhum.2015.00066>
- Ermütlu, N., Yücesir, I., Eskikurt, G., Temel, T., & İşoğlu-Alkaç, Ü. (2015). Brain electrical activities of dancers and fast ball sports athletes are different. *Cognitive Neurodynamics*, 9(2), 257–263. <https://doi.org/10.1007/s11571-014-9320-2>
- Ernst, Z. R., Palmer, J., & Boynton, G. M. (2012). Dividing attention between two transparent motion surfaces results in a failure of selective attention. *Journal of Vision*, 12(12), 1–17. <https://doi.org/10.1167/12.12.6>
- Esteban-Cornejo, I., Cadenas-Sanchez, C., Contreras-Rodriguez, O., Verdejo-Roman, J., Mora-Gonzalez, J., Migueles, J. H., ... Ortega, F. B. (2017). A whole brain volumetric approach in overweight/obese children: Examining the association with different physical fitness components and academic performance. The ActiveBrains project. *NeuroImage*, 159, 346–354. <https://doi.org/10.1016/j.neuroimage.2017.08.011>
- Esteban-Cornejo, I., Rodriguez-Ayllon, M., Verdejo-Roman, J., Cadenas-Sanchez, C., Mora-Gonzalez, J., Chaddock-Heyman, L., ... Hillman, C. H. (2019). Physical fitness, white matter volume and academic performance in children:

- Findings from the activebrains and FITKids2 projects. *Frontiers in Psychology*, 10(FEB). <https://doi.org/10.3389/fpsyg.2019.00208>
- Fahrezi, F. (2001). *Mengenal dan Memahami Sport Aerobics*. Jakarta: Estafet Club.
- Fernandez-Duque, D., Baird, J. A., & Posner, M. I. (2000). Executive Attention and Metacognitive Regulation. *Consciousness and Cognition*, 9(2), 288–307. <https://doi.org/10.1006/ccog.2000.0447>
- Firmansyah, H. (2011). Perbedaan Pengaruh Latihan Imagery Dan Tanpa Latihan Imagery Terhadap Keterampilan Senam Dan Kepercayaan Diri Atlet. *Jurnal Olahraga Prestasi*, 7(7), 1–10. <https://doi.org/10.21831/jorpres.v7i7.10271>
- Firmansyah, H. (2016). Effect Direct and Indirect (Inquiry) Instructions Model in Teaching Gymnastics. *Publikasi Pendidikan*, 6(3). <https://doi.org/10.26858/publikan.v6i3.2272>
- Furley, P., Noël, B., & Memmert, D. (2017). Attention towards the goalkeeper and distraction during penalty shootouts in association football: a retrospective analysis of penalty shootouts from 1984 to 2012. *Journal of Sports Sciences*, 35(9), 873–879. <https://doi.org/10.1080/02640414.2016.1195912>
- Gantcheva, G., Borysova, Y., & Kovalenko, N. (2021). Evaluation and development of artistic abilities of 7-8-year-old rhythmic gymnasts. *Science of Gymnastics Journal*, 13(1), 59–69.
- García-Monge, A., Rodríguez-Navarro, H., González-Calvo, G., & Bores-García, D. (2020). Brain Activity during Different Throwing Games : EEG Exploratory Study. *International Journal of Environmental Research and Public Health*, 17, 1–18. <https://doi.org/http://dx.doi.org/10.3390/ijerph17186796>
- Giriwijoyo, H. Y. S. S., & Sidik, D. Z. (2010). Konsep Dan Cara Penilaian Kebugaran Jasmani Menurut Sudut Pandang Ilmu Faal Olahraga. *Jurnal Kepelatihan Olahraga*, 2(1), 9.
- Giriwijoyo, S., Komariyah, L., & Kartinah, N. T. (2007). Ilmu Kesehatan olahraga (Sports Medicine). *Pendidikan Olahraga*, 1–559.
- Gitelman, D. R. (2003). Attention and its disorders. *British Medical Bulletin*, 65, 21–34. <https://doi.org/10.1093/bmb/65.1.21>
- Giuliano, R. J., Karns, C. M., Neville, H. J., & Hillyard, S. A. (2014). Early

- Auditory Evoked Potential Is Modulated by Selective Attention and Related to Individual Differences in Visual Working Memory Capacity. *Journal of Cognitive Neuroscience*, 26(12), 2682–2690. <https://doi.org/10.1162/jocn>
- Goldhammer, F., Rauch, W. A., Schweizer, K., & Moosbrugger, H. (2010). Differential effects of intelligence, perceptual speed and age on growth in attentional speed and accuracy. *Intelligence*, 38(1), 83–92. <https://doi.org/10.1016/j.intell.2009.07.002>
- Goldman, M., & Rao, J. M. (2012). Effort vs. Concentration: The Asymmetric Impact of Pressure on NBA Performance. In *MIT Sloan Sports Analytics Conference* (pp. 1–10). Boston, MA, USA.
- Gregory, R. L. (2005). Images of mind in brain. *Word and Image*, 21(2), 120–123. <https://doi.org/10.1080/02666286.2005.10462104>
- Gregory, S. M., Parker, B., & Thompson, P. D. (2012). Physical activity, cognitive function, and brain health: What is the role of exercise training in the prevention of dementia? *Brain Sciences*, 2(4), 684–708. <https://doi.org/10.3390/brainsci2040684>
- Gustiana, A. D., & Puspita, R. D. (2020). The Effect of Educative Games on the Physical Fitness of Kindergarten Children. *Pendidikan Jasmani Olahraga*, 5(2), 149–154. Retrieved from <http://ejournal.upi.edu/index.php/penjas/index>
- Harris, H. B., Cortina, K. S., Templin, T., Colabianchi, N., & Chen, W. (2018). Impact of Coordinated-Bilateral Physical Activities on Attention and Concentration in School-Aged Children. *BioMed Research International*, 2018. <https://doi.org/10.1155/2018/2539748>
- Hayman, R., Polman, R., Wharton, K., & Borkoles, E. (2020). Role Strain Theory: Applicability in understanding developmental experiences of international junior acrobatic gymnasts. *Science of Gymnastics Journal*, 12(2), 173–186.
- He, Z. (2017). Acute Effects of Aerobic Physical Activities on Attention and Concentration in School-aged Children. *Biomedical Journal of Scientific & Technical Research*, 1(5), 1–8. <https://doi.org/10.26717/bjstr.2017.01.000456>
- Hendrayana, Y., Negara, J. D. K., Nuryadi, Gumilar, A., & Lesyiana, M. (2020). The impact of beta brain waves in improving cognitive function through brain jogging applications. *International Journal of Human Movement and Sports*

- Sciences*, 8(6), 73–77. <https://doi.org/10.13189/saj.2020.080713>
- Hernández, D., Heinilä, E., Muotka, J., Ruotsalainen, I., Lapinkero, H. M., Syväoja, H., ... Parviainen, T. (2021). Physical activity and aerobic fitness show different associations with brain processes underlying anticipatory selective visuospatial attention in adolescents. *Brain Research*, 1761. <https://doi.org/10.1016/j.brainres.2021.147392>
- Hidayat, Y. (2009). *Pengantar Psikologi Olahraga*. Bandung: CV Bintang Warli Artika.
- Higueras-Fresnillo, S., Cabanas-Sánchez, V., García-Esquinas, E., Rodríguez-Artalejo, F., & Martínez-Gomez, D. (2018). Physical activity attenuates the impact of poor physical, mental, and social health on total and cardiovascular mortality in older adults: a population-based prospective cohort study. *Quality of Life Research*, 27(12), 3293–3302. <https://doi.org/10.1007/s11136-018-1974-5>
- Hillman, C. H., Erickson, K. I., & Kramer, A. F. (2008). Be smart, exercise your heart: Exercise effects on brain and cognition. *Nature Reviews Neuroscience*, 9(1), 58–65. <https://doi.org/10.1038/nrn2298>
- Hillman, C. H., & Schott, N. (2013). Der Zusammenhang von Fitness, kognitiver Leistungsfähigkeit und Gehirnzustand im Schulkindalter: Konsequenzen für die schulische Leistungsfähigkeit. *Zeitschrift Fur Sportpsychologie*, 20(1), 33–41. <https://doi.org/10.1026/1612-5010/a000085>
- Hillman, C. H., Snook, E. M., & Jerome, G. J. (2003). Acute cardiovascular exercise and executive control function. *International Journal of Psychophysiology*, 48(3), 307–314. [https://doi.org/10.1016/S0167-8760\(03\)00080-1](https://doi.org/10.1016/S0167-8760(03)00080-1)
- Hurtig-Wennlöf, A., Ruiz, J. R., Harro, M., & Sjöström, M. (2007). Cardiorespiratory fitness relates more strongly than physical activity to cardiovascular disease risk factors in healthy children and adolescents: The European Youth Heart Study. *European Journal of Cardiovascular Prevention and Rehabilitation*, 14(4), 575–581. <https://doi.org/10.1097/HJR.0b013e32808c67e3>

- Irianto, D. P. (2004). *Panduan Latihan Kebugaran Yang Efektif dan Aman*. Yogyakarta: Lukman Offset.
- Janssen, M., Toussaint, H. M., van Mechelen, W., & Verhagen, E. A. L. M. (2014). Effects of acute bouts of physical activity on children's attention: A systematic review of the literature. *SpringerPlus*, 3(1), 1–10. <https://doi.org/10.1186/2193-1801-3-410>
- Jayanti, D. M. A. D., Tirtayasa, K., Sutjana, I. D. P., Adiputra, N., Adiatmika, I. P., & Sri Handari Adiputra, L. M. I. (2017). Senam Zumba Meningkatkan Daya Tahan Kardiovaskular Dan Kesehatan Mental Pada Subjek Dengan Skizofrenia Di Rsj Provinsi Bali Kabupaten Bangli. *Sport and Fitness Journal*, 5(3), 10–16. <https://doi.org/10.24843/spj.2017.v05.i03.p02>
- Jones, R. L., & Turner, P. (2006). Teaching coaches to coach holistically: can Problem-Based Learning (PBL) help? *Physical Education & Sport Pedagogy*, 11(2), 181–202. <https://doi.org/10.1080/17408980600708429>
- Kiuchukov, I., Yanev, I., Petrov, L., Kolimechkov, S., Alexandrova, A., Zaykova, D., & Stoimenov, E. (2019). Impact of Gymnastics Training on The Health-related Physical Fitness of Young Female And Male Artistic Gymnasts. *Science of Gymnastics Journal*, 11(2), 175–187.
- Knaeps, S., Bourgois, J. G., Charlier, R., Mertens, E., & Lefevre, J. (2017). Associations between physical activity and health-related fitness—volume versus pattern. *Journal of Sports Sciences*, 35(6), 539–546. <https://doi.org/10.1080/02640414.2016.1178393>
- Kovač, M. (2012). Assessment of gymnastic skills at physical education - The case of backward roll. *Science of Gymnastics Journal*, 4(3), 25–35.
- Larasati 1, D. P., Lesmana, R., Pratiwi, Y. S., & Tarawan, V. M. (2017). Profil Daya Tahan Otot, Kekuatan Otot, Daya Ledak Otot, Dan Kelentukan Pada Atlet Senam Ritmik Kota Bandung Menurut Standar KONI Pusat. *Jurnal Ilmu Faal Olahraga*, 1(1), 32–40.
- Latorre-Román, P., Mora-López, D., & García-Pinillos, F. (2016). Intellectual maturity and physical fitness in preschool children. *Pediatrics International*, 58(6), 450–455. <https://doi.org/10.1111/ped.12898>
- Liliana, M., & Adrian, S. M. (2013). The Role of Attention in the Achievement of

- Sport Performance in Judo. *Procedia - Social and Behavioral Sciences*, 84, 1242–1249. <https://doi.org/10.1016/j.sbspro.2013.06.737>
- Lipowski, M., & Zaleski, Z. (2015). Original article Inventory of Physical Activity Objectives – a new method of measuring motives for physical activity and sport. *Health Psychology Report*, 1(1), 47–58. <https://doi.org/10.5114/hpr.2015.49462>
- Lopes, W., Leite, N., Silva, L., Moraes, F., Consentino, C., Araújo, C., & Cavaglieri, C. (2013). Influência da obesidade na força muscular de membros inferiores e superiores em adolescentes. *Revista Brasileira de Atividade Física & Saúde*, 18(06). <https://doi.org/10.12820/rbafs.v.18n6p720>
- Loprinzi, P. D., Scott, T. M., Ikuta, T., Addoh, O., & Tucker, K. L. (2018). Association of physical activity on changes in cognitive function: Boston Puerto Rican Health Study. *Physician and Sportsmedicine*, 47(2), 227–231. <https://doi.org/10.1080/00913847.2018.1547087>
- Ludyga, S., Gerber, M., Brand, S., Pühse, U., & Colledge, F. (2018). Effects of Aerobic Exercise on Cognitive Performance Among Young Adults in a Higher Education Setting. *Research Quarterly for Exercise and Sport*, 89(2), 164–172. <https://doi.org/10.1080/02701367.2018.1438575>
- Luque-Casado, A., Zabala, M., Morales, E., Mateo-March, M., & Sanabria, D. (2013). Cognitive Performance and Heart Rate Variability: The Influence of Fitness Level. *PLoS ONE*, 8(2). <https://doi.org/10.1371/journal.pone.0056935>
- Lutan, R. (2001). *Pendidikan Kebugaran Jasmani*. Jakarta: Depdiknas.
- Mahar, M. T. (2011). Impact of short bouts of physical activity on attention-to-task in elementary school children. *Preventive Medicine*, 52(SUPPL.), S60–S64. <https://doi.org/10.1016/j.ypmed.2011.01.026>
- Mahendra, A. (2009). *Senam Artistik*. Bandung: FPOK UPI.
- Mahendra, A. (2017). *Teori Belajar Mengajar Motorik*. Bandung: Redpoint.
- Mahendra, I. R., Nugroho, P., & Junaidi, S. (2012). Kelentukan Pergelangan Tangan Dan Koordinasi Mata Tangan Dalam Pukulan Forehand Tenis Meja. *JSSF (Journal of Sport Science and Fitness)*, 1(1).
- Manly, T., Anderson, V., Nimmo-Smith, I., Turner, A., Watson, P., & Robertson, I. H. (2001). The differential assessment of children's attention: The Test of

- Everyday Attention for Children (TEA-Ch), normative sample and ADHD performance. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 42(8), 1065–1081. <https://doi.org/10.1111/1469-7610.00806>
- McAvinue, L. P., Vangkilde, S., Johnson, K. A., Habekost, T., Kyllingsbæk, S., Robertson, I. H., & Bundesen, C. (2012). The relationship between sustained attention, attentional selectivity, and capacity. *Journal of Cognitive Psychology*, 24(3), 313–328. <https://doi.org/10.1080/20445911.2011.628653>
- Memmert, D., Simons, D. J., & Grimme, T. (2009). The relationship between visual attention and expertise in sports. *Psychology of Sport and Exercise*, 10(1), 146–151. <https://doi.org/10.1016/j.psychsport.2008.06.002>
- Menezes-Junior, F. J. de, Jesus, Í. C. de, Mota, J., Lopes, M. de F. A., Corazza, P. R. P., Tadiotto, M. C., ... Leite, N. (2020). Validation of equations to estimate the peak oxygen uptake in adolescents from 20 metres shuttle run test. *Journal of Sports Sciences*, 38(22), 2588–2596. <https://doi.org/10.1080/02640414.2020.1794255>
- Moran, A. (2004). *Sport and exercise psychology: A critical introduction*. London: Routledge.
- Nassib, S. H., Mkaouer, B., Nassib, S., Riahi, S. H., & Arfa, Y. (2014). Precompetitive anxiety effect on concentration and performance on elite rhythmic gymnasts. *Science of Gymnastics Journal*, 6(1), 23–32.
- Negara, J. D. K., Abduljabar, B., & Hambali, B. (2019). *Aplikasi Statistika Dalam Penjas* (3rd ed.). Bandung: CV. Bintang Warli Artika.
- Negara, J. D. K., Mudjiyanto, S., Budikayanti, A., & Adhitya Nugraha, P. P. (2021). The effect of gamma wave optimization and attention on hitting skills in softball. *International Journal of Human Movement and Sports Sciences*, 9(1), 103–109. <https://doi.org/10.13189/saj.2021.090114>
- Negara, J. D. K., Nuryadi, & Gumilar, A. (2017). The Effect of Physical Fitness and Healthy Behavior Toward Concentration, Anxiety and Cortisol Hormone. *IOP Conference Series: Materials Science and Engineering*, 180(1), 012208. <https://doi.org/10.1088/1742-6596/755/1/011001>
- Netz, Y., Dwolatzky, T., Zinker, Y., Argov, E., & Agmon, R. (2011). Aerobic

- fitness and multidomain cognitive function in advanced age. *International Psychogeriatrics*, 23(1), 114–124.
<https://doi.org/10.1017/S1041610210000797>
- Niederer, I., Kriemler, S., Gut, J., Hartmann, T., Schindler, C., Barral, J., & Puder, J. J. (2011). Relationship of aerobic fitness and motor skills with memory and attention in preschoolers (Ballabeina): A cross-sectional and longitudinal study. *BMC Pediatrics*, 11(1), 46. <https://doi.org/10.1186/1471-2431-11-34>
- Nowak, P. F., Bożek, A., & Blukacz, M. (2019). Physical Activity, Sedentary Behavior, and Quality of Life among University Students. *BioMed Research International*, 2019. <https://doi.org/10.1155/2019/9791281>
- Nugraha, R., Suherman, A., Ray, H. R. D., & Ma'mun, A. (2020). The Effect of Super Set Weight Training Model and a High-Protein Diet on Body Fat Level Changes in Overweight and Obese Adult Men. *Advances in Health Sciences Research*, 21(Icsshpe 2019), 192–194.
<https://doi.org/10.2991/ahsr.k.200214.051>
- Nunomura, M., Filho, R. A. F., Duarte, L. H., Tanabe, A. M., & Oliveira, M. S. (2016). *Fundamentos das ginásticas artística*. Jundiaí: Fontoura.
- Nurhasan, Priambodo, A., Rospajadi, J., Indiarsa, N., Ivano, R., Christina, S., ... Wibowo, S. (2005). *Petunjuk Praktis Pendidikan Jasmani*. Surabaya: Unesa University Press.
- Nuryadi, N., Negara, J. D. K., Juliantine, T., Slamet, S., & Gumilar, A. (2018). Hubungan Kebugaran Jasmani dengan Kemampuan Konsentrasi dan Respon Kortisol. *Jurnal Pendidikan Jasmani Dan Olahraga*, 3(2), 122–128.
<https://doi.org/10.17509/jpjo.v3i2.12578>
- Oliveira, M. S., da Silva, Y. T. G., & da Costa Silva, P. C. (2018). Pursuing a gymnastics for all and by all. *Science of Gymnastics Journal*, 10(1), 111–122.
- Ortega, F. B., Ruiz, J. R., Castillo, M. J., & Sjöström, M. (2008). Physical fitness in childhood and adolescence: A powerful marker of health. *International Journal of Obesity*, 32(1), 1–11. <https://doi.org/10.1038/sj.ijo.0803774>
- Páez-Maldonado, J. A., Reigal, R. E., Morillo-Baro, J. P., Carrasco-Beltrán, H., Hernández-Mendo, A., & Morales-Sánchez, V. (2020). Physical fitness,

- selective attention and academic performance in a pre-adolescent sample. *International Journal of Environmental Research and Public Health*, *17*(17), 1–11. <https://doi.org/10.3390/ijerph17176216>
- Pesce, C., Crova, C., Cereatti, L., Casella, R., & Bellucci, M. (2009). Physical activity and mental performance in preadolescents: Effects of acute exercise on free-recall memory. *Mental Health and Physical Activity*, *2*(1), 16–22. <https://doi.org/10.1016/j.mhpa.2009.02.001>
- Qi, M., Li, P., Moyle, W., Weeks, B., & Jones, C. (2020). Physical activity, health-related quality of life, and stress among the chinese adult population during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, *17*(18), 1–10. <https://doi.org/10.3390/ijerph17186494>
- Raichlen, D. A., & Alexander, G. E. (2017). Adaptive Capacity: An Evolutionary Neuroscience Model Linking Exercise, Cognition, and Brain Health. *Trends in Neurosciences*, *40*(7), 408–421. <https://doi.org/10.1016/j.tins.2017.05.001>
- Ramania, N. S., Apriantono, T., Syafriani, R., & Kusnaedi. (2020). Jurnal Pendidikan Jasmani dan Olahraga. *Pendidikan Jasmani Olahraga*, *5*(2), 129–133. Retrieved from <http://ejournal.upi.edu/index.php/penjas/index>
- Ramos, M. A. Á., Ruiz, M. Á. M., & Molina, G. M. (2014). Inconsistencies In The Curriculum Design of Educational Gymnastics: Case Study. *Science of Gymnastics Journal*, *6*(3), 23–37. Retrieved from <http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?sid=1bd2d037-8943-4ae5-912c-6fb73a1d5b72%40sessionmgr115&vid=10&hid=117>
- Reigal, R. E., Hernández-Mendo, A., Juárez-Ruiz de Mier, R., & Morales-Sánchez, V. (2020). Physical Exercise and Fitness Level Are Related to Cognitive and Psychosocial Functioning in Adolescents. *Frontiers in Psychology*, *11*(July), 1–9. <https://doi.org/10.3389/fpsyg.2020.01777>
- Reigal, R. E., Moral-Campillo, L., Mier, R. J. R. de, Morillo-Baro, J. P., Morales-Sánchez, V., Pastrana, J. L., & Hernández-Mendo, A. (2020). Physical Fitness Level Is Related to Attention and Concentration in Adolescents. *Frontiers in Psychology*, *11*(February), 1–9. <https://doi.org/10.3389/fpsyg.2020.00110>
- Rueda, M. R., Pozuelos, J. P., & Cómbita, L. M. (2015). Cognitive neuroscience of attention. *AIMS Neuroscience*, *2*(4), 183–202.

<https://doi.org/10.3934/Neuroscience.2015.4.183>

- Russo, L., Palermi, S., Dhahbi, W., Kalinski, S. D., Bragazzi, N. L., & Padulo, J. (2021). Selected components of physical fitness in rhythmic and artistic youth gymnast. *Sport Sciences for Health*, 17(2), 415–421. <https://doi.org/10.1007/s11332-020-00713-8>
- Shephard, R. J. (1995). Physical activity, fitness, and health: The current consensus. *Quest*, 47(3), 288–303. <https://doi.org/10.1080/00336297.1995.10484158>
- Sibley, B. A., & Etnier, J. L. (2004). Time course of attention and decision making during a volleyball set. *Research Quarterly for Exercise and Sport*, 75(1), 102–106. <https://doi.org/10.1080/02701367.2004.10609138>
- Sierra-Palmeiro, E., Bobo-Arce, M., Pérez-Ferreirós, A., & Fernández-Villarino, M. A. (2019). Longitudinal study of individual exercises in elite rhythmic gymnastics. *Frontiers in Psychology*, 10(JUN). <https://doi.org/10.3389/fpsyg.2019.01496>
- Sigvartsen, J., Gabrielsen, L. E., Abildsnes, E., Stea, T. H., Omfjord, C. S., & Rohde, G. (2016). Exploring the relationship between physical activity, life goals and health-related quality of life among high school students: A cross-sectional study. *BMC Public Health*, 16(1), 1–9. <https://doi.org/10.1186/s12889-016-3407-0>
- Smith, E. E., & Kosslyn, S. M. (2013). *Cognitive Psychology: Mind and Brain* (1st ed.). London, England: Pearson Education Limited. Retrieved from <http://libgen.rs/book/index.php?md5=7F32A58383DBCF94BD125CC692C81D2>
- Sudiana, I. K. (2014). Peran Kebugaran Jasmani bagi Tubuh. *Seminar Nasional FMIPA UNDIKSHA IV*, 389–398. Retrieved from <https://ejournal.undiksha.ac.id/index.php/semnasmipa/article/download/10507/6718>
- Sugiyono. (2015). *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif, dan R&D)*. Bandung: Alfabeta.
- Sweeting, J., Ingles, J., Timperio, A., Patterson, J., Ball, K., & Semsarian, C. (2016). Physical activity in hypertrophic cardiomyopathy: Prevalence of

- inactivity and perceived barriers. *Open Heart*, 3(2), 1–9. <https://doi.org/10.1136/openhrt-2016-000484>
- Tilp, M., Scharf, C., Payer, G., Presker, M., & Fink, A. (2020). Physical Exercise During the Morning School-Break Improves Basic Cognitive Functions. *Mind, Brain, and Education*, 14(1), 24–31. <https://doi.org/10.1111/mbe.12228>
- Vanhees, L., Lefevre, J., Philippaerts, R., Martens, M., Huygens, W., Troosters, T., & Beunen, G. (2005). How to assess physical activity? How to assess physical fitness? *European Journal of Preventive Cardiology*, 12(2), 102–114. <https://doi.org/10.1097/01.hjr.0000161551.73095.9c>
- Vanhelst, J., Béghin, L., Duhamel, A., Manios, Y., Molnar, D., De Henauw, S., ... Gómez Lorente, J. J. (2016). Physical Activity Is Associated with Attention Capacity in Adolescents. *Journal of Pediatrics*, 168, 126–131.e2. <https://doi.org/10.1016/j.jpeds.2015.09.029>
- Vast, R. L., Young, R. L., & Thomas, P. R. (2010). Emotions in sport: Perceived effects on attention, concentration, and performance. *Australian Psychologist*, 45(2), 132–140. <https://doi.org/10.1080/00050060903261538>
- Vicente-Mariño, M. (2021). World age group competitions (Wage) as a development pillar for trampoline gymnastics: Analysing national federations' results between 1999 and 2019. *Science of Gymnastics Journal*, 13(1), 127–141.
- Vuillerme, N., & Nougier, V. (2004). Attentional demand for regulating postural sway: The effect of expertise in gymnastics. *Brain Research Bulletin*, 63(2), 161–165. <https://doi.org/10.1016/j.brainresbull.2004.02.006>
- Weinberg, R. S., & Gould, D. (2018). *Foundations of Sport and Exercise Psychology* (7th ed.). Champaign, IL: Human Kinetics. Retrieved from <http://gen.lib.rus.ec/book/index.php?md5=EABBED09B541B5D807EAD01C1967FD58>
- Wilson, V. E., Peper, E., & Schmid, A. (2006). Training Strategies for Concentration. *Applied Sport Psychology: Personal Growth to Peak Performance*, 404–422.
- Yoon, D. H., & Song, W. (2018). Effects of Resistance Training in Cognitive Frailty. *Journal of Nutrition and Health Ageing*, (9). Retrieved from

<https://link.springer.com/content/pdf/10.1007%2Fs12603-018-1090-9.pdf>

Yudiana, Y., Subarjah, H., & Juliantine, T. (2007). *Teori Latihan* (1st ed.). Bandung: FPOK UPI.

Zaqout, M., Vyncke, K., Moreno, L. A., De Miguel-Etayo, P., Lauria, F., Molnar, D., ... Michels, N. (2016). Determinant factors of physical fitness in European children. *International Journal of Public Health*, *61*(5), 573–582. <https://doi.org/10.1007/s00038-016-0811-2>

Zhang, T., Xiang, P., Gu, X., & Rose, M. (2016). College Students' Physical Activity and Health-Related Quality of Life: An Achievement Goal Perspective. *Research Quarterly for Exercise and Sport*, *87*(2), 182–190. <https://doi.org/10.1080/02701367.2016.1159279>