



Available online at:

<https://ejournal.upi.edu/index.php/penjas/article/view/49571>

DOI: <https://doi.org/10.17509/jpjo.v7i2.49571>

Perceived Physical Literacy of Kindergarten Teachers in Urban and Rural Areas

Gita Febria Friskawati

STKIP Pasundan Cimahi, Indonesia

Article Info

Article History :

Received August 2022

Revised August 2022

Accepted August 2022

Available online September 2022

Keywords :

*early childhood education teacher,
kindergartens, physical literacy perception*

Abstract

This study aimed to reveal physical literacy perception differences among early childhood teachers at the kindergarten level of education. The survey research was conducted on 98 kindergarten teachers in West Java who were willing to be involved in this research selected through convenience sampling by filling out an online instrument. Perceived Physical Literacy Scale for Physical Education Teachers (PPLI) was used as the instrument to collect data. The research data were calculated using SPSS 20 employing the ANOVA test. The study's results revealed that physical literacy perception differences were apparent in early childhood education teachers in urban and rural areas, especially in different age and teaching experience groups. The relatively young teachers had diverse perceptions of physical literacy. In contrast, early childhood education teachers in rural schools had the same perception of physical literacy due to the lack of information about the novelty of physical literacy. The findings revealed that the physical literacy perception among early childhood education teachers in urban and rural areas had not been evenly distributed. Therefore, promoting the importance of physical literacy integrated into the learning process, especially in early childhood education, needs to be well socialized through government policies in urban and rural areas.

INTRODUCTION

Mental The development of the Physical Literacy (PL) concept has led to various research findings that have an impact on policy around the world implied for professional practice in sports and physical education, as well as the health of a nation (Hyndman & Pill, 2018; Scott et al., 2021). Canada and America have made a policy to support physical literacy and emphasize the importance of physical activity in physical education to develop healthy habits of school-age children, including to be physically active and learn sports that will be maintained throughout their lives (Ontario Ministry of Education, 2019; SHAPE, 2015). In addition, sport Australia released the Australian Physical Literacy Framework (APLF) in 2019 to advance the national agenda on physical literacy, mainly to clarify and promote physical literacy development in Australian sports and education sectors. This policy also impacts Physical Education curriculum development in Australia (Scott et al., 2021).

Physical literacy can be promoted during the critical period of essential movement skill building (Hulteen et al., 2017). The active period to carry out motor activities in children is generally formed at 3-6 years (Goodway, Jacqueline D., Jhon C. Ozmun, 2021). Children generally attend kindergarten during this period (Wu et al., 2021). This period is a critical period of the basic movement skill formation, such as walking, running, jumping, and throwing, which can encourage their basic motor skill development process, such as speed, strength, coordination, and balance (Goodway, Jacqueline D., Jhon C. Ozmun, 2021). It can also affect subsequent levels of physical activity in adolescence and adulthood (Essiet et al., 2021).

School is a place to provide programs to develop fundamental movement skills and promote active life, especially in elementary school as the initial foundation. Physical education programs through the fundamental motor skill development carried out in schools are conducted to assist the growth and development process of children so that they can grow in harmony and balance (Palmer et al., 2019). A structured motor play experience is vital for early childhood because this experience can foster a sense of love and motivation to add more movement experiences (Wasenius et al.,

2018). A structured movement experience can be presented in the learning process at school, where the teacher becomes the primary key to its success (Bakhtiar et al., 2020a). Teachers spend most of their time managing, designing, providing feedback, and evaluating motor teaching in children (Johnson et al., 2019).

For example, when learning fundamental motor skills, early childhood teachers will ask children to show them how to jump on one leg and remind them to lean forward when jumping and keep their feet off the ground behind their bodies. Future research should explore the influence of teachers with basic movement skill knowledge and apply the knowledge to children. It is also essential to explore children's motor competence, positive self-perception, and whether a teacher's basic motor skill knowledge affects children's physical activity levels and overall health (Breslin et al., 2012).

Kindergarten classroom teachers have been highlighted as critical facilitators in promoting a healthy and active lifestyle (Wachob, 2018) because they can integrate physical literacy concepts into lessons, parenting, and break time inside and outside the classroom (Buckler et al., 2021). Kindergarten teachers also play an essential role in the early childhood development holistic process. They are likely to play a role in supporting a positive physical literacy journey in children as they have a role in promoting physical activity in early childhood years (Lu & Montague, 2016). Research reveals that children spend most of the day in their school supervised by classroom teachers to carry out academic activities, including motor skill development (Sato et al., 2020), where teachers should be the main motor for physical literacy promotion (Doherty et al., 2019; Dynia et al., 2018). Unfortunately, research reveals that little is known about the early childhood educator competence related to their confidence in physical literacy knowledge and its application in learning practices for early childhood in kindergarten (Buckler & Bredin, 2021).

Teacher expertise in content knowledge, appropriately developed introductory activities, and motor task structures must be unique to promote physical literacy in early childhood. However, there is limited literature supporting the importance of perceived physical litera-

cy. Teachers report that pre-service teacher physical literacy perceptions are directly related to a higher teaching efficiency in enacting effective teaching behavior (S. M. Choi et al., 2021). In addition, teacher knowledge, understanding, and competence are essential components of successful physical literacy promotion and quality physical education outcomes; teachers recognize that these elements affect the quality of physical education delivery (Veall, 2015).

Recent research has revealed that the perception, knowledge, and understanding of teachers in kindergarten are essential in promoting physical literacy. A study by (Buckler & Bredin, 2021) identified that related to knowledge and confidence; early childhood teachers needed to improve their teaching skills to develop fundamental motor skills, physical activity, and physical literacy for early childhood in school. However, the level of response could limit the generalization of the results of this study, namely the respondent's interest in physical literacy and physical activity because, in Canada, physical literacy had been massively promoted. Cross-sectional and quantitative research from (S. M. Choi et al., 2021) conducted in China revealed teacher knowledge and understanding based on their demographics, such as gender, age, teaching experience, graduates, and teaching areas, predicting teaching quality in accommodating skill level differences in teaching to promote physical literacy. In addition, (Yıldız & Munusturlar, 2021) conducted a causal-comparative design in Turkey, revealing differences in physical literacy perceptions among teachers according to their specialization and experience level. However, this study had not revealed teachers' physical literacy perceptions compared to their teaching areas, namely urban and rural areas. Therefore, regional comparisons are essential to classify and consider the results to design a direct approach through the promotion of the physical literacy concept tailored to the teacher character in each area, both in urban and rural areas (Essiet et al., 2022).

Related to several studies on the physical literacy perception of early childhood teachers in several countries, there has not been any research in Indonesia. There have been some research on physical literacy which directly study the implementation of physical literacy, such as the integration of physical literacy in the early childhood education curriculum (A. Suher-

man, et al, 2018; Bakhtiar et al., 2020b; Goodway et al., 2019,) and physical literacy measurement carried out by (Permana & Habibie, 2020; Priadana et al., 2021) without examining the initial perception of teacher physical literacy concept. In fact, physical literacy perception is essential for teachers, especially physical education teachers, so that they can design physical literacy promotions integrated into the learning process until they can evaluate it (S. Choi et al., 2021; Essiet et al., 2022; Yıldız & Munusturlar, 2021).

Therefore, this study aimed to present possible differences in physical literacy perceptions by examining the demographics of early childhood teachers, especially the areas where they were teaching, namely in urban and rural areas that had not been disclosed in previous studies to promote physical literacy through their teaching (Hulteen et al., 2017; Pot et al., 2018; Starrett et al., 2021) involving kindergarten teachers as the samples, in West Java. Furthermore, as previously proven by (Edwards et al., 2019), their research results suggest conducting in-service physical literacy training, which might be necessary to complement the teacher's physical literacy perceptions with more extended teaching experience.

METHODS

This survey was conducted to collect all the required data regarding the perceptions of early childhood education teachers in urban and rural areas. In addition, a study by (S. M. Choi et al., 2021) was used to collect data about teacher physical literacy perceptions.

Participants

Ninety-eight female kindergarten teachers in West Java participated in this study. All of them stated that they were willing to be involved and to fill out the online questionnaire. The samples were purely kindergarten class teachers, not physical education teachers teaching kindergarten. Of these 98 teachers, 53 were teaching in urban areas, and 45 were teaching in rural areas.

Sampling Procedures

Sampling was conducted using a convenience sampling method as the criteria for the samples were

accessible and willing to be involved in the research (Creswell & Creswell, 2018). In this case, the samples were taken from the Indonesian Kindergarten Teacher Association, known as Ikatan Guru Taman Kanak-Kanak Indonesia (IGTKI), West Java.

Instrument and Procedure

Instruments developed by (S. Choi et al., 2021) to measure teacher physical literacy perceptions in the form of the 'Perceived Physical Literacy Scale for Physical Education Teachers (PPLI)' was used in this study. PPLI was justified as a survey research instrument in various age groups, teaching experiences, and regions, including urban and rural areas. This PPLI instrument has also been used to measure physical literacy in the continuing professional development program for physical education teachers (Sum et al., 2021) and physical education teachers (Sum et al., 2016).

Three subscales involved as the main attributes of physical literacy proposed by (Whitehead, 2010), including motivation, self-confidence, and physical competence, thus the examples of statements were 'I am physically fit, age-appropriate; I have strong social skills; and I realized the health-related benefits of exercise. Participants filled out the questionnaire with a Likert scale of 1-5 (1 = strongly disagree to 5 = strongly agree). The instrument was translated into the Indonesian language and gained an instrument reliability value of 0.87, so this instrument had shown suitable suitability for measuring teacher physical literacy perceptions (Sum et al., 2016).

The instrument was made into an online questionnaire via a google form and distributed directly to the sample through the WhatsApp group of the West Java Indonesian Kindergarten Teachers Association (IGTKI), who had voluntarily declared their readiness to be involved in this research.

Data Analysis

The Descriptive statistics (mean, frequency, percentage) were calculated for each variable, such as kindergarten teacher perceptions of physical literacy, with demographic variables including gender, region, school status, last education, teaching experience, and training experience. Analysis used one-way ANOVA for calculating the mean difference between urban and rural areas.

In the first stage, gender, region, school status, last education, teaching experience, and training experience variables were included in determining whether these variables were statistically significant to the dependent variable (Berens et al., 2016). All calculations used SPSS 20.0 for Windows. The significance level for each test was set at the 95% confidence interval ($p < 0.05$).

RESULT

Descriptive data regarding the perception of kindergarten teachers in urban and rural areas were found. The population of kindergarten teachers in urban areas aged between 19-30 years (62.2%), an average of 39.6 and up to 4.67. Rural areas found similar data for 55.5% of respondents, averaging 41.00 and up to 3.38. For teaching experience, 67.9% of kindergarten teachers in urban areas had 1-10 years of teaching experience with an average of 41.34 and up to 5.11, while in rural areas, 55.5% of teachers had 11-20 years of teaching experience with an average of 37.9 and up to 5.19.

The Results of the one-way ANOVA analysis revealed that physical literacy perception had a p -value**= $0.021 < 0.05$ in the urban area sample group regarding age. Therefore, there was a significant difference in the physical literacy perception of teachers in urban areas. A similar result was found in the urban area sample group viewed from the teaching experience of kindergarten teachers with a p -value**= $0.0000 < 0.05$. It means that there was a significant difference in the physical literacy perception of teachers in urban areas viewed from the teaching experience. In the rural area sample group, the physical literacy perception according to age gained a p -value**= $0.018 < 0.05$, meaning that there was a significant difference in physical literacy perceptions viewed from the age of the teachers in rural areas. Meanwhile, the physical literacy perception of kindergarten teachers in rural areas had a p -value**= $0.0453 > 0.05$, meaning that there was no difference in physical literacy viewed from the teaching experience of kindergarten teachers in rural areas.

Table 1. Description of physical literacy perception and ANOVA calculation

Variable	Region							
	Urban				Rural			
	f	%	\bar{X} sd	p-value**	f	%	\bar{X} sd	p-value**
Age								
19 – 30	33	62.2%	39.6 ±4.67	0.021	25	55.5%	41.0±3.38	0.018
31 – 42	14	26.4%	38.1±5.12		15	33.3%	32.2±2.78	
43 – 54	5	1.5%	35.2±4.49		5	11.1%	40.6±4.96	
> 54	1	0.7%	31.1±4.47		0	0%	0	
Teaching Experience								
1 – 10	36	67.9%	41.0±3.38	0.000	19	42.25%	30.9±4.72	0.453
11 – 20	12	22.6%	32.2±2.78		25	55.5%	37.9±5.19	
21 – 30	5	9.4%	40.6±4.96		1	2.2%	39.9±4.87	
>30	0	0%	0		0	0%	0	

DISCUSSION

Differences in physical literacy perceptions between kindergarten teachers in urban and rural areas were revealed in this study. Teachers' physical literacy perceptions varied depending on where they lived, in an urban or rural area, by considering other variables, including age and teaching experience (Edwards et al., 2019). The results revealed that the teacher physical literacy perception in urban and rural areas was highest in the relatively young group, ranging from 19-30 years. At this relatively young age, teachers, especially early childhood education teachers, are still enthusiastic to add new knowledge in education, both in terms of teaching innovation and new knowledge (Bergen, 2020), which should be included in early childhood education and considered essential to be developed in children (Tonetto et al., 2020), including physical literacy, (Olive et al., 2019) that becomes a gateway to life-long physical activity participation and contributes to be more confident, competent, and motivated individuals to engage in daily physical activities (Lugossy et al., 2021).

Further findings, different perceptions of physical literacy were also seen from the teaching experience of kindergarten teachers in urban areas with an average of 1-10 years of teaching at most. This teaching experience is relatively short compared to those who have 54 years of teaching experience to teach in kindergarten. However, this study revealed that a long teaching experience did not guarantee an excellent physical literacy

perception compared to a short teaching experience. In line with this finding, (Sato et al., 2020) argue that the suitability of the pedagogical model decreases significantly as individuals mature. They state that self-reflection, intrinsic motivation, and higher self-efficacy are the goals of human life. Learning occurs not only through the instructor but also through life and professional experience (Coulter & Woods, 2012). In andragogy conception, senior teachers provide opportunities to help younger teachers to develop (Rempe-Gillen, 2018).

Another finding of this study is the common perception of kindergarten teachers about physical literacy in rural areas viewed from their teaching experience. Teachers in rural areas with short or long teaching experience did not understand the novelty of the physical literacy concept, which is essential for early childhood. This could be due to inadequate information (Tannehill et al., 2021). Information obtained by kindergarten teachers in urban areas is faster; for example, information about new knowledge will be transferred more quickly than in rural areas (Byrd, 2017). The physical literacy concept has now begun to be included in the National Sports Law, which the government recently revised by mentioning that it is essential to foster physical literacy since early childhood education (UURI, 2022). This information will at least spread quickly among physical education teachers who will disseminate information massively to kindergarten teachers in urban areas because of the ease of access to technology,

such as the use of social media (Mulyana, 2014). The delay in delivering information to kindergarten teachers in rural areas (Hutter, 2016) causes teachers to be uninformed about physical literacy.

Overall, an essential finding of this study is that there was an uneven perception of physical literacy among kindergarten teachers. In general, the principle of organizing early childhood education lies in (1) learning and developing children through play, (2) providing choices and freedom in the learning process, and (3) sometimes providing structured activities in the learning process (Mcevilly et al., 2016). This principle should be the basis for promoting physical literacy by teachers who act as the primary key (Yıldız & Munusturlar, 2021). Physical literacy is essential to be promoted in early childhood education (Pyle et al., 2018), shown by evidence that physical activity is increasingly recognized as an essential determinant of cognitive function among the older population. However, less is known about this association in early childhood (Olive et al., 2021). In younger populations, it has been suggested that interventions to increase physical activity should focus on physical literacy (N Wainwright et al., 2016; Nalda Wainwright et al., 2018).

A deep understanding of physical literacy in early childhood education teachers is needed (Buckler et al., 2021), along with physical literacy perception related to the intention and behavior of teachers to provide opportunities for physical activity and physical literacy development for early childhood children (Buckler & Bredin, 2021). This fact should help inform policymakers in early childhood education for teachers and pre-service teachers' professional development, increasing opportunities for integrating physical literacy in daily early childhood education activities. For example, providing training for kindergarten teachers to know about the concepts and how to integrate physical literacy in kindergarten regularly (Lugossy et al., 2021) so that teachers can accept new knowledge about physical literacy, hence it is easier to implement it in the learning process in kindergarten (Buckler et al., 2021; Buckler & Bredin, 2021).

The results of this study cannot generalize physical literacy perceptions of early childhood education teachers in kindergarten throughout West Java and even throughout Indonesia to be strong evidence of physical

literacy conditions in Indonesia. More comprehensive measurements are needed as well as the level of types of early childhood education in Indonesia, such as playgroups, Raudlatul Athfal (RA), and kindergarten plus to obtain richer data and classify physical literacy perceptions in each type of education at an early age to collect evidence that physical literacy is still not promoted in Indonesia. Moreover, the instrument was only physical literacy perception (Sum et al., 2016). To dig deeper, other instruments are needed, such as in-depth direct interviews (S. Choi et al., 2021) with more complex research methods, such as qualitative research and even mixed methods, to reveal it (Li et al., 2021).

CONCLUSION

Differences in physical literacy perceptions can be seen in early childhood education teachers in urban dan rural areas when considering age and teaching experience. The relatively young group of teachers had diverse perceptions of physical literacy. In contrast to the teaching experience on the physical literacy perception, early childhood education teachers in urban dan rural areas had the same physical literacy perception due to the lack of information about the novelty of this science. This finding is important because it revealed that the physical literacy perception among early childhood education teachers in urban and rural areas was uneven. Therefore, the promotion of the importance of physical literacy must be integrated into learning, especially in early childhood education. Furthermore, it needs to be well socialized through government policies in urban and rural areas to increase teacher knowledge. Therefore, it will be easier to implement it into the learning process in kindergartens to make physical activity a habit started early for their future lives.

ACKNOWLEDGEMENT

The author would like to thank the kindergarten teachers, especially the Indonesian Kindergarten Teacher Association (IGTKI) West Java, who have been willing to spend their time involved in this research.

CONFLICT OF INTEREST

The authors declared no conflict of interest.

REFERENCES

- Asep Suherman, Adang suherman, Tite Juliantine, A. M. (2018). Thematic Learning Based On Physical Literacy for Early Children. 3(1).
- Bakhtiar, S., Famelia, R., Syahputra, R., Oktavianus, I., & Goodway, J. (2020a). Developing a Motor Skill-Based Curriculum for Preschools and Kindergartens as a Preventive Plan for Children With Obesity in Indonesia. 464(Psshers 2019), 276–280. <https://doi.org/10.2991/assehr.k.200824.065>
- Bakhtiar, S., Famelia, R., Syahputra, R., Oktavianus, I., & Goodway, J. (2020b). Developing a Motor Skill-Based Curriculum for Preschools and Kindergartens as a Preventive Plan for Children With Obesity in Indonesia. 21(Icshpe 2019), 106–110. <https://doi.org/10.2991/assehr.k.200824.065>
- Berens, E., Vogt, D., Messer, M., Hurrelmann, K., & Schaeffer, D. (2016). Health literacy among different age groups in Germany : results of a cross-sectional survey. *BMC Public Health*, 1–9. <https://doi.org/10.1186/s12889-016-3810-6>
- Bergen, T. J. (2020). The Young Teacher in the Age of Aquarius. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 93(4), 259–262. <https://doi.org/10.1080/00098655.2020.1762417>
- Breslin, G., Murphy, M., McKee, D., Delaney, B., & Dempster, M. (2012). The effect of teachers trained in a fundamental movement skills programme on children's self-perceptions and motor competence. *European Physical Education Review*, 18(1), 114–126. <https://doi.org/10.1177/1356336X11430657>
- Buckler, E. J., & Bredin, S. S. D. (2021). Examining the knowledge base and level of confidence of early childhood educators in physical literacy and its application to practice. *Early Years*, 41(2–3), 202–217. <https://doi.org/10.1080/09575146.2018.1514488>
- Buckler, E. J., Puterman, E., & Faulkner, G. E. (2021). Early childhood education and care: Do we need to develop the physical literacy of educators? *Prospects*, 50(1–2), 55–68. <https://doi.org/10.1007/s11125-020-09476-z>
- Choi, S. M., Kim-Wai Sum, R., Sau-Ching Ha, A., Hui-Ping Sit, C., Wallhead, T., Shy, D. Y., & Wei, F. M. (2021). Preservice physical education teachers' perceived physical literacy and teaching efficacy. *Journal of Teaching in Physical Education*, 40(1), 146–156. <https://doi.org/10.1123/JTPE.2019-0076>
- Choi, S., Sum, R. K., & Wallhead, T. (2021). Preservice Physical Education Teachers' Perceived Physical Literacy and Preservice Physical Education Teachers' Perceived Physical Literacy and Teaching Efficacy. May 2020. <https://doi.org/10.1123/jtpe.2019-0076>
- Coulter, M., & Woods, C. B. (2012). Primary teachers' experience of a physical education professional development programme. *Irish Educational Studies*, 31(3), 329–343. <https://doi.org/10.1080/03323315.2012.710062>
- Creswell, W. J., & Creswell, J. D. (2018). Research Design: Qualitative, Quantitative and Mixed Methods Approaches. In *Journal of Chemical Information and Modeling* (Vol. 53, Issue 9).
- Doherty, B., Lee, J., Keller, J., & Zhang, T. (2019). Promoting school-aged children's physical literacy in schools : A brief review. *Journal of Teaching, Research, and Media in Kinesiology*, May 2020, 45–49.
- Dynia, J. M., Schachter, R. E., Piasta, S. B., Justice, L. M., O'Connell, A. A., & Yeager Pelatti, C. (2018). An empirical investigation of the dimensionality of the physical literacy environment in early childhood classrooms. *Journal of Early Childhood Literacy*, 18(2), 239–263. <https://doi.org/10.1177/1468798416652448>
- Edwards, L. C., Bryant, A. S., Morgan, K., Cooper, S. M., Jones, A. M., & Keegan, R. J. (2019). A professional development program to enhance primary school teachers' knowledge and operationalization of physical literacy. *Journal of Teaching in Physical Education*, 38(2), 126–135. <https://doi.org/10.1123/jtpe.2018-0275>
- Essiet, I. A., Lander, N. J., Salmon, J., Duncan, M. J., Eyre, E. L. J., Ma, J., & Barnett, L. M. (2021). A systematic review of tools designed for teacher proxy-report of children's physical literacy or constituting elements.
- Essiet, I. A., Warner, E., Lander, N. J., Salmon, J., Duncan, M. J., Eyre, E. L. J., & Barnett, L. M. (2022). Exploring Australian teachers' perceptions of physical literacy: a mixed-methods study. *Physical Education and Sport Pedagogy*, March, 1–20. <https://doi.org/10.1080/17408989.2022.2028760>
- Goodway, Jacqueline D., Jhon C. Ozmun, D. L. G. (2021). Understanding Motor Development (Infant, Children, Adolescents,Adult). *The Journal of the College of General Practitioners*, 19.
- Goodway, J. D., Famelia, R., & Chen, Y.-J. (2019). Engaging the Community in Project SKIP to Promote Early Years Physical Literacy in Indonesia. 278(YISHPESS), 120–125. <https://doi.org/10.2991/yishpess-cois-18.2018.31>
- Hulsteen, R., Morgan, P., Barnett, L., Stodden, D., & Lubans, D. (2017). The role of movement skill competency in the pursuit of physical literacy: Are fundamental movement skills the only pathway? *Journal of Science and Medicine in Sport*, 20, e77. <https://doi.org/10.1016/j.jsams.2017.01.028>

- Hyndman, B., & Pill, S. (2018). What's in a concept? A Leximancer text mining analysis of physical literacy across the international literature. *European Physical Education Review*, 24(3), 292–313. <https://doi.org/10.1177/1356336X17690312>
- Irmansyah, J., Susanto, E., Lumintuarso, R., Sugiyanto, F. X., & Syarif, A. (2021). Physical Literacy in the Culture of Physical Education in Elementary Schools : Indonesian Perspectives. 9(5), 929–939. <https://doi.org/10.13189/saj.2021.090514>
- Johnson, J. L., Rudisill, M. E., Hastie, P., Wadsworth, D., Strunk, K., Venezia, A., Sassi, J., Morris, M., & Merritt, M. (2019). Changes in Fundamental Motor-Skill Performance Following a Nine-Month Mastery Motivational Climate Intervention. *Research Quarterly for Exercise and Sport*, 90(4), 517–526. <https://doi.org/10.1080/02701367.2019.1628909>
- Li, M. H., Sum, R. K. W., Sit, C. H. P., Liu, Y., & Li, R. (2021). Perceived and actual physical literacy and physical activity: A test of reverse pathway among Hong Kong children. *Journal of Exercise Science and Fitness*, 19(3), 171–177. <https://doi.org/10.1016/j.jesf.2021.03.001>
- Lu, C., & Montague, B. (2016). Move to Learn , Learn to Move : Prioritizing Physical Activity in Early Childhood Education Programming. 10643. <https://doi.org/10.1007/s10643-015-0730-5>
- Lugossy, A. M., Froehlich Chow, A., & Humbert, M. L. (2021). Learn to Do by Doing and Observing: Exploring Early Childhood Educators' Personal Behaviours as a Mechanism for Developing Physical Literacy Among Preschool Aged Children. *Early Childhood Education Journal*, 0123456789. <https://doi.org/10.1007/s10643-021-01163-8>
- Olive, L., Telford, D., Telford, R., & Westrupp, E. (n.d.). Physical literacy & early childhood executive function and language development: Active Early Learning randomised controlled trial. *Journal of Science and Medicine in Sport*, 24, S4. <https://doi.org/10.1016/j.jsams.2021.09.020>
- Ontario Ministry of Education. (2019). T H E O N T A R I O C U R R I C U L U M HEALTH AND PHYSICAL.
- Palmer, K. K., Chinn, K. M., & Robinson, L. E. (2019). The effect of the CHAMP intervention on fundamental motor skills and outdoor physical activity in preschoolers. *Journal of Sport and Health Science*, 8 (2), 98–105. <https://doi.org/10.1016/j.jshs.2018.12.003>
- Permana, R., & Habibie, A. (2020). Analisis Assesmen Literasi Jasmani dengan Kebutuhan Pembelajaran PJOK di Sekolah Dasar Muhammadiyah Tasikmalaya. 221–226.
- Pot, N., Whitehead, M. E., & Durden-myers, E. J. (2018). Physical Literacy From Philosophy to Practice. July. <https://doi.org/10.1123/jtpe.2018-0133>
- Priadana, B. W., Saifuddin, H., & Prakoso, B. B. (2021). Kelayakan pengukuran aspek pengetahuan pada instrumen physical literacy untuk siswa usia 8-12 tahun. *Multilateral : Jurnal Pendidikan Jasmani Dan Olahraga*, 20(1), 21. <https://doi.org/10.20527/multilateral.v20i1.9675>
- Pyle, A., Poliszczuk, D., & Danniels, E. (2018). The Challenges of Promoting Literacy Integration Within a Play-Based Learning Kindergarten Program : Teacher Perspectives and Implementation. *Journal of Research in Childhood Education*, 00(00), 1–15. <https://doi.org/10.1080/02568543.2017.1416006>
- Rempe-Gillen, E. (2018). Primary school teacher experiences in cross-phase professional development collaborations. *Professional Development in Education*, 44(3), 356–368. <https://doi.org/10.1080/19415257.2017.1328455>
- Sato, T., Tsuda, E., Ellison, D., & Hodge, S. R. (2020). Japanese elementary teachers' professional development experiences in physical education lesson studies. *Physical Education and Sport Pedagogy*, 25(2), 137–153. <https://doi.org/10.1080/17408989.2019.1692808>
- Scott, J. J., Hill, S., Barwood, D., & Penney, D. (2021). Physical literacy and policy alignment in sport and education in Australia. *European Physical Education Review*, 27(2), 328–347. <https://doi.org/10.1177/1356336X20947434>
- SHAPE. (2015). Grade-Level Outcomes for K-12 Physical Education Grade-Level Outcomes for K-12 Physical Education. SHAPE AMERICA, Curriculum Framework Task Force Lynn.
- Starrett, A., Pennell, A., Irvin, M. J., Taunton Miedema, S., Howard-Smith, C., Goodway, J. D., Stodden, D. F., & Brian, A. (2021). An Examination of Motor Competence Profiles in Preschool Children: A Latent Profile Analysis. *Research Quarterly for Exercise and Sport*, 00(00), 1–10. <https://doi.org/10.1080/02701367.2020.1859440>
- Sum, R. K. W., Ha, A. S. C., Cheng, C. F., Chung, P. K., Yiu, K. T. C., Kuo, C. C., Yu, C. K., & Wang, F. J. (2016). Construction and validation of a perceived physical literacy instrument for physical education teachers. *PLoS ONE*, 11(5). <https://doi.org/10.1371/journal.pone.0155610>
- Sum, R. K. W., Morgan, K., Ma, M. M. S., & Choi, S. M. (2021). The influence of a customized continuing professional development programme on physical education teachers' perceived physical literacy and efficacy beliefs. *Prospects*, 50(1–2), 87–106. <https://doi.org/10.1007/s11125-020-09471-4>
- Tannehill, D., Demirhan, G., Čaplová, P., & Avsar, Z. (2021). Continuing professional development for physical education teachers in Europe. *European*

- Physical Education Review, 27(1), 150–167. <https://doi.org/10.1177/1356336X20931531>
- Tonetto, L. M., Pereira, A. S., Koller, S. H., Bressane, K., & Pierozan, D. (2020). Designing Toys and Play Activities for the Development of Social Skills in Childhood. *Design Journal*, 23(2), 199–217. <https://doi.org/10.1080/14606925.2020.1717026>
- UUUR. (2022). Undang-undang Republik Indonesia Nomor 11 tahun 2022.
- Veall, A. (2015). Cardiff School of Sport DISSERTATION ASSESSMENT PROFORMA : Student name : Programme : Student ID : Dissertation title : Supervisor :
- Wachob, D. A. (2018). Physical Activity and Health Promotion in the Early Years. *Physical Activity and Health Promotion in the Early Years*, 75–89. <https://doi.org/10.1007/978-3-319-76006-3>
- Wainwright, N, Goodway, J., Whitehed, M., Williams, A., Kirk, D., Goodway, J., Whitehed, M., Williams, A., & Kirk, D. (2016). The Foundation Phase in Wales – a play-based curriculum that supports the development of physical literacy The Foundation Phase in Wales – a play-based curriculum that supports the development of physical literacy. 4279 (June). <https://doi.org/10.1080/03004279.2016.1176360>
- Wainwright, Nalda, Goodway, J., Whitehead, M., Williams, A., & Kirk, D. (2018). Laying the foundations for physical literacy in Wales: the contribution of the Foundation Phase to the development of physical literacy. *Physical Education and Sport Pedagogy*, 23(4), 431–444. <https://doi.org/10.1080/17408989.2018.1455819>
- Wasenius, N. S., Grattan, K. P., Harvey, A. L. J., Naylor, P. J., Goldfield, G. S., & Adamo, K. B. (2018). The effect of a physical activity intervention on preschoolers’ fundamental motor skills — A cluster RCT. *Journal of Science and Medicine in Sport*, 21(7), 714–719. <https://doi.org/10.1016/j.jsams.2017.11.004>
- Whitehead, M. (2010). Physical literacy: Throughout the lifecourse. In *Physical Literacy: Throughout the Lifecourse*. <https://doi.org/10.4324/9780203881903>
- Wu, J., Lin, W., & Ni, L. (2021). Peer Interaction Patterns in Mixed-Age and Same-Age Chinese Kindergarten Classrooms : An Observation-based Analysis Peer Interaction Patterns in Mixed-Age and Same-Age Chinese Kindergarten Classrooms : An Observation-based Analysis. *Early Education and Development*, 00(00), 1–13. <https://doi.org/10.1080/10409289.2021.1909262>
- Yıldizer, G., & Munusturlar, S. (2021). Differences in perceived physical literacy between teachers delivering physical education in schools: classroom teachers vs physical education teachers. *Physical Education and Sport Pedagogy*, 0(0), 1–14. <https://doi.org/10.1080/17408989.2021.1932784>