

Original scientific paper

DOI: <https://doi.org/10.58984/smbic240201079g>

Received: 23.10.2024

Accepted: 17.11.2024

Corresponding author: [nrgreen58@gmail.com](mailto:nrgreen58@gmail.com)

## EPHYLI: AN ERASMUS PROJECT TO PROMOTE UNDERSTANDING OF PHYSICAL LITERACY FOR TEACHERS OF PHYSICAL EDUCATION

*Nigel Green<sup>1</sup>, Jana Vašíčková<sup>2</sup>*

**Abstract:** Physical literacy is our relationship with physical activity throughout life. It can be described as the 'motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life' (IPLA, 2017). Teachers of physical education have a catalyst role to play in inspiring children to be physically active for life. The ePhyLi Erasmus + project aims to assess and enhance students' and teachers understanding of physical literacy and provide advice on strategies that can enhance children's experiences within physical education. Eight e-learning modules, an app and an online game have been developed to support a gamified digital learning approach to support and enhance learning at both at an undergraduate and post-graduate level. This training program will give university students and teachers open access to digitalized learning resources and educational technologies that will allow them to become familiar with physical literacy and teaching strategies that foster positive attitudes towards physical activity. This project intends to transform university curricula and the professional development of teachers of physical education and provide tools that can be used to enhance understanding of physical literacy and practices that create positive learning environments and experiences in physical education.

**Keywords:** physical literacy, gamification, physical education, physical activity

---

<sup>1</sup> Professor, Physical Education and Physical Literacy Consultant, European Union Physical Education Association (EUPEA), United Kingdom, e-mail: [nrgreen58@gmail.com](mailto:nrgreen58@gmail.com)

<sup>2</sup> PhD, doc. mgr, Faculty of Physical Culture, Palacký University Olomouc, Department of Social Science in Kinanthropology, Czech Republic, ORCID: 0000-0002-0289-618X, e-mail: [jana.vasickova@upol.cz](mailto:jana.vasickova@upol.cz)

## Introduction

Physical literacy (PL) is our relationship with movement and physical activity throughout life. It can be defined as the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life (International Physical Literacy Association, 2017). PL has emerged as a golden thread (ISCA, 2021) concept that can not only help reshape and provide a significant focus for physical education (PE) internationally, but also permeates play, physical recreation, sport, health, the environment and sustainable development goals. Distinctively, PL emphasises the importance of developing and acknowledging our holistic relationship with physical activity (Whitehead, 2010), and its adoption, underpinning the PE curricula, has the potential to facilitate a more inclusive and effective approach to cultivating a culture of active healthy lifestyles among pupils, and into adulthood. The importance of PL becomes self-evident as individuals actively engage with the world and learn to move for social, aesthetic, competitive, and even survival reasons. This is not just for health purposes, but also to flourish as individuals and gain pleasure through being physically active everyday of their lives. PL, therefore, offers an alternative approach for us to consider that encourages individuals to engage in physical activity to develop their physical, cognitive, emotional, and social attributes for holistic health and wellbeing.

## Physical literacy as a concept

The concept has received significant attention in policy and practice discussions globally and is recognised for its potential to promote and enhance lifelong health and well-being (Bailey, 2022; Carl, 2023, 2024). PL has also been recognised within the Global Action Plan on Physical Activity 2018–2030 (GAPPA) by the World Health Organization (2018), advocating its role to “raise awareness and knowledge of the health benefits of physical activity, promote behaviour change and increase health and physical literacy” (p. 63). Furthermore, the UNESCO Quality Physical Education Guidelines for Policymakers ensured that PL had a central position within their document by highlighting that “participation in physical education should support the development of physical literacy and, on the other hand, contribute to global citizenship, through the promotion of life skills and values” (UNESCO, 2015, p. 20).

Margaret Whitehead (2010), who developed the modern day interpretation of PL, had concerns about: (a) a lack of respect that was given to the human embodied dimension, (b) the importance of movement development in early childhood education that was not getting the attention it deserved, (c) school-based physical education that was moving towards high-level performance and elitism and (d) the low levels of physical

activity around the globe that were exacerbating the growing rates of poor physical and mental health (Young, O'Connor, & Alfrey, 2020 p.8). This stimulated her investigation into the philosophical underpinnings of PL. Drawing from monism, existentialism, and phenomenology, Whitehead (2010) emphasised how PL integrated the mind and body in a holistic manner and stressed the importance of embodied experiences, and the uniqueness of individual physical activity journeys (Young, et al., 2020). The concept of PL has evolved to become a central focus for teachers of physical education with its holistic focus on personal development, health and wellbeing. Yet, PE teachers often exhibit a fragmented understanding of PL, focusing more on physical competence than on the holistic development that the concept encompasses (Harvey & Pill, 2019). Significant gaps in understanding and misconceptions about physical literacy among PE teachers have been identified by Robinson, Randall and Barrett (2018), where PL is often blended with basic PE concepts.

## **The project**

Choi et al. (2020) found that even if teachers appear to acknowledge the importance of PL and have an adequate perception of the concept, their teaching efficacy may vary significantly. They went on to suggest that while there is a general acknowledgement of the importance of PL, confidence and perceived ability to teach PE meaningfully and effectively differs widely. The mismatch between teachers' understanding of the concept of PL and effective teaching strategies and practices, suggests the need for more comprehensive approaches to teacher education and professional development in relation to both PE and PL (Robinson et al., 2018; Stoddart & Humbert, 2021). Targeted training programmes are essential to enhance both preservice and in-service teachers' understanding and teaching efficacy of PE, ultimately developing and improving the PL of their future students (Choi et al., 2020; Sum et al., 2016).

As part of the project, Christodoulides et al. (2024), considered university students' perceptions and understanding of physical literacy, in an exploratory study in Cyprus and shared their findings at the 18th FIEPS European Congress and 6th Scientific Conference in North Macedonia. They highlighted a number of issues including the limited understanding of students and teacher in Cyprus about PL. They stressed the importance of new graduates, having as a catalyst role or being seen as agents of change and influencers of policymaking, where the holistic practices, incorporating diverse activities, can strengthen networks and communities in providing positive physical activity experiences in PE. They also pointed out the gap that exists in university students' understanding of the physical literacy concept, and the need for this to be addressed. Their findings further suggested that students recognise the value of physical literacy in educational settings but would appreciate more structured support and resources

to allow them to fully integrate these concepts into their practice. Highlighting the importance of understanding the philosophical concepts related to PL, including monism, existentialism, and phenomenology, it was suggested that these philosophical underpinnings should feature more prominently within teacher education. Emphasising the importance of a holistic approach to teaching PE and recognising the importance of embodied experiences, and the uniqueness of every individual's physical literacy journey (Whitehead, 2010), the students were keen to learn more about PL.

The ePhyLi project aims to promote awareness and activity in health-enhancing physical activity (HEPA) environments and the adoption of a healthy lifestyle. EPhyLi's main objectives are firstly to assess university students' understanding of PL and how that impacts their engagement in sports and PA. Secondly, to develop methodologies and tools for the promotion of PL within university curricula and training programs through a gamified digital learning approach. Thirdly, to increase university students' knowledge and understanding about PL and educate them on the need for a healthy lifestyle. Fourth, to contribute towards the digital transformation of university curricula and tools that can be used for PL understanding and embracing. Finally, to facilitate the widespread dissemination and sustainability of the project's outcomes to the wider EU community and internationally.

Initially, a desk review of materials relating to the focus of the project, was undertaken and published online, as part of the 'Consolidated report of the Teaching and Learning pedagogical framework for Physical Literacy' (2023 p. 3 - 20). This provided a clear indication of what needed to be developed to support and increase the knowledge and understanding about the notion of PL of university students, who study PE, Sport Pedagogies, Sport and Exercise Science, Primary school teaching, and related fields and who intend to become PE teachers and/or generalists primary school teachers teaching PE. The report also confirmed the need to prepare the PE teachers of the future and also inform practicing teachers about the importance of PL in underpinning PE. The student survey was undertaken at both UCLan Cyprus and the Libera Università di Bolzano, Italy, with results confirming that the focus of the project was correct.

The project had been designed to produce a gamified digital learning approach, in the form of an e-book. The E-book will consist of eight modules, which can be accessed online or face to face and they will enable participants to learn about PL and its implications for teaching PE. Module 1 provides an introduction to the concept of physical literacy, considering its historical origins, its definition, based on the IPLA/Whiteheadian from 2017, which states "Physical literacy can be described as the motivation, confidence, physical competence, knowledge, and understanding to value and take responsibility for engagement in physical activities for life" (IPLA, 2017), however it also considers definitions from other countries across the globe which have been

influenced by their culture or interpretation of the concept. It considers its origins related to the philosophical underpinnings of monism, existentialism and phenomenology and how our experiences influence how we value and engage in movement and physical activity throughout life. Opportunities for review and self-assessment, along with discussion, are provided within each module, with questions aimed at personal reflection concluding each module. Links to videos and articles are also provided within each module.

Module 2 considers why physical literacy has become an important lens to use to look at physical activity and health, with an increasingly inactive and obese population who are suffering from non-communicable diseases, physical literacy utilises a holistic focus on the physical, affective, cognitive and social aspects related to engagement in physical activity throughout life. Reflecting on personal individual journeys allows the participants to consider their unique relationship with movement and physical activity throughout life and consider how cultural, policy, environment, institutions, and social groups all impact on an individual's physical literacy. It also questions why we need a different approach to physical education.

Charting progress or assessment is key to focusing practitioners on outcomes. Module 3 considers how judgements can be made and the key principles related to assessing or charting physical literacy progress. It reflects on attributes that have been considered as important to consider when observing an individual's relationship with physical activity. This module also provides examples of practices that have been adopted by organisations and schools, related to varied theoretical concepts, to chart physical literacy progress.

Module 4 focuses on the early years as this is a really significant time period where enabling environments, such as object play, exercise play, expressive movement and outdoor play, provide the experiences necessary to develop the building blocks and attitudes for future engagement in physical activity. Module 5 then goes on to consider how experiences can be provided in the more formal setting of schools for children aged 5 – 18 years old. Recognising that PE will be different in every school and country, the focus on knowledge, skills, attitudes and attributes provides the initial focus for consideration of what a quality PE experience would look like. Reflecting on intent (philosophy, curriculum plan, holistic development), implementation (planned progressive experiences, varied pedagogical approaches and learning outcomes), and then impact (reflecting on personal progress and behaviour change), the key principles of curriculum design are considered, along with the role of the teacher in providing the positive experiences.

Module 6 considers pedagogical approaches and teaching strategies that impact on physical literacy. This module allows participants to reflect on their own experiences

of being taught, how they teach and the impact of their practice on others through a physical literacy lens. Introducing Mosston's Spectrum of teaching styles may re-introduce or introduce a spectrum of opportunities that are available to teachers and encourages them to consider the most appropriate strategies to use with the children they are working with. Module 7 goes on to consider models-based approaches in the same way. Models such as Sport Education, Teaching Games for Understanding, Cooperative Learning, Teaching Personal and Social Responsibility and Health Based PE are all reflected upon through a physical literacy lens. The final module considers disability, inclusion and physical literacy. It reflects on the challenges that children with different educational needs provide for the teacher of PE and how teachers might adopt specific principles related to physical literacy to ensure inclusive, adaptive and holistic PE environments are provided for all students. These modules will be translated from English into Greek, French, Italian and Indian (Hindi), so that students, teachers and lecturers can access materials in their chosen language.

The project has also produced two comic books, which describe the physical literacy journeys of two different people. These stories consider the life experiences of the two characters, which reinforces the importance of positive physical activity experiences and appropriate support throughout life. Three interactive learning modules will also be available for participants to engage with once they have completed the modules. This reinforces what they have learnt and allows them to apply it to different tasks. Finally an online game app has been developed to support a gamified digital learning approach which supports and enhances learning at both at an undergraduate and post-graduate level.

## Conclusion

The ePhyLi project will have a long-term impact on future (PE) teachers' teaching and pedagogical practices and therefore the experience of children being taught in the future, with a subsequent impact on the currently sedentary population, as children will start to value and engage in physical activity more regularly. Also, the project will strengthen the competency profiles of HEIs staff when it comes to educating their university students in the field of PE and PL, as well as when it comes to the use of digital tools in PE related courses.

The ePhyLi partnership includes two Higher Education Institutes (UCLan - Cyprus, and Libera Università di Bolzano -Italy), 2 small and medium enterprises (IDL (IDL focuses on the following key activities: (a) Game-Based Learning, (b) Training & E-learning, (c) User Experience & Multimedia Content production and (d) Artificial Intelligence), and GX (GrantXpert is also a leader at national level in the development of innovative

educational programmes), and one Association (EUPEA). There are experts from 4 EU countries with expertise in Physical Literacy, Physical Education, Sport Pedagogy, Primary and Secondary Education, as well as Gamification, e-platforms design and development, and dissemination of project results. The project will conclude at the end of 2025 after further testing of materials and will be freely available online.

## References

1. Bailey, R. (2022). Defining physical literacy: Making sense of a promiscuous concept. *Sport in Society*, 25(1), 163-180.
2. Carl, J., Bryant, A. S., Edwards, L. C., Bartle, G., Birch, J. E., Christodoulides, E., ... & Elsborg, P. (2023). Physical literacy in Europe: The current state of implementation in research, practice, and policy. *Journal of Exercise Science & Fitness*, 21(1), 165-176.
3. Carl J, Mazzoli E, Mouton A, Sum RK-W, Singh A, Niederberger M, et al. (2024) Development of a Global Physical Literacy (GloPL) Action Framework: Study protocol for a consensus process. *PLoS ONE* 19(8): e0307000. <https://doi.org/10.1371/journal.pone.0307000>
4. Choi, S. M., Sum, R. K. W., Wallhead, T., Ha, A. S. C., Sit, C. H. P., Shy, D. Y., & Wei, F. M. (2020). Preservice physical education teachers' perceived physical literacy and teaching efficacy. *Journal of Teaching in Physical Education*, 40(1), 146-156.
5. Christodoulides, E., Tsivitanidou, O., Adamakis, M., and Grecic, D. (2024) University students' perceptions and understanding of physical literacy: an exploratory study in Cyprus. In: 18th FIEPS European Congress and 6th Scientific Conference RPESH, 30 May-2 June 2024, Ohrid, North Macedonia. (unpublished)
6. ePhiLi Consolidated report of the Teaching and Learning pedagogical framework for Physical Literacy (2023) [https://www.ephylipproject.eu/\\_files/ugd/a72e85\\_e20ec06012594a0a85ce7a4681c82ed7.pdf](https://www.ephylipproject.eu/_files/ugd/a72e85_e20ec06012594a0a85ce7a4681c82ed7.pdf).
7. Harvey, S., & Pill, S. (2019). Exploring physical education teachers' 'everyday understandings' of physical literacy. *Sport, Education and Society*, 24(8), 841-854.
8. International Physical Literacy Association (2017). Defining physical literacy. <https://www.physical-literacy.org.uk/>
9. ISCA (2021) Physical Literacy for Life Erasmus + Project Physical Literacy ([isca.org](https://isca.org))
10. Robinson, D. B., Randall, L., & Barrett, J. (2018). Physical literacy (mis) understandings: What do leading physical education teachers know about physical literacy? *Journal of Teaching in Physical Education*, 37(3), 288-298.
11. Stoddart, A. L., & Humbert, M. L. (2021). Teachers' perceptions of physical literacy. *The Curriculum Journal*, 32(4), 741-757.

Green, N., Vašíčková, J. (2024) *Ephyli: An Erasmus project to promote understanding of physical literacy for teachers of physical education* In: Dašić, D. (ed) *Sporticopedia SMB2024*, Vol 2, No 1, 79-86

12. Sum, R. K. W., Ha, A. S. C., Cheng, C. F., Chung, P. K., Yiu, K. T. C., Kuo, C. C., ... & Wang, F. J. (2016). Construction and validation of a perceived physical literacy instrument for physical education teachers. *PloS One*, 11(5), e0155610.
13. UNESCO. Quality Physical Education(QPE):Guidelines for Policymakers Paris2015. <https://en.unesco.org/inclusivepolicylab/sites/default/files/learning/document/2017/1/231101E.pdf>.
14. Whitehead, M. (2010). *Physical literacy: Throughout the lifecourse*. Routledge.
15. World Health Organization. *More active people for a healthier world: Global action plan on physical activity 2018–2030*. Geneva: World Health Organization; 2018. p. 101
16. Young, L., O'Connor, J., & Alfrey, L. (2020). Physical literacy: A concept analysis. *Sport, Education and Society*, 25(8), 946-959.