International Conference on Education, Psychology and Humanities
Hosted Online from Moscow, Russia
Date: 28th April, 2026
Website: https://econferencia.com

PEDAGOGICAL FOUNDATIONS FOR DEVELOPING A HEALTHY LIFESTYLE CULTURE IN THE DIGITAL EDUCATIONAL ENVIRONMENT (BASED ON A PHYSIOLOGICAL APPROACH)

Mamantayeva Zamira Xamitjonovna
Doctoral student at the Higher Education Development Research Center

Abstract:
The formation of a healthy lifestyle culture has become a strategic educational objective in the context of digital transformation, changing student behavior, and the growing prevalence of sedentary habits. From a physiological perspective, healthy lifestyle culture is connected with the regulation of movement, nutrition, sleep, stress, recovery, and self-care behaviors that directly influence the functional state of the body. The purpose of this thesis is to substantiate the pedagogical foundations for developing a healthy lifestyle culture in the digital educational environment on the basis of a physiological approach. The study applies theoretical analysis, comparative interpretation, and synthesis of international documents and recent research on physical activity, self-care, digital health, e-health literacy, and digital interventions targeting student lifestyle behavior. The findings show that the pedagogical effectiveness of the digital educational environment depends on its ability to support informed choice, behavioral self-regulation, continuous feedback, and balanced digital use rather than passive information consumption. The thesis argues that a physiological approach gives educational work a measurable foundation because it links value-oriented healthy behavior with observable bodily functions and daily regimes. It is concluded that healthy lifestyle culture in digital education should be developed through an integrated model combining health knowledge, digital literacy, reflective self-monitoring, and pedagogically controlled digital tools.

International Conference on Education, Psychology and Humanities
Hosted Online from Moscow, Russia
Date: 28th April, 2026
Website: https://econferencia.com

Keywords: healthy lifestyle culture, digital educational environment, physiological approach, self-care, physical activity, e-health literacy, digital health, pedagogical foundations

The rapid expansion of digital education has created new opportunities for access, flexibility, and individualized learning. At the same time, it has intensified concerns about sedentary behavior, screen dependency, reduced movement, and the weakening of daily health routines. UNESCO's Global Education Monitoring Report notes that digital technology can support individualized learning, immediate feedback, and flexible trajectories, yet it also warns that increased screen time has been associated with adverse physical and mental health effects and that technology should be guided by clear objectives and principles to avoid harm.

Within this context, the idea of a healthy lifestyle culture acquires special pedagogical importance. The World Health Organization describes self-care as the ability of individuals, families, and communities to promote and maintain health, prevent disease, and cope with illness, adding that self-care actions include practices, habits, and lifestyle choices. WHO also emphasizes that physical inactivity is a leading risk factor for noncommunicable diseases and reports that regular physical activity supports health and well-being, while insufficient activity remains widespread globally. These positions show that education cannot treat healthy behavior as an optional topic external to the learning process. In the digital educational environment, healthy lifestyle culture must become part of pedagogical design itself.

The purpose of this thesis is to identify the pedagogical foundations for developing a healthy lifestyle culture in the digital educational environment based on a physiological approach. The research question is how digital educational

tools and methods can be organized so that they reinforce rather than undermine students' health-related behavior and bodily self-regulation.

This thesis is based on theoretical and analytical research. The methodological basis includes content analysis, comparative interpretation, and conceptual synthesis of international policy documents and recent scholarly works related to healthy lifestyle behavior, digital health, e-health literacy, and digital interventions for students. WHO and UNESCO sources were used to define the normative framework for health promotion, self-care, digital education, and physical activity. Recent studies on digital health interventions and e-health literacy among students were examined to clarify the practical mechanisms through which digital environments may influence lifestyle behavior.

The physiological approach was used as the main interpretive lens. In this study, it means that lifestyle culture is considered not only as a set of social values but also as a system of daily behaviors affecting bodily functioning, adaptation, fatigue, recovery, and long-term well-being. This approach made it possible to connect pedagogical categories such as motivation, self-discipline, and digital competence with physiological categories such as activity level, sleep hygiene, sedentary behavior, and functional balance.

The analysis shows that the first pedagogical foundation of healthy lifestyle culture in digital education is the integration of physiological knowledge with everyday behavioral practice. Health knowledge becomes educationally meaningful only when students understand how physical activity, nutrition, rest, and sleep affect their concentration, emotional state, work capacity, and long-term well-being. WHO materials support this logic by showing that physical activity improves health and that any amount of activity is better than none, while sedentary behavior should be limited.

The second foundation is the development of self-care competence. Since WHO defines self-care as an active ability to promote and maintain one's own health, the digital educational environment should not be limited to transmitting recommendations. It should create conditions for self-observation, self-regulation, and informed health choice. In pedagogical terms, this means that students need guided reflection on daily routines, digital habits, fatigue, stress, and recovery. Such work becomes more effective when supported by digital diaries, reminders, trackers, and structured reflection tasks.

The third foundation is e-health literacy. A 2025 study in BMC Medical Education found that as e-health literacy increases, so does health-promoting lifestyle among university students, and the authors conclude that e-health literacy can be integrated into health education programs. This is especially significant in digital education, where students constantly encounter health information of uneven quality. Therefore, healthy lifestyle culture requires not only motivation but also the ability to search, evaluate, interpret, and apply electronic health information responsibly.

The fourth foundation is pedagogically balanced digitalization. Evidence from a 2026 systematic review of digital health interventions among college students shows that such interventions most often use mobile apps, web platforms, and communication technologies for education, guidance, monitoring, and prompting, and that they are more effective in improving physical activity and diet than in reducing sedentary behavior or improving sleep. This means that digital tools can support behavior change, but their impact is selective and depends on duration, design, and pedagogical supervision.

The findings suggest that a physiological approach strengthens pedagogical work because it makes healthy lifestyle culture concrete, observable, and measurable. Instead of treating health culture as an abstract moral norm, it links educational

influence with bodily indicators of movement, rest, fatigue, recovery, and adaptation. This gives digital education a more responsible orientation. UNESCO's evidence that technology can support flexible and individualized learning, but also create risks through excessive screen exposure and reduced human interaction, confirms that pedagogical management is decisive.

At the same time, the digital environment should not be understood as inherently harmful. WHO's digital health framework explicitly places digital tools in the service of promoting healthy lives and well-being at all ages. The real issue is whether digital resources are used for passive consumption or for active self-care, guided monitoring, and reflective behavior formation. In this sense, the educational value of digitalization depends on methodological design, teacher guidance, and the integration of physiological knowledge with lived student experience.

This thesis demonstrates that the pedagogical foundations for developing a healthy lifestyle culture in the digital educational environment rest on the integration of physiological knowledge, self-care competence, e-health literacy, and balanced use of digital tools. A physiological approach allows educators to connect value-based health education with real behavioral and bodily regulation. The digital educational environment becomes pedagogically effective when it supports movement, reflection, informed health decision-making, and responsible digital conduct rather than merely increasing information exposure. Thus, the development of healthy lifestyle culture should be organized as a systematic pedagogical process in which digital technologies serve health-oriented learning and not the reverse.

References:

1. World Health Organization. Physical activity // WHO. 2024. URL: https://www.who.int/news-room/fact-sheets/detail/physical-activity (accessed: 21.04.2026).
2. World Health Organization. Self-care for health and well-being // WHO. 2024. URL: https://www.who.int/news-room/fact-sheets/detail/self-care-health-interventions (accessed: 21.04.2026).
3. World Health Organization. Digital health // WHO. 2025. URL: https://www.who.int/health-topics/digital-health (accessed: 21.04.2026).
4. UNESCO. Global Education Monitoring Report 2023: Technology in education: A tool on whose terms? Paris: UNESCO, 2023. URL: https://gem-report-2023.unesco.org/technology-in-education/ (accessed: 21.04.2026).
5. Zhou Q., et al. Effect of Digital Health Interventions on College Students' Lifestyle Behaviors: Systematic Review // Gesundheitswesen. 2026. URL: https://www.sciencedirect.com/org/science/article/pii/S1438887126001202 (accessed: 21.04.2026).
6. Mousazadeh Y., et al. Association between health-promoting lifestyle and electronic health literacy among Iranian university students // BMC Medical Education. 2025. Vol. 25. URL: https://link.springer.com/article/10.1186/s12909-025-06823-6 (accessed: 21.04.2026).
7. Presta V., Guarnieri A., Laurenti F., et al. The Impact of Digital Devices on Children's Health: A Systematic Literature Review // Journal of Functional Morphology and Kinesiology. 2024. Vol. 9, No. 4. Art. 236. DOI: 10.3390/jfmk9040236.