

**Публікації вчених СумДПУ імені А. С. Макаренка  
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Bilotserkovets, M., Fomenko, T., Gubina, O., Klochkova, T., Lytvynko, O.,

**Boichenko, M.** & Lazareva, O. (2021). Fostering media literacy skills in the EFL virtual classroom: A case study in the COVID-19 lockdown period. *International Journal of Learning, Teaching and Educational Research*, 20(2), 251-269. doi:10.26803/ijlter.20.2.14

*This investigation highlights the ways and means of students' formation of media literacy skills under the conditions of total and emergent distance learning in the lockdown period of the COVID-19 pandemic. The case study involved 138 first-year students from Sumy National Agrarian University, Ukraine, who studied English as a foreign language (EFL). Analysis, synthesis, and generalization of scientific data were conducted to determine the requirements and materials for the survey. Media literacy of the participants in the experimental group was developed through performance of a series of social media projects, critical analysis of social media texts, and creation of social media content. Pedagogical observation and expert estimation were employed to obtain qualitative results of participants' progress during practical classes and extracurricular activities. Psychological techniques and mathematical methods were employed to measure and assess the quantitative data of the experiment. The outcomes of the study revealed the positive dynamics of the development of reflective-evaluative, collaborative, and searching-creative skills of participants in the experimental group as well as improvement in their English proficiency. The result of this study is potentially appropriate for educators who are interested in the application of media technologies in foreign-language teaching.*

**Drushlyak, M. G., Semenikhina, O. V., Proshkin, V. V. & Sapozhnykov, S. V.**

(2021). Training pre-service mathematics teacher to use mnemonic techniques. Paper presented at the *Journal of Physics: Conference Series*, 1840(1) doi:10.1088/1742-6596/1840/1/012006

*The article reveals the issue of the appropriateness of training pre-service mathematics teachers to use the techniques of mnemonics in professional activities. This issue is caused by the intensification of the educational process, when the amount of information accumulated by mankind is many times greater than the amount of knowledge that can be learned by a particular person. It is established that in the process of teaching mathematics, mnemonics should be used as a way of perceiving new information due to the formation of associative connections using special methods and techniques. The expediency of training pre-service mathematics teachers to use various methods of mnemonics ("Binding", "Transformation", "Amplification") is substantiated. A positive attitude of mathematics teachers towards the use of mnemonics techniques was revealed, as well as a low level of students' understanding of the advisability of using mnemonics techniques in professional activities. The classification of software used to create visual models is presented. A training was developed and introduced into the practice of university education on the development of mnemonic techniques for the presentation of educational mathematical material. The prospects of scientific research through the development of methodological support for the training of pre-service mathematics teachers to use the techniques of mnemonics in professional activities are determined.*

Kirichenko-Babko, M. B., **Danko, Y. M.**, Danylkiv, J. M. & Majerek, D. (2021).

Comparison of the use of species abundance and presence-absence data for diversity assessment. Paper presented at the *Journal of Physics: Conference Series*, , 1736(1) doi:10.1088/1742-6596/1736/1/012044

*The article is devoted to the analysis of empirical data on the distribution of ground beetles in three model sites located in Lublin (Poland). Using Principal Coordinates Analysis (PCoA) and hierarchical cluster analysis, we compared the results of the studies based on the data of species × abundance and binary data (species × presence / absence). It was shown that the hierarchical clustering method and PCoA based on binary data demonstrate the individuality of the studied territories, although they have some common species. While the results of the analysis, based on abundances, did not show a clear separation of the stations within the three studied locations, the similarity between the studied territories is more objectively reflected from a biological point of view.*

Pavlova, I., Petrytsa, P., Andres, A., Osip, N., Khurtenko, O., Rudenok, A. & **Zlenko, N.** (2021). Measuring physical literacy in ukraine: Development of a set of indicators by delphi method. *Physical Activity Review*, 9(1), 24-32. doi:10.16926/par.2021.09.04

*This study aims to outline indicators of physical literacy for Ukrainian student youth, taking into account current international experience and concepts and meeting national specificities of the organization of physical education in higher educational institutions of Ukraine. Methods: 82 individuals were invited to participate in study (face-to-face meeting). The 2-round Delphi method as approach for facilitating group interaction aimed to structure communication process was used to generalize the knowledge and receiving the consensus of expert opinion. Results: The top five of the most important indicators of physical literacy were physical health, physical activity level, participation in fitness activities, ability to conduct morning hygienic gymnastics, physical training break, physical training, gymnastics before classes, individual training session, ability to perform preventive exercises in case of illness. The indicators identified by the experts can be grouped into three separate domains: functional, motivational, cognitive and behavioral. Conclusion: The selected indicators are contextually sensitive for the Ukrainian population. We prioritize approaches that have already been used in daily practice in Ukraine. The set of selected indicators demonstrates that they reflect the structural hierarchy of the “physical literacy” construction. The selected indicators, in particular, correspond to the goals of students’ education, they take into account the list of necessary knowledge, skills and abilities in accordance with the requirements of the Ukrainian program, consider motivation of students, awareness of active lifestyle and sufficient level of physical strain importance for health.*

Popovych, I., **Kuzikova, S.**, **Shcherbak, T.**, Blynova, O., Lappo, V., & Bilous, R. (2021). Empirical research of vitality of representatives of parachuting and yoga practice: A comparative analysis. *Journal of Physical Education and Sport*, 21(1), 218-226. doi:10.7752/jpes.2021.01029

*The purpose of the article is empirical research and theoretical substantiation of subjective and dispositional vitality of representatives of parachuting and yoga practice; carrying out a comparative analysis of the results of two experimental groups with the control group. The*

*analysis of probable causes of exhaustion and increasing of respondents' vitality has been carried out. The mechanisms of influence of the researched types of the activity of respondents at the level of subjective and dispositional vitality have been described. Participants of the research are: athletes of parachute sports JSC LLC "Avia-Soyuz" (Mayske, Dnipro, Ukraine)(n=43); representatives of yoga practice of the Yoga Studio "Symmetry" (Sumy, Ukraine) (n=36) and representatives of the control sample, which consisted of students of Kolomyia Educational Scientific Institute of the Precarpathian National University named after Vasyl Stefanyk (Kolomyia, Ukraine) and Kremenchuk Mykhailo Ostrohradskyi National University (Kremenchuk, Ukraine) (n=36). Methods. The following standardized and adapted psychodiagnostic techniques with experimental scales were used: "Subjective Vitality Scale"; "Hardiness Survey". Results. Empirical results of the research of vitality and hardiness of respondents are presented. Significant correlations of the studied parameters have been established ( $p < .05$ ;  $p < .01$ ). Differences were set down in the parameter "Control" ( $p < .05$ ) in the group of parachutists compared to the control. The high results of "Control" ( $M=22.12$ ;  $SD=5.64$ ) of representatives of parachuting have been substantiated with excessive danger and extremeness of this kind of sport. It is stated that total control can deplete parachutists, i. e. be a factor of reducing vitality. Emphasis was placed on the indicators of respondents who practice yoga, who had higher average values of Dispositional Vitality ( $M=35.64$ ;  $SD=9.91$ ) and Hardiness ( $M=57.81$ ;  $SD=12.42$ ) with lower average values of Control ( $M=19.12$ ;  $SD=4.14$ ). Conclusions. High level of subjective vitality as a state and dispositional vitality as a personal quality of parachutists and yoga was stated. Comparative analysis of the results with the indicators of the control group showed a direct dependence of the positive impact of parachuting and yoga practice on the respondents' vitality and hardiness. It has been proposed to operationalize the results of the research in the practice of maintaining and improving the mental state of vitality of the representatives of the studied activities and to extend to athletes of individual and game sports.*