

Symposium Title: Integrative learning: factors and approaches for improved academic performance.

Brief description

Physiology is a fundamental discipline to be studied in most Health Science studies. Physiology content is perceived by students as rather difficult and unrelated with their professional training. Therefore, identifying more engaging pedagogical strategies for teaching physiology may help to fill this gap. Active methodologies are shown to be more effective for acquiring knowledge, skills and competences, as compared with traditional passive learning. Students who learn actively tend to adopt a constructive approach. They search for an understanding of the subject rather than just reproducing what they heard during lectures and better connect abstract ideas to their real-world applications. Importantly, many other factors influence in the student ability to get the most from active learning, including the learning methodology, the student's experience or the way theoretical contents are contextualized. In this symposium we will be discussing these factors to deepen on the best strategies for improved students' academic performance.

Chairperson & speaker pages

Chairperson: Beatriz Gal (CEU) beatriz.galiglesias@ceu.es

Speakers:

Dra. Cayetana Ruiz Zaldibar. crzaldibar@ucjc.edu

Full Professor of Nursing. Academic Secretary of the Faculty of Health. Camilo José Cela University. Madrid

Title: Relationship between sleep quality in nursing students and their academic performance: results of a randomized controlled trial.

- Ruiz-Zaldibar, C., Gal-Iglesias, B., Azpeleta-Noriega, C., Ruiz-López, M., & Pérez-Manchón, D. (2022). The effect of a sleep intervention on sleep quality in nursing students: study protocol for a randomized controlled trial. *International Journal of Environmental Research and Public Health*, 19(21), 13886.
- Arrue-Gerra, M., Barrio-Cortes, J., Lozano-Hernández, C. M., Ruiz-Janeiro, J., Ruiz-Zaldibar, C., & Ruiz-López, M. (2022). School Nurse Practice: A Descriptive Spanish Study. *The Journal of School Nursing*, 10598405221111567.
- Lluesma-Vidal, M., González, R. C., García-Garcés, L., Sánchez-López, M. I., Peyro, L., & Ruiz-Zaldibar, C. (2022). Effect of virtual reality on pediatric pain and fear during procedures involving needles: Systematic review and meta-analysis. *JMIR Serious Games*, 10(3), e35008.
- García-Garcés, L., Ruiz-Zaldibar, C., Gerónimo-Llopis, Á., Vicario-Merino, Á., & Lluesma-Vidal, M. (2022). Student satisfaction with the Service-Learning methodology: an added value in the training of thee nursing degree. *Horizonte sanitario*, 21(1), 25-34.
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19 on the lifestyles of university students: A Spanish online survey. In *Healthcare* (Vol. 10, No. 2, p. 309). MDPI.

Prof. Dr. Cheng Hwee Ming. chenghm@ummc.edu.my

Full professor of Physiology. Department of Physiology. Faculty of Medicine. University of Malaya. Kuala Lumpur

Title: Question-based learning in Physiology teaching.

- Cheng, Hwee-Ming & Hoe, See-Ziau. (2023). Engaging Physiology with Metaphor and Allegory. *AMEI's Current Trends in Diagnosis & Treatment*. 7. 21-25. 10.5005/jp-journals-10055-0159.
- Cheng, Hwee-Ming & Hoe, See-Ziau. (2021). The WRITE physiology: Thinking and inking. *BLDE University Journal of Health Sciences*. 6. 90. 10.4103/bjhs.bjhs_67_20.
- Cheng, Hwee-Ming & Hoe, See-Ziau. (2020). "PhysioLego:" Learning concepts, building, and applying physiology knowledge. *BLDE University Journal of Health Sciences*. 5. 10.4103/bjhs.bjhs_9_20.
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- Cheng, Hwee-Ming & Hoe, See-Ziau. (2019). Reading physiology slowly. *BLDE University Journal of Health Sciences*. 4. 97. 10.4103/bjhs.bjhs_51_19.

Dra. Isabel Sánchez-Vera. isanver@ceu.es

Full professor of Physiology. Department of Basic Medical Sciences, Faculty of Medicine. San Pablo CEU University, Madrid. España.

Title: Learning by playing: new strategies in physiology teaching.

- Tutor AS, Escudero E, Nogal Ávila Md, Aranda JF, Torres H, Yague JG, Borrego MJ, Muñoz Ú, Sádaba MC and Sánchez-Vera I (2023). Learning and assessment strategies to develop specific and transversal competencies for a humanized medical education. *Front. Physiol.* 14:1212031. doi: 10.3389/fphys.2023.1212031
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- Meléndez-Oliva, E., Sánchez-Vera Gómez-Trelles, I., Segura-Orti, E. et al. Effect of an aerobic and strength exercise combined program on oxidative stress and inflammatory biomarkers in patients undergoing hemodialysis: a single blind randomized controlled trial. *Int Urol Nephrol* 54, 2393–2405 (2022). <https://doi.org/10.1007/s11255-022-03146-z>

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Dra. Marta Lesmes Celorrio Marta.lesmes@universidadeuropea.es

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Title: Applying knowledge in context: role of integrated laboratory classes on learning physiology.

- Sánchez, J., Navarro-Galve, B., Lesmes, M., Rubio, M., & Gal, B. (2023). Integrated laboratory classes to learn physiology in a psychology degree: impact on student learning and experience. *Frontiers in Psychology*, 14.
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