



The Seventh African Higher Education Week and RUFORUM Triennial Conference 2021

Problem Based Learning: Getting the Engine Running in Universities

Venue: Virtual (click on this Link); Date: 11th October, 2021 Time: 15:00 Hours (EAT)

Background

Problem-based learning (PBL) has been widely adopted in diverse fields and educational contexts to promote critical thinking and problem-solving in authentic learning situations¹. Its close affiliation with workplace collaboration and interdisciplinary learning contributed to its spread beyond the traditional realm of clinical education to applied disciplines such as health sciences, business studies, engineering and agricultural sciences². The PBL underpinning philosophy is centred around the fact that learning can be considered a "constructive, self-directed, collaborative and a contextual" activity³. Constructivism as a learning principle positions students as active knowledge seekers and co-creators who organise new applicable experiences into personal mental representations with the help of prior knowledge⁴. This is often reinforced by social theories of learning that hypothesize the merits of social interaction in cognitive development of learners⁵ and those engaged in knowledge seeking and/or development.



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¹ Yew, E. H., & Goh, K. (2016). Problem-based learning: An overview of its process and impact on learning. Health Professions Education, 2(2), 75-79.

² Barrows, H. S. (1996). Problem-based learning in medicine and beyond: A brief overview. New directions for teaching and learning, 1996(68), 3-12.

³ Dolmans, D. H., De Grave, W., Wolfhagen, I. H., & Van Der Vleuten, C. P. (2005). Problem-based learning: Future challenges for educational practice and research. Medical education, 39(7), 732-741.

⁴ Derry, S. J. (1996). Cognitive schema theory in the constructivist debate. Educational Psychologist, 31(3-4), 163-174.

⁵ Csibra, G., & Gergely, G. (2006). Social learning and social cognition: The case for pedagogy. Processes of change in brain and cognitive development. Attention and performance XXI, 21, 249-274.





Integration of PBL into the university requires collaboration, as a joint effort. The university management role is important when supporting PBL paradigm shift. University management is often the enabler(s) of the paradigm shift to PBL. Research show that in actual implementation, the most critical element is the tutor. The tutor is a key to the success and to quality. Can a teacher think the role of a teacher and the teaching process the same than before, or what kind of process of mind is needed? It is important to have the teacher well prepared and well trained and believing in the PBL, already before starting. In PBL, the student is an active learner, who is the owner of their own learning process. What about the students then? In PBL, the student is an active learner who owns his own learning process. To be able to do that, students need to first "Learn to learn". The change is often so big, that students feel resistance, frustrations, even denial before students adapt to PBL. The role of management is to make sure everyone can fully perform in their role.

The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) in partnership with Häme University of Applied Sciences (HAMK) in Finland through the <u>PBL-BioAfrica</u> project have organised a training webinar under the title *"Problem Based Learning: Getting the Engine Running in Universities"*. This training session will introduce different aspects of what needs to be considered when the university fully integrates PBL as a pedagogical approach for learning in its programmes.

Purpose of the training

The purpose of this training webinar session is to catalyse conversation on the role of university management in leading the transformation of learning and adoption of innovative pedagogical approaches. Specifically, the webinar will focus:

- 1. Exposition the participants to the PBL requirements and the place of university management
- 2. Discuss the place of university management in supporting transitions towards full operationalisation of PBL in universities



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3. Share lessons and best practices from Africa and Europe in the implementation of PBL approach

Expected outputs

- 1. Appreciation of the role of universities
- 2. Commitment from university managers; academicians, Deans, Principals, and Vice Chancellors
- 3. Create a Community of Practice for Problem Based Learning in Africa

Trainers

- 1. Ms Eija Laitinen, HAMK University of Applied Sciences
- 2. Ms Ulla-Maija Knuutti, HAMK University of Applied Sciences

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CO-ORGANISERS: