

Workshop: Adopting PBL – Hybrid in Resource Constraint Settings: Perspectives from Gulu University

Lone Dirckinck-Holmfeld*, Aalborg University, lone@ikp.aau.dk

Geoffrey Olok Tabo, Gulu University, g.tabo@gu.ac.ug

Ann Bygholm, Aalborg University, ann@ikp.aau.dk

Heilyn Nunez Camacho, Consufé, hcamacho@consufe.com

Vivian Perry Drateru, Gulu University, d.olanya@gu.ac.ug

Vincent Canwat, Gulu University, v.canwat@gu.ac.ug

Iben Jensen, Aalborg University, ibenj@ikl.aau.dk

Clara Kansime, Gulu University, c.kansime@gu.ac.ug

Walter Komakech, Gulu University, komakechwalter2015@gmail.com

Margaret Namubiru, Gulu University, namubirumeg@gmail.com

David Okot Pakono, Gulu University, d.p.okot@gu.ac.ug

David Ross Olanya, Gulu University, d.olanya@gu.ac.ug

*Corresponding Author

Introduction

PBL Hybrid Learning - Beyond Covid-19

Mr. Okot is a Community Development Officer in Arua, Uganda. He has experience working in the field with the community but feels tired after work due to frequent travels. He is now pursuing a master's in public administration and management at Gulu University. He travels approximately 464 km/12 hours in travel time to pursue his studies every weekend (staying over in Gulu Friday-Sunday). He wishes his study program was flexible enough to allow him to balance his studies, work, and family life. "The COVID-19 pandemic has helped me to avoid my travels as teaching and learning became online". (...) (Persona developed by David Pakono, GU, 2021).

Workshop Program

Intended audience

- Scholars and practitioners engaged in transforming education towards PBL and hybrid learning – in a Global context

Objectives of the workshop

- To engage NL scholars in how to promote networked learning principles in resource constraint environments in the majority world, and to address some of the current debates in NL: Innovative and critical pedagogies, ethical and responsible innovation (inclusive innovation), and transformative digital practices.
- To address equity, inclusion, and digital transformation in networked learning e.g., accessibility, digital divide, inclusive technologies, equitable access to learning resources, and learning infrastructures to support NL and PBL-hybrid.
- To tackle the ongoing changes towards student centered and competence-based curriculum in East African universities. This workshop demonstrates how PBL-hybrid is a promising methodology in resource constraint contexts and respond to the objectives behind competence-based curriculum.
- To get acquainted with the PBL-hybrid Implementation Methodology (PBL-hybrid IM), and to critically discuss the methodology in perspective of transforming teaching and learning practices towards PBL, design thinking and technology use.
- To support networking between educators and researchers in Global South-North constellations.

Expected outcomes of the workshop

- Knowledge on how and why to adopt PBL-hybrid learning in resource constraint environments in the majority world.
- Knowledge on the PBL-hybrid Implementation Methodology
- Co-constructing and elaborating the concept of PBL-hybrid in a resource constraint setting.
- Knowledge exchange and comparative learning based on shared experiences.
- Further collaboration and networking among teachers, researchers, and institutions.

Program (1,5 hours)

Part 1:

Adopting PBL - hybrid in resource constraint settings – perspectives from Gulu University

- PBL - hybrid implementation at Gulu University: Theoretical principles and main findings by Geoffrey Olok Tabo and Lone Dirckinck-Holmfeld. Followed by participants posting burning issues on PBL-hybrid adoption practices in a majority world perspective.

Part 2:

Introducing PBL-hybrid Implementation Methodology:

- Short presentations of different perspectives: Design, Practice and Research
 - PBL-hybrid Implementation Methodology – Design Principles by Geoffrey Olok Tabo
 - Experiences from teachers piloting PBL-Hybrid by Vivian Perry Drateru
 - Reflections from a research perspective by David Pakono & Ann Bygholm

Part 3:

Hands-on in groups: Teachers and managers as designers

Exploring and critical review some of the tools from the methodology

- 360 degrees
- Empathy maps
- PBL- blueprint
- Technology and digital tools to support the learning process
- Teachers as designers

Background

The workshop is based on the long-standing partnership between Gulu University and Aalborg University, which has been in place since 2011 as part of the Building Stronger Universities initiative and is supported by the Danish Ministry of Foreign Affairs (MFA). Within this framework since 2017, the focus has been on transforming education from teacher-centred to student-centred methodologies, such as problem- and project-based learning (PBL). The PBL-Hybrid project (2022–2025), supported by the MFA, has enabled more systematic work on integrating PBL, design thinking, and technology.

Gulu University, established in 2002, is located in northern Uganda. Due to the unrest and human consequences of armed conflict from the 1980s to 2006, the region still faces challenges. This includes damage to infrastructure and the institutions that provide education, as well as the long-term damage to people's assets, livelihoods, and physical, emotional, and spiritual well-being (Atim et al., 2019). Gulu University plays an important role in transforming education as expressed in the university's motto: For Community Transformation.

Purpose or goal

The PBL-hybrid project is novel in its integration of PBL, design thinking and technology to innovate teaching practices and engage with fragile communities where education and innovation are lacking. (Dirckinck-Holmfeld et al., 2024, Pakono et al., 2025). The project contributes to capacity development and the development of new hybrid learning models at university level in response to the 'new normal' beyond the era of the pandemic.

Gulu University (GU) has been exploring PBL since 2015 (Tabo, 2020; Awacorach et al., 2021; Tabo et al., 2021; Tabo et al., 2022; Jensen and Lassen, 2020; Dirckinck-Holmfeld et al., 2025). The PBL-hybrid project (2022–2025), supported by the MFA, has enabled GU to work more systematically with the integration of PBL, design

thinking, and information technology. Design thinking is considered a practical approach to implementing PBL, encouraging creativity, innovation, interdisciplinary collaboration, and community engagement (Van der Westhuizen, 2020; Ku & Lupton, 2019; Lorusso et al., 2021; Camacho et al., 2023). Technology enables the programme to be more flexible in terms of time and space, builds IT literacy competencies, and supports PBL and design thinking (Dirckinck-Holmfeld et al., 2024).

Methodology

The project has been applying the Student-Centred eLearning Implementation Methodology (S-C eLIM), which focuses on achieving sustainable change when implementing elearning. (Camacho et al., 2023; Pakono et al., 2025). The methodology was adapted (PBL-hybrid IM) to prepare for and implement PBL-hybrid. The methodology comprises five phases: Envisioning, Preparing, Piloting, Scaling, and Maturing. This workshop builds on the results of the first four phases as applied to three master's programmes within the Faculty of Business and Development Studies at Gulu University: Public Administration and Management (MPAM), Development Studies (MDS) and Monitoring and Evaluation (MME). A variety of design workshops and quantitative and qualitative methods were employed. More than 300 students participated in the pilot schemes.

Results

The results reflect the changes in the practices of teachers and students towards PBL-hybrid bringing real-world problems, fieldwork and digital practices into focus. PBL-hybrid IM has empowered participants to become change agents, and they are now ready to scale up. Other results relate to the S-C eLIM methodology, which has been further developed to facilitate the changes towards PBL-hybrid.

Conclusions

The project demonstrates the commitment of the teachers (known as 'facilitators' in Gulu University) and the students to developing new pedagogical and participatory approaches. These approaches take real-world problems as a starting point, link theory and practice, integrate digital tools in a flexible and pragmatic way and use design thinking to creatively bring these different elements together. Despite material resource constraints, the project demonstrates that human resources can be very powerful when given the opportunity to develop.

References

- Awacorach, J., Jensen, I., Lassen, I., Olanya, D. R., Zakaria, H. L., & Tabo, G. O. (2021). Exploring transition in higher education: Engagement and challenges in moving from teacher-centered to student-centered learning. *Journal of Problem Based Learning in Higher Education*. <https://doi.org/10.5278/ojs.jpblhe.v0i0.5262>
- Camacho, H. N., Dirckinck-Holmfeld, L., & Tabo, G. O. (2023). How to support teachers in becoming teachers as designers of student-centred approaches. *Design and Technology Education: An International Journal*, 28(2), 170–190. <https://openjournals.ljmu.ac.uk/DATE/article/view/1348>
- Dirckinck-Holmfeld, L., Tabo, G. O., Okumu, C., Kure Kattenhøj, M., & Lassen, I. (Eds.). (2025). *Transforming higher education for community development: Participatory reflection on a decade of mutual capacity-building in northern Uganda*. Brill. (African Higher Education series)
- Dirckinck-Holmfeld, L., Byholm, A., Nunez, H. C., Canwat, V., Jensen, I., Kansime, C. K., Komakech, W., Namubiru, M., Pakono, D. O., Olanya, D. R., Tabo, G. O., & Drateru, V. P. (2024). PBL hybrid: An exploration of the concept of hybrid learning in a resource-constrained university context. In *Proceedings of the Fourteenth International Conference on Networked Learning 2024*. Aalborg University Open Publishing. <https://doi.org/10.54337/nlc.v14i1.8099>
- Jensen, I., & Lassen, I. (2020). Redesigning the curriculum: Applying problem-based learning in a new context. *Pedagogy, Culture & Society*, 28(1), 37–57. <https://doi.org/10.1080/14681366.2019.1590455>
- Ku, B., & Lupton, E. (2019). *Health design thinking: Creating products and services for better healthcare*. Cooper-Hewitt.
- Lorusso, L., Lee, J. H., & Worden, E. A. (2021). Design thinking for healthcare: Transliterating the creative problem-solving method into *architectural practice*. *HERD: Health Environments Research & Design Journal*, 14(2), 16–29. <https://doi.org/10.1177/1937586721994228>
- Pakono, D. O., Camacho, H., Tabo, G. O., Byholm, A., & Dirckinck-Holmfeld, L. (2025). Transforming learning environment towards PBL-hybrid: A case of student-centered e-learning implementation methodology in Gulu University. In J. Chen, L. Smith, Y. B. Abouarabi, K. Wolff, Z. Simpson, & A. Guerra

- (Eds.), *Anchoring conversations — Work-in-progress: 10th International Research Symposium on Problem-Based Learning*, Pretoria University, 18–20 November 2025.
<https://journals.aau.dk/index.php/IRSPBL/article/view/11120/8698>
- Tabo, G. O. (2020). *Designing infrastructures for learning: Technology and human praxis* (Doctoral thesis). Aalborg University.
- Tabo, G. O., Dirckinck-Holmfeld, L., Awacorach, J., Bygholm, A. K. M., Jensen, I., Lassen, I., & Olanya, D. R. (2021). Transforming education: Digital learning, PBL and participatory methods. In D. Kolbæk (Ed.), *Challenges and opportunities in online learning: Education in a competitive and globalizing world* (pp. 31–81). Nova Science Publishers.
- Tabo, G. O., Dirckinck-Holmfeld, L., & Bygholm, A. K. M. (2022). Innovative pedagogies: The impact of blended learning in higher education during the COVID-19 pandemic. In *Pan-Commonwealth Forum 10 (PCF10)*. Commonwealth of Learning (COL). <https://doi.org/10.56059/pcf10.5677>
- Van der Westhuizen, D., Conrad, N., Douglas, T. S., & Mutsvangwa, T. (2020). Engaging communities on health innovation: Experiences in implementing design thinking. *International Quarterly of Community Health Education*, 41(1), 101–114. <https://doi.org/10.1177/0272684X19900880>