

INNOVATIVE PEDAGOGY IN ONLINE LEARNING: PERCEPTIONS OF DISTANCE EDUCATION EXPERTS

Made Yudhi Setiani^{1*}

¹*Universitas Terbuka (INDONESIA)*

*madeys@ecampus.ut.ac.id

Abstract

Innovative pedagogy in online learning emphasizes the importance of personalized learning, allowing students to progress at their own pace and style. This study focused on the opinions and perceptions of experts regarding innovative pedagogy in online learning. A qualitative method research design was used, through semi-structured interviews with four experts in the field of distance education from Universitas Terbuka, to gather information about their perspectives of innovative online pedagogy, students' motivation, and their relations with learning culture in Indonesia. The findings indicated that innovative pedagogy in online learning in a university setting can be portrayed through user-friendly and interactive systems. In addition, technical training for tutors, flexible and clear scheduling, encouraging active participation, utilizing diverse resources, and continuous support and feedback were also necessary for success.

Keywords: innovative pedagogy, online learning, experts' perceptions

1 INTRODUCTION

The rapid expansion of online and distance education has transformed the landscape of higher education, demanding pedagogical approaches that are not only technologically enhanced but also responsive to diverse learner needs. In this evolving context, innovative pedagogy has emerged as a critical concept, emphasizing learner-centred strategies, personalization, and contextual relevance. It goes beyond the mere integration of digital tools, aiming instead to reshape the learning experience through active engagement, flexibility, and cultural sensitivity. Scholars in distance education have highlighted the importance of experiential learning, connectivism, and personalized learning as foundational principles for innovation in online pedagogy. Recent studies support these expert views. They highlight several key dimensions of innovative pedagogy in online education, namely technological integration, student engagement, personalized learning, cognitive frameworks, motivational models, and inclusive practices.

According to Carvalho et al. (2021), pedagogical innovation refers to the continuous development and application of new teaching methods and strategies to enhance the learning experience. It involves adapting to the evolving needs of students and integrating cutting-edge

educational technologies. Peterson (2018) also argues that innovative pedagogy discusses new approaches or creative methods in learning and teaching. The intended impact of such activities is to enhance the effectiveness of learning and to prepare learners to face various challenges and opportunities.

Student engagement remains a central concern in online learning. Nkomo et al. (2021) emphasize that student engagement in digital environments is multifaceted and influenced by the design of adaptive learning systems. Additionally, Akpen et al. (2024) find that while online learning offers flexibility and accessibility, it also presents challenges such as reduced interaction and learner isolation. Effective engagement strategies include interactive multimedia, discussion forums, and strong instructor presence. Personalized learning, supported by adaptive technologies, allows students to learn at their own pace and according to their preferences, improving satisfaction and academic outcomes. Further, Nguyen & Nguyen (2023) argue that personalized learning, supported by content filtering, enhances learner autonomy and satisfaction.

Connectivism, as proposed by Siemens (2005), and Downes (2005), redefines learning as a process of building networks and connections across digital nodes. Wang et al. (2023) developed a framework for interaction and cognitive engagement in connectivity learning contexts, identifying four levels of interaction, such as operational, wayfinding, sensemaking, and innovation. This model emphasizes the recursive and networked nature of learning, where interaction with both humans and digital artifacts fosters deeper cognitive engagement.

Motivation is a critical factor in online learning success. Fang et al. (2024) reviewed 55 empirical studies on the model of Attention, Relevance, Confidence, Satisfaction (ARCS), highlighting its effectiveness in instructional design, theoretical grounding, and measurement. The model has been widely applied in web-based and blended learning environments to enhance learner motivation and engagement. Its structured approach helps educators design learning experiences that are stimulating, relevant, and rewarding. Moreover, cognitive load theory has been revisited to accommodate immersive and interactive elements that, while increasing complexity, can also boost motivation and retention (Skulmowski & Xu, 2022).

In Indonesia, where distance education plays a pivotal role in democratizing access to higher education, the implementation of innovative pedagogy in online environments presents both unique challenges and opportunities. Adaptive and inclusive pedagogical models are essential due to the continued dominance of teacher-centered traditions, varying levels of digital literacy,

and the cultural diversity among learners. Based on this background, this study explored the perceptions of four distance education experts at Universitas Terbuka regarding how innovative pedagogy can be portrayed within a university setting as a means of fostering engaged and effective students. It also examined the extent to which innovative pedagogy could sustain learner engagement in the online learning environment.

2 METHODOLOGY

This study used a qualitative method research design. We interviewed experts of distance education from Universitas Terbuka, intending to gather information about their perspectives of innovative online pedagogy, students' motivation, their relations with learning culture in Indonesia. Data was collected from a semi structured individual interview with four experts in distance education.

Interview data was analyzed and interpreted using a bottom-up, inductive approach in which we conducted analysis of the data provided for emergent themes. We used an open coding approach (Quartaroli, 2009), by reading and re-reading interview transcripts, letting the codes and themes emerged from the words in the text. Codes were then categorically grouped, and finally, themes were developed that represent the content of each code grouping. This could also be described as axial coding or focus coding (Quartaroli, 2009). Through this process of reading, coding, and focus coding, we created categories that could be used to respond to characterizations or themes and answer the research questions.

3 FINDINGS AND DISCUSSION

Based on interviews with four experts in distance education at Universitas Terbuka, there were similarities and diverse perspectives on what constitutes innovative pedagogy in online learning. According to these experts, innovative pedagogy in online learning can be categorized into three main aspects: student-centred learning, integration of technology, and technological literacy.

Innovative pedagogy in online learning emphasizes the importance of personalized learning, allowing students to progress at their own pace and according to their individual learning styles. Experts highlighted the value of giving students the freedom to choose their learning resources and formats for assignments or assessments. Additionally, they stressed the importance of student contributions through individual works such as images, stories, or videos, and recognized the role of sharing mechanisms in fostering active student participation. Innovative

online learning also required the integration of technology to enhance student engagement and support creative learning approaches.

Other experts defined innovative learning as the application of traditional learning theories using digital tools and technologies. One perspective viewed it as a breakthrough approach to address student challenges, such as overcoming mental blocks through experiential learning. Another specifically mentioned connectivism, which emphasized the use of digital networks to enrich the learning experience by connecting students with resources, experts, or external communities. While some experts did not explicitly refer to connectivism, they focused on breaking down the learning process into smaller, active steps that involve students directly.

The experts also noted that the use of technology in learning presents challenges for both lecturers and students. One opinion highlighted digital literacy as a barrier to fully adopting innovative online learning methods. Another implied the need for technological literacy without specifying particular challenges. These perspectives reflected a shared vision for innovative online learning while also highlighted different views on its implementation and obstacles.

All four experts agreed that innovative learning in an online setting goes beyond the mere use of technology—it involves a transformation of pedagogical approaches. Innovation in online learning must combine technology, direct learning experiences, and individual flexibility. This approach requires a paradigm shift from teacher-centred instruction to participatory and contextual learning.

Regarding to the user interface design of online tutorial platforms and its influence on student motivation and interaction, all responses emphasized the importance of an attractive and engaging interface. Experts agreed that the current design lacks appeal and needs improvement to better engage students. They suggested that allowing students to personalize their learning environment could enhance motivation and participation. The current design did not effectively encourage student interaction or engagement, and the lack of interactive features was seen as a barrier to active participation.

Furthermore, experts offered additional insights on the interface design of the online tutorial platform. One acknowledged improvement such as better colour tones but noted that technical skills were still lacking. Other pointed out that the platform still does not offer a reward system for student interactions, which discourages engagement. There was also an emphasis on the ease of navigation and its impact on user experience, as well as the need for a personalized landing page and learning activities tailored to student preferences.

While all responses agreed on the need for a more visually appealing and engaging interface, they differed in their emphasis on specific aspects such as technical improvements, reward systems, navigation, and personalization. These similarities and differences highlight various areas for potential enhancement in the online tutorial platform to better support student engagement and learning. Unintuitive interface design can pose psychological barriers. Personalization and visual aesthetics are not merely technical elements but pedagogical strategies to enhance motivation and learning comfort.

All experts recommend involving students and user interface experts in Learning Management System (LMS) design. One expert emphasized the relevance of interface design to learning content, while another expert highlighted the importance of graded discussion forums. Interface improvements should be based on user-centred design principles and social pedagogy. A flexible and interactive LMS can foster a sense of ownership and active student participation. Transforming the learning culture toward independence and collaboration is a major challenge. Successful innovative pedagogy requires a supportive ecosystem encompassing technical, pedagogical, and cultural aspects. Two experts stressed the importance of institutional support, technological literacy, and tutor creativity. For instance, the institution should mandate and support creative and innovative teaching methods. It also could encourage instructors to integrate contextual learning experiences relevant to students' environments. Meanwhile, one expert highlighted the need for help desks, such as established a technical help desk to assist lecturers with varying levels of digital literacy and provide training or support for remixing existing digital content to suit specific teaching needs. For cultural and behavioural aspects, one expert suggested to transform a passive learning culture to one that promoted independent learning and critical thinking. He also encouraged instructors in developing creative solutions and innovative teaching practices.

Students support is essential for learning outcomes. All experts agreed that support, whether motivational, feedback-based, or contextual were significantly affects learning outcomes. Gradual, experience-based approaches also have proven effective. For example, one expert highlighted that a contextual, step-by-step approach enables students to produce publishable academic work. The "small success" approach was particularly effective in sustaining motivation, especially for adult learners managing multiple responsibilities. This incremental strategy was more practical than models demanding rapid, high-level achievement. Another expert underscored the value of active learning methods, such as problem-based and project-

based learning. These findings suggested that personalized, experience-based support, enhances student confidence, and learning outcomes. Therefore, online pedagogy must retain its human-centred and interactive qualities.

The transition to online learning has revealed both opportunities and challenges in fostering student engagement across diverse cultural contexts. One expert emphasized the potential of digital platforms to neutralize cultural and personality differences, enabling previously passive students to participate more actively. This view is complemented by another expert, who cautions that such environments may also reinforce opportunistic behaviours rooted in local cultural norms, particularly in contexts where students rely on the diligence of their peers. Other experts further elaborate on the cultural dynamics of Indonesian education, noting that while explicit cultural differences may not always surface in online interactions, underlying values such as *gotong royong* (mutual-cooperation) and a teacher-centred learning tradition continue to shape student behaviour and participation.

To address these complexities, the formation of learning communities emerges as a strategic solution. One expert advocated for interest-based communities to bridge cultural gaps, while another expert highlighted the need for active facilitation and clear incentives to sustain such communities. Another expert provided practical examples of informal community-building through platforms like WhatsApp and webinars, which enhance student cohesion and motivation. Meanwhile, other expert supported project-based learning as a collaborative tool that brings together students from diverse backgrounds, reinforcing the importance of tutor and institutional roles in fostering meaningful academic communities.

Cognitive load management is another critical aspect of online education. All four scholars agreed on the necessity of adaptive instructional design. Two experts stressed the importance of scaffolding and competency analysis to prevent overload, while the other two experts advocated for gradual and flexible approaches aligned with students' capacities. The application of cognitive load theory and the tutor's role as a cognitive facilitator are central to ensuring effective learning experiences.

Interactive learning design must also evolve to meet diverse cognitive and social needs. One expert promoted the integration of multimedia to support varied learning styles, and another expert distinguished between low-order and higher-order thinking, emphasizing the role of social learning. The other two experts underscored the importance of exploration and reflection, positioning tutors as catalysts for cognitive engagement. These perspectives converge on the

need for interactivity that not only captures attention but also fosters critical thinking and collaboration.

Transforming students into active participants requires motivational strategies and inclusive learning environments. Two experts highlighted the importance of time management and opportunities for contribution, while one expert introduced the ARCS model (Attention, Relevance, Confidence, Satisfaction) as a framework for stimulating engagement. Another expert added that collaborative projects could serve as effective tools for transformation. Together, these approaches suggest that student agency must be cultivated through intentional design and recognition of individual contributions.

Finally, the effective use of study time and retention strategies are closely linked to pedagogical relationships and technological support. One expert recommended regular tutor reminders, and another expert encouraged reflective habits. Other two experts emphasized flexible scheduling and realistic time guidelines, while also noting that empathetic and responsive tutor-student interactions are key to sustaining motivation and retention. Holistic strategies that integrate technical, pedagogical, and psychological dimensions are essential to reducing barriers and enhancing student engagement in online learning environments.

The findings of this study should be considered in the view of limitations. The informants of distance education experts may not be representative of other distance education experts' perceptions. Generalizability of the findings to other perceptions is cautioned, so in future studies we could investigate perspectives of more experts of distance education from other open universities in other nations.

4 CONCLUSION

This study reveals that innovative pedagogy in online learning must be student-centered, meaningfully integrated with technology, and responsive to local cultural contexts. Based on expert interviews at Universitas Terbuka, effective online learning requires engaging and interactive user interface design, strong institutional support, and adaptive, collaborative learning strategies. Experiential approaches, learning communities, and motivational models such as ARCS have proven to enhance student participation, motivation, and learning outcomes. Therefore, transforming online pedagogy demands a holistic approach that encompasses technical, pedagogical, and psychosocial dimensions to create inclusive and sustainable learning environments.

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REFERENCES

- Akpen, C.N., Asaolu, S., Atobatele, S., Okagbue, H., & Sampson, S. (2024). Impact of online learning on student's performance and engagement: A systematic review. *Discover Education*, 3(205). <https://doi.org/10.1007/s44217-024-00253-0>.
- Carvalho, A., Teixeira, S. J., Olim, L., Campanella, S. D., & Costa, T. (2021). Pedagogical innovation in higher education and active learning methodologies—a case study. *Education+ Training*, 63(2), 195-213.
- Downes, S. (2005). Connective knowledge. Retrieved from <http://www.downes.ca/cgi-bin/page.cgi?post=33034>
- Fang, X., Ng, D.T.K., Leung, J.K.L. & Xu, H. (2024). The applications of the ARCS model in instructional design, theoretical framework, and measurement tool: A systematic review of empirical studies. *Interactive Learning Environments*, 32(10), 5919-5946, DOI: 10.1080/10494820.2023.2240867
- Nguyen, H.H. & Nguyen, V.A. (2023). Personalized learning in the online learning from 2011 to 2021: A bibliometric analysis. *International Journal of Information and Education Technology*, 13(8), 1261-1272.
- Nkomo, L.M., Daniel, B.K. & Butson, R.J. (2021). Synthesis of student engagement with digital technologies: a systematic review of the literature. *International Journal of Educational Technology in Higher Education*, 18(34), 1-26. <https://doi.org/10.1186/s41239-021-00270-1>
- Quartaroli, M. T. (2009). Qualitative data analysis. In S. D. Lapan & M. T. Quartaroli (Eds.), *Research essentials: An introduction to designs and practices* (pp. 259–274). Jossey-Bass.
- Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, 2(1), 3-10.
- Skulmowski, A., Xu, K.M. (2022). Understanding cognitive load in digital and online learning: A new perspective on extraneous cognitive load. *Educ Psychol Rev*, 34, 171–196. <https://doi.org/10.1007/s10648-021-09624-7>

Wang, Z., Chen, L., & Anderson, T. (2014). A framework for interaction and cognitive engagement in connectivist learning contexts. *The International Review of Research in Open and Distributed Learning*, 15(2). <https://doi.org/10.19173/irrodl.v15i2.1709>