



Integrating Experiential and Problem-Based Learning for Generation Z and Alpha: A Comparative Study

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Abstract

This article explores the evolution of educational strategies, focusing on experiential and problem-based learning (PBL) in the context of Generation Z and Generation Alpha. Drawing from recent literature, it highlights technological advancements, learner preferences and pedagogical innovations. The discussion also reflects the influence of this literature on the author's own teaching practice at Lancaster University Management School, illustrating how experiential and problem-based approaches have been adapted to meet the expectations of Generation Z and Alpha learners.

Keywords

Experiential learning, Problem-based learning, Generation Z, Generation Alpha

Introduction

The emergence of Generation Z and the subsequent Generation Alpha has introduced unique challenges and opportunities in education. As digital natives, both generations exhibit distinct preferences for technology-driven, interactive and meaningful learning experiences. Generation Z, born between 1995 and 2010, grew up during the rise of the internet and social media, whereas Generation Alpha, born from 2010 onwards, is immersed in an even more advanced technological landscape dominated by artificial intelligence (AI) and ubiquitous connectivity. This article synthesises findings from recent studies to present a



cohesive understanding of how experiential and problem-based learning frameworks can be adapted to meet the demands of these generations.

These changes present practical challenges for educators. Traditional lecture-based approaches may struggle to sustain engagement among learners accustomed to highly interactive and technology-enabled environments. In my own teaching practice, I have observed that students increasingly expect participation, collaboration and authentic application of theory rather than passive knowledge transmission. This has prompted a re-evaluation of how teaching activities are designed and facilitated.

Experiential learning can be broadly understood as learning through experience, reflection and application, while problem-based learning uses authentic problems as the stimulus for learning. Both approaches appear particularly promising within the context of Generation Z and Alpha because they encourage active participation, collaboration and real-world relevance. Furthermore, technological developments, such as AI, immersive environments and digital collaboration platforms, provide new opportunities to enhance these pedagogies and extend their impact.

Literature Review

Experiential Learning

Experiential learning has particular relevance for Generation Z. Community-based projects, industry collaborations and social-impact initiatives are frequently highlighted within the literature as vehicles through which experiential learning can create meaningful engagement and real-world relevance.

Bringle and Hatcher (2002) advocate community-based partnerships as a transformative approach to experiential learning. By collaborating with local organisations, students gain real-world experience while addressing community needs. This strategy not only enhances learning outcomes, but also fosters civic responsibility and social awareness. Similarly, Seemiller et al. (2019) highlight Generation Z's preference for hands-on, applied and achievement-oriented learning environments that balance theory with practical application.

Technological innovations have further expanded opportunities for experiential learning. Hernandez-de-Menendez et al. (2020) underscore the role of immersive technologies, such as augmented reality (AR) and virtual reality (VR), in creating dynamic and interactive learning environments. Gamification can similarly enhance engagement through challenge, achievement and immediate feedback mechanisms.



Problem-Based Learning

While problem-based learning emphasises collaboration, critical thinking and the application of interdisciplinary knowledge. Lavado-Anguera et al. (2024) explore how PBL can incorporate sustainability, multi-disciplinary approaches and simulation technologies. This holistic model aligns with Generation Z's desire for education that prepares them to tackle complex global challenges. While Kenny and Gunter (2023) argue for enriching PBL through storytelling and design thinking. These additions enhance creativity and encourage students to approach problems from diverse perspectives. By integrating narrative techniques and iterative design processes, this can deepen learners' understanding of problem-solving methodologies, they conclude. Similarly, Scott (2017) highlights the value of combining PBL with action learning in leadership development. This integrative framework emphasises evidence-based evaluation, enabling continuous refinement of educational strategies to ensure relevance and effectiveness in real-world contexts.

Comparative Analysis

Both Generation Z and Alpha share a reliance on technology and a desire for meaningful, impactful education. However, the nuances between these generations demand tailored approaches. Generation Z, while adept at adapting to technology, values structured and recognition-based learning. In contrast, Generation Alpha, having grown up with advanced AI and automation, expects education to be highly interactive, personalised and visually engaging.

Experiential learning for Generation Z often revolves around community-based projects and social impact themes. For Generation Alpha, these projects must integrate cutting-edge technologies and gamified elements to maintain engagement (Hernandez-de-Menendez et al., 2020). Similarly, PBL frameworks must evolve to incorporate the storytelling and design thinking that resonate with both generations (Kenny and Gunter, 2023), while also leveraging AI-powered tools to provide real-time adaptability for Alpha learners.

Empirical Research

This literature resonates strongly with my own theoretical framework for teaching, which is founded upon the integration of experiential learning and problem-based learning, informed by my professional background in consultancy. Reflecting upon my own practice, I have observed how student expectations have evolved over time, particularly following the pandemic. The expectations of Generation Z and emerging Generation Alpha learners appear markedly different from those of previous cohorts, with greater emphasis upon



participation, collaboration, technology and authentic application. The examples below illustrate how these pedagogical principles have influenced teaching innovations within my own modules and provide an opportunity to reflect upon both their successes and challenges.

In a number of instances, I have experimented with these approaches, examples would include co-facilitating a teaching session utilising the Metaverse as a virtual learning environment. This enabled students to create content, collaborate and experiment within a simulated, immersive virtual world. This built upon the success of the previous year, which had seen the first teaching session at Lancaster University to use technical advancements to live link multiple online students with individual student groups in the lecture theatre via Microsoft Teams, using hybrid breakout rooms. With online guests 'present' via mobile phone or tablet connecting with individual student groups in the room and working collaboratively in a synchronous hybrid learning experience.

These initiatives emerged from a desire to address limitations associated with more traditional online engagement approaches. Drawing upon experiential learning principles, students were encouraged to learn through exploration, experimentation and collaborative activity within an immersive virtual environment. Rather than simply receiving information, learners actively participated in the creation of content and the co-construction of learning experiences.

Student responses suggested that the immersive nature of the activity enhanced engagement and interaction. However, the experience also highlighted practical challenges, including varying levels of digital confidence and the significant preparation required to create a stable and cohesive technical environment. These experiences reinforced the importance of aligning technological innovation with pedagogical purpose rather than adopting technology for its own sake.

Similarly, the hybrid breakout room approach sought to address the challenge of ensuring meaningful collaboration between online and campus-based learners. Drawing upon both experiential and problem-based learning principles, students were placed within mixed groups and tasked with collaborative activities requiring discussion, negotiation and collective decision-making. While technical and logistical challenges occasionally emerged, the activity demonstrated how thoughtfully designed technology can reduce barriers between physical and virtual learning spaces.

A further example would include setting up groups of students as 'consultancy teams' to solve real-world problems for well-known businesses facing new or unprecedented



challenges, such as a digital disruptor entering the market. Students identified critical issues, developed strategic responses and presented their proposals to peers role-playing as investors or board members. This dynamic format fosters critical thinking, collaborative problem-solving and real-world application of theoretical concepts (Kenny & Gunter, 2023).

It was explicitly informed by both experiential and problem-based learning frameworks, requiring students to apply theoretical concepts in authentic contexts characterised by ambiguity and complexity. The realism of the exercise encouraged deeper engagement, critical thinking and collaborative problem-solving while providing opportunities to experience the kinds of decision-making processes encountered by practising consultants and managers.

More recently, I co-facilitated with LUMS colleague Phil Devine a futures-focused learning exercise that combined experiential learning, problem-based learning and immersive technologies to encourage students to engage with uncertainty and long-term strategic thinking. The session was built around Arup's 2050 future scenarios and began with students exploring a series of large Digital Innovation Suite (DIS) displays arranged in an art gallery format. Designed to encourage reflection and discussion, this approach proved particularly effective, with students spending considerably more time than anticipated engaging with the scenarios, debating their implications and drawing connections to contemporary challenges facing higher education.

The experience was further enhanced through the use of an AI-generated avatar based on a real colleague, who introduced a sequence of four scenario-based videos. Each video presented a different future context through time by adopting the perspective of a realistic character situated within a specific location, such as Berlin in 2040, enabling students to consider how social, technological and economic trends might shape alternative futures.

Following each scenario, student teams undertook a structured reflective exercise, discussing their reactions to the future presented and identifying potential implications for universities and the wider higher education sector. These discussions encouraged learners to evaluate competing possibilities, challenge assumptions and explore the strategic consequences of emerging trends.

The session concluded with teams selecting the scenario they considered most likely to emerge by 2050 and developing presentations to justify their choice and propose appropriate strategic responses. The quality of student engagement throughout was notable. Learners demonstrated a high level of critical reflection, drawing on evidence from the scenarios to develop nuanced analyses and well-reasoned recommendations. The



presentations revealed an impressive depth of insight and an ability to apply theoretical concepts to complex and uncertain future contexts. This experience further demonstrated how immersive, technology-enhanced activities can foster meaningful engagement, collaboration and critical thinking when carefully aligned with clear pedagogical objectives around experiential and problem-based learning.

My involvement in these pedagogical approaches has prompted my deeper reflection on the value of technology-enhanced learning and the importance of designing activities that challenge students to apply theory in practice. This includes the adoption of tools, like Mentimeter and Kahoot, which introduce elements of gamification to stimulate engagement and participation during sessions. These tools have proved especially effective with students responding positively to interactive and competitive elements embedded within learning experiences. The impact has been tangible, with students providing positive feedback through informal comments, emails and improved module evaluation scores, demonstrating the effectiveness of these methods (Mouza, 2009). Taken together, these examples provide empirical grounding for the integration of experiential and problem-based learning and demonstrate how such methods can be tailored to meet the unique preferences and expectations of Generation Z and Alpha learners.

Implications for Practice

Technology Integration

Drawing from both the literature and my own experiences, technology integration can be viewed not merely as the addition of digital tools, but as the purposeful alignment of technology with learning outcomes. Meaningful integration requires careful planning, staff confidence, pedagogical clarity and a willingness to experiment. My experiences with hybrid collaboration, immersive learning environments and gamified engagement tools suggest that technology is most effective when it enhances participation, authenticity and opportunities for experiential learning rather than functioning as an end in itself.

Real-World Applications

Projects and problems should address pressing global and societal challenges, from climate change to equity in technology access. Both generations value purpose-driven education that connects theoretical knowledge to real-world impact, fostering a sense of responsibility and achievement. This is one of the principal reasons why experiential and problem-based learning have become increasingly central to my own teaching practice. Both approaches



provide effective mechanisms for helping students engage with contemporary societal and organisational challenges by placing them within authentic contexts where complex issues can be explored, analysed and addressed collaboratively. Rather than discussing such challenges in the abstract, students are encouraged to apply theoretical concepts, evaluate alternative responses and develop practical solutions. In doing so, experiential and problem-based learning transform abstract knowledge into meaningful learning experiences while equipping students with the skills and confidence required to navigate the uncertainty and complexity that characterise many of today's real-world problems.

Collaborative Frameworks

Storytelling and design thinking provide valuable tools to enhance creativity, collaboration and teamwork. These methods allow learners to approach problems holistically, considering multiple perspectives and developing iterative solutions. Within my own teaching practice, they have proven particularly effective when combined with experiential and problem-based learning approaches. By presenting students with authentic challenges and encouraging them to explore, test and refine potential responses, storytelling and design thinking help to create learning environments that are both participative and reflective. Collaboration should also extend globally, reflecting Generation Alpha's increasingly multicultural and connected worldview.

Experiential and problem-based learning provide a useful framework for facilitating such interactions, enabling students to work collectively on complex issues while developing the communication, teamwork and critical-thinking skills required in contemporary organisations. Continuous evaluation remains essential to ensure that these approaches remain relevant and effective. Evidence-based reflection, combined with a willingness to adapt pedagogical practices, allows learning activities to evolve alongside the changing expectations and needs of future generations.

In practice, storytelling, design thinking and collaborative inquiry complement both experiential and problem-based learning by encouraging learners to explore multiple perspectives, test solutions and reflect upon outcomes. These characteristics align closely with the active and participatory learning preferences consistently reported among Generation Z and Alpha learners.



Conclusion

Looking ahead, I intend to continue developing and evaluating technology-enhanced experiential and problem-based learning activities within my own teaching practice. Particular areas of interest include immersive technologies, AI-supported learning environments and increasingly authentic industry-facing challenges. Future work will focus upon understanding the impact of these approaches on student engagement, learning outcomes and employability. It is hoped that these continuing pedagogical developments may generate further evidence regarding teaching practice and provide valuable insights to share with colleagues at future Lancaster University Education Conferences.

Author Profile

Richard Baguley is a Senior Teaching Associate in the Department of Entrepreneurship and Strategy at Lancaster University Management School. As an educator and facilitator, Richard is passionate about developing teaching pedagogies that empower learners, enable equity of opportunity and potential, recognising the differing needs of Generation Z and Generation Alpha learners.

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