



Digital Excellence Impact Case Studies

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AI-Powered Teaching: Empowering
Educators and Engaging Students

Emily Hedley





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Introduction and Background

In the ever-evolving landscape of education, embracing interactive tools has become essential for enhancing the learner journey. Emily Hedley, Senior Lecturer in Optometry from the school of School of Health and Life Sciences is an enthusiastic advocate for interactive teaching methodologies and embarked on a journey to leverage technology to enrich the learning experience for her students. This case study delves into Emily's exploration of quiz platforms, her challenges, and her innovative solutions in integrating artificial intelligence (AI) to optimise her teaching, learning and assessment practices.

Emily's passion for interactive tools led her to discover Kahoot during her PGCert studies. She found Kahoot to be an excellent tool for assessing student understanding and gauging the attainment of learning outcomes. However, changes to Kahoot's service agreement, which restricted access to certain functionalities, prompted Emily to seek alternative solutions. As her student cohort grew, the need for a scalable and versatile platform became apparent. Following the changes to Kahoot's subscription model, Emily attended a departmental training session that explored alternative quiz tools delivered by the Digital Learning Specialist team, in which she was introduced to an online tool called PanQuiz. This tool not only provided the functionality of Kahoot but also integrated Generative AI, offering new dimensions to teaching and learning.

This online quiz platform emerged as a pivotal tool for testing knowledge retention and serving as consolidation tasks. Students, captivated by the competitive nature of these quizzes, engaged enthusiastically, making them an integral part of Emily's teaching repertoire.

Challenges

While quiz platforms offered immense potential, Emily encountered challenges in generating quiz questions for subject-specialist topics. The AI capabilities of these platforms were evolving but could still struggle to generate questions for niche subjects. To address this hurdle, Emily adopted a hybrid approach, combining AI-generated questions for broad topics with ChatGPT to create specialised questions. This hybrid model ensured a comprehensive coverage of the subject matter while harnessing the strengths of AI and human input.

Outcomes

The integration of AI-enabled features into this and other quiz platforms has helped revolutionise Emily's teaching practices, offering efficient assessment tools and enhancing student engagement. By leveraging AI, Emily not only streamlined quiz generation but also personalised assessments to cater to diverse learning needs. The gamified nature of quizzes motivated students, fostering healthy competition and collaborative learning. Moreover, the data-driven insights provided by these platforms facilitated targeted interventions, enabling Emily to adapt her teaching strategies based on student performance. Students also made positive reference to the use of 'interactivity' in the feedback surveys following the completion of modules.

Impact on Learning

Emily Hedley's integration of generative artificial intelligence into her teaching methodologies has significantly enhanced student learning outcomes. By leveraging AI-enabled quiz platforms, she has

created dynamic and interactive assessment experiences that promote deeper comprehension, critical thinking, and problem-solving skills among students. This approach has also increased student engagement, motivation, and academic performance while ensuring accessibility and inclusivity for all learners, ultimately fostering a dynamic educational environment conducive to student success.

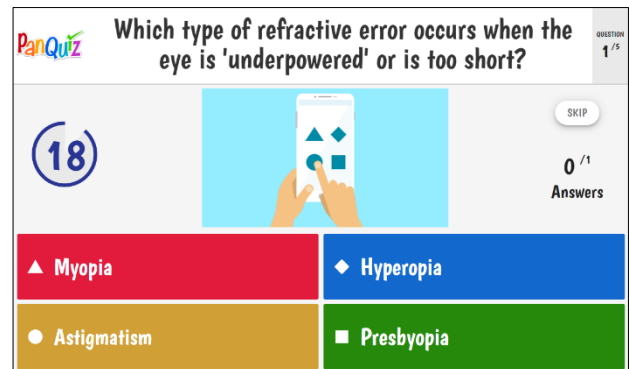
Future Applications and Expansion:

Looking ahead, Emily envisions extending the use of AI-generated assessments to formalize formative assignments, transitioning from not only synchronous classroom-based activities but to asynchronous assessments. By empowering students to create quizzes for each other, Emily aims to foster peer learning and facilitate revision activities. This proactive approach reflects Emily's commitment to innovation and student-centric learning experiences.

Emily's forward-thinking approach extends beyond the present, through collaboration with the Digital Learning Specialist team to explore the capabilities of other GenAI-enabled online quiz tools. Excited by their enhanced AI functionality and features, Emily envisions incorporating these tools into her teaching delivery soon. By experimenting with new platforms, Emily seeks to expand her toolkit, further optimising the use of AI in assessment and engagement. This proactive stance reflects Emily's commitment to continuous improvement and her willingness to embrace emerging technologies to enhance the learning experience for her students.

Conclusion:

Emily's journey exemplifies the transformative power of leveraging Generative Artificial Intelligence as an educational companion within Higher Education. From her initial adoption of interactive tools to her strategic pivot towards AI-



enabled quiz platforms like Pan Quiz, Emily's story reflects a commitment to innovation and student-centred learning. By seamlessly integrating AI into her teaching practices, Emily not only enhances student engagement and knowledge retention but also fosters a collaborative and inclusive learning environment. Her proactive exploration of new AI-enabled tools, guided by the Digital Learning Specialist team, underscores her dedication to staying at the forefront of educational technology. In essence, Emily personifies how embracing Generative Artificial Intelligence enriches every facet of the student journey at Teesside University, fostering a culture of continuous learning and advancement.

As education continues to evolve, this case study serves as a beacon of inspiration for educators seeking to harness the power of AI to enrich the educational experience.

Additional Resources & Useful Information

- [Digital Transformation CPD.](#)
- [Teesside University's Knowledgebase-Guides.](#)
- For help & support with Digital Pedagogy, Adobe or MIEE related queries contact elarning@tees.ac.uk & adobehelp@tees.ac.uk