Linking Digital Engagement to Clinical Performance in Podiatric Medicine

OLLSCOIL NA GAILLIMHE
UNIVERSITY OF GALWAY

Institution(s) and Partner Organisations Involved

Department of Podiatric Medicine, University of Galway, Centre for Excellence in Teaching and Learning, University of Galway

Contributor(s)

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What level(s) of your institution does this work affect?

- Module level

Date and Timeframe

Ongoing

Alignment and Focus

Focus

- Digital Transformation in the Tertiary Sector
- Best Practice in Upholding and Cultivating Academic Integrity

Frameworks, Policies, or Strategies Aligned

- University of Galway Teaching and Learning Strategy (2021–2026)
- National Health and Social Care Professions (HSCP) Office – Digital Health Framework (HSE, 2023)
- Sláintecare Implementation Strategy & Action Plan (2023–2026)
- European Higher Education Area (EHEA) – Framework for Health Professions Education (2020)

Discipline

- Education
- Health and Welfare
- Teaching and Learning

Impact, Lessons Learned and Future Directions

Impact and Evidence of Success

Evaluation combined quantitative learning analytics and qualitative student feedback. Canvas Studio data on "Total Activity Time" were correlated with OSCE grades, showing a moderate positive correlation (r = 0.39, p = 0.031). End-of-semester surveys captured perceived confidence, resource usability, and anxiety reduction. Approximately 40 undergraduate and postgraduate students and 6 teaching staff were directly engaged in the 2025 pilot phase. Findings indicate improved performance, greater consistency in teaching, and high satisfaction with digital learning supports.

Future Plans and Sustainability

Next steps include securing full ethical approval for longitudinal analysis across multiple cohorts in 2025–2026. The digital resources will be expanded through Articulate Rise micro-modules and analytics dashboards to identify and support disengaged learners. Embedding these tools within core modules and staff training will ensure sustainability. The model is designed for scalability across health-professional programmes, supporting consistent, data-informed, and inclusive digital education.

Top Tips

- Successful digital transformation in clinical education depends on designing before digitising, ensuring every tool is aligned with clear pedagogical intent rather than added retrospectively. Using learning analytics meaningfully can provide early indicators of engagement and inform curriculum refinement, supporting both staff and students. Finally, prioritising accessibility through multimodal, well-structured resources helps reduce learner anxiety, promote equity, and enhance confidence across diverse student groups.

Initiative Description

Activity Time and OSCE Performance Summary
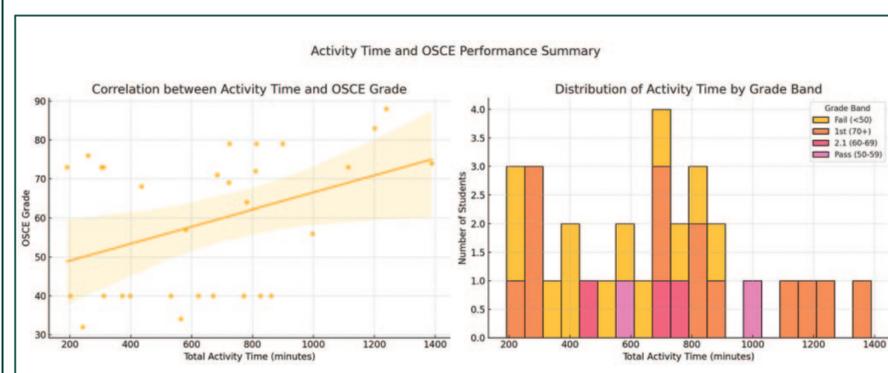
Aims and Objectives

- Strengthen clinical competence through digital learning. Increase student engagement and confidence. Use analytics to inform teaching and assessment. Standardise clinical teaching across programmes.

Outline or Description

This initiative, developed within the Discipline of Podiatric Medicine at the University of Galway, aims to enhance clinical competence and student engagement through evidence-informed digital learning and analytics. It emerged from the need to improve consistency, accessibility, and confidence in clinical skills acquisition across undergraduate (BSc) and postgraduate (MSc Pre-Registration) Podiatric Medicine programmes.

Student evaluations in 2023–2024 identified variation in tutor teaching styles, limited access to standardised clinical resources, and anxiety surrounding Objective Structured Clinical Examinations (OSCEs). At the same time, curriculum restructuring and growing student numbers reduced practical contact hours, intensifying the need for digitally supported learning. To address these challenges, the academic team implemented a blended-learning and analytics-based approach underpinned by national and European digital education frameworks.

Between 2024 and 2025, a suite of digital and blended resources was created for *Podiatric Medicine 2* and *Podiatric Medicine Practice 1*. These included:

- a standardised Musculoskeletal Assessment Workbook aligned with OSCE marking criteria;
- over 30 short clinical demonstration videos, with audio versions and transcripts for accessibility; and
- integrated Canvas Studio analytics tracking student engagement ("Total Activity Time"), linked to OSCE and written assessment performance.

The initiative was guided by Brookfield's (2017) model of critical reflection and Laurillard's (2013) conversational framework, ensuring pedagogical alignment rather than tool-led design. The project also drew on Universal Design for Learning (UDL) principles to provide multimodal access and flexible engagement pathways for diverse learners.

Pilot analysis in 2025 found a moderate positive correlation between digital engagement and OSCE grades (r = 0.39, p = 0.031). Students who engaged most with the digital materials achieved higher practical and theoretical scores, and reported reduced anxiety and greater confidence during assessments. Qualitative feedback emphasised the value of clear, concise, and visual learning supports that could be revisited at any time.

The initiative also benefited academic staff by promoting consistency in teaching methods, shared access to resources, and the integration of analytics into reflective teaching practice. The approach aligns closely with the University of Galway's Teaching and Learning Strategy (2021–2026), the National Forum's focus on evidence-informed enhancement, and the EU Digital Education Action Plan (2021–2027).

Looking ahead, the next phase (Semester 1 2025) will secure full ethical approval for longitudinal analysis of engagement and performance data across multiple cohorts. Planned developments include the integration of **Articulate Rise micro-modules**, targeted support for disengaged learners, and creation of **analytics dashboards** to identify students requiring early intervention.

Ultimately, this initiative contributes to national and international priorities for digitally enhanced, inclusive, and data-driven clinical education. It demonstrates how learning analytics can meaningfully inform teaching practice, enhance student outcomes, and promote consistency, accessibility, and confidence within the next generation of healthcare professionals