

Critical Success Factors and Barriers in the Implementation of E-learning in Higher Education

Outline for upcoming Research Proposal

Tobias Zeier, 12696372, the 14th of December 2025
University of Essex Online

1 Title and Research Problem

Title: Critical Success Factors and Barriers in E-Learning Implementation in UK Higher Education Institutions: A Multiple Case Study Investigation

Research Problem: Higher education institutions are investing substantial resources in e-learning infrastructure and technologies without systematic understanding of implementation success conditions (Priatna *et al.*, 2020). The COVID-19 pandemic accelerated digital transformation, revealing critical gaps in technological infrastructure, pedagogical preparation and institutional support mechanisms (Mhlanga, Denhere and Moloi, 2022). Recent literature demonstrates that effectiveness depends upon complex interactions between technological systems, instructional design, institutional support and learner characteristics. UK institutions require evidence-based guidance to optimise investments, enhance learner engagement and design resilient, equitable digital learning ecosystems capable of delivering equitable outcomes across diverse student populations (Brugliera, 2024).

2 Significance and Contribution

This research synthesises fragmented literature across technology, pedagogy and equity into a coherent framework, advancing understanding of implementation complexity across diverse institutional types. It supplies actionable strategic guidance addressing sector-wide challenges and responds to identified gaps in equity-focused empirical research.

3 Research Question and Aims

Research Question: How can UK higher education institutions effectively operationalise critical success factors whilst systematically mitigating implementation barriers?

Aims: Develop integrated framework of success factors; identify institution-specific barriers; produce evidence-based strategic guidance.

4 Objectives

- Synthesise success factors across technological, pedagogical and institutional dimensions.
- Conduct qualitative case study investigation across four UK institutions.
- Develop implementation framework with resource allocation guidance.

5 Key literature and Framework

Seven critical success factors: system quality, infrastructure, learner characteristics, instructor competence, institutional support, pedagogical design and social capital. Barriers operate across technological (connectivity), pedagogical (preparation gaps), social (isolation) and institutional (capacity) dimensions. Framework integrates DeLone and McLean's information systems success model and social capital theory.

6 Research Methodology

Design: Qualitative multiple case study across four UK institutions.

Data Collection: 32 semi-structured interviews (8 per institution); six focus groups (48 students); document analysis.

Analysis: Thematic analysis using software such as NVivo, cross-case comparison.

7 Ethical considerations

Ethics approval obtained. Informed consent. GDPR compliance through anonymisation and secure storage. Enhanced safeguards for vulnerable populations.

8 Research Artefacts

Outputs: Implementation framework, case study profiles, strategic guidance, peer-reviewed article.

9 Timeline and Contribution

Duration: 12-month investigation across five phases: literature synthesis and ethics approval (months 1–4), data collection (months 5–8), analysis and synthesis (months 9–10), dissemination (months 11–12).

Contributions: Academically, integrates fragmented literature into coherent framework. Professionally, supplies evidence-based strategic guidance addressing sector-wide challenges. Methodologically, advances understanding through comparative institutional analysis revealing context-sensitive implementation factors.

Word Count: 408

References:

Brugliera, P. (2024) 'The Effectiveness of Digital Learning Platforms in Enhancing Student Engagement and Academic Performance', *Journal of Education, Humanities, and Social Research*, 1(1), pp. 26–36. Available at: <https://doi.org/10.70088/xq3gy756>

Mhlanga, D., Denhere, V. and Moloi, T. (2022) 'COVID-19 and the Key Digital Transformation Lessons for Higher Education Institutions in South Africa', *Education Sciences*, 12(7), p. 464. Available at: <https://doi.org/10.3390/educsci12070464>

Priatna, T., Maylawati, D.S., Sugilar, H. and Ramdhani, M.A. (2020) 'Key Success Factors of e-Learning Implementation in Higher Education', *International Journal of Emerging Technologies in Learning (iJET)*, 15(17), p. 101. Available at: <https://doi.org/10.3991/ijet.v15i17.14293>