Title of case study

Enhancing a School's curriculum using technology: process and recommendations

Staff Lead

Dr Maria Limniou

School/ Department

School of Psychology

Faculty

Health and Life Sciences

Contact Details

Maria.Limniou@liverpool.ac.uk

Name of course and module (if applicable) case study took place within

School of Psychology

Please briefly describe the activity undertaken for the case study

As leader of the TEL strategic approach for the School of Psychology, my vision was to support students and staff with the best opportunities for learning and teaching by creating an innovative, flexible and engaging environment. My ultimate aim was to introduce an holistic environment of blended learning approaches, enhancing the student learning experience, the teaching delivery process, and assessment and feedback methods.

NSS comments and my research on the School of Psychology regarding the integration of its Virtual Learning Environment into the curriculum (Limniou, Downes & Maskell, 2015) showed that students expect a broad-based student-centred learning environment, in order to facilitate their understanding and achieve intellectual development.

I studied the needs of all relevant stakeholders and carried out an in-depth audit of the resources available the School. I studied staff expectations regarding the integration of technology into their module and the types of eLearning tools that might support the teaching and assessment process. The majority of staff were reluctant to integrate technology into their teaching, due to time constraints and/or their unfamiliarity with the use of technology for educational purposes. Considering this limitation, I tailored clear and transparent solutions regarding the use of technology without expecting staff to spend much time on the implementation process.

This involved mentoring staff on how to integrate technology into their teaching approaches based on their module needs; providing technical solutions for their teaching improvements; support to enhance the quality of assessment and management process; organising relevant workshops and supervising research projects in order to study in detail the influence the TEL changes had on the student learning experience.

How was the activity implemented?

Alongside this significant project of TEL and the curriculum, the School of Psychology was undergoing a curriculum review process. TEL played an important role in the design and implementation process of the new curriculum following the University's Strategy 2026. In order to prepare a new TEL strategic approach, I was involved in three curriculum review groups (Curriculum design, Assessment and Feedback, Employability). I chaired the TEL committee allowing my colleagues to review the current TEL development and express their views on the use of good practice examples for the new curriculum, and conducted a SWOT analysis to identify strengths and weakness of the previous TEL approach along with opportunities and risks for further TEL changes.

I carried out an environmental assessment in order to prepare a record of all the modules, based on module specifications, learning resources, assessment methods used, and module topics. This assisted in prioritising tasks based on the frequency of the different elements (e.g. assessment submission process, empty VITAL module spaces) and the ease/complexity of the process (e.g. online grades available to students, interaction through online collaborative tools).

Communication management was of paramount importance and numerous meetings with students/academics/professional services personnel became a daily routine. Although the discussion process was time-consuming, it was crucial for my aim to integrate technology into the School curriculum and manage TEL projects.

The creation of a friendly environment open to the discussion of new ideas promoted a great deal of enthusiasm to all stakeholders towards a more in-depth integration of TEL. Discussions facilitated:

- Promotion of learning technology tools in the School
- Identification of opportunities for educational research in alignment with School needs, and workshops based on staff needs
- Listening to students to identify opportunities for their learning experience to be enhanced and the assessment and feedback process to be improved through the use of technology (discussions with student representatives (individual and/or via the Student Staff Liaison Committee))

I sat on all relevant committees within the School and across the Faculty, reviewed the progress of the TEL implementation, and transformed best practice TEL activities into policy.

- To develop each policy (e.g. online submission, online tests) I identified School needs and studied the role of technology for each potential change element.
- I listened carefully to feedback from all stakeholders (teachers, students and professional services staff)
- I ensured that School policy aligned with, and adhered to, University rules and regulations (e.g. inclusion, mitigation circumstances, academic integrity) and opportunities provided by the use of technology.

I lead on and promoted eLearning tools within the School using my modules as an example. This included:

- Demonstrating how different eLearning tools could be integrated into teaching, for example, by using blogs, wikis and/or online discussion activities in my modules
- Allowing students to submit assignments online for my modules, with staff receiving instructions and training on real examples.

My approach was research-informed, and I led and supported colleagues in the use of technology for educational purposes by disseminating educational research aligned to School needs. For example:

- Identifying modules with low module evaluation scores, and coordinating changes with module leaders.
- Mentoring staff on pedagogy and the use of technology in order to increase student satisfaction with the module.
- Good practice teaching and learning examples were spread within the School in order to further promote TEL changes and support staff personal development.

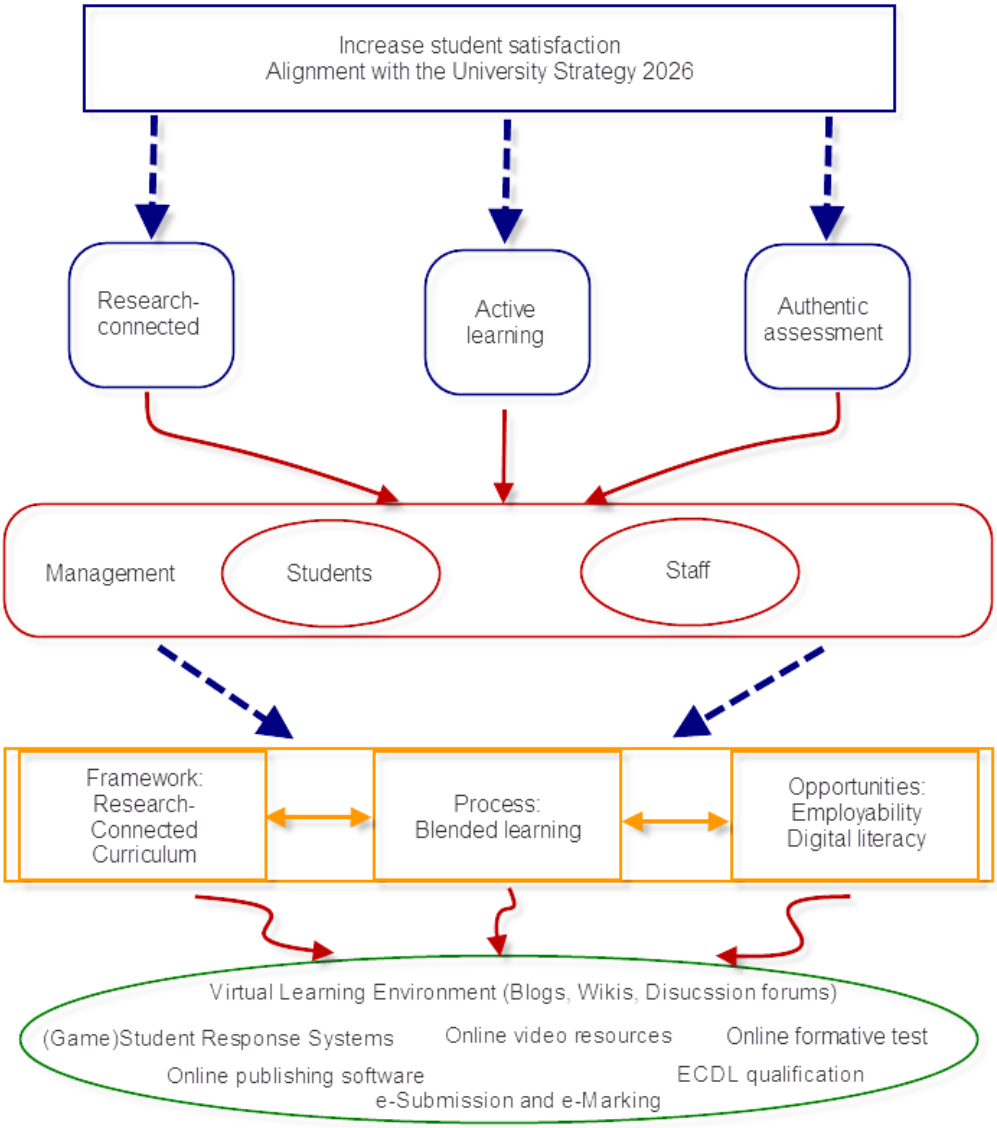

Figure 1: TEL strategic approach aligned with the University of Liverpool Strategy 2026.

Has this activity improved programme provision and student experience, if so how?

- Overall, students have highly valued the integration of technology into their own learning process.
- Staff using technology for educational purposes has gradually increased (from 3, when I started in the School, to 68 academics in April 2019).
- Within two years the School fully adopted online assessments for all student coursework following University policy.
- Many staff integrated different eLearning tools into their modules by following different teaching approaches based on blended learning (30 out of 60 modules), online continuous assessment (6 modules) and flipped classroom (4 modules). This increased student engagement with the learning process (use of interactive

eLearning tools: online voting systems, online discussion case studies; online collaboration through blogs and wikis and online continuous assessment).

- Approximately 382 students out of 450/year read their online feedback through the e-marking process.

The School of Psychology is considered one of the most successful examples for the integration of VITAL (our VLE) into the curriculum, online submission and e-marking following the University coursework submission policy.

Unfortunately, there are no clear metrics for direct TEL evaluation through the module evaluation forms and there are no NSS questions focused on TEL activities. The overall student satisfaction for 2017-18 was 85.4% with 89.9% satisfaction on learning resources section and 83.7% satisfaction on teaching.

Did you experience any challenges in implementation, if so how did you overcome these?

A significant increase in student numbers (from 240 to 450) meant that staff-time to consider the pedagogical use of eLearning tools was a real issue.

The process of working on real assignments to enhance staff development was challenging. If anything went wrong during the marking process, it might have caused staff and student complaints. I eliminated this risk by providing material (written and video instructions) to staff and students and monitoring the process daily. This allowed me to mentor and support staff continuously.

Mentoring academic staff on using technology in their teaching worked well.

Which Liverpool University Hallmarks and Attributes does this case study relate to (tick all boxes that apply)

Research-connected Teaching	**X**
Active Learning	**X**
Authentic Assessment	**X**
Confidence	
Digital Fluency	**X**
Global Citizenship	

How does this case study relate to the Hallmarks and Attributes you have selected?

Please see the following recommendations for the use of TEL to support hallmarks and attributes:

Research-connected Teaching
Use examples from the current School publications and modify them to a problem-based study. Allow students to collaborate in small groups and give them time to answer questions through the online voting systems (Limniou & Mansfield, 2019).

Active Learning
Ask students to take an online quiz and/or post comments on a case study scenario through an online discussion forum before the lecture. In the lecture, discuss case studies with students and allow them to express their opinions via an online polling platform (Kahoot and/or PollEverywhere). Provide learning materials (e.g. videos, websites, reports, documentaries) after class and allow students to post their comments online in order to keep the debate live (Limniou, Schermbrucker & Lyons, 2018).

Authentic Assessment
Use online discussion forums and allow students to upload their own material (e.g., case studies, posters, reflection). Encourage them to comment on their peers' assignments and use a rubric to mark their own work and then mark the contribution of others (Limniou, Tucci, Hands & Downes, 2017).

Digital Fluency
Use different eLearning tools through the VLE to support your teaching and enhance the student learning experience. Do not use the VLE only as a repository. Integrate interactive tools, such as discussion forums, wikis, blogs, to provide an opportunity for students to develop their own digital literacy (Limniou, Downes, Tsivilis, & Whitelock-Wainwright, 2016).

The TEL activities implemented in order to support the curriculum of the School of Psychology (previous and current) were aimed at the above areas. For example, a survey on the area of research-connected teaching allowed me to identify areas for improvements (Limniou, Mansfield & Petichakis, 2019). The new TEL strategic approach aims to enhance student critical thinking, reflection and independent learning, whilst at the same time allowing students to work with their peers in online spaces.

Opportunities for online co-production of knowledge and digital literacy skills also support the new curriculum. This is an area that I need to further investigate, allowing students to present their research outputs in a more modern way (e.g. blog, video production, multimedia material) by gaining benefits from digital learning environments.

How could this case study be transferred to other disciplines?

This is most easily transferred if you already have a TEL leader/ someone specifically tasked with responsibility for TEL in your school.

This approach is applicable to any discipline. The implementation will be unique for your School based on the needs of your particular discipline.

If someone else were to implement the activity within your case study what advice would you give them?

Above all, consider pedagogy and discipline needs before starting the TEL implementation process.

- Avoid using fancy technology tools because you like them.
- Study the needs of the School and the difficulties that your stakeholders (students, academics and professional service staff) usually face.
- Based on your initial observations, consider potential solutions that may allow students and academics to overcome their difficulties.
- Consider how the integration of learning tool(s) could enhance teaching and learning experience, and receive feedback from your stakeholders.

References:

Limniou, M., Downes, J. J., & Maskell, S. (2015). Datasets reflecting students' and teachers' views on the use of learning technology in a UK university. *British Journal of Educational Technology, 46*(5), 1081-1091.

Limniou, M., Downes, J.J., Tsivilis, D. & Whitelock-Wainwright, A. (2016). Design a VLE Template: Students' and Teachers' Preferences on Engagement and Assessment. In Dale Bowen (Ed.), *Student Learning: Assessment, Perceptions and Strategies* (pp. 1-40). New York: NOVA Science Publishers.

Limniou, M., Tucci, S., Hands, C. & Downes, J.J. (2017). Online tests in learning process: strategy, examples, grades and challenges. In B. Hernandez (Ed.) *Focus on Educational Research: Practices, Challenges and Perspectives.* New York: NOVA Science Publishers.

Limniou, M., Schermbrucker, I., & Lyons, M. (2018). Traditional and flipped classroom approaches delivered by two different teachers: the student perspective. *Education and Information Technologies, 23*(2), 797-817.

Limniou, M., & Mansfield, R. (2019). (Game-Based) Student Response Systems Engage Students with Research-Teaching Nexus Activities and Support Their Skills Development. *Creative Education, 10*(1), 36-47.

Limniou, M., Mansfield, R. and Petichakis, C. (2019). Students' Views for a Research-Intensive School Curriculum in Psychology: Research-Teaching Nexus. *Creative Education*, 10, 796-813.