Developing Digital Capabilities in Further Education and Training: Learning Through Inquiry

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Abstract

Developing digital capacity in the Further Education and Training (FET) sector through targeted professional development is a key goal of the FET Professional Development Strategy 2017-2019 (SOLAS 2017). In this practice paper we account for our contribution to this endeavour through work on the design, development and implementation of two new professional development programmes in technology-enhanced learning for FET learning practitioners. We introduce the programmes, explain the model of blended learning that gives them form, and discuss our teaching, learning and assessment strategy, which emphasises development of a practitioner inquiry stance to the pedagogical possibilities afforded by changing digital technologies.

Keywords

1. Introduction

In 2018, National College of Ireland was awarded a contract by SOLAS, the Further Education Authority, to develop two new programmes in technology-enhanced for learning professionals working in the Further Education and Training (FET) sector in Ireland. Increasing capacity in this domain through targeted professional development had been identified as a key goal of the FET Professional Development Strategy 2017-2019 (SOLAS 2017), which recorded relatively low levels of confidence in the use of digital technologies to support the FET learner amongst the practitioners it profiled. The first of our programmes, the Certificate in Learning and Technology is aimed at the 'initial level' practitioner. It comprises a single module (Learning and Technology) delivered over 12-weeks and leads to special purpose award of 10 ECTS at Level 6 on the National Framework of Qualifications (NFQ). The second programme, the Certificate in Technology-Enhanced Learning is aimed at the 'developing level' practitioner. It comprises three consecutive modules (Digital Capabilities and the Learner Experience, Technologies in Teaching and Learning, and Technologies in Assessment, feedback and Learning Support) delivered over one-year and leads to a special purpose award of 30 ECTS credits at Level 7 on the NFQ. Launched in February of this year, participants on these programmes come from across the 16 Education and Training Boards and a diversity of practice settings, including Youthreach, Post Leaving Certificate and Vocational Training Opportunities Scheme (VTOS), Training Centres, and Adult and Community Education. In this paper we account for the form and logic of the programmes, which emphasise development of a practitioner inquiry stance to the pedagogical possibilities afforded by digital technologies and the development of appropriate digital pedagogies.

2. Blended Learning Model

Both programmes are blended learning programmes that, in addition to enabling flexible access, provide an authentic learning environment for experiential learning about the use of digital technologies to enhance learning. This enables practitioners to

engage with core technologies such as the virtual learning environment (Moodle), virtual classroom (Adobe Connect), and e-portfolio (Mahara) in their own learning; consider the concepts, models and theories that we introduce them to; reflect on the implications for the development of their professional practice with FET learners; and develop their own strategies for use. Figure 2.1 illustrates the blended learning model that structures each module.

Figure 2.1 – Blended Learning Model
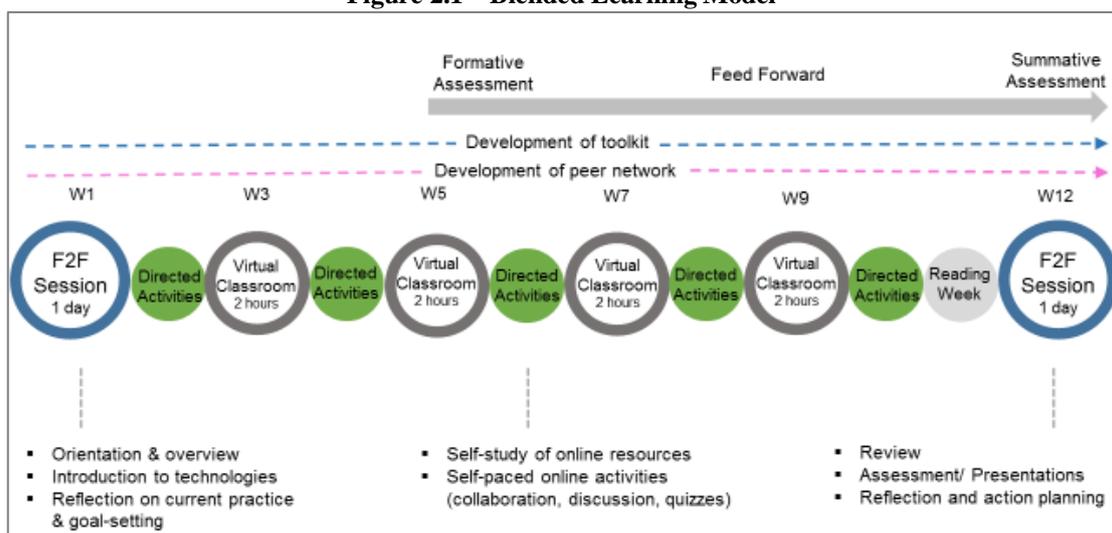
Practitioners attend two full-day (six-hour face-to-face sessions – one at the beginning and one at the end of each module – and participate in four two-hour virtual classroom sessions, one every second week. Between these sessions practitioners undertake directed asynchronous activities at their own pace.

Our blended learning design is influenced by *inquiry-based frameworks,* such as Garrison and Vaughan (2008) where the premise is that education is best experienced in a community of inquiry. This model of blended learning, which itself is based on Wenger's (1998) communities of practice, is perceived to be consistent with the insights of constructivist theorists such as Vygotsky (Chew, Jones and Turner, 2008).

Similarly, our LTA strategy below, is influenced by digital pedagogies such as *The Learning Wheel*, where engagement with the community of learners is central and connected to all areas of our practice (Kellsey and Taylor, 2016).

3. Teaching, Learning and Assessment Strategy

Our teaching, learning and assessment strategy for the programmes recognise that participants are learning professionals with diverse experiences and practices whom already embody contextual, pedagogical and subject/disciplinary knowledge. Our major emphasis is on supporting them to explore the relationship between pedagogy and technology, and to develop digital pedagogies appropriate to their practice.

On both programmes this begins with self-reflection on current practice using the Visitors and Residents Framework (White and LeCornu 2011) and European Digital Competence Framework for Educators (DigCompEdu), and extends in the first module of the Certificate in Technology-Enhanced Learning to include inquiry into the digital capabilities of the FET learners with whom the practitioners work using the Digital Competence Framework for Citizens (DigComp 2.0), and into digital capabilities of their organisation/practice setting using the Digital Competence Framework for Educational Organisations (DigCompOrg). The knowledge and understanding that practitioners develop through this inquiry provides a very significant foundation for subsequent work.

In our teaching we model the appropriate and effective use of digital technologies and resources to enhance learning, and make explicit the concepts, criteria and rationale that have informed us in order to scaffold the development of practitioners' critical and evaluative capacities. We actively engage practitioners in ongoing discussion and reflection on their experiences with these technologies and resources, and explain how we use this feedback to evaluate our digital practices and inform our pedagogical strategies. This feedback is gathered through discussions (synchronous and asynchronous) and through learning journals, supported by learner data generated through the virtual learning environment.

Learning and assessment activities foster development of a practitioner inquiry stance to the possibilities afforded by new technologies, providing structured opportunities for

practitioners to investigate new technologies for the development of their practice with appropriate scaffolding and feedback. They also support the development of a digital toolkit and a peer learning network. Practitioner-defined projects to investigate and integrate digital technologies with pedagogical practice, constitute the major drivers for learning, integrating 'assessment as learning' and 'assessment for learning' objectives.

There are two staged assignments in each module. These are underpinned by an inquiry cycle that involves practitioners investigating an aspect of their current practice and/or practice context that may be enhanced through the use of technology, undertaking some action towards this outcome, evaluating the action and reflecting on further areas for development (see example in Figure 3.1). In this manner practitioners contextualise and interpret the assignments for their own role and practice context, and integrate theoretical and conceptual knowledge at each stage of their inquiries. This provides the grounds for the integration of learning across modules as each inquiry cycle is informed by prior ones. The first assignment is due in Week 5 and is worth 20% of the module marks. It constitutes the first phase of the inquiry cycle (planning) that is completed for the second and final assignment submission in Week 12, worth 80% of the module marks. Feedback on the first assignment constitutes substantial feedforward for learning and a successful completion of the second. As practitioners develop the work towards assessment in each module they collaborate online with a group of their peers to discuss and offer feedback on each other's work. They also reflect on their progress in a multi-modal learning journal that we offer feedback on. These activities support the practitioner to monitor their own learning and to make informed judgements about their own work.

Figure 2.1 – Sample Inquiry Poster

The major emphasis of the assessment is on the demonstration of a reasoned and systematic approach to the investigation of digital technologies for the enhancement of pedagogical practice, with due attention paid to planning, implementation and evaluation, as well as critical reflection on the development of digital practices. A second important emphasis is on the communication of inquiries in instructional (infographic or poster) form, including QR codes for any artefacts of practice developed, that can be shared with colleagues through physical display in the practitioner's workplace, or shared more widely with other practitioners in the sector in electronic form, through their e-portfolio for example. The assessment form permits the

practitioner to build effectively on inquiry cycles completed in prior modules and act on feedback, while becoming increasingly self-regulating and critically evaluative of their learning and performance. It also permits them to disseminate their work to other practitioners in an accessible and educational form.

4. Conclusion

The first iterations of these programmes have just concluded this week and require evaluation, however, ongoing feedback from participants has been very positive. In their end of module presentations, practitioners account for the very direct impact that their inquiries are having, not alone on their confidence to explore the pedagogical possibilities afforded by changing tools, but on their relationship with FET learners as they engage them in discussion and activity centred on developing digital capabilities, and on their relationship with colleagues as they share their learning with them and influence the development of organisational digital capability. Many report having been invited to facilitate workshops in their settings, to mentor others, and to offer leadership as members of working groups on technology-enhanced learning. At a very personal level many also account for the ways in which participation in the programme has made them more cognisant of the learner experience and re-invigorated their teaching. We look forward to now capturing their voices and their accounts of impact in a formal evaluation and to showcasing their inquiries at a sectoral event in January 2020.

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