### **Title**

The Impact of Professional Learning for Further Education Lecturers on Improving the Student Experience

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#### **Abstract**

In order to meet the needs of the diverse student body and respond to continual developments within the education sector, professional learning for further education lecturers is of paramount importance. The National Model of Professional Learning serves as a framework for lecturers to reflect on current teaching practice and the learners they work with, seek opportunities for greater collaboration with peers and develop further knowledge and skills to enhance the student experience. In order to address the research question, the researcher conducted both secondary and primary research. Research findings suggested that the student learning experience was enhanced through using a range of game based learning platforms including Kahoot, Mentimeter and Quizlet. From the 8 student focus groups, gamification of learning was widely recognised as the most effective learning strategy to improve student motivation, engagement and participation. Therefore, this research paper highlights the necessity for further education lecturers to embed gamification into curriculum design and delivery in order to create a more immersive and enjoyable student experience.

### Introduction

#### **Context and Research Intention**

Continuous professional development in the form of accredited qualifications, workshops and e-learning have always been critical in developing and harnessing the teaching capabilities of lecturing staff in the Scottish further education sector. From formal qualifications such as the Teaching Qualification in Further Education (TQFE) and Professional Development Award - Teaching Practice in Scotland's Colleges to e-learning courses in GDPR, the range of professional learning opportunities are extensive and continue to grow.

This research paper has the intention of supporting Scottish further education institutions in identifying staff training which has the greatest impact on the student experience. Through utilising secondary and primary research, this study will evaluate different forms of professional learning and evaluate whether the student experience is greatly improved through staff undertaking specific training.

### **Rationale for Research**

Extensive research has been carried out on the knowledge and skills gained from qualifications such as the TQFE, Assessor Awards and Internal Verifier Qualifications (Bain, Brosnan and McGuigan, 2019). While the research commends numerous professional learning opportunities, one must consider the significant time commitment and financial investment. For instance, the TQFE requires 12 months of part time study and costs £1,820 at Stirling University (Home/UK) and £1,920 at Dundee University (UK) (Postgraduate Search, 2020). Therefore, this study will address a gap in existing literature and identify whether particular staff training for further education lecturers leads to a enhanced student experience.

**Background: The Policy Context and Review of the Literature** 

### **Introduction to Professional Learning**

Within the further education sector, professional learning is described as the process used by lecturers to "stimulate their thinking and professional knowledge and to ensure that their practice is critically informed and current" (GTCS, 2020). In order to improve professionalism, build confidence, expertise and capacity, professional learning is seen as the key mechanism in which lecturers can lead learning in the classroom (EIS, 2020). Through undertaking training in the form of peer mentoring, staff development days, academic courses and self evaluations, there are numerous methods in which lecturers can improve the student experience through honing their skills and knowledge.

### **Games Based Learning Platforms**

When reviewing academic literature on professional learning for lecturers within the Scottish further education sector, research focuses on the growing demand for knowledge of games based learning platforms (Stiller and Schworm, 2019). The London School of Economics (2020) describes games based learning as the "introduction of game play elements to existing learning platforms or content in order to intrinsically motivate and engage the learner". While the gamification of learning is a relatively new phenomenon, the study discusses a spectrum of platforms including Kahoot, Mentimeter, Quizlet, Socrative, Gimkit and Plickers. To support lecturers in embedding digital games into curriculum delivery, the platforms offer a range of pre-existing games and quizzes and an option to design games to meet the learning requirements of different student groups. As evidenced on the National Model of Professional Learning, games based learning is a recurring theme in research and has led to a need for further professional learning opportunities within this field.

### The National Model of Professional Learning

In order to promote the continual development of teaching practice, Education Scotland designed the National Model of Professional Learning. The model has the overarching aim of ensuring that the practice of education professionals is "critically informed and up to date" (Education Scotland, 2020). As illustrated on the diagram, the 3 components are learning by enquiring, learning that deepens knowledge and understanding and learning as collaborative.



Figure 1

In terms of learning as collaborative, Education Scotland (2020) describes the process of developing an active learning community with colleagues, partners and learners as being hugely beneficial. Through the promotion of reflective practice and learning with and from others, collaboration is seen as a mechanism to make improvements to teaching practice. According to NEA Today (2018), some of the most effective examples of collaborative practice include brainstorming creative learning ideas in a trusted environment and sharing examples of best practice with fellow education practitioners. Recent research conducted by Kunnen (2015) looks at the importance of collaboration to discuss how emerging technologies (hardware and software) can be embedded within curriculum delivery. Although technology is widely used across the further education sector, the study looks at how further discussion and peer mentorship can support lecturers in creating a more immersive learning environment. AdvanceHE (2019) reiterates the points made by Kunnen by stating that collaboration between lecturers can help to fully realise the potential of technology in the classroom and in particular, the gamification of learning. Due to complex software features, collaboration can help lecturers learn from one another to build a working knowledge of game based learning platforms such as Kahoot! before using as part of curriculum delivery.

Learning by enquiry is based on "self directed enquiry or investigation in which the student is actively engaged in the process of enguiry facilitated by a lecturer" (AdvanceHE, 2019) Through taking an enquiry stance, the lecturer is able to ask critical questions about their delivery of learning and the learners. Through adopting this approach, Elliot and Sarland (1995) describe how lecturers are able to make significant changes to pedagogy and curriculum which improves the student experience and create a more inclusive and accessible learning environment. A fundamental element of learning by enquiry looks at using innovation as a mechanism for an improved student experience (Education Scotland, 2020). As documented by Kiryakova, Angelova and Yordanova (2014), games based learning platforms are a recent innovation which transforms learning into high quality, interactive and immersive material. The study looks at how this transformative innovation has the ability to encourage application of knowledge, help students to learn by doing, contribute to skills development and prompt behavioural change. In comparison with learning methodologies such as lecturer presentations, games based learning platforms allow learners to engage and interact with content and revise learning in a competition format (Galetta, 2013).

The last component of the National Model of Professional Learning is learning that deepens knowledge and understanding. Although a wide range of staff training is available through Education Scotland, the Educational Institute of Scotland (EIS) and other institutions, the need for further professional learning opportunities in technological applications for education during Covid19 has grown. In order to maintain student engagement virtually, interactive learning content and games based learning platforms are viewed as key mechanisms to encourage participation (Poondej and Lerdpornkulrat, 2019). Due to the difficulty in motivating learners through online learning, the study emphasises how embedding digital games into the

curriculum is fundamental. Within the Scottish further education system, many lecturers regularly incorporate quizzes and interactive games through platforms such as Kahoot, Quizlet, Mentimeter and Padlet into lessons. However, there is also scope to build tailored digital games to better meet the diverse range of learner needs through softwares including Game Maker Studio, Scratch and RPG Maker (Education Technology, 2020). Through promoting staff training in developing digital games, this would increase the suite of online learning tools to motivate and engage students and improve their college experience.

## **Research Design**

In order to answer the research question, primary and secondary research was conducted in order to investigate the impact of professional learning on the student experience. In terms of secondary data collection, the researcher used a spectrum of resources from academic publications to education articles written by organisations such as Colleges Scotland, Education Scotland and the GTCS.

According to the Management Study Guide (2020) secondary data can support researchers in identifying gaps in existing research and understand what additional information is needed to answer their research question. Through reviewing academic publications and articles written by educational institutions, it became apparent that professional learning to upskill teaching staff in games based learning platforms had the greatest impact on the student experience. Furthermore, focus group discussions clarified that the gamification of learning had significantly increased their motivation, enthusiasm and participation in lessons. However, research conducted by Johnston (2014) states that researchers have limited knowledge of how the data collection process was carried out and how accurate findings were. To ensure the accuracy of information, the researcher evaluated the trustworthiness of research sources by assessing the academic reputation of those writing the publications.

With regards to primary research, the researcher used student focus groups as the key method for data collection. Although focus groups are a commonly used research technique, Freitas, Oliveira, Popjoy and Jenkins (1998) highlight a number of benefits and drawbacks of using this approach. Their research findings state that focus groups allow the researcher to explore topics in significant depth and generate hypotheses. If clarification on a participant's answer was required, the researcher had the opportunity to probe for further explanation which resulted in more valuable insights. However, the study found that interviewers needed to be carefully trained in order to prevent leading questions and ensure that all participants felt comfortable answering questions. As the researcher had already built a good rapport with the student participants prior to the focus groups, learners felt comfortable answering questions in this setting.

The researcher was able to conduct 8 focus groups with 8 different student groups ranging from 12 - 23 in class size. Each focus group lasted between 20 - 30 minutes

and the age range of participants was from 18 - 52 years old. In order to conduct the focus group, the researcher firstly tested four different learning methodologies with each class which included the use of digital learning platforms (Kahoot, Mentimeter and Quizlet), group activities, independent research exercises and use of case studies. Once the lesson was complete, the researcher asked a series of questions to the student cohort to find out the impact of the learning delivery models on the student experience.

### **Research Findings**

Having utilised both secondary and primary data, research showed that professional learning opportunities which supported lecturers in improving their working knowledge of games based platforms led to an improved student experience. Wang and Tahir (2020) focused specifically on platforms such as Kahoot, Mentimeter and Quizlet as mechanisms to enhance the learning environment. Research found that the competitive nature of the learning platforms cultivated a deeper interest in the subject, increased student engagement and helped improve class dynamics. The impact of learning games on the student experience was also noted by Licorish, Owen, Daniel and George (2018) in a study which stated that distractions were minimised which contributed to a higher quality learning experience compared to learning provided in conventional classrooms.

In terms of the National Model of Professional Learning, recent academic literature focussed on the changing face of curriculum delivery and the impact of games based learning platforms on the student experience. For learning as collaborative, learning by enquiry and learning that deepens knowledge and understanding, gamification for learning emerged as the recurring theme in research. Due to the worldwide popularity of video games and increased smartphone usage, secondary research confirmed that games based learning platforms supports the development of knowledge through interactive, immersive online experiences. As digital technology continues to drive change across different sectors, further professional learning opportunities in the form of peer mentorship and collaboration (For example, staff development days) can help realise the multitude of benefits associated with games based learning.

### **Results from Focus Groups**

Research findings from the 8 focus groups reiterated the impact of game based learning platforms on the student experience. As illustrated on the table in Appendix 1, the majority of students in every focus group stated that the gamification of learning led to an enhanced learner journey. The most commonly used phrases to describe the impact of games based learning platforms were:

- "Encourages class participation"
- "Helps build class dynamics through competing in teams"
- "Makes learning more engaging through interacting with software"

- "Improves my interest in the subject area through using learning games to revise content covered in class"
- "It was the best part of my learning"
- "Lecturers who had a good knowledge of the learning softwares were able to ensure full class engagement"

From the student statements above, the last phrase was particularly meaningful as it highlighted how lecturers who understood the functions and features of learning softwares were able to maintain full class engagement. As lecturers struggle to cope with the growing number of lesson distractions including mobile phone use and in-class conversations, games based learning platforms are seen as instrumental in ensuring student participation and enthusiasm for learning. Furthermore, the last student phrase suggests that without adequate staff training on the learning softwares, lecturers are unable to maintain the same levels of student engagement and motivation compared to those who undertake further professional learning. While the majority of students confirmed the positive impact of games based learning on their student experience, there were a number of criticisms which need to be addressed. A number of comments signalling negative connotations with the software are stated below:

- "I struggled to understand how the platform worked compared to my peers"
- "Some of the software features were hard to understand"
- "As someone who is unfamiliar with technology, more guidance from lecturing staff would have been appreciated"

With regards to the phrases above, the last comment highlights the importance of lecturers having a solid working knowledge of the games based learning platforms. Through professional learning opportunities, staff would become more confident, knowledgeable and skilled in utilising software features to enhance the student experience. Furthermore, increased professional learning opportunities would enable lecturers to guide and support learners in understanding the various platform dimensions. It also became apparent that a minority of students felt disadvantaged in the learning process due to their limited technological expertise. To accommodate these learners, there could be some training incorporated into student induction week and available on the college learning platform (for example, Moodle or Blackboard). This could be in the form of online software demonstrations or face to face tutorials whereby learners can become more familiar with technology and specifically, games based learning platforms.

### **Research Analysis**

Although the term "gamification" only entered mainstream vocabulary in 2010, it is evident that it has already had a profound impact on the student experience. While qualifications such as the PDA Teaching in Scotland's Colleges and TQFE cover games based learning platforms, this is at little depth and requires further software demonstrations and practical exercises to support lecturers in acquiring further

knowledge. Therefore, a solution would be the creation of a games based learning qualification which would include theory on the technicalities of the software alongside practical tasks on platform operations. In terms of the software technicalities, learning on creator features (how to develop interactive content and learning games) and reporting and analytics (methods of measuring student performance and engagement) would be particularly useful for lecturers. Furthermore, practical exercises on inputting data onto games based learning platforms and testing different software modes would be effective.

While gamification for learning has yet to be adopted fully, the impact on the student experience is significant and research suggests that games based learning platforms will continue to grow in popularity. Alongside an accredited qualification in games based learning, there could also be refresher and/or top up training in the form of e-learning for lecturers looking to understand updated software features or revise content. Through utilising a blended learning approach with online learning and a formal qualification, lecturers would benefit from a more comprehensive offering of support to enable them to realise the many benefits of games based learning.

### Conclusion

In conclusion, it is evident that staff training to support staff in using games based learning platforms has the greatest impact on the student experience. As tools such as Kahoot, Mentimeter and Quizlet have the potential of significantly improving student engagement, motivation and participation, this research paper calls for increased staff training in this area. Although qualifications such as the TQFE and PDA Teaching in Scotland's Colleges provide a basic overview of the aforementioned platforms, training on the extensive range of software features and functionalities is critical. With a greater knowledge of how the platform operates, lecturers would be able to create a more stimulating and academically enriching learning environment.

Furthermore, this research will help inform the EIS which is "committed to a teaching profession where opportunities for high quality, relevant professional learning, which meets identified learning needs, is available and accessible" (EIS, 2020). As the necessity for further professional learning opportunities on the gamification of learning grows, the study will support the EIS in creating training materials and e-learning courses and work alongside colleges to champion learning in this field.

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## Appendix 1

Which mode of learning has the greatest impact on the student experience?	Games Based Learning Platforms	Group Activities	Independent Research Tasks	Other
Focus Group 1	22	0	1	0
Focus Group 2	11	4	1	2
Focus Group 3	13	0	2	1
Focus Group 4	15	1	0	0
Focus Group 5	16	1	0	4
Focus Group 6	8	3	0	2
Focus Group 7	13	0	1	1
Focus Group 8	9	0	0	3