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BUILDING COMMUNITIES OF TEACHERS; STORIES FROM THE CLASSROOM, HOW TO SCAFFOLD LEARNING ADVENTURES THROUGH TRUST

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Abstract

Education is recognised as a viable pathway to a better future. It is not a linear rite of passage but a meandering recognition of learning along the way. The advocacy of education for all, internationally, has led to education policy implementation across our global citizenship albeit at differing levels of accessibility and quality. It is widely recognised that the seminal work of Freire, Rousseau and Dewey have embedded the importance of active learning and critical pedagogy in our modern society. But have our leaders of education sufficiently recognised the need to promote education as a sustainable, complementary activity to social and caring aspects of our society.

This paper focuses on strategies used to build a sense of community in a classroom of educationalists who through their own learning experiences gain empowerment. Drawing on 3 iterations of delivering a module in synchronous virtual classroom, the strategies adopted are outlined, the overall theme is to enable the building of trustworthy relationships and to teach educationalists to embed beliefs and values into their teaching practice. Aspects of the induction period are designed to foster resilience and wellbeing in the teacher cohort for digital and physical life so that students feel nurtured and gain confidence to grow and empower others within the learning lifecycle.

Following on from the global pandemic, most formal education ecosystems had to temporarily pivot to digital education. Reflection and critical thinking beyond COVID position digital education at a juncture that needs careful consideration to understand the giant leap required to utilise advancements in technology in a classroom. This paper presents a pedagogical approach that tightly couples classroom dialogue with the application of existing technology for teaching and learning at level 9 (Masters) to surmount a sense of uncomfortableness encountered for teachers when faced with moving from a whole group, self-contained classroom approach to a multi-faceted learning ecosystem. Furthermore, the case studies described here address complexity in the classroom, acknowledging the 'valley of death' approach used in transitioning research into practice, and furthering our understanding how innovative technologies only make a difference when deployed and used in line with user needs and requirements (Maughan et. al, 2018).

Students describe how they overcome fear from one's own comfort zone toward recognising the power of teachers as change agents using an array of community communication platforms to equip and enhance their toolkit with engagement tools tailored for their subject expert domain needs.

Technology is a critical enabler to access knowledge, resources and people and has empowered those unable to engage with traditional educational settings to gain formal and informal knowledge whilst making learning more fun and engaging alongside other life responsibilities. Education as a career has expanded, teachers, tutors, lecturers, instructional designers, social and community enterprises, data analysts, database architects, facilitators all contribute to a complex education ecosystems that aspire to equality, inclusion and diversity. The population in this study includes diverse educationalists contexts and demonstrates the use of ice-breakers (Eggleston and Smith, 2004). This paper details examples of community building over a number of semesters delivering the same module to different cohorts. It illuminates the difficult induction period whilst students gain trust within small groups and overcome challenges that are presented. The results identify mechanisms that foster a sense of urgency to advocate for change, overcome complacency in classroom and introduce experimentation as a lever to learning in a failsafe ecosystem. Fear is identified as a concept that prevents the use of some technology due to its unpredictability and teacher legacy for being the person at the top of the class with all the knowledge. Times have changed, creativity is key and teachers are realising that they must prepare

their students for failure in addition to success and that they need to model experimentation and failure to demonstrate that recovery and problem based learning prevails in a knowledge economy. As educator's compliance is a critical factor to meet the quality standards of our trade, meeting learning outcomes is just one part of the learning journey, gaining trust, delivery of engaging content and the realisation that students need an education ecosystem that promotes a nurture environment, self-actualisation and phronesis.

Keywords:

Trust, education, flipped classroom, innovative pedagogies, online learning, transformative learning, experiential learning

Introduction

This paper uses a novel approach to innovative pedagogy, introducing challenge-based learning and problem-based learning to actively engage students to use group work and individual work in an iterative approach to building their own virtual learning environment as assessment.

Design and planning are critical elements of education provision, the literature is rich with models and frameworks to aid educationalists. We start with a picture of snakes and ladders under the understanding that all learning starts somewhere and will have ups and downs.

The context for this research is a Masters of Education programme (level 9) which attracts a diverse group of higher education lecturers, instructional designers, primary and post primary teachers and tutors from Irish Education and Training Boards (ETBs). The sharing of context and experience in the classroom is promoted and regarded as essential to the ethos of this learning environment. Student's motivation to register for level 9 in a module on Blended and online learning can be diverse, it's an elective module, also offered to staff for continuous professional development (CPD). Initially, pre-covid it was redesigned to become an 80% online course and is now delivered fully online using a mix of blended learning frameworks and leveraging the use of Gilly Salmon's Carpe Diem model and etivity design guidelines (Salmon, 2013). This paper details the delivery of the module over a semester, the design, implementation and assessment considerations are embedded within the story. Building trust is achieved through transparency of grading and feedback, co-creation of curriculum and discussion of alignment of etivities to marks and value of group work (Wang, 2014).

Playing the game

Students are initially introduced to an ice-breaker exercise using a two-pronged communication approach, the virtual learning environment and MS Teams a week before class with accessibility at the fore of design using principles of universal design for learning (UDL). Sub-themes are introduced here and discussed at each of the synchronous classes. A flipped classroom approach is adopted and a strict approach to consistency enables a standard approach that the students can become familiar with fast (Tucker, 2012).

The lecturer spends time in the first hour of class to establish the netiquette and adopt elements promoted by Maha Bali through the intentionally equitable hospitality model (Bali and Zamora, 2022). Messages to assure students that life provides enablers, barriers and complexities for learning and reality can be challenging. Its sometimes the little things, students are encouraged to help each catch up if they need to pop out of class for an interruption and facilitate working in group by leaving messages on the platform for others to pick up at times suitable for them. Another tip is to edit your status online to indicate that whilst your listening you are unable to actively participate in a break-out room activity. This flexibility eliminates some of the professional guilt associated with not being able to reach to a high standard all the time.

Padlet and google slides are used for ice-breakers before and during the kick-off class with clear instructions to gain familiarity with different platforms, whilst students recommend places to visit, job contexts, image retrieval. Students are given a wide array of resources for this class to 'set the scene', these include introducing students to gurus in the teaching and learning space, advocating the use of networking theory to enable weak ties in addition to strong ties (Granovetter, 1973). Technology to support this approach is demonstrated, using linkedIn and twitter as gateways to people, research, conferences and good practice for teaching and learning. The

approach is again recommending students to move outside of their comfort zone and contact people that have similar professional interests toward immersive learning environments and events. The design adopts elements of digital marketing to create a hook, Gravells (2014) and call to action language. Students discuss this in groups and use their zone of proximal development, peer learning techniques and scaffolding to enact this (Vygotsky, 1980 and Boud and Lee, 2005). Groups are advised to develop a group logo and name and area within MS teams to collaborate and use their creativity to experiment.

The use of ice-breakers cannot be underestimated both in the physical classroom and online and whilst we operate more and more in an online, flipped classroom arena the evidence and practice is pointing us to novel and innovative ways to engage students, motivate and encourage students to get involved and take ownership toward empowerment and transformative learning experiences (Chlup and Collins, 2010, West, 1999 and Cornell University 2022).

The course design has the usual boundaries of compliance to quality and module and programme learning outcomes. For this module though, the emphasis is on engagement, collaboration, transformative and innovative learning as promoted by Freire and UNESCO (Darder, 2014, Groff, 2013, Kitchenham, 2008, Perales and McCowan, 2021). This is further enhanced where learning is socially constructed within the social constructivism paradigm and group work (Kim, 200, Biggs and Tang, 2015).

Meat in the sandwich

Peer learning is facilitated through the continuation of the same groups for the duration of the semester, the incubation of communities of practice approach to experiment with technology and cross-discipline to iteratively develop new curriculum and pedagogical approaches is promoted. Students are building their own curriculum through the prioritisation of available options. This fosters a digital education ecosystem that the students thrive in and flourish.

During the semester discussions surround the use of technology enhanced learning and students are empowered to be advocates of education that have adequate knowledge to inform policy-makers and leaders in education on priorities and challenges to nurture and enact praxis in their own contexts and toward the national and global agenda. This is further accentuated with the ongoing priority that nations sustainable developmental goals (SDGs) and in particular SDG4

Whilst much of the practical lab tutorial work focusses on off the shelf software that includes mind maps, quizzes, multiple choice question banks, polling apps, video and audio recording apps, gamestorming, metaverse platforms, VLE/MS Teams integrated and non-integrated applications learners generally observed that they quickly adopted the UDL theme of +1 and when required they had to adopt, evaluate and demonstrate a 'new to them' application. This approach was hugely successful as peer learning opportunity across multiple disciplines illuminated the opportunities for adopting pedagogies and approaches not evident within the students own sphere of education ecosystem. This further supports the network theory concept of structural holes and its applicability to education community building, knowledge acquisition and knowledge transfer (Burt, 1995).

A simple online checklist of activities, where progress is self-managed by the student, aids motivation and gives ownership to the student in relation to progress. This is coupled with no deadline for activities during semester but a recommendation to aim to complete them in line with the sub-themes, additionally an extra 2 weeks at the end of semester facilitates this catch up period. However, the results showed that students were motivated and incentivised by each other and the learning process to engage and in majority of cases activities were completed on a weekly basis.

The potential for VR and AR in education has long been vaunted but limitations imposed by access to the technology, ease of use and software requirements have presented barriers to this potential been realised. A rapid decline in hardware cost, increased availability and ease of use, coupled with availability of low cost or open source software has mitigated many of the limitations highlighted in earlier studies. Whilst these cohorts of students were simply reading publications and case studies in this space with some exposure to 3D the time is

ripe for more physical experimentation using education research labs as detailed in the further research section below.

The intent for introducing state of the art EdTech to cohorts of educators is to promote the concepts to early adopters and reduce the lag time to general adoption and implementation. A significant benefit of adopting advanced technologies to facilitate a greater eco-system of learning tools to facilitate truly personalised learning (Humble and Mozellius, 2019). It is clear that there is a lack of understanding of how these extended reality technologies can be effectively deployed in a higher education environment, their net contribution to learning, the risks associated with their uptake, and their potential to enhance the learning environment.

There are a number of studies that examine the use of previous iterations of extended reality (XR) in education, and it is postulated that this technology could benefit in areas, such as complex data visualisation, design visualisation, digital twins, increased immersion and enhanced cognitive states. Using future literacy techniques students looked at emerging technology in addition to current technology to further move and voluntarily jump into zones of instability, questioning the ethics of artificial intelligence use in the classroom and in government (Miller, 2007 and Nemorin et al, 2023).

The results from the student surveys and their reflective logs have not yet been fully analysed and collated and will inform this research further gaining knowledge in the student partnership model adopted and the emotions felt by the students in the zone of instability. The students that described the impact of the teaching and learning on their own personal learning journey to date have used the term transformative often and it is clear that sharing of course design, curriculum and implementation and open education communities are not the current trend with these education contexts in Ireland. Furthermore, concepts such as trust and transparency are not explicitly clear in the relationship between student and educator and between students, often further complicated by the dis-jointed nature of education in this context. However, there are National policy¹ changes underfoot that may start to address these challenges to optimised learning ecosystems 'Policy Platform: Progressing A Unified Tertiary System for Learning, Skills and Knowledge'.

Further research

It is planned to offer this course in a blended delivery mode to include physical face to face classroom, it is currently fully online, moving to blended will facilitate the use of experimenting with physical hardware such as meta quests for students to evaluate experiences and learning adventures using mixed reality, extended reality, virtual reality and augmented reality. This testbed environment can facilitate a greater eco-system of learning tools that can enable truly personalised learning (Humble and Mozellius, 2019).

Known to help with student learning (Flink et al., 2019), immersive learning environments (ILEs) are learning situations that are constructed using a variety of techniques and software tools, including game-based learning, simulation-based learning and virtual 3D worlds. ILEs are distinguished from other learning methods by their ability to simulate realistic scenarios and environments that give learners the opportunity to practice skills and interact with other learners on their own terms by engaging their optimum learning style. Applying adaptive learning techniques can further accentuate the teacher or lecturers toolkit and increase the potential to be inclusive, flexible, personalised and engaging for students (Holmes et al., 2019).

Furthermore, there is an opportunity to experiment with forest and beach classrooms, our university is regional and there is capacity to utilise our surroundings to enhance the learning experience for the students and continue the virtual classroom discussions, dialogue debate outside. This approach will complement the adopted social constructivist and experiential learning approaches (Kim, 2001 and Kolbe, 2014). As purported by Hawxwell et al, 2019, through adopting a learning outside of the classroom (LOtC) approach it will not only enrich the educational experience of the learner, but also be a viable and robustly tested method of pedagogy. This research intends to test this approach to further move students outside of their comfort zones into zones of managed instability to enable their coping mechanisms to extend and thus manage our society's integration of disruptive technologies.

¹ <https://www.gov.ie/pdf/?file=https://assets.gov.ie/225165/fff8a843-0df6-436a-ade1-ae060deadd45.pdf#page=null>

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