

BLENDED LEARNING: THE “NEW NORMAL” IN EDUCATION DELIVERY

Dr. Tom Foley

School of Education, University College Cork, Ireland

tcfoley@hotmail.com

Dr. Alicia Curtin

School of Education, University College Cork, Ireland

a.curtin@ucc.ie

ABSTRACT

Successful blended learning contexts engage students in highly interactive virtual learning environments through a mix of online and face-to-face teaching, learning and assessment modalities. This paper explores some of the affordances and constraints of blended learning for one Higher Education Institution in Ireland. TPACK (Mishra & Koehler, 2006) and Multimodal (Picciano, 2009) models frame the discussion opportunities and challenges more broadly for blended learning instructional and pedagogical design post pandemic in Higher Education.

Keywords: blended learning, virtual learning, education

INTRODUCTION

Today’s educators face mounting pressures to increase students’ achievement, as they remain accountable to education stakeholders while understanding and practice of teaching and learning continues to transform as a result of developing current social, political and health contexts. Traditional learning settings such as classrooms have been replaced with online social and learning environments amid the closure of schools and universities internationally. Newly reopened schools and universities now face the challenge of negotiating a new and confusing post pandemic space where past, present (and future) teaching and learning practices compete for efficiency, practicality and effectiveness for both learners and practitioners. Blended learning emerges from this space, though perhaps not as we understood it previously, aided by new technologies and adopting a “hybrid” approach (Austin & Hunter, 2020).

As institutions respond to their emerging blended learning experiences, there is a growing research interest in the implications for both faculty and students (Dziuban et al., 2018). While much has been reported on ‘emergency remote learning’ in the literature (Hodges et al., 2020) there has been less focus on the challenges and opportunities for blended learning within institutions. Many higher education institutions teach in multiple modes which include on campus, at a distance, online or a blend of a number of modes. On the surface the change to online instruction has not resulted in a significant shift for many universities in the world (Ali, 2020) but blended learning remains dependent on an understanding of effective pedagogy and a combination of classroom and online education in various forms (Nuruzzaman, 2016; Heliporn et al., 2021). Using technology in the classroom by itself for example cannot be effective unless educators have learning informed theories and research to model their instruction on. This paper offers practitioners two theoretical and research based models, namely TPACK and Multimodal models, to develop understanding and support the practice of teaching and learning in blended learning contexts.

The pandemic has highlighted the challenges now faced by education globally (Hall et al., 2021). Most educators who adopt and utilise multimedia understand that technology does not replace effective face-to-face teaching; instead it opens new horizons for discovery and exploration. In order to design effective blended learning instruction, educators need to have knowledge about how people learn and this will direct them to the most effective instructional strategy that will in turn drive the chosen technology. Blended learning is not simply adding technology to a traditional face-to-face classroom via digital platforms, or videoconferencing (Eaton, 2020). Equally, one must remember that the technology is there to facilitate the learning, not direct the learning.

Blended learning has new significance in the wake of COVID-19. While there may be no consensus to a universal definition of the term “blended learning”, this study defines blended learning as the combination of traditional face-to-face teaching methods with authentic online learning activities. This paper will focus on the introduction of a blended learning approach to the delivery of two postgraduate programmes in a leading university in Ireland. This study is aimed at discovering how different groups of students and tutors experience and perceive blended learning. Additionally, this study aims to identify factors that may affect student perceptions of their learning and performance in a blended learning environment, as well as exploring themes emerging from varied stakeholder experiences. While pedagogy, content and technology have been a focus of review over the past decade, few studies have investigated how the different components are integrated in postgraduate programmes through student and faculty experiences and reflections. This paper focuses closely on one aspect of a larger doctoral study, namely the affordances and constraints of relevant existing conceptual models to explore teaching, learning and pedagogy in student and faculty experiences in blended learning programmes.

Models for developing blended learning pedagogies

Due to the plethora of technological developments in recent years, there is no single formula or prescribed model to adopt for enhancing learning through pedagogical approaches in blended learning environments as needs vary greatly across context, institution and discipline (Bergmann & Sams, 2012). Learning is a dynamic process that may evolve and change from one classroom to another and is dependent on a number of factors including learning stimuli and pace of instruction.

Conceptually, this suggests a multimodal instructional design framework that relies heavily on a variety of pedagogical techniques, delivery approaches, and media. The multimodal design focuses on the delivery of course content and materials and encourages the instructor to provide a mix of learning modalities to provide ample choice to students and provide pathways of learning that correspond to their individual learning strengths and skills (Picciano, 2009). The technological pedagogical content knowledge (TPACK) framework develops these ideas and forms the main focus for this paper as a means to understand and describe the kinds of knowledge needed by educators for effective pedagogical practice in a technology-enhanced environment. While the multimodal model and TPACK framework are very different in scope, we believe that they offer a conceptual lens to guide instructors in the effective integration of technology, pedagogy, teaching and learning. If educators are to repurpose tools and integrate them into their teaching, they require a specific kind of knowledge, referred to by Koehler and Mishra (2009) as technological, pedagogical and content knowledge (TPACK). TPACK explains the set of knowledge that teachers need to teach their students, to teach effectively, and to use technology (McGraw-Hill, 2019). The following table briefly summarises the TPACK (Mishra & Koehler, 2006) and Multimodal (Picciano, 2009) approaches to understanding learning in virtual environments.

Table 1. TPACK Framework

| TPACK Dimensions |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TPACK |
| Technology Knowledge – TK Knowledge about the use of IT hardware and software |
| Pedagogical Knowledge – PK Knowledge about the students learning, instructional methods and assessment |
| Content Knowledge – CK Knowledge of the subject matter |
| Pedagogical Content Knowledge – PCK Knowledge of representing content knowledge and adopting pedagogical strategies to help with understanding of the content |
| Technological Pedagogical Knowledge – TPK Knowledge of various technologies to enable teaching approaches without references to subject matter |
| Technological Content Knowledge – TCK Knowledge about how to use technology to represent research and create the content in different ways without consideration about teaching |
| Technological Pedagogical Content Knowledge – TPACK Knowledge of using various technologies to teach and facilitate knowledge creation of specific subject content |

TPACK is Technological Pedagogical Content Knowledge and this helps to guide educators to improve their teaching with the implementation of technology. TPACK is a measure of educators pedagogical, content and IT knowledge and their ability to embed technology in practice. While this study explores student experiences and engagement across both synchronous and asynchronous learning environments, differences in perspectives on the placement of pedagogy and technology are also observed.

Table 2. Multimodal Model

| Multimodal Model |
|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Content – This is perhaps the primary driver of instruction with many different ways in which content can be delivered and presented |
| Social/Emotional - Instruction is not always just about learning content or a skill but is also about supporting students socially and emotionally |
| Dialectic/Questioning – This is an important activity that permits educators to probe what students know and help refine their knowledge |
| Evaluation - Making a judgement on the work or assignment completed |

| |
|--------------------------------------------------------------------------------------------------------------------------------|
| Collaboration - This is important and is the educational approach of using groups to enhance learning through working together |
|--------------------------------------------------------------------------------------------------------------------------------|

| |
|-----------------------------------------------------------------------------------------------------------------------------------------|
| Reflection - This is about students becoming aware of their own thinking processes and encourages and develops critical thinking skills |
|-----------------------------------------------------------------------------------------------------------------------------------------|

TPACK and the Multimodal Model are designed to improve the learning experience and complement each other in certain facets. Multimodal instruction is also a way to introduce more technology into the classroom in the hopes of enhancing learning. The multimodal approach, as put forward by Picciano (2009), recognises that as learners can be at many different stages of the learning journey, educators and course designers should structure modules in such a way as to utilise multiple approaches, including face-to-face methods and online technologies that address the needs of all. This 'Blending with Purpose' multimodal model is designed to enhance student learning and experience through improved access and flexibility. The model comprises six basic pedagogical objectives coupled, with recommended approaches and technologies for realising them. The model is flexible as every activity does not have to be included in every course and assumes that other modules can be added as needed and where appropriate. Both these models enhance the learning experience and assist with technology implemented in the classroom.

Table 3. Similarities & connectivity between constructs

| Connections |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Content has been identified as a critical element in establishing the necessary skills, as well as supporting the measurement of both the TPACK constructs. |
| Content areas are unique and require different pedagogical and technological approaches for successful learning |
| Utilising the TPACK framework in the development of teacher knowledge does not mandate a single approach to technology integration and this is where the multimodal compliments this model with a variety of approaches. |

Content has been identified in both these frameworks as a critical element in establishing these required skills. Content areas are unique and require different pedagogical and technological approaches for successful learning. While there is little doubt that educators have shifted to using technology in learning and teaching activities, there appears to be significant differences in the delivery and quality (Tondeur et al., 2017). The TPACK Framework and Multimodal model help support dynamic teaching, learning and assessment across both synchronous and asynchronous pedagogies and this is best supported by the professional development of faculty in instructional design.

In Higher Education, neither a standard nor structured framework to model blended learning exists to guide institutions. Based on the limitations described above and the fact that TPACK is from the educators' perspective, determining an appropriate design for a learning progression that blends both theoretical and practical experiences draw from both multiple modalities and TPACK models is a supportive instructional approach for the design of online experiences. Harris and Hofer (2011) reiterate the value of this mixing of approaches as they state that:

TPACK as it is applied in practice must draw from each of its interwoven aspects, making it a complex and highly situated educational construct that is not easily learned, taught, or applied (p. 213).

The TPACK model (Mishra & Koehler, 2006) calls for a focus on technological, pedagogical and content knowledge. Developing our understanding of these types of knowledge and ideas for pedagogy and practice will help to enhance the learning experience as an effective pedagogy creates authentic activities that will bring out the best of each learner and enhance their learning experiences (Santos & Castro, 2021) and is a central focus of this study.

METHODOLOGY

This study uses a qualitative case study methodology to explore student and faculty experiences of blended learning in higher education. A qualitative case study is a holistic description and analysis of the singular entity, phenomenon, or experience (Merriam, 1988). Case studies exist in their own right as a significant and legitimate research method and thus data were collected through semi-structured interviews. In this study, Braun and Clarke's (2006) 6-step framework is adopted as it is arguably the most suitable approach that offers such a clear and practical framework for undertaking thematic analysis. All the participants on each of the two courses (n=40) were invited to take part in the study following a presentation to the group regarding the nature of the study and how it would be undertaken and this study employed a purposive sampling strategy. Of the students interviewed (n=15), ten were female and five were male, with an age range of 22-55 years, and working in a variety of settings. Six academic staff members were also interviewed including two course coordinators, two lecturers, and two instructional designers.

The interviews commenced with an introduction to the research, the collection of professional background information and proceeded to a series of key questions. Questions posed to both staff and students focused on key constructs such as perceptions of blended learning, student experience and interaction and the interviews took approximately 25-30 minutes. Questions were open ended allowing for additional themes to emerge, with pedagogy a particular focus of faculty and the need for a good fit between curriculum and pedagogy to meet the changing needs of students as reported in the literature. Students were interviewed at the outset of the course following a settling in period and once again in the second semester to observe if their views and perspectives had altered. The interviews were digitally recorded, transcribed and coded to form an overall interpretation of the findings following Yin's (2014) procedures for case study analysis. Coding was deductive where developing themes started from the data level at the bottom. Findings are reported by drawing upon (anonymised) quotations.

The next section presents experiences of blended learning in two postgraduate programmes and then moves to a discussion of the implications of these experiences for teaching and learning. The TPACK and multimodal models previously explored provide us with an analytical lens to observe changes in educators' knowledge regarding successful technology adoption and helps us to understand the complex web of relationships between content, pedagogy, and technology in blended learning environments.

FINDINGS

This section highlights the main findings of this study which focus on the factors enabling and constraining the implementation of blended learning. The main findings of this study

present the constructs and factors that influence students and faculty towards adopting blended learning practices as curriculum flexibility, face-to-face interactions, learning as situated and pedagogy. Impeding or constraining factors evidenced in these findings include information overload, time, faculty training and lack of induction.

Enablers of Blended Learning

Curriculum Flexibility

As a growing number of students have multiple responsibilities, such as work and family commitments, learning flexibility allows students to balance their academic, work, and family lives. There is little doubt that flexible learning makes a significant difference to access for individuals who cannot attend full-time on campus for reasons of distance from an institution, disability or other circumstances (Bennington et al., 2013 cited in Flannery & McGarr, 2014). The dual affordance of flexibility and access were some of the most positively cited reasons for students enrolling on these courses. Blended learning offers a convenient educational alternative that suit today's busy life-style, where many are juggling both work and education:

I suppose with balancing work, family time and other commitments it makes it more conducive to study (Student Participant C).

As I work part-time, the flexibility did appeal to me in that respects (Student Participant F).

The results are in line with previous studies (Goodyear, 2020; Wang et al., 2020) where the learning can be of high quality through flexibility and mixed modalities.

The importance of opportunities for Face-to-Face

Teacher-student interaction is fundamental and at the heart of several constructivist theories which emphasise the role of dialogue to facilitate student learning. While students enjoyed the ability to access course materials from anywhere, which is a key attribute of blended learning (Stein & Graham, 2014), they still preferred to attend face-to-face lectures, rather than the online equivalent:

I think it's very important to have the face-to-face days, even if it's only once every two weeks, it's important to have the contact (Student Participant A).

We meet once every two weeks so it mostly online. If I have any queries I write it down to ask them later. It's nice to hear from other students and have a discussion as well (Student Participant D).

The biggest advantage the face-to-face offered to students is summed up in the following comment nearing the end of the course:

It provides the opportunity to discuss, collaborate, practice, peer-review and share content with the support of an educator and facilitator on hand (Re-interview Student Participant E).

In fostering active participation, a visible presence by the online educator is deemed important, as students value the human contact. Learning in face-to-face sessions was highlighted as an important part of interaction on both programmes where the evidence suggests that face-to-face discussions and group work were perceived as advantageous for learning. The majority of the students acknowledged that the face-to-face interaction yielded a more positive learning experience. Blended learning introduced a good mix of activities on these programmes of study, reducing the limitations of merely applying face-to-face

instruction and in turn, enhanced the face-to-face learning with the use of online technologies without replacing regular classroom contact hours. It is clear from the findings that students value the relationality of the teaching and learning. They appreciate the human, social and interactive dimension of learning. In other words, they desire opportunities to have authentic, meaningful experiences that involve sustained relationships with peers and tutors. As highlighted by Bayne and Gallagher (2021), the way forward should be inclusive and participatory, where learners and teachers are at the heart of the process.

Situated Learning

Situated learning involving students in cooperative activities and working on authentic tasks helped to promote more active learning. TPACK is a complex and highly situated construct that's not easily applied. Social interaction and authenticity are key elements of situated learning and students on these programmes felt a strong sense of situation and liked being able to interact socially with their peers and tutors on the course:

The combination of situated and self-regulated learning is helping me to learn more effectively as well as improving my interest and motivation to engage (Student Participant G).

Another student cited that "it is a lot easier to collaborative within a community" (Student Participant B), where the benefits are reaped from building on the members' shared knowledge to develop new ideas and strategies.

There is recognition among many faculty that the pedagogical uses of technology are strongly influenced by the content domains in which they are situated and the key element in the decision making process is linking the affordances of particular tools to specific and pedagogically challenging learning activities.

Student Satisfaction

Students described their satisfaction with the learner autonomy provided, where a shift from passive learner to independent researcher takes place. Student satisfaction with their university experience is paramount where motivation and faculty and peer interactions can result in reduced attrition rates in blended and online classes. The availability of online technologies increased the level of integration of computer mediated learning into traditional face-to-face lectures, which has helped engage the learner, contributing to reduced student attrition. Keeping these factors in mind when designing online courses may help retain student numbers and alleviate concerns expressed regarding student dropout rates.

From a pedagogical perspective, blended learning provides instructors a unique opportunity to create assignments and activities that facilitate application, analysis and creativity. These findings have shown that blended environments have the potential to encourage approaches that foster active learning and lead to improved learning outcomes for students. Blended learning has beneficial effects for students in terms of academic performance, diversity of learning opportunities and enhancements to the student experience. The application of blended learning also has a positive influence on improving student pedagogy. Pedagogy can be transformed towards more active learning with wider use of learner-centred approaches through blended learning curriculum delivery which links well with the constructivist approach set out in this study and the TPACK framework.

Constraints of Blended Learning

Information Overload

While blended learning provides added convenience as set out in the findings, the introduction of technologies and variation of content and media did prove a difficulty for some, with students citing the huge amounts of information as problematic. The blended learning model has received increased attention from researchers in recent years (Helms, 2014) as it provides a bridge between fully online and face-to-face learning (Ikpeze, 2015). A good mix of both online and face-to-face is required as half of the faculty interviewed felt that too much content online would overload and confuse students where one Course Coordinator stated that availability of too much online material might act as a deterrent to attend classes:

I am mindful of making too much material available online as this may discourage some of the students from attending and I feel we need the face-to-face encounters to further reinforce the learning (Course Coordinator 1).

The evidence from this finding may suggest that lecturers may be trying to over-compensate through the face-to-face sessions for the reduced interaction and may in turn be creating an unrealistic workload for students. This point is further supported by the following comment on re-interview:

I must say that there was a lot to get through in the face-to-face sessions and I left feeling drained and overwhelmed by the amount of material covered (Re-interview Student Participant O).

Some faculty also seem to perceive web-based platforms as a simple alternative for presenting the traditional format, with little or no consideration for pedagogy, content, active engagement or improvement of learning outcomes. Content knowledge has to be backed up with experience in designing instruction that conveys content most effectively, stimulating curiosity and engagement with the content. One participant described how “there is an awful amount of information on the LMS and lecturers differ in how they use it” (Student Participant N). Clarity of course navigation and instructions for assignments and tasks were points that were also raised in this study:

It is very much like, ah just do things on your own and then come into class and there is very little structure, it seems like they don't have it well under control, it's kind of like let's throw it out there and see what happens (Student Participant O).

As a result of these findings, the need for an appropriate student induction programme is clearly evident. Training for course coordinators and content authors in how to write material for online learning and upskilling in learning design would be equally beneficial. Thus, what seems like an effective strategy going forward is to incorporate induction sessions for both students and faculty, including digital tutorials in the online environment. Faculty need to recognise that the purpose behind technology integration is the improvement of teaching and learning rather than technology for its own sake.

Time Constraints

The time-consuming nature associated with the initiation of a blended learning programme emerged as an issue and was acknowledged by all faculty on this programme and, in fact, has been acknowledged to reflect reality by many other studies (Charles & Anthony, 2007; Moskal et al., 2013; Betts, 2014). As blended learning is a student-centred approach, faculty highlighted that time must be spent bringing everything together to meet the needs of the student. Meaningful learning actions that are active, intentional, authentic and collaborative are fundamental to facilitating effective blended learning and can capitalise upon the affordances of internet technology. Having said this, students on both courses also reported

that faculty assumed that they had a certain level of IT skills having enrolled on this course, but this was misconceived:

I think there is an assumption in terms of blackboard that you know so much but maybe this is something that they could address as it is a completely different tool to use and people who maybe just graduated out of college are au fait with technology and then you have others who are not so up to speed (Student Participant G).

The importance of not making assumptions regarding students' prerequisite knowledge and IT capabilities was also evident, highlighting the need for sufficient training to be provided to all students commencing a blended learning course to familiarise them with the technology tools. A similar conclusion has been drawn in previous studies (Henderson et al., 2015) and research advises caution with overestimating students' technological abilities, as the current study reported that some did have difficulty navigating technology and admitted feeling alienated or overwhelmed by it. This can be a barrier to online engagement and fundamentally is why having an intuitive, easy to use learning management system (LMS) is so critical.

Faculty Training

To design an appropriate model for teaching and learning with technology, special skills are needed for lecturers. What also became apparent from the findings was that altering pedagogy for a blended delivery can be a challenge for staff, requiring support at all levels of the institution. The TPACK framework posits that an educator's technology self-efficacy will be enhanced when they have been exposed to professional development designed to increase understanding of the relationship between pedagogy, content knowledge and technology. The problem is that most lecturers have not been prepared during pre-service training to use these tools, nor have they learned to instruct students in how and why to use such tools in their learning. Although faculty are crucial to the success of blended learning, they are under-supported in their efforts. Management were cognisant that the restrictive factor for improvements to pedagogical support was the limited pool of Instructional Designers as emphasised by the Head of School:

I mean if you think of a college as big as our college and if you have everybody doing bits and pieces or trying to and when you are drawing on one pool of about four or five Instructional Designers, it's very difficult to do so. The guys are very helpful but they are stretched as well (Head of School).

Blended learning will not work without a positive and systematic culture of support, as alluded to by a faculty Head of School "I don't think it will work if they go down that route. I think if people are doing it half-heartedly you will end up with half-baked stuff" (Head of School). It will not fulfil its promise of improved learning unless educators can be encouraged to rethink and redesign the courses so that technology and education go hand in hand. Understanding how to balance each of the domains in a way that is most effective for learners is a difficult task but simply teaching technology skill is not enough.

Overall, barriers would include overestimation of student readiness, lack of training, issues with time, and insufficient pedagogical and technical support to promote and develop blended learning initiatives. In this research, student induction has also been found to be particularly important for part-time postgraduate students from both students and faculty perspectives, as they have reduced face-to-face contact on the programmes of study where the quality of interaction, including effective induction in student groups can be a strong predictor of learning outcomes. Incorporating technology into the classroom is not as straight-forward

task as it may seem. There are a multitude of barriers that can prevent successful technology integration. Understanding the existing technologies and potential barriers, as well as how teachers experience those barriers, is critical to effective integration and adaptation over time and the TPACK framework offers a lens into the integration of technology in classrooms.

DISCUSSION AND IMPLICATIONS

The findings within this study offer some very important considerations for the further development of blended learning in a variety of changing contexts. It is important when implementing blended courses to avoid treating the online parts as just add-ons and secure the assistance and support of an Instructional Designer. Administrators and Course Coordinators can enhance cooperation between faculty and designers by involving Instructional Designers throughout an institution's shift to digital teaching by implementing clear, consistent standards of course design, as failure to do so will result in a level of disconnect that may impact the implementation of the design model adversely. The time-consuming nature associated with the initiation of a blended learning programme emerged as an issue and was acknowledged by faculty in the study. Faculty require ongoing professional development, as in its absence, the introduction of technology does little more than replicate existing practice in an online environment.

If an institution is truly committed to increasing faculty engagement with digital learning practices, incentives such as release time and financial support to attend digital learning conferences should be considered. Equally, tenure and promotion plans should be reviewed to inspire and compensate lectures adopting blended learning (Bokolo Jr et al., 2020). An added incentive would be the continued rolling out of digital badges to faculty as an innovative form of assessment, to validate their engagement and significant achievement with a specific technology, skill or area of knowledge. This would provide added proof of one's life-long learning trajectory and can be added to their digital resume, personal blog or website.

When educators were considering teaching a particular topic within an online context, the domain of technology was introduced with a lack of focus on pedagogy. Educators must learn to see technology as a tool for enhancing the instructional process where the goal is to equip students with TPACK capabilities that combine the ability of technology integration with pedagogical capabilities that are attuned with learning content. Institutions need to deploy pedagogical support by providing additional instructional designers that provide guidance to lecturers in designing blended course content. Proactive professional development strategies will give faculty the knowledge and skills they will need to embrace innovative digital teaching strategies.

In order to provide students with authentic learning experiences, we need to have our students' entire landscape in view, including their unique and diverse learning styles and this would be in agreement with Picciano's (2009) multiple approaches and multiple modalities framework. This transformation requires a shift in culture to meet the needs of today's learner who seek opportunities for collaboration, opportunities to lead and frequent meaningful feedback. In higher education, there is no designated framework to scaffold blended learning for all programmes. Instead of selecting a pedagogical model that could fit all blended learning implementations, both the TPACK and Multimodal model helped to address this through their flexible approach to support an integrated and unified framework for blended learning. Evidence from the study would suggest that the pedagogical uses of technology are strongly influenced by the content domains in which they are situated. The findings from this study help validate both models as effective frameworks enabling

deployment of a vast variety of modalities, to guide educators in the use of ICT in a way that significantly enhances the design, and tailoring it appropriately for use in blended learning environments.

Some faculty view technology as a silver bullet to the challenges they encounter. They assume that the mere presence of digital tools will advance education but this is not the case and is exactly why the TPACK framework is so important as it encourages us to step back and look at the whole strategy and the nuanced connections between all of the components. It's easy to think adding an LMS i.e. 'Blackboard' or 'Moodle' to your class strategy is going to enhance learning but TPACK demonstrates that there's a relationship between technology, content, and pedagogy, and the purposeful blending of them is key.

The recent pandemic has put an added focus on the delivery of education and represents a unique opportunity for both students and educators to reflect on the future of education (Darling-Hammond & Hyler 2020; World Economic Forum 2020). Education is a complex process and as the world continues to evolve and learners start venturing into the virtual world, the author would argue that the educator is key and now more important than ever. Technology is transient and ever changing and thus, can become outdated and obsolete very quickly. With this in mind, the educator is the constant who can offer the guidance and support through direct interaction. Aristotle stated that "man is a political animal" – making reference to the idea of mankind's innate desire to interact with one another, learn from one another and socialise with one another and for this reason, it is the educators, the support and the human contact that keep it real, and this is very much reflected in the findings of this study.

LIMITATIONS

While generalisation of the findings may not be possible due to the qualitative approach; the small sample size; and the focus on two programmes within one institution, the interviews did provide an insight into the opportunities and challenges in a blended learning environment for this group of postgraduate students and it is hoped that despite its limitations, this research might assist other educators when designing and implementing similar blended learning programmes. While the positive impact of blended learning is clearly evident, the pragmatic success does not diminish the need for more studies looking into the range of its applications and pedagogical complexities. Further research in the field could contribute to the generalizability of the findings. While both the Multimodal and TPACK frameworks helped to inform this research, it would be important to carry out further research into tutor's Technological Pedagogical Content Knowledge.

CONCLUSION

It is widely accepted and further confirmed in this research study that improving educational practices must not be driven by technology but by pedagogical priorities. In essence, the technology employed must communicate the content and support the pedagogy in order to enhance the learning experience. The success of blended learning is not based so much on the form or type of technology used or the quality of the instructional design but in the pedagogical skills of the instructor. Faculty should work as a cohesive team, with the support of the Instructional Designer in developing concepts, methods and procedures that articulate the desired learning outcomes and by generating these as a team, lends itself towards coherence and promotes consistency.

Learning is inherently very social, and while the effective use of technology can help to speed up theory building and understanding, in order to learn how to communicate and gain fluency, human and face-to-face contact in authentic and meaningful contexts remain central to the learning experience. Prior to the implementation of blended learning, some pre-condition issues such as institutional support, infrastructural readiness, academic development programmes, content readiness and induction should be considered.

REFERENCES

- Ali, W. (2020). Online and remote learning in higher education institutes: a necessity in light of COVID-19 pandemic. *Higher Education Studies* 10, 16–25.
- Austin, R., & Hunter, W. J.(2020). *Blended and Online Learning for Global Citizenship: New Technologies and Opportunities for Intercultural Education*. New York: Routledge.
- Bayne, S., &Gallagher, M.(2021). “Near Future Teaching: Practice, Policy and Digital Education Futures.” *Policy Futures in Education* 19 (5): 607–625.
- Bennington, B., Tallantyre, F.,& La Cornu, A. (2013). *Flexible Learning: A Practical Introduction for Students*. York: Higher Education Academy.
- Bergmann, J., &Sams, A. (2012).Flip Your Classroom: Reach Every Student in Every Class Every Day. *International Society for Technology in Education*.
- Betts, K.S. (2014). Factors influencing faculty participation & retention in online and blended education. *Online Journal of Distance Learning Administration*, 17(1),www.westga.edu/distance/ojdla/spring171/beth171.html
- Bokolo, A.Jr.,Kamaludin, A.,Romli, A., Mat Rafei, A.F.A/L Eh Phon, D.N., & Abdullah, A. (2020). A managerial perspective on institutions’ administration readiness to diffuse blended learning in higher education.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3, 77-101.
- Charles, D., & Anthony, P. (2007). *Blended learning: Research perspectives*. Needham, MA: Sloan Centre for Online Education.
- Darling-Hammond, L., &Hyler, M. E.(2020). “Preparing Educators for the Time of COVID ... and Beyond.” *European Journal of Teacher Education* 43 (4): 457–465. <https://doi.org/10.1080/02619768.2020.1816961>
- Dziuban, C., Graham, C.,Moskal, P., Norberg, A.,& Sicilia, A. (2018). Blended learning: the new normal and emerging technologies. *International Journal of Educational Technology in Higher Education*, 15(3), 1-16.
- Eaton, M. (2020). The perfect blend a practical guide to designing student-centered learning experiences. *International Society for Technology in Education*.
- Flannery, M., & McGarr, O. (2014). Flexibility in higher education: an Irish perspective. *Irish Educational Studies*, 33(4), 419-434.

- Goodyear, P. (2020). Design and co-configuration for hybrid learning: theorising the practices of learning space design. *British Journal of Educational Technology*, 51, 1045–1060.
- Hall, T., Byrne, D., Bryan, A., Kitching, K., NíChróinín, D., O’Toole, C., & Addley, J. (2021). “COVID-19 and Education: Positioning the Pandemic; Facing the Future.” *Irish Educational Studies* 40(2): 147–149.
- Harris, J., & Hofer, M. (2011). Technological Pedagogical Content Knowledge (TPACK) in Action: A Descriptive Study of Secondary Teachers’ Curriculum-Based, Technology-Related Instructional Planning. *Journal of Research on Technology in Education*, 43(3), 211-229.
- Heilporn, G., Lakhali, S., & Bélisle, M. (2021). An examination of teachers' strategies to foster student engagement in blended learning in higher education. *International Journal of Educational Technology in Higher Education*, 18, 1–25.
- Helms, S.A. (2014). Blended/Hybrid Courses: A Review of the Literature and Recommendations for Instructional Designers and Educators. *Interactive Learning Environments*, 22(6), 804-810.
- Henderson, M., Selwyn, N., & Aston, R. (2015). What works and why? Student perceptions of ‘useful’ digital technology in university teaching and learning. *Studies in Higher Education*, Advance online publication.
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between Emergency Remote Teaching and Online Learning. <https://er.educause.edu/articles/2020/3/thedifference-between-emergency-remote-teaching-and-online-learning>
- Ikpeze, C.H. (2015). *Teaching across cultures: Building pedagogical relationships in diverse contexts*. The Netherlands: Sense Publishers.
- Koehler, M.J., & Mishra, P. (2009). What is technological pedagogical content knowledge? *Contemporary Issues in Technology and Teacher Education*, 9(1), 60-70.
- Merriam, S. B. (1988). *Case study research in education: A qualitative approach*. San Francisco: Jossey Bass.
- Moskal, P., Dziuban, C., & Hartman, J. (2013). Blended learning: A dangerous idea? *The Internet and Higher Education*, 18, 15-23.
- McGraw-Hill, (2019). What is TPACK theory and how can it be used in the classroom, <http://www.mheducation.ca/blog/what-is-tpack-theory-and-how-can-it-be-used-in-the-classroom/>
- Mishra, P., & Koehler, P.J. (2006). Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge. *Teachers College Record*, 108(6), 1017-1054.
- Nuruzzaman, A. (2016). The pedagogy of blended learning: a brief review. *International Journal of Education and Multidisciplinary Studies*, 4(1). <http://dx.doi.org/10.21013/jems.v4.n1.p14>
- Picciano, A.G. (2009). Blending with purpose: The multimodal model. *Journal of Asynchronous Learning Networks*, 13(1), 7-18.

- Santos, J. M., & Castro, R. D. R. (2021). Technological Pedagogical Content Knowledge (Tpack) in Action: Application of Learning in the Classroom by Pre-service Teachers. *Social Sciences & Humanities Open*, 3(1), <https://doi.org/10.1016/j.ssaho.2021.100110>
- Stein, J., & Graham, C.R. (2014). *Essentials for Blended Learning: A standards-based guide*. Routledge: New York.
- Tondeur, J., van Braak, J., Ertmer, P. A., & Ottenbreit-Leftwich, A. (2017). Understanding the relationship between teachers' pedagogical beliefs and technology use in education: A systematic review of qualitative evidence. *Educational Technology Research & Development*, 65(3), 555–575.
- Wang G., Zhang Y., Zhao J., Zhang J., & Jiang F. (2020). Mitigate the effects of home confinement on children during the COVID-19 outbreak. *Lancet* 395, 945–947.
- World Economic Forum (2020). 4 Ways COVID-19 Could Change How We Educate Future Generations. <https://www.weforum.org/agenda/2020/03/4-ways-covid-19-education-future-generations/>
- Yin, R. K. (2014). *Case Study Research, Design and Methods*. California: Sage.