PROBLEM-BASED LEARNING IN A VIRTUAL ENVIRONMENT

A Critical Reflection on Teaching Business Law

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Abstract

The ongoing COVID-19 pandemic has disrupted teaching and learning in higher education institutions, presenting novel challenges for both staff and students alike. These challenges have had an immense impact in the way postgraduate research (PGR) teachers perform their dual responsibilities as both students and teachers. Achieving a seamless transition from in-person to virtual learning was an arduous task. To this end, pedagogies evolved to accommodate the use of remote conferencing, video capture and other real time communication tools that facilitate virtual collaboration between staff and students. In this paper, I highlight the challenges of integrating online learning with a problem-based learning (PBL), a signature pedagogy employed by law and business schools. I draw on my personal experiences as a student and PGR teacher during the pandemic, and suggest proactive mitigation responses.

Keywords: Problem-based Learning (PBL), COVID-19 pandemic, Technology, PGR teachers, Virtual learning, Higher education institutions

Introduction

The unprecedented impact of COVID-19 pandemic on teaching and learning in higher education institutions in the United Kingdom (UK) cannot be over-emphasised. In March 2020, the UK was plunged into a nationwide lockdown, which meant that the delivery of seminars for business law undergraduate students at Warwick was promptly moved to Microsoft Teams and Blackboards, as virtual learning environments. This required me to effectively adapt my teaching practices to align with the unique nature of these virtual environments. This paradigm shift in learning further necessitated the broadening of my teaching skillsets, reinforcing the need to acquire more enhanced knowledge of effective delivery methods.

Although I painstakingly attempted to use available information and communication technology (ICT) tools to try and achieve the same outcome as if my seminars were conducted in traditional classrooms, adjusting to this new normal was challenging. Palatable as the use of these ICT tool were, they could not replicate the same engaging, intellectually stimulating and highly motivational environment often experienced when conducting face-to-face seminars. This underscores the importance of pedagogical innovation and raises further questions on how existing teaching methods can be seamlessly integrated with current and emerging digital platforms, presently used as virtual learning environments by higher education institutions.

As a PGR teacher in business law, I predominantly employed the problem-based learning (PBL) in my seminars: a student centric pedagogy that exposes students to the legal implications of conducting international businesses using hypothetical and realistic problem case scenarios (**Bumblauskas and Vyas, 2021: 148**). These scenarios are designed to engage students in instructional activities, stimulate discussions and solve contemporary legal problems posed by those cases (**Kaur and Singh, 2021: 141-42**). The objective is to demonstrate their practical application in the real-world business terrain. Having already taught for two years prior to the pandemic, my third teaching year coincided with the period of transition to virtual learning. This exposed me first-hand, to the adverse implications of the disruptions triggered by COVID-19. In the same vein, since business law requires some form of collaborative interdisciplinary teaching, this experience has positively altered my perception of pedagogy by broadening my knowledge and understanding of the online teaching and learning process.

In this paper, I predominantly draw upon my experiences as a PGR teacher, and in part, as a student, to reflect upon the general impact of COVID-19 on online seminars delivered using the PBL method of teaching. I discuss the challenges faced during delivery and explain how these obstacles were curtailed to help fulfil the learning objectives for the seminar. Firstly, I present a general overview of the PBL method. Secondly, I describe the PBL process as it relates to my teaching business law in a traditional classroom setting. Thirdly, I adapt the same discussion to the online environment, highlighting the stark difference of outcomes when PBL is replicated online. Finally, I conclude by interrogating the future of online education in the context of PBL.

Overview of Problem-Based Learning (PBL)

PBL incorporates an aspect of case-based learning where problem scenarios are developed and used in training students to apply their legal knowledge to the facts of a given case (**Mao et al, 2020: 836**). This method of teaching has particularly proven to improve students' practical legal skills in higher education institutions (**Kurtz, Wylie and Gold, 1990**). PBL is also credited with simplifying the teaching of complex legal principles (**Mao et al, 2020**)

In PBL, problem scenarios are usually solved in small groups and the process guided by a facilitator who ensures that worked solutions to problems are tailored to specific learning objectives (**Rhodes, 1999: 410**). Without a facilitator, the PBL approach could fail because students in their group discussion, may deviate from the set objectives for which the problem case scenario was developed (**Maudsley 1999**). This reinforces the role of PGR teachers as facilitators of knowledge and their responsibility towards ensuring that the integration of this pedagogic approach within the online learning space helps fulfil the desired learning outcomes.

PBL is generally known to be a successful pedagogic practice for two major reasons. First, PBL not only helps students develop competence in their specific area of study, but it also boosts their problem-solving skills (**Rhodes, 1999**). These objectives include, but are not limited to achieving productive collaboration in teams, demonstrating creative and critical thinking, acknowledging alternative viewpoints, communicating effectively, making reasoned decisions in complex unfamiliar situations, and engaging in self-evaluation and self-directed learning (**Engel, 1997**). Second, PBL incorporates other forms of cognitive learning processes such as cumulative learning, active learning, and integrated learning (**Rhodes, 1999**). Research further finds that students are more likely to retain acquired knowledge and learn better at a higher conceptual level through PBL (**Hung, Jonassen and Liu, 2008: 489-92**).

The Traditional Learning Process

At the University, third-year law and business students are usually divided into six small syndicate groups of at least five students. All groups are presented with weekly problem questions in advance of each seminar. They are expected to first outline possible issues that can be raised for determination from the case scenario to then identifying the relevant business frameworks and rules of law that can be applied to that problem scenario.

Thereafter, they are required to apply the identified frameworks and rules to addressing the initial issues raised. In solving the problem questions, students are encouraged to collaborate with one another and to actively engage with their lecture materials prior to the seminars. The aim is to exhaustively process the problem question, collectively identify legal issues and develop questions or ideas for further independent research (**King, 2021: 207**).

During the weekly in-person seminars, each group presents their findings to the class using software such as Prezi or Microsoft PowerPoint, specifically explaining how they applied the law and business frameworks to the facts of the case. This presents further opportunity for students from other groups to either ask questions or make insightful contributions to the presentation. I facilitate this highly interactive process by guiding the question-and-answer sessions, clarifying areas of ambiguities, and providing personal feedback where necessary. However, when providing feedback, I tend to avoid suggesting that specific answers to questions are right. Rather, I nudge students towards more ideal responses, recommending additional and readily available electronic resources that they could engage with to further develop their research skills. Through this process, the substantive knowledge gained from research are reinforced and students become better equipped at analysing and applying rules of law to concrete situations.

The PBL approach requires some form of independent research, through which students gain legal and commercial knowledge, and by exploring and proposing solutions to complex legal problems develop their cognitive abilities (**Grimes, 2014**). While the PBL approach may initially appear particularly tasking for students, by exploring a wide range of useful resources independent of their tutor, students become self-taught. Furthermore, since students may acquire knowledge from different academic resources whose authors share distinct but complementary ideas, I always reiterate that there is no right or wrong answer to the

problem scenarios. Rather, what matters is how students are able to crack the problem questions and apply the relevant rules of law or business frameworks to solving the case. Adopting this learning tactic not only improves students' confidence in the quality of their independent research, but also encourages them to be forthcoming with their ideas. Facilitating the development of this skill set as a PGR teacher has equally helped me gain more conviction in my ability to apply functioning knowledge of abstract legal principles and business frameworks to factual or hypothetical situations.

PBL and Online Learning

Technologies like Microsoft Teams, Zoom, Google Hangout, Adobe Connect, GoToMeeting and WebEx, and similar real time communication applications already have PBL-ready environments designed in the form of breakout rooms. Their use as virtual learning spaces is expected to stimulate learning, enhance team collaboration, improve student engagement, facilitate the fulfilment of learning objectives, and improve the overall student learning experience. Whether these objectives are fulfilled in the context of PBL is, nevertheless, questionable.

Adapting the traditional PBL process to the online environment to yield the same engaging and thought-provoking sessions within an allotted weekly one-hour synchronous seminar proved quite challenging. In my first seminar, I instantly noticed that there was a significant reduction in the number of students who participated in the interactive question and answer sessions. It felt as though most students were either unprepared for the seminar or were just not as enthusiastic as they were in the pre-COVID period. Although each syndicate group was given ten minutes to discuss the problem scenario in their Teams' break out rooms, the aim of collaboration was defeated as some students felt disconnected from others as though they were artificially separated from their group members.

I arrived at this conclusion by drawing on my own personal experiences as a PhD student who often attended webinars facilitated by group discussions at the start of the pandemic. At the time, found that I could not collaborate effectively with colleagues with whom I initially had less face-to-face interaction with. Adapting my experience to undergraduate teaching made me understand better the challenges faced by students during this period. More importantly, I realised that reduced engagement in seminars may have been worsened by the reality that students could not meet in person within their groups. Subsequent online group presentations were also dominated by an active few. This reduced collaboration meant that some students became less confident in the quality of their research and the associated solutions provided for the problem scenarios. This contrasts to the face-to-face seminars convened prior to the COVID-19. Ultimately, the once interactive PBL seminars subsequently appeared more like attending a virtual 'ceremony' with cameras shut and microphones muted; the implication being that the invaluable skillset which the PBL promotes for students became less attainable.

It, therefore, became necessary for me to re-access my teaching practice. As research shows that students are more visually engaged through technology-enhanced learning **(Passey 2013: 33-47; Daniela 2019)**, I began using an interactive software called Vevox to help stimulate responsive learning. To effectively integrate this application to my teaching, I prepared short open-ended diagnostic questions that related to the problem scenario ahead of each online seminar. After presentation of findings by all syndicate groups, I allotted ten minutes to the question-and-answer session within which students are encouraged to anonymously answer the diagnostic questions. This created a buzz around the problem question as I noticed a remarkable increase in participation. Students were, perhaps, further motivated to participate since their responses were anonymous and they were no longer

perturbed about the quality of their answers. This approach was, nevertheless, unsustainable due to bandwidth and connectivity issues, which on some occasions, prevented the software from functioning effectively within the Teams and Blackboard learning spaces.

When faced with this challenge, I resorted to asking leading questions around the problem scenario with the aim of guiding students into looking at specific areas of the case deemed very critical to their understanding of the subject matter. I encouraged students to either use the 'chat' function on Teams and Blackboards to respond to the questions, or to tap the 'raise your hand' tool bar on both learning applications, if they wanted to orally respond to the questions. Most students who responded made use of the 'chat' bar. Although this approach proved less effective in eliciting a similar level of participation compared to face-to-face seminars, those questions were formulated to ensure students achieved the set learning objectives.

To augment the learning process, I further drew upon my personal experience as a PhD student who predominantly applied the doctrinal methodology in interrogating the workability of existing legal rules, and how those rules apply in contemporary legal practice. As the validity of the submissions made in my thesis depended on the effective use of analytical and critical thinking skills already shaped by the PBL approach, I felt that sharing my experience would help students appreciate better, the long-term benefits and purpose of PBL. Sharing my experiences not only improved my confidence in delivering the seminars, but it also felt particularly rewarding hearing students engage more with the discussion. As third year students whose undergraduate studies were near completion, it was necessary for the students to understand how certain skills can be applied beyond the university environment. Thus, seeing students ask further questions about their legal and academic careers as it relates to the essence of PBL, was a fulfilling experience for me.

To summarise, PBL generally presents a case for providing a creative approach to teaching which promotes higher level thinking, and actively involves students in the learning process. The total transfer of this learning process to a virtual environment and the subsequent challenges encountered in my teaching suggests that PBL is more suited to in-person teaching than remote learning. However, the impact of COVID-19 on teaching and learning raises more implications for future practice in higher education institutions as it espouses the need to for existing pedagogies to evolve to ensure that their application by staff and students will help mitigate the adverse realities associated with online learning.

Concluding Remarks

This reflective piece has considered the significant impact of COVID-19 to my teaching practice, especially as it relates to the application of the PBL process to seminars. I drew upon my experience both as a student and a PGR teacher to reflect upon the delivery of online seminars within the context of PBL where collaboration is critical. I also demonstrated the effectiveness of face-to-face learning and the challenges that come with replicating signature pedagogies in the online environment, subsequently highlighting the tactics I employed to overcome those challenges.

A recurrent theme in this paper is the valuable skillset for potential business lawyers which can be enhanced where PBL approach is effectively applied in seminars. Highlighting how such skills may have been dissipated when learning was moved online during the pandemic underscores the need to thoughtfully improve the adaptation of existing pedagogies to align with the practicalities associated with remote learning.

COVID-19 will in the interim continue to alter teaching and learning in higher education institutions. Although restrictions are steadily

being lifted globally, the pandemic raises questions around the future of legal education, especially where PBL is employed. It further demonstrates the need for PGR teachers and teachers in higher education more broadly to become less heavily dependent on face-to-face learning and acclimatise to the realities that come with online learning. Additionally, the need for PGR teachers to adapt their style of teaching to become more flexible and responsive to challenging learning environments cannot be overemphasised. Therefore, it is recommended that the adoption of a hybrid approach which improves pedagogic practice both traditionally and within the online environment, will be positively rewarding for PGR teachers and students alike, further arming them to face whatever challenges might arise in the future of higher education.

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