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Using Peer Assisted Learning to improve academic engagement and progression of first year online law students

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Abstract

The University of Southern Queensland's online study environment continues to grow with over 16,000 students studying online. Pre-Covid-19, online enrolments typically represent around 67% of all students studying at USQ. This article usefully analyses quantitative data in order to evaluate the effectiveness of the pilot of an online peer-assisted learning program for first-year Law students. The article asks whether a customised online Meet-Up program can objectively enhance student engagement and academic performance in a first-year law course. Results from the pilot were positive and are a productive contribution to the literature on online peer-assisted learning.

Keywords

Online peer-assisted learning, first year law students, student engagement, student wellbeing, student progression

Introduction

The University of Southern Queensland (USQ) places significant emphasis on providing on campus and online learning environments which foster the highest level of student engagement, retention, and overall satisfaction. Research studies have identified student academic and social engagement as key factors that influence undergraduate retention (Demetriou & Schmitz-Sciborski, 2011). Since the 1970's, several theories have influenced and shaped most research related to student retention and attrition in higher education (Spady, 1970; Tinto, 1975; Bean & Metzner, 1985; Pascarella & Terenzini,1980). Put simply, despite their variances, studies show a connection between students' social and academic satisfaction, institutional engagement and commitment, and persistence in higher education and academic success (Chickering & Gamson, 1987; Tinto, 1993; Tinto, 2004). Moreover, the need for support systems to assist students to integrate into an institution and for institutions to adjust to the needs of diverse students has been emphasised (Prebble et al., 2004; Tinto, 2004). This article reports on the experience of using student peers as a teaching support for first year law students learning online.

The development of digital technology has created opportunities for online learning in higher education and the enablement of student participation and engagement through online providers worldwide (Tibingana-Ahimbisibwe et al., 2020; Kop, 2010). The delivery of distance education via the internet is the fastest growing segment of adult education. A rising number of students are graduating with degrees without ever stepping onto a university campus (Beer, et al., 2014). However, online education is not without challenges. Studies indicate a lower completion rate for online students as compared to face-to-face students (Brown, 2011; Jenkins, 2011) by as much as 10-20% (Bart, 2012). One qualitative study noted that a concern for higher learning institutions is properly selecting students for online study, suggesting some students are better suited for online study than others (Russo-Gleicher, 2014). In this case, online courses refer to courses that deliver at least 80% or more of the course content online (Allen & Seaman, 2007).

Teaching law in 21st century regional law schools in Australia has undergone considerable change since the start of the new millennium. While the law curriculum has uniform requirements in terms of legal content, the divergent variables of budget, student communities, and modes of course delivery necessitate innovative approaches by universities to deliver high quality student learning experiences. The School of Law and Justice at USQ is the second largest regional law school in the State of Queensland. It provides legal education on campus (in Toowoomba and Springfield), online and multimodal. There are two, first-degree in law programs available, including the undergraduate Bachelor of Law (LLB) program and the Juris Doctor (JD) program. The School has replaced much of the traditional two-hour lecture and repeated one-hour tutorials with blended three-hour seminars or workshops. These newer teaching constructs have led to the decline of repeated, small group, problem-solving skills development tutoring. Instead, weekly on-campus seminar sessions, have a Zoom link for online students to join, and are recorded live.[1] The recordings are uploaded weekly to the course StudyDesk. The StudyDesk is the learning management system that makes learning materials accessible to USQ students, on multiple devices, at any time, and is used to engage with staff and peers enrolled in the same course.

Online law students have an opportunity to ask teaching staff questions about the course and course materials through Zoom 'drop-in' sessions. These are an equivalent to face-to-face consultations. As for all students enrolled in a law course, online students can choose to join the live classroom sessions through Zoom, or listen to the recordings if, and when it suits them. Typically, seminar sessions are timetabled on campus during office hours. Attendance by online students tends to be low due to their work or other commitments, or overseas time differences. For first semester law

lecturers, the lack of online learning experience by students can present additional challenges. Some students may lack confidence in using the technology, experience connection issues, or lack equipment like cameras or microphones. Students can resort to using the Zoom 'chat' function to avoid feedback noise when asking questions during class, but these can sometimes be overlooked and go unanswered, particularly where lecturers must manage multiple competing questions from students in large classroom environments.

Researchers have found that students studying law online, away from peers and teaching staff, can feel isolated, lonely, and psychologically distressed (O'Brien et al., 2011; Crowley-Cyr, 2014; Organ et al., 2016; Confino, 2019). The absence of dialogue with student leaders and peers means that the opportunity to explore and discuss personal problems with challenging course content is often unavailable, and the opportunity to develop a sense of 'belonging' or social connectedness can be hindered (Skead & Rogers, 2014, p. 565; Huggins, 2012; Larcombe & Fethers, 2013;). This can interfere with the development of a healthy learning environment that includes support, collaboration, inclusion, engagement, and feedback (Hess, 2002; Angelino, et al., 2007).

Academics concerned with the mental health and wellbeing of law students have also championed the movement away from heavily weighted formal or supervised examinations[2] (Field & Kift, 2010). Today, the reduction of invigilated assessment in favour of online alternatives or assignments has given rise to new concerns for law schools, notably the rise in contract cheating and plagiarism. The rise in cheating in Australian universities in the last decade was the catalyst for the announcement in 2020 of the creation of a federally funded 'Education Integrity Unit' to tackle research theft and cheating (ABC News, 2020). Law students found guilty of such practices face potential disciplinary penalties for breaching student conduct rules and jeopardise their future registration as a legal professional. Plagiarism or other forms of cheating in university assessment can ruin career opportunities as these practices are now the subject of rising concern across disciplines (Steel, 2017; Harper et al., 2019; Macmillan, 2019).

The move to online peer-assisted learning programs (PAL) has been trialled in universities in Australia and overseas to provide online students with greater opportunity for supplemental instruction (SI) and enhanced social and academic engagement. SI as developed in the US in 1973 by Arendale and Martin (1993) involves training student leaders as facilitators in order to introduce students of diverse backgrounds to effective study strategies and techniques (Malm et al., 2018). Since its inception, the SI model and other variations like PAL or, as in Australia, peer assisted study sessions (PASS), or related models, have been widely adopted in colleges and universities (Keenan, 2014). Studies show that these programs can have positive results on student learning (Pascarella & Terenzini, 2005; Arendale, 2014).

Despite the various definitions of peer-led academic learning, a common feature is the encouragement of students to support each other and to learn under the guidance of trained student leaders (Keenan, 2014, p. 9). Peer-led learning programs also tend to have common aims like assisting academic staff in embedding support for students; encouraging active participation in learning to improve engagement, performance and enjoyment; fostering personal as well as social development; increasing student success by enhancing disciplinary understanding; improving study skills; and facilitating the development of transferable academic learning skills (West et al., 2017). Students can develop greater perspective on course objectives and expectations by accessing the expertise of student leaders, while developing a stronger sense of identity within their chosen discipline and university (Lim, et al., 2016 p. 62; Kimmins, 2013). Peer assisted learning has also been found to have long-term beneficial effects in terms of graduation and dropout rates in 'difficult' courses (Malm et al., 2018).

Online Peer-Assisted Learning Programs (PAL) at USQ

USQ first introduced SI in 1992. In 1998, a more USQ-specific peer program and Peer Assisted Learning Strategy (PALS) was developed. This encouraged the expansion of the face-to-face program to a range of different disciplines. In 2005, USQ was the first Australian university to expand its PALS to include online synchronous dialogue via technologies like MSN Messenger (at first), then Wimba, Blackboard and now Zoom. These technologies have enabled the creation of peer-led learning programs for distance students (Kimmins, 2013). In 2008, USQ introduced a more flexible program named 'Meet-Up'. The program continues to service on campus students, but it moved away from the traditional SI model to respond to the growing need for digital forms of peer learning to support USQ's growing number of online students (Kimmins, 2013). The objectives of the Meet-Up program include the following (2013, p. 109):

- provide a social learning platform where students can engage with discipline learning via group participation with their peers
- improve students' learning skills, including thinking and reasoning, independence, and reflections
- provide students with useful and successful study strategies and techniques
- develop leadership skills in student leaders
- provide feedback to academic staff on students' needs and expectations
- serve as an explicit example of USQ and Faculty support for students.

A dynamic group of student leaders (drawn from the most successful students who have completed the course) run the Meet-Up sessions after receiving training in small group facilitation. Studies have shown that student leaders benefit from these leadership roles by revisiting course content and reinforcing their knowledge in the area; developing graduate and employability skills like goal setting, decision-making, and conflict resolution skills; and become more community minded (Cress et al., 2001, p. 25; Logue, et al., 2005). Through this informal mentoring role, student leaders can act as conduits between course leaders and students (Longfellow et al., 2008). This benefits teaching staff who can often make prompt and effective adjustments to the management of their courses in response to this 'insider' knowledge about student queries. Studies have confirmed that graduate students in the same discipline area provide 'expert scaffolding' for undergraduate students as they progress from one level of learning to the next (Topping, 2005, p. 637).

Meet-Up evaluation surveys capture feedback from students and student leaders. Typically, student feedback is that they find the experience rewarding (Lim, et al., 2016). Students have listed benefiting through the contact they experience with other online students, 'an extra element of rapport and comfort that is difficult to achieve in lecturer or tutor/student situations' (Kimmins, 2013, p. 108), and as found in other studies, greater flexibility and convenience (Beaumont et al., 2012; Lim, et al., 2016).

However, the assessment of the Meet-Up program, like most other PAL programs, has typically relied on attendance rates and use of anecdotal or survey feedback to track student experiences (Lim et al. 2016). In their review of the literature, Olaussen et al. (2016, p. 24) confirmed that PAL studies were largely qualitative in nature, capturing student perceptions and emotions in relation to their experience of PAL without developing an understanding of 'its direct impact on objective student learning and outcomes'. This study aims to respond to this gap by largely relying on learning analytics to identify student engagement with their course learning materials, discussion forums, and their assessment results to monitor performance and progression rates of a small Meet-Up group and a control group that represents the general population of online law students enrolled in a course.

USQ Online Law Students

Students enrolled in the LLB and JD programs at USQ are a diverse group that may be located anywhere in Australia or overseas. Some are incarcerated students. Some are refugees escaping a traumatic past. Prior to the COVID-19 pandemic in 2020, most students were distance students, female, and older than students who study on campus. These general demographics are consistent with tertiary education estimates (Australian Bureau of Statistics, 2018) and demographics of online students (Johnson, 2015, p.11).

Weekly Meet-Up sessions began in first year law courses in 2014. Two Meet-Up leaders delivered most sessions face-to-face on campus. The decision whether to arrange Meet-Up sessions for first year courses is up to course leaders and can vary depending on perceived student needs. For instance, on the Springfield campus, Meet-Up leaders provide general academic support to students for several courses in the same session. Some courses provide both face-to-face as well as online sessions. However, course leaders experienced similar problems as reported in other studies when adapting a well-established face-to-face PAL model for online delivery, including a lack of participation in sessions, software and internet-connection lag issues, and poor content coverage (Beaumont et al., 2012; Huang et al., 2015). Dialogue with online students remained mostly by digital messaging (questions and answers) through the StudyDesk system.

Some researchers consider embedding study skills into the context of the curriculum through peer-led programs as one successful way of integrating such skills into discipline context (Kimmins, 2013). In 2019, the course leaders of the only substantive law course (Civil Obligations A, renamed Contract and Torts A in 2020) offered in the first semester of the law programs, introduced specific skills development for answering problem-based questions, as structured content in the course Meet-Up sessions. This led to the development of an online pilot based on the successful face-to-face peer-assisted Meet-Up sessions. Influenced by suggestions that opening up dialogue with students can enhance their learning and understanding of real-world problems (McDonald et. al. 2009), the aim was to provide similar learning opportunities for online students by running small group Meet-Up sessions focused on problem solving skills development. An additional focus was improving student social and academic engagement by enabling a feeling of connectedness with the course student community, and potentially progressing to completion of the course.

This study explores the impact of this customised problem-based learning (PBL) Meet-Up program on the engagement and progression of online law students in the Contract and Torts A course. The findings of this pilot study will add to the growing body of evidence from the academic/curricular environments that peer-learning programs can contribute to student academic engagement and sense of connectedness and in doing so, can improve student academic success and retention rates (Lim, et al., 2016; Tibingana-Ahimbisibwe et al., 2020; Woolrych et al., 2020). As such, this project questions whether a customised online Meet-Up program can objectively enhance online student engagement and academic performance in a first-year law course.

The First Year Law Course

In Semester one 2019, there were 245 students (97 on campus and 148 online) enrolled in the Contact and Torts A course. This course consists of two core areas of law, contract law (covered in weeks one-six of the semester) followed by a two-week mid-semester break prior to the commencement of torts law with a focus on negligence (covered in weeks 9-14 of the semester). The teaching team noted, while first year law students often described this course as the most ‘difficult’ in their first semester at university, they also described it as their most enjoyable because it is based on ‘real

law'. It is the first substantive law course, that obliges rational and logical thought, the evaluation and break down of problem questions based on authentic scenarios into their components, and analysis of the facts for information that will help solve the problem. Legal problem questions with overlapping subject areas arising from the same facts tend to be 'messy' (Nathanson, 1998, p .13; Clark, 2019). Competency standards within the legal profession requires students and graduates to possess the ability to solve legal problems. In legal education, problem solving is a teaching and learning objective and is a critical skill that relies on legal reasoning, taught implicitly and constantly throughout law students' legal studies (Huggins, 2015).

The course assessment is made up of two online multiple choice (MC) quizzes, each worth 15% of the overall marks for the course, and a heavily weighted (70%) end of semester examination. Students have one hour to complete each quiz at a time that suits them within a one-week period. The results of these online quizzes are computer generated. The choice of assessment for first semester law students who have had no or limited exposure to legal research, assignment writing and other forms of assessments is limited. The first quiz assessed the contract law part of the course, prior to the online Meet-Up program commencing. The second quiz assessed the torts law part of the course, after students had the opportunity of attending the Meet-Up sessions.

The end of semester examination is also in two parts, contract law and torts law, each worth 35% of the overall marks. The duration of the invigilated exam was two hours with a 10-minute perusal time. Students were required to answer a series of short problem-based questions in each part. Part of the weekly classroom seminar sessions were devoted to assisting students in developing their problem-solving skills, but generally very few (less than 6 and sometimes none) of the online students attend. Recordings of the sessions were made available for online students to listen to at their convenience. However, this solution is only useful if students access the recordings and actively engaging with the course, including the forums by posting questions and answers to the tutorial exercises located on the course StudyDesk.

Research Design - Online Student Groups

This project involved customising the existing on campus face-to-face Meet-Up program to offer comparable Meet-Up opportunities for online students enrolled in the course. The specific aims of this project are to:

1. create a learning environment that stimulates interest and encourages online students to become more engaged with their course learning materials through the development of peer study groups facilitated by student leaders who encourage students to feel involved, comfortable to ask difficult questions, and safe to make mistakes, and who can model behaviour of successful students;
2. enable online students to develop disciplinary understanding, including thinking and reasoning skills, as well as strategies and techniques that would enable them to practice finding better solutions to problem-based exercises in preparation for the final examination;
3. enhance online student retention through improved engagement, performance and a sense of belonging.

USQ's Human Research Ethics Committee granted ethical approval for this three-year project (2019-2021) (no. H17REA134). This project is dependent on continued university funding to pay for the support and weekly sessions delivered by the Meet-Up leader through USQ's Student Amenity Fee Funds. The Meet-Up leader is a law graduate who commenced a PhD in 2020, allowing him to run the online Meet-Up sessions for the duration of the project.

This pilot study involved two non-active participant groups, a control group and a Meet-Up group. All the participants were online students enrolled in USQ's LLB program and none had previously completed a substantive law course. Both groups consisted of 10 students, the optimum size for an effective session (West et al., 2017, p. 460). Each group consisted of six female and four male students, with five enrolled full-time (studying at least three semester one courses) and five enrolled part-time (studying one or two semester one courses). With computer software, participants were randomly selected. We aimed at achieving as close to an equal representation of participants as possible. However, due to the higher number of females enrolled in the course overall, there was a slight gender imbalance in each group. Other demographics, such as age, race, first degree, and family history were not considered.

The control group participants were selected from those students who chose not to attend any Meet-Up sessions, face-to-face or online during the semester. The Meet-Up group participants were selected from those students who had attended and participated in each of the course's six online Meet-Up sessions. Participants in the Meet-Up group were selected by reviewing Meet-Up participation logs. This resulted in 12 potential students from which 10 were randomly selected accounting for gender and enrolment type. The two students excluded were both female. Neither group was altered or modified after this initial selection process was completed.

Limitations

During the selection process, several limitations were identified. The student's previous work experience and study could be a decisive factor in their academic achievement, along with their subjective motivators, demographic variables, and previous experience in a regulatory environment (Topping, 2005). These factors were not incorporated into this study. However, it is possible that examining each of these matters in closer detail may provide a better understanding of the correlation between the Meet-Up program and its student's success. It is also important to appreciate that additional control measures could be introduced in further studies.

Examining the university entry method, program performance, and employment status of each student may also provide a greater understanding of the Meet-Up program's success. Highly engaged students are more likely to succeed than those who participate on an 'as-needed basis'. Reviewing each student that forms part of the control and Meet-Up groups in closer detail and their surrounding circumstances may yield a more effective comparison and understanding of the nature of these results. Such an approach may also help to appreciate the type of person likely to engage in the Meet-Up program to tailor its delivery appropriately.

Method

This study used USQ StudyDesk learning analytics in conjunction with frequency distribution analysis to collect, measure and analyse data about the participants in both groups for the purposes of identifying and quantifying student engagement and progression in this online course (McConville & Hong Chui, 2017, pp. 54-5). The StudyDesk software records certain student interactions with the system, such as what files were accessed, when they were accessed, and by whom. This information, along with results of the three course assessments, form the various data points used for data collection, analytics and comparison.

This form of data collection provided a reliable, cost-effective method of evaluating the feasibility of this Meet-Up program and collecting evidence of student progression. In this study, the three indicators used to assess student engagement with the course include the number of times each

participant accessed the study notes, lecture recordings, and the forums during the semester. The forums convey essential information to students including assessment items, practice exercises and examination questions with model answers, and assessment policies and procedures. The course discussion forum provides students a platform in which they can communicate online with each other and with staff, by posting responses to tutorial discussion questions located in the study materials. Participants can post questions and answers to their Meet-Up leader and their peers through a separate Meet-Up forum.

The online Meet-Up forum was activated in the second half of the course. Invitations to join the online Meet-Up sessions were made to all students through the course leader's announcements and on the StudyDesk. A brief (10 minute) introductory video posted to the StudyDesk, was designed to familiarise students to the Meet-Up leader and to indicate that the sessions were embedded into the curriculum. This showed students the supported relationship between the Meet-Up leader and the lecturer. Students were informed that the purpose of the Meet-Up sessions was to assist them in learning how to approach problem-solving when responding to the tutorial exercises, and that they had direct access to the Meet-Up leader and other participants through weekly, one hour Zoom sessions, and by posting to the forum. A message posted on the Meet-Up forum informed student that participation in the Meet-Up sessions was voluntary, optional and not assessable. The Meet-Up leader negotiated the Zoom times with interested students and settled on Tuesdays at 10-11am and on Wednesdays at 7-8pm. Students in the control group were afforded the same opportunities but did not to join the sessions.

Assessment results were used in this study to provide an objective means of evaluating any link between student engagement with learning materials, participation in the course, and the desired learning objectives. Results of the online quizzes also demonstrate a rudimentary and cursory means of identifying any differences in the students learning progress throughout the semester. The results of the first quiz generated in week seven of the course, are a useful baseline for comparison with results in the second quiz generated in week 14. The end of semester examination results were similarly used to identify and compare progression, notably in terms of the participants' problem-solving skills.

The learning analytics data were coded and compared to determine whether any difference between the two groups could be identified. Observational data was processed and modelled using Nvivo 12. Statistical information was exported from StudyDesk, imported into Nvivo, and then coded according to each area of assessment. These statistics were then reviewed to identify each group's individual and collective averages in both engagement and progression. The results were exported from Nvivo and graphs were created using Microsoft Excel. The data was compared to identify any significant differences between the two groups and correlation between the Meet-Up program and objective course success.

Data captured by USQ StudyDesk was somewhat limited in terms of its depth and cannot be expanded due to system limitations. These limitations also revealed the need for this study to move beyond frequency distribution analysis into qualitative research to further support the relationship between the Meet-Up program and its student's outcomes. These system limitations also prohibited a comprehensive analysis of these statistics. A complete breakdown was not possible, and USQ StudyDesk learning analytics cannot be coded to produce additional information. Such limitations were unfortunate, but not entirely restrictive or cumbersome.

Findings

Course engagement

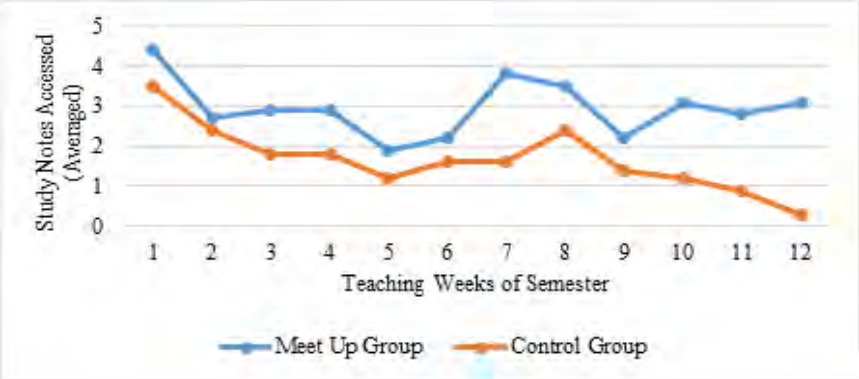
The following provides a breakdown of the results of the three indicators: participants' access to study notes, lecture recordings and forums via the course StudyDesk, used in this study to assess student engagement.

Study notes

The course study notes contain module objectives, summaries of important course content linked to required readings, and exercises carefully and constructively aligned with the course assessment items. Data collected from the StudyDesk learning analytics show the control group accessed the study notes for contract law 123 times and the study notes for torts law 78 times, with a 36.5% decline in access to the study notes between teaching weeks 7-12. In contrast, the Meet-Up group accessed the study notes for contract law 170 times and torts law notes 185 times, with a 8.82% increase in access to the study notes between teaching weeks 7-12. This increase in access to the study notes correlates with the commencement of Meet-Up. Figure 1 depicts the control group and Meet-up groups' average rates of access to the study notes over the course of the semester, excluding the non-teaching two-week mid-semester University break.

Figure 1

Groups' averaged access rates to study notes over the semester



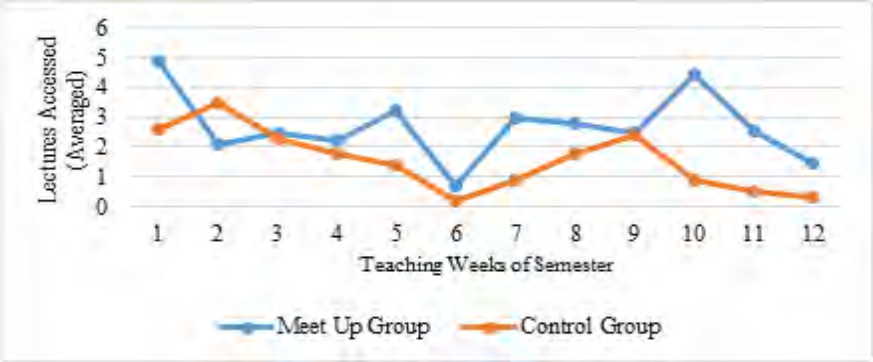
Lecture recordings

Lecture recordings are a vital source of information for students. These recordings summarise the study material and provide detailed explanations of core legal concepts. The StudyDesk analytics indicate that the control group accessed the lecture recordings for contract law a total of 118 times and the torts law lecture recordings 68 times. This represents a 42.37% decrease in access of the course lecture recordings between teaching weeks 7-12, and an associated decrease in course engagement by this group. In comparison, the Meet-Up group accessed the lecture recordings for contract law 140 times and the torts law lecture recordings 150 times. This represents a 7.14% increase in accessing the lecture recordings between teaching weeks 7-12, and an associated increase in engagement by this group. Figure 2 shows how many times, on average, each group accessed the teaching weeks' lecture recording. The reduced access in teaching weeks 6 and 12 is likely to be

associated with early announcements by the course leader that the material in those weeks addressed a number of related matters that were not directly assessable.

Figure 2

Groups' averaged access rates to lectures over the semester

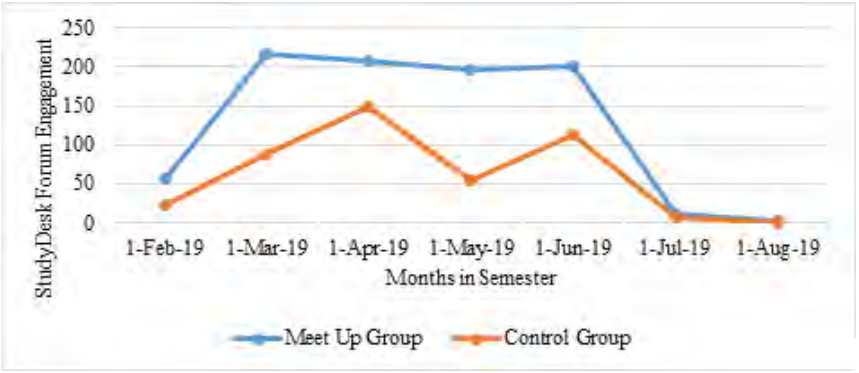


StudyDesk Forum

A key aspect of student engagement flows from the StudyDesk forums. The StudyDesk discussion forum and online Meet-Up forum are used to discuss weekly tutorial questions, hypothetical situations, and general matters as they arise through the course. These forums provided a hub for student learning and a key focal point for online engagement and social connectedness. Students in the control group accessed or posted a message on the course's StudyDesk forum 435.6 times. The Meet-Up group accessed or posted on both the StudyDesk discussion forum and the Meet-Up forum 890.8 times. This indicates that the Meet-Up group engaged with the StudyDesk forums at more than double the rate of the control group. Figure 3, below, shows the engagement pattern of each group with the forums throughout the semester on a month-to-month basis.

Figure 3

Groups' engagement rate with StudyDesk Forum over the semester



Course Progression: Assessment Results

Quizzes

Quiz results were subject to each student completing the assessment within the required timeframe and in accordance with instructions. One student in the control group did not complete the second quiz. To ensure the accuracy of the results and to avoid any misrepresentation, this student was excluded from the assessment of results for the second quiz. The average mark for the control group in the first quiz was 10.1 out of 15 marks. This group's average mark in the second quiz was 10 out of 15 marks. This represents a slight (0.9%) decrease in the average mark. In comparison, the Meet-Up group scored an average of 12 marks out of 15 in the first quiz. Prior to the second quiz, the Meet-Up group experienced three online Meet-Up sessions that focused on torts law. In the second quiz, the average mark for the Meet-Up group was 12.5 out of 15, representing an increase of 4.1%, and a sustained progression. When we compared the torts quiz averages between the two groups, we found a 25% variance. This indicates an improvement in the learning outcomes of the Meet-Up group. Figures 4 and 5, below, show the participants' individual results, and the comparative results between the control and Meet-Up groups.

Figure 4

Meet-Up Groups' Assessment Quiz Results

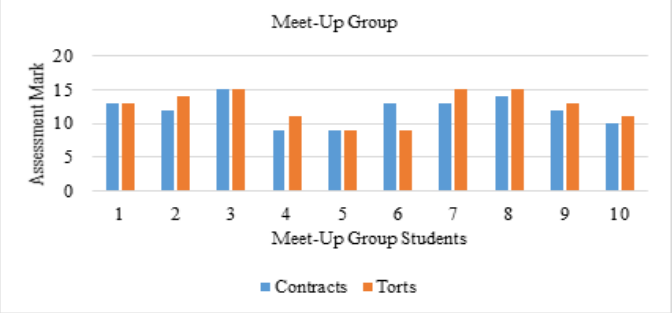
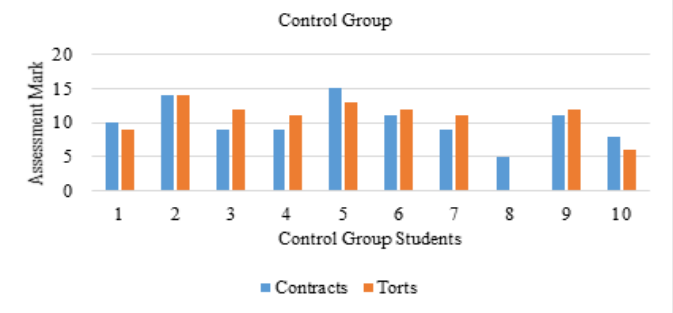


Figure 5

Control Groups' Assessment Quiz Results



Examination

The end of semester examination in this course assesses students' legal reasoning abilities against learning outcomes with a series of problem-solving activities. This aims to assess students' application of new knowledge of basic principles of the law of contracts and torts to problem case scenarios.

The control group, on average, scored 17.85 marks out of 35 in the contracts part of the exam, and 19.57 out of 35 marks in the torts part. The overall average result was 39.0 out of 70. Three students in the control group that did not sit the exam without an approved extension or request to defer were excluded from the results analysis to avoid distorting the findings. The Meet-Up group, on average, scored 22.4 marks out of 35 for the contracts part of the exam, and 23.7 out of 35 for the torts part. The overall average result was 46.44 out of 70. In order to minimise unconscious bias, examination markers were not told who was in the control group or Meet-Up group.

Figure 6 and Figure 7, below, provide an overview of the examination results. The tables show that the Meet-Up group progressed more consistently and in line with their engagement in the course than the control group. The results indicate that the focus on development of problem-solving skills in the Meet-Up sessions enabled students in the Meet-Up group to apply these skills more consistently in addressing both parts of the examination. Each student is represented along the x-axis and their mark for each part of the exam along the y-axis.

Figure 6

Meet-Up Groups' Examination Results

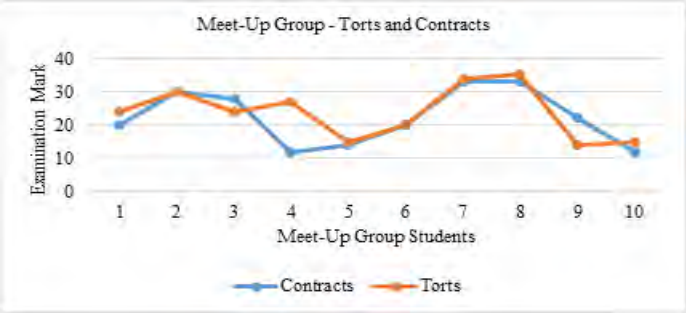
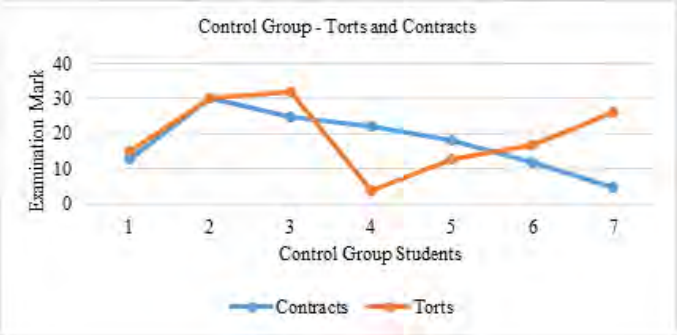


Figure 7

Control Groups' Examination Results



Discussion

The online law students who engaged in this study's Meet-Up program, on average, appear to have achieved better assessment results overall and, the learning analytics showed they accessed the learning materials and engaged in the discussion forums on a more frequent and consistent basis than those in the control group.

In this study, monitoring progression of online students was limited to extrapolating data from academic assessments. This is a useful way of overviewing grades and drawing tentative connections. However, it fails to delve any deeper than mere surface results. The quizzes, for example, were relevant to the desired learning outcomes, but not necessarily tailored to the Meet-Up program. This may explain the slight variance found between the Meet-Up and control group results. However, in terms of performance in the final examination, this study found the Meet-Up group scored better in both parts of the exam when compared against the control group. Arguably, this improvement may have resulted from the transferrable problem-solving skills taught during the Meet-Up program. It is also possible that these results relate to the students' subjective abilities, and a larger sample group would help understand this complex variable.

Overall, the results suggest that the availability of online Meet-Up group sessions can increase engagement, which has proven links to positive learning outcomes and the development of desirable attributes (Radloff, 2010). Three indicators were used to measure student engagement: access to course study notes, lecture recordings, and access and posting activities on discussion forums. On average, the Meet-Up group accessed the weekly study notes at a higher rate and more consistently throughout the semester than the control group. The findings show that while both groups accessed the lecture recordings sporadically during the semester, the Meet-Up group increased access in the second part of the semester in line with the commencement of the Meet-Up sessions. This indicates an associated increase in engagement by this group, whereas in the same period, there was a decrease in access to lecture recordings by the control group. The findings also show that the Meet-Up group accessed and engaged with the forums at a statistically higher rate (almost double) than the control group and, they did so on a more consistent basis, including during key study periods such as in the weeks leading up to assessment.

A higher willingness by the Meet-Up group to attempt answering tutorial questions and interact with their peers than the control group was observed. This higher engagement by the Meet-Up group continued through postings to the StudyDesk forum in the weeks following the exam. A review of these posts indicated a degree of social connectedness demonstrated by the students' willingness to continue their peer-relationships and desire to form further study groups after the teaching period had concluded.

Arguably, the Meet-Up sessions also assisted in motivating students by providing cues (StudyDesk reminders, forum post activity) that can trigger or instigate action (attempting and posting tutorial questions and answers; accessing learning materials, etc.). The role of cues as a triggering mechanism, while appealing, are difficult to measure (Rosenstock, et al., 1988), and was not part of this study. Without additional information it cannot be determined whether certain types of students are more likely to engage in these programs or not. This leaves several variables unanswered. Qualitative research coupled with frequency distribution analysis to identify whether these students have previously participated in similar programs, how they progressed in undergraduate courses historically, and whether more academically inclined students are willing to engage in these programs could produce more compelling results.

These findings also support other studies that indicate the experience of, and feelings associated with studying at a physical distance can have negative implications for student learning outcomes, progression and health and wellbeing (Dammeyer & Nunez, 1999; Sheldon & Krieger, 2004; Kelk et al., 2010; Skead & Rogers, 2014). This study suggests that first-year online law students may be attracted to discipline specific, customised Meet-Up programs that provide inclusive, supportive environments that enable two-way timely interaction with a student leader, and a sense of community with peers experiencing similar learning issues.

Finally, previous general feedback of students' experiences of the course as captured in USQ's SET reviews and anecdotally, suggested that some perceive engagement with online law students as low, tutorials suit those without external commitments, and quizzes do not prepare students for the end of semester examination. This customised Meet-Up program was designed to respond to these concerns, amongst others. It generated highly favourable reviews from the online students involved. The following is a sample of anonymous student feedback captured in the end of semester Meet-Up survey:

> *Thank you so much for putting these sessions together, they have helped me and {redacted} truly understand the material.*
>
> *I just wanted to say thank you for all your support.*
>
> *I feel that the extra meet up sessions have helped me a lot. Thanks again.*
>
> *I felt Meet up helped me to understand what I could expect in the exam*.

These comments are consistent with generally positive student feedback in relation to USQ's on-campus Meet-Up programs (Kimmins, 2013). There was no negative feedback about the program received by the Meet-Up leader, the teaching team, or the university.

Conclusion

The results of this pilot study are encouraging and add to objective knowledge about the Meet-Up program and its relationship with online students' social and academic engagement, and potential improvement in course progression and retention. A secondary outcome is this study's contribution to existing knowledge of the broader relationships between group culture and the usage of learning analytics, potentially leading to improved ability to use student data to stimulate greater student engagement and teaching and learning outcomes. That said, the results must be framed in light of some limitations identified in the current study that will be reviewed as the project moves into the next phase.

The feedback in this study, coupled with the engagement and progression statistics, puts forward a plausible case that students who participated in Meet-Up benefited from attending. In fact, it can be suggested this customised Meet-Up program assisted in each of the performance indicators and helped improve the course overall. The Meet-Up participants also expressed their desire for the expansion of the program to other law courses to help reinforce their problem-solving skills.

More broadly, the COVID-19 pandemic has led to most universities developing some form of online delivery of their courses. It is hoped that this customised Meet-Up program will become a valuable tool for all those engaged in online education.

Endnotes

1. Zoom is a synchronous real-time two-way audio-visual communication platform used by USQ to engage online students.
2. We use the term 'formal' to refer to invigilated end-of-semester examinations managed by the universities examination sections.

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