

ClassPoint as an Engagement Tool in Borderless Learning for Law Students

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Abstract

Legal education in universities is one of the challenging courses for students, who encounter difficulty in grasping the law. With the introduction of technology-enabled learning, it has brought significant changes to teaching and learning activities since it was introduced in classroom in larger scale back in the 1980s.¹ The objective of the adoption of digital learning in the legal education setting is to achieve (forming and developing) certain competencies such as cognitive and meta-cognitive skills, knowledge, understanding and attitudes, as well as the development of social skills and growth in ethical values. Nevertheless, over the past years, there have been a considerable number of online educational tools such as Kahoot! Socrative, Quizzes and Nearpod that have been developed to supplement legal education in the classroom. The purpose of this study is to understand and analyse the effectiveness of ClassPoint features in Microsoft PowerPoint as an engagement tool for borderless learning. The research showed that ClassPoint features can foster and support law students learning process in a borderless setting. Pertaining to the use of ClassPoint, since it is a new tool in Microsoft PowerPoint developed in 2015, there is absence of literature on its effectiveness as an engaging tool in borderless settings particularly on law students. This research used an online survey (accessed via Google Form link) on 58 law students at a university in Malaysia. The sample size comprised Year 2 students, who has experienced the use of ClassPoint in virtual class. This research found that the application of ClassPoint improves their analytical thinking skills, creative and critical thinking skills. The students also felt that ClassPoint improves their abilities to be innovative and it also enables them to use their imagination. The research revealed that ClassPoint develops their evaluation and reasoning skills. Overall, the students enjoyed the use of ClassPoint as it does increase their interactions within the scope of the borderless learning environment.

Keywords: Blended learning environment, Online learning, ClassPoint, Efficient and effective teaching methods, Social interaction, Higher education, Borderless environment.

1. Introduction

¹ Han, I., Byun, S.Y. and Shin, W.S., 'A comparative study of factors associated with technology-enabled learning between the United States and South Korea' (2018) 66(5) Educational Technology Research and Development 1303-1320.

The educator may have prepared dynamic approaches of teaching and delivery of a particular module, however, if the relationship of the teacher and learner is disrupted due to many subdued reasons then the learning process becomes ineffective. The digital transformation of education systems at all levels has allowed incorporation of a new teaching–learning ecosystem called e-learning. The term e-learning was invented in the mid-1990s² after the popularization of the Internet and it essentially means the utilization of methods, structures, and ICT tools to create learning experience that can be formulated and created in borderless settings.³ E-learning has been widely used in education and has been effective in achieving students’ learning outcomes. However, with the outbreak of COVID-19 pandemic, there were concerns raised about whether the use of e-learning can foster and support student learning process in a virtual platform in times of lockdown. The travesty caused by COVID-19 has resulted in educators and learners to be a part of a biggest leap in education, caused the closure of physical classrooms all over the world and forced 1.5 billion students and 63 million educators to suddenly modify their face-to-face academic practices with the support of e-learning to purely virtual, remote learning.⁴ The adversity erupted by the COVID-19 pandemic nevertheless shed light on the strengths and weaknesses of education systems facing the challenges of the utilization of e-learning in a virtual setting.

Bates⁵ states that COVID-19 pandemic has demonstrated the current inequalities in the system and the need for universal and low-cost access to the Internet for education. This failure cannot be attributed to e-learning itself, but to the fact that the potential of this teaching method has been underestimated and excluded from the digital education projects of educational organizations. The future of e-learning must be built on principles of openness and interaction. For example, online educational tools provide learners with more knowledge to learn through designed educational tasks. There are various types of online educational tools such as Kahoot, Socrative, Nearpod and others which can be used in an e-learning environment. It is designed to teach students about certain subjects and concepts, which support learners in developing skills through online educational tools. The advancement in the technology creates a wide array of online educational tools which include the use of games in learning.⁶ Hence the aim of this research is to analyse and understand the effectiveness of a newly developed educational tool, namely ClassPoint, a plug-in feature in Microsoft PowerPoint and whether it serves as an engagement tool for borderless learning.

2. ClassPoint

One of the emerging e-learning tools which can be used in educational platforms is ClassPoint. It was developed in 2015 by Inknoe, a Singapore-born education technology company that develops interactive products. It is an add-in or a plug-in for Microsoft PowerPoint enabling

² J. Cross, *An informal history of eLearning* (Emerald 2004) 1-8; W. Horton, *E-Learning by Design* (Pfeiffer, San Francisco 2006).

³ J. Dron, J. and T. Anderson, *The Future of E-Learning*. In *The SAGE Handbook of E-Learning Research* (SAGE Publications Ltd 2019).

⁴ T. Bates, *Crashing into online learning: A report from five continents - And some conclusions* | Tony Bates. Available online: <<https://www.tonybates.ca/2020/04/26/crashing-into-online-learning-a-report-from-fivecontinents-and-some-conclusions/>> accessed 8 May 2020.

⁵ Ibid.

⁶ M.R.M. Veeramanickam and N. Radhika, ‘A Smart E-Learning System for Social Networking’ (2014) 4(3) *International Journal of Electrical and Computer Engineering* 447-455.

educators to use their available lecture slides and to utilize ClassPoint features in the same lecture slides deck and solutions to digitally transform teaching and learning.⁷ The features of ClassPoint include virtual pen, highlighter, laser pointer, the variation of drawing boards such as whiteboard, blackboard and chalkboard, multiple choice questions, short answers, polling, image upload, slide drawing, word cloud, pick a name and leader board. Educators may choose to embed multiple choice questions on the lecture slides to assess students' level of comprehension during lectures and as a recap strategy before embarking on a new topic.

Firstly, to use ClassPoint, lecturers need to install ClassPoint from its website <https://www.classpoint.io/> onto their computer. At the point of this research, ClassPoint is compatible with Windows 7/8/10 & Office 2013/2016/2019/365. Currently, ClassPoint is not compatible with Macbooks, IOS or Android devices. Upon completion of the installation, lecturers can open the Microsoft PowerPoint in the usual way and will be able to view the ClassPoint ribbon on the taskbar. Once it has been successfully downloaded and the ClassPoint ribbon is visible on the taskbar, lecturers will then need to click on the 'sign in' button on the ClassPoint ribbon to create their own account. After signing up, lecturers will have access to all the features of ClassPoint.

To start using ClassPoint features, lecturers can either create a new slide deck or utilize the existing lecture slides. Lecturers can set questions in the multiple choice format or utilize word cloud into the Microsoft PowerPoint slides. Once the activities on the slides have been completed, lecturers can project the lecture slides and subsequently click on the ClassPoint icon at the bottom left corner of the screen to receive the automatically-generated class code. Students will be able to access the same lecture slides on their computer or mobile phones after entering the class code. Students can then use their mobile phone to scan the automatically-generated QR code or to enter the class code manually. The students' names will be projected on the lecture slides upon successful entry into the class. They can participate in the ClassPoint activities set by the lecturer on the lecture slides without the hassle of waiting for the lecturers to open a new window and search for the web-based interactive tool before the students can participate in the activities. Students will be able to engage in active learning especially during the word cloud or multiple-choice questions. For the latter activity, the top 6 fastest students who had entered the correct answers will be revealed after each question. Recently, ClassPoint has added a new feature namely the leader board and music features to make learning more enlightening and interesting. With the leader board feature, the overall 'winners' for the particular lesson will be displayed at the end of lecture slides. Lecturers who adopt ClassPoint as part of their teaching and learning will be able to export and save students' responses for future reference.

3. Literature Review

In the past, most of the teaching and learning for legal education took place physically on campus with minimum adoption of virtual or borderless classrooms in higher learning institutions. The norm was that legal educators will adopt the conventional lecturer-centred approach where the educators will impart knowledge to the students in a lecture setting. This is the common method as it focuses on the learning process of achieving a dynamical

⁷ ClassPoint, 'Who We Are: About Inknoe' (*ClassPoint*, 2020) <<https://www.classpoint.io/about/>> accessed 8 May 2020.

combination of cognitive and meta-cognitive skills, attitudes, knowledge, and understanding, as well as the development of social skills and growth in ethical values in the physical classroom. Every legal education system and higher education study should target enabling its educators to achieve an optimal balance in the development of students' capabilities. Three main problems were observed namely, (i) lack of motivation to learn difficult subjects, (ii) too much emphasis on lecture-centred learning, and (iii) lack of self-efficacy learning. These are the challenges in facilitating law students in self-regulated learning as they are heavily reliant on delivery of the lecture in the classroom, lecture notes and textbooks. Hence this calls for a new academic environment to enhance legal educators' capabilities, competences, resources, and their educational delivery in a transformative learning way.⁸

The blended learning environment integrates the advantages of e-learning methods with some advantageous aspects of the traditional method such as face-to-face interactions. It brings traditional physical classes with elements of virtual education together.⁹ The use of technology to support learning has been shown to be highly regarded and accepted by learners.¹⁰ Although the use of online educational tools is not a new method, this calls for a new academic environment in which the teachers' capabilities (competences, resources and their applications surrounding reality) are focused on the learner in a transformative borderless platform.¹¹ In the process of teaching and learning, both the educators and students should have a clear direction on the objectives and learning outcomes. It is a common phenomenon that learning outcomes are expected in each module including learning in a virtual classroom.¹² There is evidence from previous research in the literature that many students expect to receive their grades and feedback online, using technology.¹³ According to Garrison and Hanuka,¹⁴ online learners can be connected to a community of learners anytime and anywhere without being bound by time, space or situation. Consequently, the increasingly prevalent practice of the convergence of text-based asynchronous, internet-based learning with face-to-face approaches also known as blended learning is having a volatile impact on traditional campus-based institutions of higher education. Blended learning is described by Thorne¹⁵ as " ... a way of meeting the challenges of tailoring learning and development to the needs of individuals by integrating the innovative and technological advances offered by online learning with the interaction and participation offered in the best of traditional learning." To this effect, the integration of synchronous and asynchronous learning can be both simple and complex as there is considerable complexity in its implementation with the challenge of virtually limitless design possibilities and applicability to so many contexts. The main feature of blended learning that makes it

⁸ D. Herlo, 'Virtual Learning Environments Tools Used in Higher Education', Conference Proceedings (2012).

⁹ A. Finn, and M. Bucci, 'A case study approach to blended learning' (Los Angeles: Centra Software 2004).

¹⁰ H. Parkin and L. Thorpe, 'Exploring student experiences of e-learning: A Phenomenographic Approach', paper presented at Bera Annual Conference, 2-5 September 2009, University of Manchester, Manchester, UK.

¹¹ Ibid 8.

¹² L. Norton, 'Assessing student learning' in, H. Fry., S.Ketteridge. & S. Marshall, *A Handbook for Teaching and Learning in Higher Education*. (Enhancing Academic Practice, 3rd ed., Abingdon: Routledge 2009) Chapter 10, 132-149.

¹³ S. Bloxham and P. Boyd, *Developing Effective Assessment in Higher Education* (Berkshire: Open University Press 2007).

¹⁴ D.R. Garrison and H. Kanuka, 'Blended Learning: Uncovering Its Transformative Potential in Higher Education' (2004) 7 *The Internet and Higher Education* 95-105.

¹⁵ K. Thorne, *Blended Learning: How to Integrate Online and Traditional Learning* (London, UK: Kogan Page Limited 2003).

particularly effective is that it facilitates a community of enquiry that includes limitless access to the internet, open communication, critical debates, free and open dialogues, negotiation, and agreement.

Today, E-learning is still brazened with many undetermined issues to be elucidated and investigated. There are many factors potentially influencing E-learning effectiveness, such as media characteristics, learning context, technology, and learner characteristics. While our review of literature has demonstrated that E-learning can be at least as effective as conventional classroom learning under certain situations, we are not able to claim that E-learning can replace traditional classroom learning. Not every student will find E-learning suitable for his or her learning style. Some students feel bored or intimidated in front of the computer. Other important issues in E-learning must also be taken into consideration for example, issues of trust, authorization, confidentiality, and individual responsibility must be resolved.¹⁶ Ownership of intellectual property should be properly compensated. Security on the Internet is a growing challenge primarily due to the open access by the public to this universal network. In addition, since multimedia materials are heavily used in E-learning systems, a high-bandwidth network is a basic requirement for efficient content access. Nevertheless, E-learning is a promising alternative to traditional classroom learning, which is especially beneficial to remote and lifelong learning and training. In many cases, E-learning can significantly complement classroom learning, hence, it will keep growing as an indispensable part of academic and professional education. Efforts should continue to explore how to create more appealing and effective online learning environments, thus, one way to achieve this is to integrate appropriate pedagogical methods, to enhance system interactivity and personalization, and to better engage learners.¹⁷

The technology enhanced classroom aims to promote this to meet specific learning requirements. While definitions vary from one institution to another, blended learning is defined in this article essentially as a combination of face-to-face and web-based environment. Interchangeably the term online learning has been used in the context of borderless learning and is defined as “ ... learning experiences in synchronous or asynchronous environments using different devices (e.g., mobile phones, laptops, etc.) with internet access. In these environments, students can be anywhere (independent) to learn and interact with instructors and other students ... ”.¹⁸ The synchronous learning environment is structured in the sense that students attend live lectures, there are real-time interactions between educators and learners, and there is a possibility of instant feedback, whereas asynchronous learning environments are not properly structured. In such a learning environment, learning content is not available in the form of live lectures or classes; it is available at different learning systems and forums. Instant feedback and immediate response are not possible under such an environment.¹⁹ Synchronous learning can provide a lot of

¹⁶ S. Goyal, 'E-Learning: Future of Education' (2012) 6(2) *Journal of Education and Learning* 239-242.

¹⁷ D. Zhang, J.L. Zhao, L. Zhou and J.F. Nunamaker Jr., 'Can e-learning replace classroom learning?' (2004) 47(5) *Communications of the ACM* 75-79.

¹⁸ V. Singh and A. Thurman, 'How Many Ways Can We Define Online Learning? A Systematic Literature Review of Definitions of Online Learning (1988-2018)' (2019) 33 *American Journal of Distance Education* 289-306.

¹⁹ Robert S. Littlefield, 'Embracing Service Learning Opportunities: Student Perceptions of Service Learning as an Aid to Effectively Learn Course Material' (2018) 18(1) *Journal of the Scholarship of Teaching and Learning* 25-42.

opportunities for social interaction.²⁰ The Corona Virus has made institutions go from offline mode to online mode of pedagogy. This catastrophe will show us the lucrative side of online teaching and learning. With the help of online teaching modes, we can sermonize a vast group of students at any time and in any part of the world. All institutions must scramble different options of online pedagogical approaches and try to use technology more aptly. Many universities around the world have fully digitalized their operations understanding the dire need of this current situation. Online learning is emerging as a lustrum amongst this chaos.²¹ Amidst this deadly virus spread such online platforms are needed where:²²

- (i) video conferencing with at least 40 to 50 students is possible,
- (ii) discussions with students can be done to keep classes organic,
- (iii) internet connections are good,
- (iv) lectures are accessible through mobile phones and not just laptops,
- (v) possibility of watching already recorded lectures, and
- (vi) instant feedback from students can be achieved and assignments can be taken.

However, it is important to construct equilibrium between e-learning and face to face environments, in view of the advantages of both methods, during the process of designing a blended learning environment. Today's students have fundamentally different ways of approaching knowledge acquisition, problem solving, and operating in the workforce.²³ Therefore, blended and online learning offers a mechanism for meeting their needs within the value system that they embrace; henceforth, this study will address the gap on their learning preference. To make the technology-based e-learning and blended learning effective and interesting, gamifying e-learning like the ClassPoint can be adopted. The gamification of e-learning is an instructional method that incorporates educational content or learning principles into multiple choice questions, short answer questions, discussion blackboards, polling etc with the goal of engaging learners. Applications of game-based learning draw upon the constructivist theory of education.²⁴ The coronavirus outbreak is the chance to make out the best from the current situation. We can learn a lot in this challenging situation. Technology provides innovative and resilient solutions at times of crisis to combat disruption and helps people to communicate and even work virtually without the need of face-to-face interaction. This leads to many system changes in organizations as they adopt new technology for interacting and working.²⁵ Therefore, educators are required to choose the best tool and implement it to impart education to their students. A step-by-step guide can be prepared by academic institutions to guide teachers and students on how to access and use various e-

²⁰ J. McBrien and P. Jones, 'Virtual spaces: Employing a synchronous online classroom to facilitate student engagement in online learning' (2009) 10 *International Review of Research in Open and Distance Learning* 1-17.

²¹ S. Dhawan, 'Online Learning: A Panacea in the Time of COVID-19 Crisis' (2020) 49 *Journal of Educational Technology Systems* 5-22.

²² G. Basilaia and D. Kvavadze, 'Transition to Online Education in Schools during a SARS-CoV-2 Coronavirus (COVID-19) Pandemic in Georgia' (2020) *Pedagogical Research* 5.

²³ Feza Orhan, 'Redesigning a Course for Blended Learning Environment' (2008) 9(1) *Journal of Distance Education* 54-66.

²⁴ Karl Maton, 'Cumulative and segmented learning: exploring the role of curriculum structures in knowledge-building' (2009) 30(1) *British Journal of Sociology of Education* 43-57.

²⁵ G. Mark and B. Semaan (2008). Resilience in collaboration: Technology as a resource for new patterns of action. In *Proceedings of the 2008 ACM Conference on Computer Supported Cooperative Work*, <<http://www.ics.uci.edu/~gmark/cscw2008.pdf>> accessed 8 May 2020.

learning tools and how to cover major curriculum content via these technologies thereby reducing the digital illiteracy.

Further, the evolutionary trends in the application and rise of the use of mobile devices must be considered the most important shift in business. The question must be asked - why not with online education? With mobile devices now mainstream, educators need to leverage student desires to use their personal devices for school. Using mobile awareness, schools can connect with online students and create a more personal relationship. This relationship can provide the student with opportunities to download dynamic learning from digital displays. These digital displays include mobile phones, notebooks, and tablets. Indeed, there is rapid expansion of wireless synchronization between media devices with Smartphones, notebooks, and tablets which should lead to a much more enhanced digital experience.

The use of mobile devices allows for teachers and learners to interact anytime from anywhere with seamless technology and borderless networks. The task of extrapolating and predicting the future of mobile learning is a justifiably difficult task but predicting trends can be accomplished by close analysis of the products and services used currently. Lastly, there are developments on the extension of current trends in mobile computing with possible application to the mobile learning environment. These technologies represent immediate changes already being witnessed in the mobile environment, how they will relate to mobile learning within the next five years, and possible implications. Hence, the ClassPoint tool serves as the state-of-the-art of contemporary and e-learning among the rising generation. The augmented feature of this facility enables the facilitator and the learner to grasp the content learnt in a simple and smooth manner.

4. Methodology

This study is a pilot study, using a self-completed online questionnaire, which took approximately 5 minutes to complete, with a total of 60 respondents from Taylor's Law School at Taylor's University. The data was collected from a cohort of students who have experienced learning law using ClassPoint taught by the co-author. The pilot study used a sample size of one cohort, and the demographic information is limited to Year 2 students studying LAW61504 Land Law I module. The design of the questionnaire was based on the literature, specifically previous studies on the use of online engagement tools to teach university students²⁶ and it used a Google Form survey shared via WhatsApp to encourage students to participate and complete the questionnaire via their mobile devices.

The pilot study confirmed the clarity and appropriateness of the questions, and the respondents' interpretation of the reasoning behind the type of questions used, the order of the questions and the scale used.²⁷ To measure the internal consistency of the online survey,

²⁶ D.R. Sanchez, M. Langer, and R. Kaur, 'Gamification in the classroom: Examining the impact of gamified quizzes on student learning' (2020) 144 *Computers & Education* 103666 <doi:10.1016/j.compedu.2019.103666> accessed 8 May 2020; Z. Zainuddin, M. Shujahat, H. Haruna, and S.K.W. Chu, 'The role of gamified e-quizzes on student learning and engagement: An interactive gamification solution for a formative assessment system' (2019) *Computers & Education* 103729 <doi:10.1016/j.compedu.2019.103729> accessed 8 May 2020; and N. Dabbagh, and A. Kitsantas, 'Using web-based pedagogical tools as scaffolds for self-regulated learning' (2005) 33(5/6) *Instructional Science* 513.

²⁷ W.G. Zikmund, *Business research methods* (London: Thomson/South-Western 2003).

Cronbach's alpha coefficient was used. The test revealed a figure of 0.981, which represented a good scale and valid test model.²⁸

This study incorporated a mixture of 5-point Likert scale questions, with the response categories ranging from strongly agree to strongly disagree and open-ended qualitative questions. The questions were derived from literature with the Likert scale questions allowing for 'an expression of intensity of feeling' and the simplicity and the homogeneity of the Likert scale have made it feasible to construct the variables²⁹ and focused on students' perceptions of their engagement level in virtual class using ClassPoint. There were 24 questions in total, comprising 22 closed (Likert) questions and 2 open-ended questions. With regard to the open-ended questions, the purpose was to obtain a detailed description³⁰ from respondents in terms of " ... what they, uniquely have to offer by way of information, experienced, feelings, images, attitudes, ideas and so on ... "³¹ i.e. the examples of ClassPoint that they have used in a virtual class.

The quantitative results were analysed using a series of Pearson correlation coefficient to understand the relationship between the effectiveness of ClassPoint and students' prior knowledge, motivation and interests, multiple-regression to test for the significance of the variables, gender and stage of academic development and a Mann-Whitney U test to analyse the responses of the students.

5. Sampling Procedures and Human Ethics Approval

Participants were selected systematically as they were students of the co-author studying LAW61504 Land Law I, which is one of the core modules under the Bachelor of Laws programme. The respondents are full-time students studying law virtually in times of COVID-19 pandemic.

In adhering to Taylor's University Human Ethics Policy Doc. Ref.: TU-ACA-POLY-HE Effective Date: 24 April 2014, Clause 4.3 Research and Teaching Activities stipulates list of activities which do not require ethical approval such as:

- (i) research conducted by Taylor's University, the students' association or other departments for the purpose of evaluating educational practices or courses with no collection of identifiable private information,
- (ii) exploratory research where the exact research aims have not yet been formulated and mainly in a form of preliminary interaction or discussion,
- (iii) research in which the investigator is the subject of their own research, and where not physically or emotionally hazardous procedure is involved,

²⁸ N.K. Malhotra and D.F. Birks, *Marketing Research: An applied approach*. (2nd European ed. Essex: Pearson Education Limited 2006).

²⁹ G.A. Churchill Jr., *Marketing Research: Methodological foundations* (5th ed, Hinsdale: The Dryden Press 1991); C. León-Mantero, J.C. Casas-Rosal, C. Pedrosa-Jesús, and A. Maz-Machado, 'Measuring attitude towards mathematics using Likert scale surveys: The weighted average' (2020) 15(10) PLoS ONE 1–15 <<https://doi.org.ezproxy.taylors.edu.my/10.1371/journal.pone.0239626>> accessed 8 May 2020; R. Likert, *A Technique for the Measurement of Attitudes* (New York: Columbia University Press; 1932).

³⁰ Y. McGivern, *The practice of market and social research* (London: Prentice Hall 2003), p. 34.

³¹ R. Kent, *Marketing Research: Measurement, Method and Application* (London: International Thomson Business Press 1999), p. 75.

- (iv) some interviews which merely seek non-sensitive information, and interviews with public figures or professional persons in the areas of their duties or competence,
- (v) research involving existing publicly available documents or information (public archival records),
- (vi) case studies of business organisations and institutions unless the project involves gathering personal information of a sensitive nature about or from individuals,
- (vii) study or data collection based on data abstraction from existing medical or laboratory record with no interaction with the human subject, and
- (viii) study based entirely on existing biological specimen; with no interaction with the human subject concerned; with no collection of identifiable private information and with no further processing of and/or testing on the specimen.

Given that the current research conducted by the authors falls under the first category, ethics approval is not required as it complies with the institutional policy.

6. Analysis and Results

In terms of the respondents' demographic, 45 students (75%) were female, and 15 students (25%) were male and were studying LAW61504 Land Law I, a 2nd year module. The result of this survey warrants further investigation in assessing the effectiveness of ClassPoint amongst the law students in the borderless classroom. The future research will employ mixed method study on the effectiveness of ClassPoint and students' level of engagements from across all three years of students studying law at Taylor's Law School.

To investigate the respondents' level of enjoyment and the role of ClassPoint as an engagement tool in borderless learning, a series of questions were asked on students' prior knowledge of ClassPoint and their level of enjoyment in using ClassPoint in virtual class. The results displayed in Table 1 revealed a mixture of low levels of prior knowledge of ClassPoint and high levels of agreement to the statement on "I enjoy using ClassPoint in virtual class to learn about the law."

Most of the respondents have not previously heard or had knowledge of ClassPoint. Their level of agreement to statements was high as compared to 6.7% of the respondents who have previously heard of ClassPoint. The reasons for the high level of agreement could be because they have experienced other online learning tools prior to the use of ClassPoint and therefore was not aware of the existence of ClassPoint although it was launched in 2015. Despite the lack of knowledge on ClassPoint, a majority of the respondents (70%) enjoyed using ClassPoint in their virtual classes to learn about the law after having experienced the features of ClassPoints. The positive responses can be found in the qualitative component of this study where respondents were asked to comment on the examples of ClassPoint that they have used in virtual class. The following were some of the responses:

"Quiz, Qn A which will show a bar chart of the common answer. The name selection."

"Online quizzes, interactive question-and-answer sessions."

"Whiteboard feature, live questions, randomised calling."

"Quizzes, writing out opinions on certain topics, powerpoint."

"Quiz during lectures and whiteboard."

One response highlighted: *"class point very lag."*

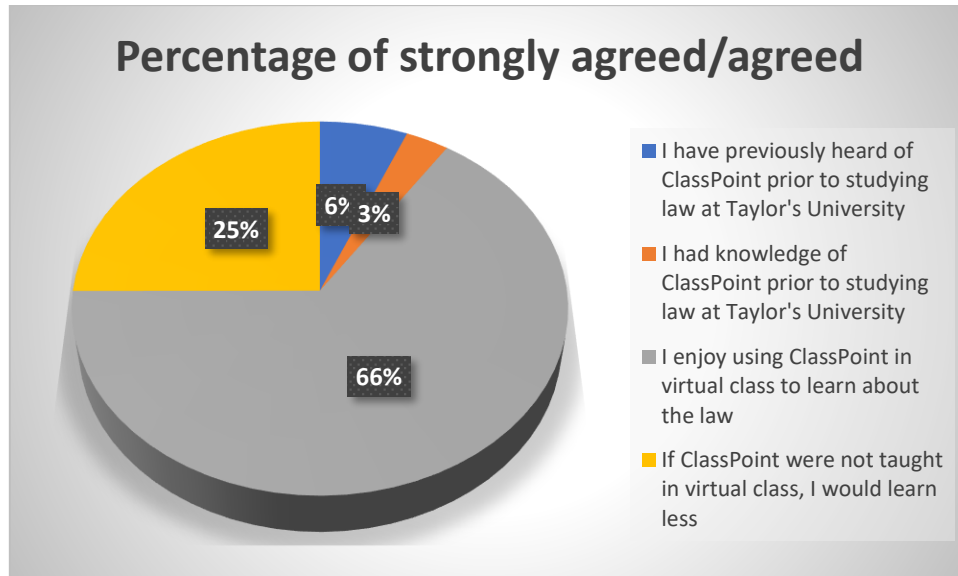


Table 1: Statistics relating to student prior knowledge and level of enjoyment in using ClassPoint in virtual class.

These results indicate that having experienced a new online tool is enjoyable in the eyes of the learner and that it is important for academics to introduce new, fresh, and up-to-date online learning tools to the students.³² The literature also confirms the relationship between technology and student interaction.³³ The qualitative statements also provided some explanation as to why students enjoy the use of ClassPoint, highlighting the common feature of ClassPoint that is the online quiz and randomised name-calling. However, this study also revealed interesting insight on internet connectivity - that the use of ClassPoint can be lagging. It is pointed out that the use of ClassPoint requires internet connectivity and that since students were home-bound during the borderless learning, students' internet speed and bandwidth varies from one to another, depending on the location and internet data subscription of the individual student. Hence, lecturers need to manage students' expectations when it comes to adopting a new online teaching and learning tool. Students will be expecting smooth and seamless use of the tool, but lecturers must manage student expectations by indicating at the onset that the new online teaching and learning tool will require the use of the internet. Lecturers must also provide an alternative method for students who have unstable internet connections so that they can also experience interactive sessions in virtual classes. In the next section, the study will investigate students' perception of their analytical thinking skills with the use of ClassPoint.

6.1 Improvement of Analytical Thinking Skills

From the research investigation on the respondents' perceptions of learning space in improving their analytical thinking and analysis skills, it can be seen from Table 2 that there is a similar trend in terms of moderate levels of neutrality.

³² Y. Beldarrain, Y., 'Distance education trends: Integrating new technologies to foster student interaction and collaboration' (2006) 27(2) Distance Education 139-153.

³³ N. Dabbagh and B. Bannan-Ritland, *Online learning: Concepts, Strategies and Application* (1st edition, Upper Saddle River, NJ: Pearson Education 2005).

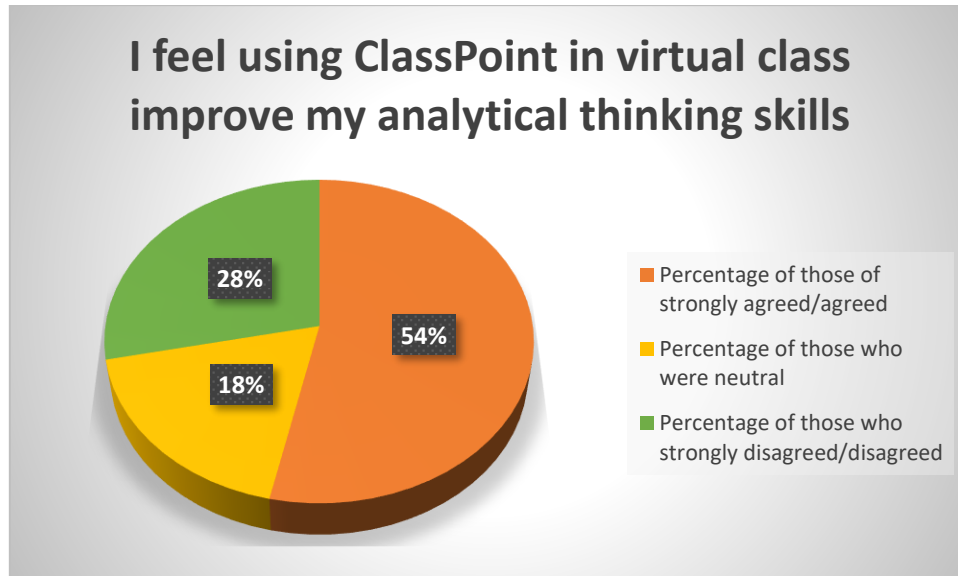


Table 2: Statistics relating to students' perception on the use of ClassPoint in virtual class in relation to the analytical thinking, analysis and evaluation skills.

A majority of the respondents either strongly agreed or agreed that using ClassPoint in virtual class improved their analytical thinking skills. These results are not surprising given the novelty of using ClassPoint for the first time in learning law. Students perhaps felt that the techniques ClassPoint used did test their analytical thinking skills, therefore the respondents were able to fully benefit from the effectiveness of ClassPoint. It has been argued in the literature that it is essential to develop instructional strategies for complex subjects which can critically assess students' analytical thinking skills using an online teaching and learning tool.³⁴ If the respondents did not feel that the teaching and learning tool improved their analytical thinking skills, it was likely that the way the tool was used did not assess analytical thinking. However, many of the respondents did feel that ClassPoint developed their analysis skills, and therefore felt that they have received the appropriate level of development in the analysis skill aspect. Given that students will be graduating into a digitalized working world where most of the knowledge and application of the knowledge will be performed partially on a virtual platform,³⁵ this study indicates that ClassPoint is equipped to develop students with the analytical thinking and analysis skills.

Regarding the respondents' perceptions on the improvement and development of their critical thinking and reasoning skills, it can be observed from Table 3 that there is a positive trend. Most of the respondents strongly agreed or agreed that ClassPoint can improve their critical thinking and a similar moderate high level of trend agreed that the use of ClassPoint in virtual class can develop their reasoning skills. Nevertheless, there was a high level of agreement with ClassPoint developing students' evaluation skills. It is argued in the literature that students completing multiple choice questions will improve learning which will lead to

³⁴ M.A.A. Ismail and J.A.M. Mohammad, 'Kahoot: a promising tool for formative assessment in medical education' (2017) 9(2) *Education in Medicine Journal* 19-26. <<https://doi.org/10.21315/eimj2017.9.2.2>> accessed 8 May 2020.

³⁵ J.J. Turner, P.S. Amirnuddin and H. Singh, 'University Legal Learning Spaces Effectiveness in Developing Employability Skills of Future Law Graduates' (2019) 16(1) *Malaysian Journal of Learning and Instruction* 49-79.

better performance.³⁶ Many of the students did share other online engagement activities that they have experienced apart from multiple choice questions such as: 'whiteboard feature', 'live questions', 'randomised calling', 'writing out opinions on certain topics, powerpoint' that perhaps contributed to the perceptions of ClassPoint improving students' evaluation, critical thinking, and reasoning aspects. It can also be argued that given that students are able to provide their answers to the questions posed via ClassPoint anonymously, this enables them to develop their evaluation skills.

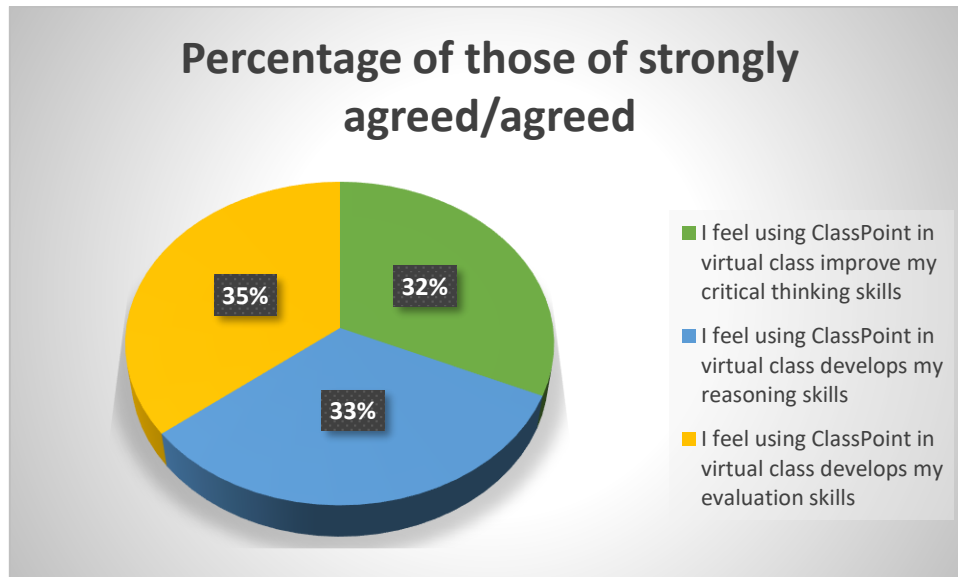


Table 3: Statistics on the use of ClassPoint in virtual class to improve critical thinking, reasoning, and evaluation skills.

6.2 Improvement of Creative Skills

Regarding the ability of ClassPoint to improve students' creative skills, it can be observed that there are the same moderate levels of neutrality. Despite the majority of respondents who are positive about the improvement of their creative skills, there are lower levels of agreement when compared to the questions relating to the use of imagination (see Table 4). With the exceptions of the results on ClassPoint to improve respondents' abilities to be innovative, there were low levels of agreement to statements relating to the effectiveness of ClassPoint in improving creative skills and imagination in virtual classes. Surprisingly, despite the new plug-in features of ClassPoint in Microsoft PowerPoint, the 'newness' element does not necessarily increase students' creativity and imagination significantly. The figure can be

³⁶ D.R. Sanchez, M. Langer, and R. Kaur, 'Gamification in the classroom: Examining the impact of gamified quizzes on student learning' (2020) 144 Computers & Education 103666 <doi:10.1016/j.compedu.2019.103666> accessed 8 May 2020; N. Kling, D. McCorkle, C. Miller, and J. Reardon, 'The impact of testing frequency on student performance in a marketing course' (2005) 81(2) The Journal of Education for Business 67-72; M.A. McDaniel, J.L. Anderson, M.H. Derbish and N. Morrisette, 'Testing the testing effect in the classroom' (2007) 19(4-5) European Journal of Cognitive Psychology 494-513; M.A. McDaniel, H.L. Roediger and K.B. McDermott, 'Generalizing test-enhanced learning from the laboratory to the classroom' (2007) 14(2) Psychonomic Bulletin & Review 200-206; M.A. McDaniel, P.K. Agarwal, B.J. Huelser, K.B. McDermott and H.L. Roediger, III, 'Test-enhanced learning in a middle school science classroom: The effects of quiz frequency and placement' (2011) 103(2) Journal of Educational Psychology 399-414.

expected to be higher if the respondents are assessed using ClassPoint where they would probably appreciate the features even better knowing that they are being examined in a new manner.

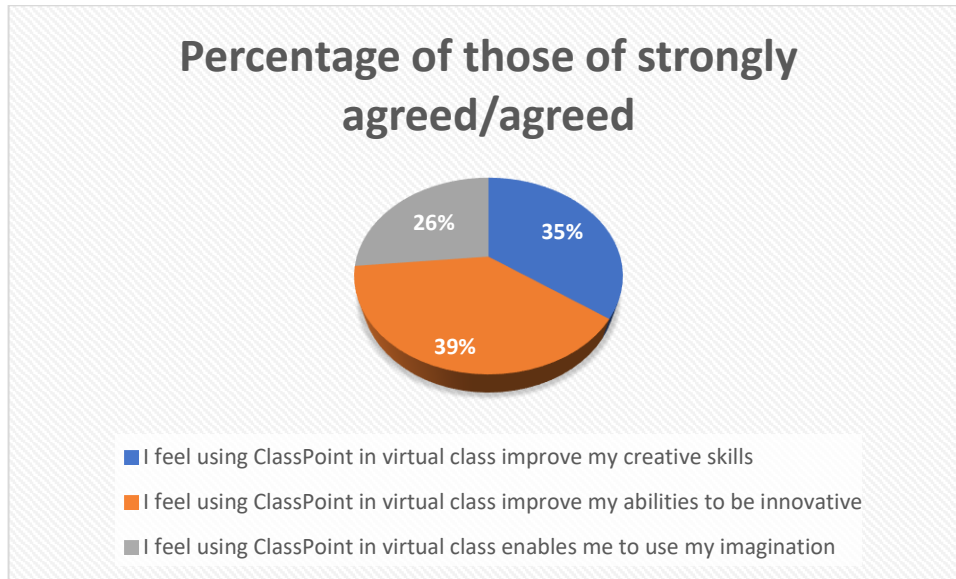


Table 4: Statistics relating to perceptions of ClassPoint to improve creative skills.

Nevertheless, these findings require further investigation in a future study with a larger number of respondents to get a better understanding of the effectiveness of ClassPoint as an engagement tool for law students in a borderless environment. A result which requires further explanation is the low level of agreement relating to ClassPoint in enabling imagination. This is particularly interesting as the respondents will be graduating in a digital world in which the World Economic Forum has highlighted that the future workforce is seeking for a dynamic composite of graduates who are imaginative and creative, which complements their technical skills.³⁷ Given the fact that working professionals are becoming more varied, there is a need for graduates with multiple points of view, different skills, and diverse perspectives.³⁸

6.3 Development of Students' Willingness to Learn using ClassPoint

This research also investigates the effectiveness of ClassPoint in developing students' willingness to learn. It is rather surprising that there is a significantly high level of agreement on this aspect. Compared to the other aspects of the survey, students were on the same level of agreement when it comes to the use of ClassPoint in developing their willingness to learn in virtual classes (see Table 5).

³⁷ S.S. Parekh, (2020). 'Conquer the skills gap - and win the future - by rethinking talent' (World Economic Forum, 2020) <<https://www.weforum.org/agenda/2020/01/reskilling-skills-gap-talent-hiring-diversity/>> accessed 8 May 2020.

³⁸ Ibid.

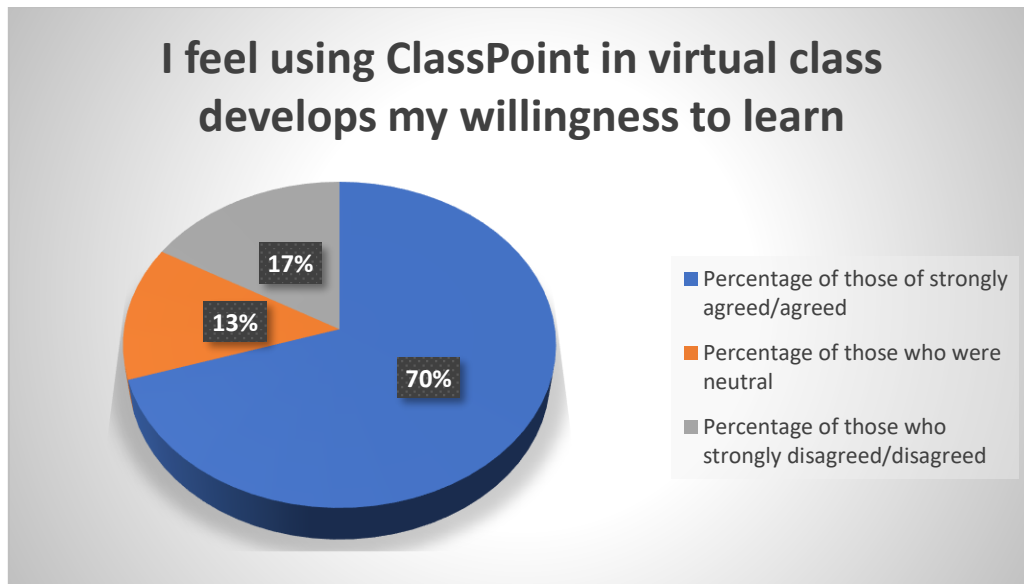


Table 5: Statistics relating to perceptions of ClassPoint to develop willingness to learn.

Having examined respondents' perception on analytical, critical, reasoning, and creative skills, this research further assesses whether ClassPoint is able to develop students' willingness to learn in a virtual class. One of the reasons for the high levels of agreement on developing students' willingness to learn using ClassPoint is perhaps because of the variety of engaging features on ClassPoint as discussed above. It is arguable that the variety of ClassPoint features in a single platform does motivate students to learn albeit in a borderless classroom. Thus, it could also be argued that the application of ClassPoint features can increase students' willingness to learn as they understand the contents taught hence, they are receptive to being tested during lecture. Therefore, the use of ClassPoint can be effective as an engagement tool in the borderless classroom.

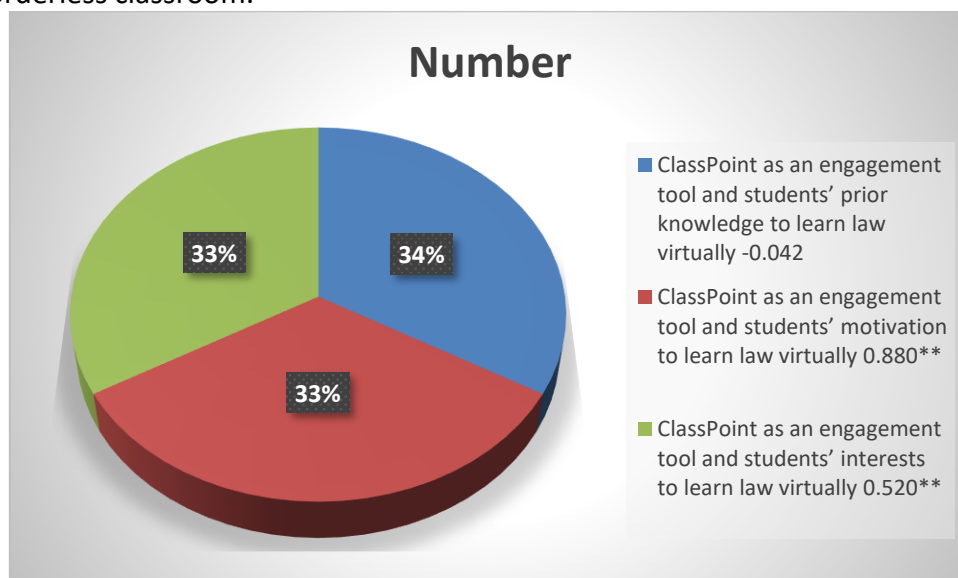


Table 6: Statistics relating to the relationship between students' prior knowledge, motivation and interests in learning law using ClassPoint as an engagement tool in the borderless classroom.

A series of correlations were conducted using the Pearson correlation coefficient (Table 6) to test the strength and direction of association between students' prior knowledge, motivation and interests in learning law using ClassPoint as an engagement tool. Two of the correlations namely students' motivation and interests were statistically significant and positive with the strongest correlation between the effectiveness of ClassPoint with students' motivation to improve their soft skills, with $r=0.880$, $p<.01$. One of the correlations namely students' prior knowledge proved to be insignificant with $r=0.042$. The results revealed that the fact that two of the antecedent relationships with students' motivation and interest to learn using ClassPoint in the borderless classroom were statistically significant and positive indicating that new and interactive teaching as an online tool has a role to play in stimulating students' interest to learn law virtually. It also revealed that students' lack of awareness or knowledge of ClassPoint will not affect the effective implementation of the latest online teaching and learning tool.

7. Conclusion

This research examined the effectiveness of ClassPoint and its impact on law students learning law virtually. It identified students' prior knowledge of ClassPoint, their level of motivation and interest to learn law using ClassPoint as an engagement tool in borderless learning. The research found that the students' lack of prior knowledge of ClassPoint is insignificant to determine the effectiveness of ClassPoint as students will always feel intrigued by the newness that it brought into the virtual class when it comes to learning law. The students were positive about the use of ClassPoint particularly on their evaluation skills which improves the way they learn law in a borderless classroom. The students considered that the use of ClassPoint was most effective in developing their willingness to learn and critical thinking skills. These perceptions are possibly due to the fact that the co-author tended to use features such as multiple-choice questions, short answer, word cloud and pick-a-name during lectures, resulting in students being 'on-standby' to answer questions in a virtual class. As a result, the students felt that their willingness to learn and critical thinking skills have improved due to these ClassPoint features. These activities replicate the way that lecturers ask students questions in a physical class to assess students on their level of comprehension during recap sessions and upon completion of sub-topics.

Despite being in a virtual, borderless environment, this study revealed that students' creative skills and abilities to be innovative can be improved by incorporating activities which go beyond the use of quizzes, word cloud or pick-a-name features. Lecturers can consider opting for image uploads or perhaps to engage in a flipped classroom where students make the presentation using ClassPoint. The utilization of similar features in a repetitive manner did not expose students to the full benefits of ClassPoint as much as it could be possible.

However, this research is not without its limitations. Firstly, the research was conducted through a pilot study where only surveyed students who studied LAW61504 Land Law I, a 2nd year module. The second limitation was the sample size, which only represents one cohort. The research would have benefitted from the participation of the entire law school population. These limitations are considered major, given that the research wished to study the effectiveness of ClassPoint in a virtual classroom. With regard to future research, it is the intention of the researchers to undertake a more holistic study covering all law students in

Taylor's Law School to investigate the effectiveness of the use of ClassPoints. Gaining the perspective of all the law students would provide the researchers a wider view of the effectiveness of ClassPoint as an engagement tool in a borderless environment.

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