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Perception of Law Students on Flipped Classrooms and Technology Integration in Constitutional Law Subject

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Abstract

Constitutional law is a foundational subject in legal education, encompassing critical concepts such as the supremacy of the constitution, fundamental liberties, and the roles of government organs. However, students often struggle with understanding complex textual materials, limiting their ability to engage with and apply constitutional principles effectively. This research aimed to address these challenges by evaluating the effectiveness of a flipped classroom model integrated with an interactive learning module in enhancing students' comprehension and engagement. This research employed a mixed-methods approach that combined a qualitative research method and a quasi-experimental design. The data were collected from 125 constitutional law students through questionnaires, classroom observations, and activities incorporating the module. The module featured diverse elements, including mind maps, videos, and problem-based learning exercises, to foster higher-order thinking and deeper engagement. The findings revealed that 58.4% of students preferred a blended learning approach combining traditional lectures and interactive methods, while 73.6% found mind maps particularly beneficial when integrated with textual materials. The flipped classroom approach significantly enhanced students' understanding, allowing for active participation and critical thinking. Moreover, technological tools such as QR codes and multimedia resources increased accessibility and engagement, addressing diverse learning styles. This research underscored the potential of interactive, technology-driven pedagogical strategies in overcoming traditional learning barriers in constitutional law.

Keywords: Constitutional Law, Education, Interactive, Technology

Introduction

In Malaysia, constitutional law occupies a secure place among other core subjects for law students since its nature touches the most vital tenets of the state like the constitution's supremacy, Islam being the state religion, the separation of powers (legislature executive and

judiciary), and the definition and practice of inalienable rights. Legal education may be said to be incomplete without constitutional education as it greatly shapes law students' perspectives and comprehension of legal matters. Legal education institutions which apply constitutional education in the contexts of their curricula are equipped with the ability to alter students' legal cognitive schemes, attitudes and actual behavior towards obedience of the law (Baeihaqi, 2019). This particular form of education serves to enhance the knowledge about the law but also empowers the learners towards active participation in democratic practices (Gurin et al., 2004). It is very important for students to learn the constitutional law so that they can understand the rights and duties provided in a constitution which are very important in a viable legal framework (Skuratov et al., 2018). While the traditional approach to legal education involves a traditional lectures and tutorial, there are some practical dimensions which include the use of simulation and role-plays related to constitutional law that may aid in students' understanding and application of legal ideas (Fliter, 2009).

The incorporation of practical elements, such as various simulations and role-playing assignments in constitutional law, alongside a more traditional approach to legal education that emphasizes lectures and tutorials, demonstrates how students can better understand and apply legal concepts in diverse contexts (Fliter, 2009). Additionally, learning modules designed in such a way that combines several aspects of teaching and learning could enhance students' understanding and help them demonstrate such knowledge in practice which necessitates the employment of higher order thinking and deeper engagement with constitutional matters. The motivation for this research stems from the need to innovate pedagogical approaches to make constitutional law more accessible and engaging for students. By integrating a flipped classroom model with an interactive learning module, this study seeks to bridge the gap between traditional teaching methods and the diverse needs of modern learners. The incorporation of mind maps, multimedia resources, and problem-based learning exercises offers an opportunity to not only enhance comprehension but also develop critical thinking and active participation.

Furthermore, the increasing availability of technological tools in education provides a timely opportunity to explore their potential in overcoming long-standing challenges in legal education. This research contributes to advancing constitutional law pedagogy by offering evidence-based strategies that align with contemporary educational needs, ultimately aiming to improve students' academic success and their preparedness for professional legal practice.

As such, the focus of the current paper is to evaluate students' opinions and attitudes towards the interactive learning module while discussing the shift from the classroom-centered paradigm of constitutional law to the student-centered flipped classroom paradigm. It examines the role of constitutional education in student academic outcomes and stresses the importance of the learning module which contains interactive elements in the context of students being active and better understanding legal concepts. The article also discusses important issues such as the absence of a coherent and appealing learning module that is devoid of literary components, interactive components such myriads of images, videos and sounds, and a model for solving problem-oriented questions.

Challenges on Students in Understanding Complex and Textual Reading Materials

To understand dense textual materials in federal constitutional jurisprudence remains a bane for students. Understanding substantial legal texts is cognitive work that requires a lot of critical thinking. Works in educational theories and design also reveal the potential challenges that learners may face when handling difficult and dense textual materials. The performance of students in dealing with symbolic or symbolic-textual representations in the case of students can also be determined by the amount of mental load stress they are experiencing at a particular period of time (Minkley et al., 2018). This means that students are likely to find it difficult to deal with complex legal concepts and language within constitutional law texts. In constitutional law subjects thought for two semesters, the percentage of students' ability to understand and apply constitutional law principles is quite low. Cognitive assessments in Constitutional law involves two types of questions, namely questions of comprehension and question on application of constitutional law principles into factual situations. The data revealed a relatively low percentage both in comprehension and application questions.

Table 1
Percentage on Students Achievements in Comprehension and Application for two Sessions

Session	Number of Students	Question on Comprehension	Question on Application
2022/2023	124	62%	51%
2023/2024	127	53%	42%

Table 1 depicted that 62% of the 124 students taking Constitutional law in Session 2022/2023 achieved the required passing marks for comprehension question, while only 51% achieved the marks for application questions. In Session 2023/2024, 53% out of 127 students achieved the passing marks for comprehension question and 42% achieved the marks for application questions. This data revealed that about half of the class could not grasp the fundamental concepts and principles for constitutional law subjects through traditional method of teaching and learning.

Therefore, facilitators should look into practical solutions that can assist learners in coping with and interpreting abstract texts within the symbolic-textual narratives. The need for development of unique learning resources is also paramount as it enhances student understanding of intricate subjects such as constitutional law (Situmorang et al., 2015). To this end, educators need to promote materials that are scientifically appropriate and interesting to enable students to understand difficult legal notions and theories. In the same vein, students understand abstract or tough concepts better when contextualized or demonstrated through innovative techniques like experimental videos or other practical means, even students with disabilities (Maryanti et al., 2022).

Furthermore, problem-based learning is known as a type of learning, which develops synthesis among students due to their investigation of intricate real-world problems (White et al., 2012). Such an approach enables educators to instill in students a better understanding of legal principles and their applications in practice by engaging them in activities related to problem-solving in constitutional law. Problem-based learning has the potential to deepen and strengthen students' critical thinking and their critical legal problem-solving abilities.

So, the students' confusion in terms of the meaning of the complex materials of the text in constitutional law, may be resolved with the help of new patterns of teaching, appropriate learning materials and with the use of problem-based learning in practice. If decongested the students' cognitive load, relevant reading materials were made available and backed up with some activity learning, the teachers would assist the students in grappling with difficult aspects of viewing the complicated legal documents.

Methodology

This research utilized both qualitative methods and quasi-experimental designs. Qualitative methods are essential in legal education, providing a nuanced understanding of legal concepts and practices. Mitchell (2022) emphasized the significance of qualitative approaches in legal analysis, particularly in differentiating between qualitative textual analysis and traditional doctrinal approaches in legal scholarship. Qualitative research in understanding student perceptions provides a deeper, context-rich understanding of their experiences and challenges. Unlike quantitative data, which highlights objective performance, qualitative methods uncover hidden factors such as foundational knowledge gaps or mismatched learning styles, offering a personalized view of students' needs. By exploring the lived experiences of students, educators, and administrators, this approach reveals the context behind numbers, helping to identify the causes of educational successes and challenges. Detailed data from interviews, observations, and focus groups provide insights into learning processes, classroom dynamics, and school culture, enabling more informed decision-making. Furthermore, qualitative research empowers stakeholders by involving them in the process, fostering collaboration and ownership that contribute to effective strategies and improved educational outcomes.

In addition, this research adopted a quasi-experimental design. This design is essential in research when randomized controlled trials are not feasible or ethical. Quasi-experimental studies can be classified into those with and without control groups, offering flexibility in research design (Alsaggaf et al., 2018; Schweizer et al., 2016). Researchers often opt for quasi-experimental designs when randomization is impractical, as observed in studies where random assignment to groups is not viable (Polit & Chaboyer, 2011; Osman et al., 2023). Furthermore, quasi-experimental designs are versatile and adaptable to various research contexts and are fundamental for assessing the effectiveness of practices, programs, and policies in healthcare and other domains (Tugwell et al., 2017). They provide a structured framework for data collection and analysis to derive meaningful conclusions (Aloe et al., 2017).

Area of Research

The data is collected from students who are enrolling into constitutional law course in the Faculty of Law and International Relations, Universiti Sultan Zainal Abidin in 2023/2024 session.

Sample Size

This research utilized a questionnaire to collect data from 125 students in constitutional law classes to evaluate their perceptions of the learning module. The module was incorporated into the curriculum for specific topics and utilized in classroom tests and activities to assess its effectiveness.

This approach allowed research to measure student engagement and understanding of legal principles, comparing the outcomes of the traditional teaching method with the flipped classroom approach enhanced by the interactive learning module.

Traditional Classroom *Versus* Online Learning in Flipped Classroom

Technological advances have promoted innovations in educational delivery, such as online learning which has involved the substantial use of technology in its practice (Sofi-Karim, Omar Bali, Rached, 2022). For a successful flipped classroom, online teaching or online education, is crucial where it refers to a learning environment where instructors and students do not interact directly and often neither synchronously, nor a virtualized learning process (e-learning) where students interact with various virtual learning environments that host all kinds of learning objects via their electronic communication devices (Pecori, 2018). When comparing traditional classes with interactive classes for law students, various studies shed light on the effectiveness of different instructional modalities. Alzahrani (2022) suggested that online classes foster more interaction, leading to increased student engagement and better performance compared to traditional classes. Thus, a hybrid learning strategy, combining traditional and interactive elements, enhances student engagement and communication (Jusuf, Ibrahim & Suparman 2019).

In transitioning toward a student-centered, project-based learning environment is a worthwhile endeavor that can effectively address the challenges of our rapidly evolving, globalized world. As society has undergone significant transformations in recent decades, higher education systems must adapt accordingly, becoming an integral part of the response to these changes (De Oliveira, 2023). The implementation of online courses during special periods (such as in the pandemic era) is highly recognized and appreciated for its role in enhancing teaching efficiency and effectiveness (Rahuman, 2023). The online teaching is seen as a valuable approach that is worth promoting and plan to adopt a blended model combining online and offline teaching, both in and out of the classroom (Rahuman, 2023. The blended pedagogical approach has the potential to enhance law students' research skills and critical thinking, ultimately leading to positive outcomes and could effectively addressed the urgent educational needs during the COVID-19 pandemic and remains a viable approach for the future (Yu et.al., 2022). However, there is a need to redefine the roles of teachers and students and to modify methods of knowledge delivery that could foster increased interaction and collaboration among law students, motivating them while offering the flexibility needed for comprehensive legal education (Bashir et al., 2021).

While many believed that students may have preferences for online learning due to its flexibility and mobile character, it is essential to consider factors like academic performance and engagement while in the academic environment Kemp & Grieve (2014). To improve online learning in ensuring the success of flipped classroom, online learning should be technologically guided and should be taken as a supplement or add on extension to traditional physical classes for dependent learners. It cannot supersede personal contact with the teacher and human relations (Dhull & Dhull, 2022). Thus, the comparison between traditional and interactive classes for law students may reveal a nuanced landscape where factors like engagement, performance, and pedagogical approaches play crucial roles in the effective delivery of the content as well as student's understanding and comprehension. While

interactive methods can enhance engagement and understanding, traditional approaches may still hold value in certain contexts, emphasizing the importance of a balanced and evidence-based approach to legal education.

From 125 students that were evaluated, the data from Table 2 revealed that a significant majority of students (57.9%) prefer a combination of both traditional lecturer-centered and student-centered (flipped classroom) approaches. This suggested that while students recognize the value of an active, student-centered learning environment, they also appreciate the structure and guidance provided by traditional lectures. Only 36% of students favored the traditional lecturer-centered approach exclusively, indicating that most students see the benefit in a blended learning model that incorporates elements of both methods. This preference for a hybrid approach highlights the need for flexibility in teaching methods, suggesting that an optimal learning environment may balance direct instruction with interactive, student-driven activities to enhance engagement and understanding.

Table 2
Perception of Students on Traditional Classroom Versus Flipped Classroom

Type of classroom	Percentage %	Number of students
Traditional classroom	36%	45
flipped classroom	5.6%	7
Combination	58.4%	73

On the question of whether students are able to understand constitutional law if lectures are conducted online (asynchronous) to prepare them for flipped classrooms, Table 3 revealed that 35.1% prefer online class (asynchronous), possibly due to flexibility of time and space, while 36% indicated a combination of modes of classes would be helpful to them. The other 7% prefer a traditional physical face-to-face class.

Table 3
Asynchronous Class for Preparation of Flipped Classroom

Type of classroom	Percentage %	Number of students
Good alternative	56%	70
Probably	36.8%	46
Not a good alternative	7.2%	9

Integration of Technology in Learning Resources for Interactive Learning Module

The integration of technology in legal education is a transformative endeavor that holds immense potential for enhancing learning outcomes and preparing students for the demands of the digital age. Various scholars have explored the intersection of technology and legal education, shedding light on the benefits and challenges associated with this integration. Caena & Redecker (2019) advocated for aligning teacher competence frameworks with 21st-century challenges, emphasizing the importance of educators possessing digital competencies to effectively integrate technology in teaching. This underscores the need for educators to acquire the necessary skills and attitudes to leverage technology in legal education successfully.

Furthermore, Tan & Li (2021), delved into the application of computer technology in legal practice, highlighting the development of new methods and models for computer-assisted legal practice. By exploring innovative approaches to integrating technology into legal practice theory, educators can enhance students' understanding of legal concepts through interactive and technology-driven learning experiences. Multazam (2020) highlighted the transformative impact of technology on legal education, stressing the need to equip students with technological skills to meet the evolving demands of the legal profession. Integrating technology into the curriculum and introducing specialized programs in legal innovation can prepare graduates to navigate the digital legal landscape. Embracing technology offers opportunities to enhance the learning experience and empower students with essential skills for success in a technology-driven legal environment.

Technological tools are essential in enhancing legal education by providing innovative ways to engage students and prepare them for the evolving legal landscape. One example is the use of mobile apps, which offer a platform to deliver targeted legal information to specific audiences (McFaul et al., 2020). Another valuable technological tool is the incorporation of artificial intelligence (AI) based legal technology. AI tools can assist lawyers in tasks such as drafting contracts, legal research, and due diligence, thereby enhancing efficiency and accuracy in legal practice (Soukupova, 2021). Technology has become integral to legal practice and education, driving calls to reform legal education to meet the evolving demands of the profession and the preferences of Generations Y and Z. However, its effective integration requires a critical, interdisciplinary approach that examines the relationship between technology, power, and education while addressing the limitations of current assumptions and practices (Maldonado, 2022). Additionally, the integration of legal tech tools in higher legal education requires collaboration among law schools, legal practitioners, and IT specialists. By leveraging legal tech tools, educational institutions can equip students with the necessary skills to navigate the digital transformation of the legal profession effectively (Palkova & Agapova, 2021).

To integrate Quick Response (QR) codes in legal education, educators can leverage various technological tools to enhance learning experiences and facilitate access to information. One approach could involve using mobile apps that allow students to scan QR codes embedded in legal texts, enabling them to access supplementary materials, case studies, or interactive content related to the legal concepts being studied. Additionally, the application of QR codes in legal education can extend to providing real-time access to legal resources, such as statutes, case law, or legal articles. By embedding QR codes in textbooks or research materials, students can quickly access relevant legal information using their mobile devices, promoting efficient and convenient learning. Moreover, the use of QR codes can facilitate interactive learning experiences in legal education. Educators can embed QR codes in learning materials that link to multimedia content, quizzes, or discussion forums, allowing students to engage with the material actively and deepen their understanding of legal concepts. Furthermore, QR codes can be utilized for formative assessment in legal education. By embedding QR codes in assignments or assessments, educators can provide immediate feedback to students upon scanning the codes, enabling them to track their progress and address any misconceptions promptly. In conclusion, the integration of QR codes in legal education through mobile apps, real-time access to legal resources, interactive learning experiences, and formative

assessment tools can enhance student engagement, facilitate access to information, and promote active learning in legal studies.

Another element for an interactive learning module is mind maps. Mind maps are valuable interactive tools that can enhance legal education by improving critical thinking, information retention, and organization of knowledge. They provide a visual representation of complex legal concepts, aiding students in developing a deeper understanding (Alqodsi et.at., 2023). These aids to visual learning provide a methodology of understanding the law, its elements and their interrelationships in such a way that the information imparted will be retained by students and able to be applied in the future (Cantotore & Steven, 2016). They also allow students to think in a lateral and creative manner, thereby significantly enhancing their enjoyment of, and autonomy over challenging law subjects such as constitutional law.

Furthermore, mind mapping tools have played a crucial role in fostering creativity and sustainable learning experiences in various educational settings, including graphic design education (Dong et al., 2021). By visually organizing information and encouraging creativity, mind maps empower students to explore intricate legal concepts and devise innovative solutions to legal challenges. In dental education, mind maps have proven beneficial in helping students articulate relationships between theoretical knowledge and practical techniques, showcasing the versatility of mind mapping in facilitating comprehensive understanding and knowledge application (Grazziotin-Soares et al., 2020). Additionally, the mind-mapping technique significantly improved learners' vocabulary acquisition, learning motivation, and willingness to communicate (WTC). Learners trained with this technique showed enhanced vocabulary recall and retention, alongside increased motivation and WTC. These findings suggest that mind mapping is an effective method for language learning, as it encourages learners to engage with topics before teaching the target materials. This effectiveness likely stems from its alignment with cognitive processes, enabling learners to comprehend and identify connections between ideas (Feng et.al.,2023). The incorporation of mind maps in legal education can enhance students' cognitive skills, foster critical thinking, and facilitate the integration of legal concepts (Davies, 2011). By employing mind maps as interactive tools, educators can create engaging learning experiences that prompt students to explore interdisciplinary connections, think critically, and gain a deeper understanding of legal principles. Overall, integrating mind maps as interactive tools in legal education offers a dynamic approach to learning, enabling students to visualize complex legal concepts, enhance critical thinking skills, and foster creativity in problem-solving. By harnessing the power of visual representation and concept mapping, legal educators can develop immersive learning experiences that empower students to excel in their legal studies.

Throughout the semester, students have been exposed to mind maps for various topics, and their perceptions provide valuable insights. Table 4 depicts a significant portion of students (24%) indicated that mind maps assist them in better memorizing and organizing the complex content of constitutional law. This highlights the visual appeal and logical structuring capabilities of mind maps, which simplify intricate legal principles and relationships. Notably, 73.6% of students expressed a preference for a combination of textual materials and mind maps. This indicates that mind maps serve as a complementary tool to traditional texts, enhancing comprehension by offering visual representations alongside detailed explanations. There were only 2.4% of students preferred only textual materials, while the majority

appreciated the versatility of mind maps that cater to visual and kinaesthetic learners, providing an alternative approach to understanding abstract legal concepts.

Table 4
Mind Maps as Supplementary to Textual Materials

Types of Materials	Percentage (%)	Number of Students
Mind Maps	24%	30
Combination of Mind Maps and Textual Materials	73.6%	92
Textual Materials	2.4%	3

In addition to that, mind maps encourage active participation and critical analysis, as students can visualize the interconnections between constitutional doctrines, case laws, and statutory provisions. This fosters deeper understanding and retention. Constitutional law often involves analysing complex scenarios. Mind maps enable students to systematically break down problems, identify key issues, and apply relevant principles effectively. Thus, the integration of mind maps into constitutional law education enhances learning outcomes by supporting memorization, improving organizational skills, and fostering a holistic understanding of the subject. Combining mind maps with textual materials caters to diverse preferences and ensures comprehensive learning.

Conclusion and Recommendations

The initiative to revolutionize constitutional education through a comprehensive module that integrates interactive tools, and advanced technology marks a significant step forward in legal education. This approach not only modernizes the way constitutional principles are taught but also enhances student engagement and understanding. By leveraging digital platforms, interactive simulations, and multimedia resources, this innovative module provides a dynamic and immersive learning experience. It caters to diverse learning styles, encourages critical thinking, and fosters a deeper appreciation of constitutional law.

Moreover, this educational transformation aligns with the broader trends in digital education, preparing students for the complexities of modern legal landscapes. It democratizes access to high-quality education, making constitutional knowledge more accessible and engaging for learners everywhere. As we continue to embrace technological advancements, this comprehensive module serves as a model for future educational initiatives, ensuring that the research of constitutional law remains relevant, practical, and impactful in the digital age.

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Conflict of Interest

The authors reported no conflicts of interest for this work and declare that there is no potential conflict of interest with respect to the research, authorship, or publication of this article.

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