The impact and research of online learning platforms on legal education

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Abstract: This study provides insights into the changing landscape of online legal education in China, particularly in a rapidly evolving scientific and technological environment and the increasing popularity of distance learning. The study adopts a mixed-methods approach, combining qualitative analysis (capturing the nuances of current online legal learning platforms) with quantitative analysis (measuring student experiences and outcomes), with interviews for the qualitative phase and questionnaires for the quantitative phase and the use of descriptive and inferential statistical tools in order to ascertain the impact of the online platforms on students' learning outcomes and satisfaction. The results of this study are expected to shape the future trajectory of online legal education in China and provide valuable insights for educators, platform developers, and policymakers.

Key words: legal education; online platform; learning effectiveness; impact

1 Introduction

Legal education has changed dramatically as a result of the rapid growth of the Internet and advances in online education platforms. The advent of COVID-19 leads to the disruption of traditional face-to-face courses and accelerates the development and adoption of online education, prompting a re-evaluation of the traditional education model and a shift towards a more flexible instructional format and a more accessible, personalized digital learning experience that improves student engagement and learning outcomes to ensure the continuity of education [1].

2 Research background

Despite online education's advantages and great market potential, the shift to online learning platforms during the COVID-19 pandemic has raised concerns about the potential impact on student learning outcomes. On the one hand, there is the potential lack of interaction and engagement with teachers and peers, as well as the real-time interactive functional design of the platforms, which negatively affects student motivation and overall learning outcomes. On the other hand, the quality and validity of online learning assessments may not fully reflect the skills and competencies that are developed in the online learning environment. Furthermore, in addition to the issues of reliance on technology and limited resources, there are also issues of maintaining academic integrity in legal education.

There are also significant differences in legal education between China and the West, with Chinese legal education focusing more on traditional lectures and written exams, as well as familiarity and precision with legal texts and theories.

In contrast, the American West is gradually adopting online learning, combining pedagogical methods and technological tools to provide engaging and productive legal education programme. At the same time, these institutions have developed rigorous quality assurance protocols and accreditation standards to safeguard the quality of online legal education.

By exploring the current state of online legal education in China and comparing it with more mature American systems, it is hoped to identify the best practices and strategies for the quality of legal education provided through online platforms, in order to better understand the potential strengths and weaknesses of online legal education in China, and inform future development and innovation in the field.
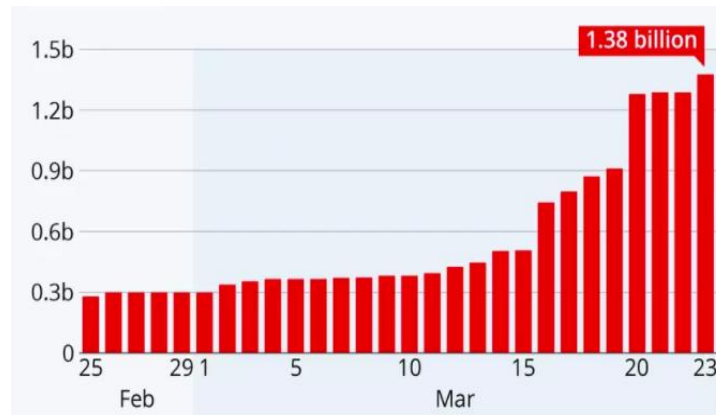

Fig. 1. Accelerated growth of online learning in China. Investments in digital infrastructure are increasing, with over 1.3 billion, leading to more flexible, easily accessible digital learning experiences. Figure adapted from Ref. (Lalani, 2020)

3 Research objectives

This study focusing on the impact of technology on legal education and the effectiveness of online learning platforms on student learning outcomes has the following objectives:

① To investigate the impact of students' learning abilities and attitudes towards using online learning platforms for legal education on their learning outcomes.

② To study the impact of students' satisfaction with the online learning platform for legal education on their learning outcomes.

③ To explore the relationship between the platform design quality of online learning platforms for legal education and students' learning abilities and attitudes.

④ To analyse the impact of the design quality of the legal online learning platform on student satisfaction.

⑤ To explore the impact of the teaching resources quality of legal education online learning platforms on students' learning abilities and attitudes.

⑥ To explore the impact of the teaching resources quality on student satisfaction in online learning platforms for legal education.

⑦ To explore the relationship between the quality of interactive design of online learning platforms for legal education and students' learning abilities and attitudes.

⑧ To analyze the impact of the interactive design quality of online learning platforms for legal education on student

satisfaction.

4 Research significance

The significance of this study lies in both theory and practice:

In terms of theory, this study focuses on the factors influencing the learning efficacy of online education platforms in Chinese legal education, especially the factors influencing the teaching interaction on online learners' satisfaction. Constructing a model of factors influencing the learning efficacy of online education users further reveals the internal mechanism of online education efficacy enhancement. This not only helps to enrich the existing theoretical system of online education but also provides theoretical support for new exploration and expansion in online education.

In terms of practice, this study aims to conduct in-depth research on the factors affecting the learning effectiveness of online education users through the literature analysis method and questionnaire survey method to provide feasible ideas and methods for online education platforms to improve the efficacy of their use by focusing on users. The study results are of great significance in guiding the optimization and improvement of the online legal education platform, which will help to improve the teaching quality of online legal education and thus promote the further development of legal education in China [2].

5 Literature review

The 2000s saw the rise of the Internet and online learning platforms, with the first wave of online legal education programme offering students online courses and degree opportunities. The pandemic led to a rapid shift to online learning across all education sectors, including legal education. The sudden shift to online learning highlighted the benefits and challenges of this education model and emphasized the need for further research and development in 2022. The need for further research and development was also highlighted in the 2000s:

Objective factors affecting learning behaviors on online learning platforms mainly include network conditions, conditions of distance education platforms and learning resources, distance learning support service systems, the nature of course subjects, and the working conditions of adult learners; on the other hand, subjective factors affecting learning behaviors on online learning platforms mainly include information literacy levels, learning styles, motivation, self-monitoring skills, and time management skills. Integration of technology and pedagogy can further enhance students' learning experience.

In addition, learners' existing subject knowledge, study habits, personality traits, instructional management skills, communication skills, social skills, etc., also have an impact on their learning behaviour, and understanding these factors can help to improve learning outcomes in online learning platforms.

The role of the teacher is also critical to the success of online learning platforms. Educators must be skilled in utilizing online platforms, providing timely feedback, and fostering community among learners. They should also be prepared to adapt their teaching strategies to the unique challenges and opportunities presented by the online learning environment. Furthermore, the design and organization of the learning environment can significantly affect learner satisfaction and performance. Intuitive interfaces, straightforward course navigation and easy access to resources help provide a positive learning experience and reduce learner frustration and confusion. Institutional support is another critical factor influencing learning behaviour and satisfaction in online education. Institutions must provide adequate resources, technical support, and professional development opportunities to ensure that educators are adequately prepared to facilitate online learning effectively. In addition, fostering a sense of community and collaboration among learners can increase their satisfaction and motivation in online learning platforms . Implementing discussion forums, group projects, and peer review activities can help learners feel connected to their peers and engage more in learning.

This chapter provides an overview of the impact of technology on legal education, focusing on online learning platforms and their impact on student learning outcomes, highlighting the potential of online learning platforms to fundamentally transform legal education by providing access to more learners and improving the quality of legal education.
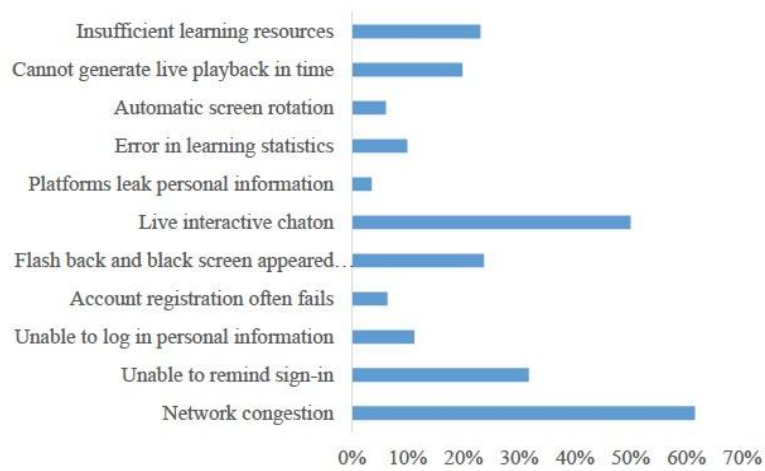

Fig. 2. The problems encountered by online education platforms in China, as listed in the user experience data, indicating that network lag, network congestion, and interaction design issues are the main factors affecting learning outcomes. Figure adapted from Ref. (Chen et al., 2020)

6 Results and recommendations

The digital and mobile online learning mode is becoming more and more accepted by people, while the market size of the online education industry is increasing year by year, and the impact of online education on students is also expanding. At the same time, online education has many problems, such as low course completion rates and poor learning effects. Based on relevant research and theories, this paper first understands the experience and needs of students on online education platforms through interviews and analyses of the interview results by using social network analysis in order to clarify the factors affecting the learning effect of students on online education platforms, constructs the theoretical model, and draws the following conclusions:

6.1 The factors influencing students' learning effects on online education platforms

On the basis of sorting out related studies and theories, we initially explored the factors influencing students' learning effects on online education platforms through qualitative research. Through the interviews with the interviewees, four factors affecting learning effectiveness were identified and named using social network analysis. These four factors are interaction design, platform design, teachers and teaching resources. These four factors were mentioned in existing studies, but exploring them through interviews and social network analyses complemented and improved the existing studies to some extent.

6.2 Hypotheses and recommendations

On the basis of existing research, hypotheses were proposed. A conceptual model of the influencing factors was constructed using structural equation modelling (SEM). The hypotheses were validated with the help of SPSS, and all hypotheses except H2 (H2: Student satisfaction with online learning platforms for legal education will positively influence

their learning outcomes) are valid. In addition, the validation results show a decreasing trend in the influence of interaction design, platform design, teaching resources and teachers on students' learning effectiveness on online education platforms.

This chapter also provides valid recommendations and a summary of the research on the effectiveness of online legal education by analyzing the data done in the previous chapter as well as the results of the interviews, which were drawn from a critical review of the quantitative and qualitative data. The essence of this study is to understand the driving factors behind the learning effectiveness of online legal education platforms, focusing on cognitive perceptions, platform quality and student satisfaction.

The hypothesis tests conducted shed light on several core principles that drive student engagement and learning effectiveness. Most notably, all hypotheses were supported except H2, which describes a student population that responds to the quality and interactivity of the educational platform, not just the cognitive information. This finding is surprising and indicates a departure from the traditional educational model, which not only illustrates the specificity of legal education as a discipline but may also be related to the particular national context of legal education in China. Acceptance of the study's hypothesis H1 (H1: Students' learning ability and attitude towards using online learning platforms for legal education will positively influence their learning outcomes) suggests a direct relationship between student's perceptions of the online learning environment and their subsequent attitudes towards its use. This underpins the traditional consumption model, where perception significantly impacts behaviour. This view was also reflected in the qualitative interviews with law school students, who frequently mentioned how the high quality of the interactions and resources on the platform had changed their initial perceptions, resulting in a more engaged and positive attitude towards learning [3].

The results of the data analysis are exciting with regard to the rejection of H2. It suggests that cognitive information alone is not sufficient to influence learning outcomes, which contrasts with the assumption that "more information leads to better educational decisions". Students interviewed frequently referred to practical applications and experiential learning rather than theoretical knowledge, which explains why cognitive information alone is not sufficient to improve learning outcomes.

Furthermore, H3 and H4 (H3: The quality of platform design for online legal education learning will positively influence students' learning ability and attitude; H4: The quality of platform design for online legal education learning will positively influence student satisfaction) reinforced the importance of well-designed platforms in shaping attitudes and satisfaction with learning. Students emphasized platform design features such as intuitive navigation, ease of use of materials and aesthetics as key factors for a satisfying learning experience. These features align with the principles of a good student experience and profoundly impact students' attitudes towards learning. Finally, the acceptance of H5 and H6 (H5: The quality of teaching resources in online learning platforms for legal education will positively influence students' learning ability and attitude. H6: The quality of teaching resources in online learning platforms for legal education will positively influence student satisfaction) as a result of the data analysis emphasizes the critical role of quality teaching resources. Student interviews have confirmed this, with many students stating that the depth and breadth of teaching and learning resources were crucial in building their knowledge base and enhancing their learning experience. Assumptions about interactivity emphasize the critical role of interaction design in online education. Students frequently mentioned the value of interactive elements, such as real-time discussions, peer interaction and responsive design, as the core of their learning experience.

In addition to the data analyzed above, interviews with law school students reinforced and confirmed the statistical findings. The themes that emerged included a general appreciation for the overall design of the platform and an awareness of the impact of the quality and interactivity of the resources on satisfaction and learning outcomes [4]. Many students

noted that these elements made them feel more connected to the content and to their peers, which is critical in the often isolated online learning environment.

7 Conclusion

According to the findings of the study, questions describing teacher-student interactions have the largest path coefficient values, and it can be found that interaction design is the factor that has the greatest impact on student learning outcomes. Therefore, special attention should be paid to the design of teacher-student interaction in interaction design. Interactive modules such as discussion forums, teacher Q&A areas, homework submission and correction areas can be developed, and QQ groups and WeChat groups can be set up using instant messaging software to achieve teaching and learning interactions between teachers and students. It should be noted that most online education platforms are designed with interactive areas and various groups, but the communication between teachers and students still needs improvement. Therefore, platform designers should pay attention to the use of interactive zones, the degree of teacher-student participation in communication zones and groups, and the ability of teachers to provide timely feedback to students.

Regarding learners' interaction with the platform, the interviews revealed that learners were more concerned about the platform's functional design and the website's responsiveness. The website's responsiveness directly affects students' efficiency in using and accessing the platform, so the platform can optimize the server's performance to improve the page loading speed [5]. In addition, the legal education platform should focus on the design of the platform functions, and it can be found from the results of the previous study that the platform design has the second highest impact on the learning effect. Specifically, the appearance of the platform, the multimedia presentation of the platform, and the functional design of the platform mainly affect the learning effect of students, and the coefficient value of the problem path describing the navigation function of the platform is the largest, so more attention should be paid to the functional design of the platform when designing the platform.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

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