Investigating Students' Perceptions of DingTalk System Features Based on the Technology Acceptance Model

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ABSTRACT

The integration of online education is crucial in modern education, with the DingTalk platform being a popular choice among teachers. However, limited empirical research has explored students' perceptions of DingTalk. Therefore, this study employs qualitative and quantitative approaches to investigate students' perceptions of the DingTalk system characteristics. The quantitative analysis involves 250 participants and utilizes regression analysis to assess the relationship between the features of the DingTalk system and students' perceived ease of use, perceived usefulness, and continuance intention to use, indicating that it significantly influences students' perceived ease of use, perceived usefulness, and continuance intention to use. The qualitative analysis involves semi-structured interviews with a randomly selected sample of six individuals. These interviews provide in-depth insights into students' perceptions of the DingTalk system features. The findings of this study have significant implications for educators, policymakers, and other interested stakeholders.

KEYWORDS

DingTalk, Online Learning, Students' Perceptions, Technology Acceptance Model

1. INTRODUCTION

The integration of online resources has become a crucial aspect of modern education (Yu et al., 2022). Online learning is no longer a new concept and possesses both benefits and challenges. It is flexible and time-saving, since it enables students to stay at home and take classes (Khan et al., 2022). In addition, it is easily accessible, which allows rural students in remote areas to get access to advanced knowledge (Fonseca et al., 2021). Moreover, it can increase students' learning efficiency, since they can replay the recorded courses repeatedly until they fully master the knowledge (Evans, 2014). However, some students feel unsatisfied with their online courses due to the lack of human interaction (Salta et al., 2022; Tulaskar & Turunen, 2022; Yu & Deng, 2022). Moreover, some students complain that they cannot get valuable comments or feedback through online learning (Warfvinge et al., 2021; Yu, 2022). In addition, compared with offline learning, students are less motivated in the process of online learning (Stevanovic et al., 2021).

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Numerous online tools have been utilized to facilitate online education, including synchronous live teaching tools such as Rain-Classroom, Welink, DingTalk, and Zoom, as well as asynchronous teaching tools like regional and local university MOOC platforms (Quadir & Zhou, 2021; Z. Yu, 2022). These different kinds of online teaching tools can be applied to meet various demands. Synchronous live teaching tools allow instructors and students to communicate and interact with each other, which can be of great use for classes which demand active participation, such as language classes. Asynchronous teaching tools enable students to learn course materials at their own pace. While previous research has explored the online teaching practices of teachers and their preference for using the DingTalk platform (Jin, 2020), there is a noticeable gap in empirical studies investigating students' perceptions of this platform. Understanding students' perceptions is crucial as they are the primary users and beneficiaries of online learning platforms. By examining students' perspectives and experiences with the DingTalk system, this study aims to shed light on the effectiveness and usability of the platform from a student-centred standpoint. Such insights can inform educators, administrators, and policymakers in making knowledgeable decisions regarding the design, implementation, and improvement of online learning platforms.

Thus, this research fills an important gap in the existing literature and contributes to a more comprehensive understanding of the educational technology landscape. Since students' perceived usefulness, perceived ease of use, and their continuance intention to use are essential determinants of use acceptance, this study aims to identify the relationship between the DingTalk system features and these three main factors. This study is presented as follows: Section 1 presents the research motivations and aims of this study. Section 2 illustrates a literature review of the DingTalk system features and the technology acceptance model, which identifies the gaps in the literature and emphasizes the need for the current study. Section 3 outlines the materials and methods used in this study, including linear regression and semi-structured interviews. Section 4 presents the quantitative and qualitative results. The paper then provides discussion in Section 5, followed by a conclusion of major findings and limitations and future research direction in Section 6.

2. LITERATURE REVIEW

2.1 DingTalk System Features

DingTalk consists of various functional modules, such as safe return to work, school management, teaching assistant, home-school interconnection, teacher service, student service, collaborative efficiency, "DING" task management, calendars, group charts, and attendance systems. It serves as both a school teaching management platform and an online teaching platform. The online teaching functions mainly feature video conferences, live broadcasts, course sharing, course replay, sign-in function, screen sharing, video, playback, communication and interaction, instant testing, homework function, data export, and so on (see Table 1).

Classes are created on the platform in the form of chat groups. Once all students join the chat, they can participate in the class. To teach or learn online through the DingTalk platform, teachers and students need to follow three steps: pre-class preparation, in-class learning, and post-class homework. Each step has its own features.

2.1.1 Pre-Class Preparation

In preparation for the first class, teachers should prepare the hardware, such as mobile phones and computers, and download the software. Then, they should log into the DingTalk online learning platform. Teachers should then create a group and let the students scan the QR code to be put into the group or add the students into the class group one by one. For students, it is also necessary for them to prepare the hardware and download the online learning platform for the first time. Then, they can join the class group. Afterwards, they can take classes according to the class schedule. Joining the DingTalk group reminds them to attend class on time.

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