



The Perspectives of College Students and Teachers on Mobile Learning in the Chinese Cultural Context

He Min^{1,2}, Shamsul Arrieya Ariffin ^{1*}, Yoke Seng Wong¹

¹ Faculty of Computing and Meta -Technology, Sultan Idris Education University, Perak, Malaysia

² Chongqing College of Mobile Communication, Chongqing, China

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ABSTRACT

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Corresponding Author:

Shamsul Arrieya

shamsul@meta.upsi.edu.my

This study investigates how Chinese undergraduate students and college teachers perceive mobile learning within the Chinese cultural context, with the aim of informing sustained use in formal higher education and improving implementation effectiveness. Adopting a qualitative design, we conducted one-to-one interviews with six teachers from three private colleges in Chongqing, China, and held three focus-group interviews with 18 undergraduates. Thematic analysis identified six overarching themes: platform use and user experience; ambivalent views toward mobile learning; assessments of platform technology and usability; emotional and behavioural influences on use; teachers’ roles in guiding learning; and the shaping effects of socio-cultural values. Together, these themes capture teachers’ and students’ lived experiences with mobile learning in Chongqing’s private colleges and highlight key factors perceived to influence continued adoption in culturally situated educational settings.

Keywords: Mobile learning, College Students, Chinese cultural context

1. INTRODUCTION

Mobile technologies have been widely considered for broader educational use because they can provide personalised information, adaptive support, and immediate platforms for social interaction. In higher education, mobile learning is often regarded as feasible and appropriate, given that university students are capable of making autonomous learning decisions and generally possess the technological competence to use the Internet for academic purposes. Despite these advantages, mobile learning use among Chinese higher education students remains suboptimal: in many institutions, mobile tools are used mainly for administrative or light-weight instructional functions (e.g., attendance check-ins, quiz pushes, and file distribution through course platforms and class groups), while more demanding learning activities (e.g., sustained discussion, formative feedback cycles, and inquiry-based tasks) are less consistently embedded

into teaching. As a result, a gap persists between the availability of technological resources and their meaningful integration into teaching and learning, and the learning outcomes from technology use are often less satisfactory than expected (Moya & Camacho, 2023).

Prior research suggests that such underuse is rarely attributable to a single cause. Studies across contexts have identified multiple barriers, including technological conditions, pedagogical design, digital literacy, individual attitudes, ethical concerns, and institutional leadership, yet the relative weight of these factors differs by setting. Research from Spain suggests that mobile learning adoption depends less on basic availability and more on how mobile resources are embedded into teaching–learning platform access to pedagogical redesign, digital literacy, ethical use, and institutional leadership. By contrast, studies in Saudi Arabia more often frame adoption as a matter of institutional readiness, emphasising awareness-building, reliable IT infrastructure, and sustained top-management support. In China, adoption is shaped by large-scale platform ecosystems and teacher-guided classroom norms, which can foreground practical challenges such as aligning mobile activities with assessment expectations, managing distraction from “all-in-one” apps used for both learning and entertainment, and clarifying responsible use in formal classes (Tang et al., 2021). These variations indicate that mobile learning adoption is context-dependent and should be examined in relation to the specific conditions of learners, teachers, and institutions.

Cultural context is one factor that may help explain why the same technology is adopted and used differently across countries. In the Chinese context, “socio-cultural norms” and “human factors” can be understood in more concrete terms: (a) a strong emphasis on teacher authority and classroom order may lead students to treat mobile learning as teacher-assigned tasks rather than self-directed exploration; (b) exam-oriented expectations can prioritise efficiency and correct answers, reducing willingness to engage in open-ended mobile discussions or creative production; and (c) collectivist norms and “face” concerns may discourage students from posting uncertain ideas publicly in class groups, while increasing sensitivity to peer evaluation and conformity. Together, these cultural influences shape how students interpret usefulness, risk, and appropriateness of mobile learning practices, beyond usability alone (Bao, 2020).

Within Chinese colleges, mobile learning has been incorporated into formal instruction in certain subjects such as English, and evidence from private-college settings (e.g., Chongqing) suggests that cultural trust and individual growth background may relate to students’ willingness to accept mobile learning. However, the ways in which these cultural influences are experienced by students and translated into specific adoption-related perceptions and behaviours remain insufficiently clarified from the user perspective. In addition, a growing body of work indicates that teachers’ attitudes and support play an important role in acceptance and classroom integration of mobile technologies, suggesting that an exclusive focus on students provides only a partial account.

Against this background, the present study explores mobile learning in the Chinese cultural context by examining both undergraduate students’ and college teachers’ perspectives in private colleges in Chongqing. By jointly analysing how students and teachers interpret benefits, barriers, and culturally embedded influences, this study seeks to identify factors that may support sustained adoption and more effective implementation of mobile learning in Chinese higher education.

2. LITERATURE REVIEW

2.1 International research on mobile learning adoption

International scholarship generally treats mobile learning adoption as a multi-factor process in which technological affordances interact with pedagogical and organisational conditions. For example, a synthesis of adoption studies highlights that success depends not only on platform availability but also on instructional integration, learners' and teachers' competencies, and supportive institutional arrangements (Moya & Camacho, 2021). In higher education, model-based work during the COVID-19 period further underscores that perceived usefulness, system quality, and institutional support jointly shape sustained engagement, rather than driving acceptance through technology features alone (Almaiah et al., 2022). Comparative evidence also shows that adoption mechanisms vary across socio-cultural settings: students' behavioural intentions differ across Asian contexts such as Taiwan (China), Indonesia, and Vietnam, suggesting that perceived norms, confidence, and context-specific expectations can influence how learners evaluate mobile learning (Lin et al., 2020).

Beyond student-focused models, research has increasingly examined social and ethical processes surrounding adoption. Knowledge-oriented perspectives indicate that knowledge acquisition and knowledge sharing can contribute to acceptance, though their influence is contingent on context and may operate differently across developing countries (Al-Emran et al., 2021). Ethical dimensions have also been operationalised through designs that emphasise student-generated activities, where perceptions of responsible use and learning value shape engagement in STEM learning contexts (Ariffin et al., 2020). A related line of work argues for culturally responsive interface and interaction design, proposing cultural design guidelines to improve user experience and relevance in specific communities (Ariffin et al., 2022), while newer user-experience discussions extend to meta-mobile approaches that foreground sustained usability and learner experience across contexts (Ariffin, 2025). At the level of knowledge mapping, bibliometric studies show that mobile learning research has expanded from early feasibility discussions to issues of user experience, acceptance, and emerging technology ecosystems (Göksu, 2021; Karataş et al., 2020), with recent analyses linking user experience agendas to broader technology and work-life paradigms (Ariffin et al., 2024). Importantly, culture-related theory provides interpretive tools for these differences: work grounded in cultural dimensions argues that learning behaviours and styles are shaped by culturally patterned preferences for uncertainty avoidance, power distance, and individual-collective orientations (Alqarni, 2022).

2.2 Research in China and culturally situated adoption

Research situated in China highlights both opportunities and persistent constraints in integrating mobile learning into formal higher education. Early work on ICT and distance education in western China pointed to structural challenges—such as uneven access and support conditions in less-developed regions—that can shape technology-enabled learning and professional development (Robinson, 2008). Within language education, mobile learning has been discussed as a means of enabling “on-the-go” and lifelong learning, yet its effectiveness depends on learners' self-regulation and the alignment between mobile practices and instructional goals (Kang & Lin, 2019). At the same time, teachers' beliefs and intentions remain central

to implementation: evidence from Chinese English teachers indicates that perceived usefulness, self-efficacy, and contextual constraints are intertwined in shaping intention to use technology (Teo et al., 2018).

A key strand of research explicitly links adoption to cultural values and culturally embedded perceptions. Cross-national modelling with university teachers from China and Spain suggests that cultural values can shift the relative importance of determinants in technology adoption, implying that the same acceptance model may perform differently across cultural contexts (Huang et al., 2019). Relatedly, resistance to change and emotional attachment to existing practices can hinder mobile adoption among pre-service teachers, indicating that adoption is partly an identity- and habit-related process rather than a purely rational evaluation of tools (Sánchez-Prieto et al., 2019). In Confucian heritage settings, tensions in blended learning have been interpreted through the lens of teacher authority, classroom order, and examination-oriented expectations, which can constrain learner autonomy and open participation—conditions that are directly relevant to mobile learning integration (Chan, 2019). More recent evidence in Chinese higher education further suggests that cultural factors contribute to mobile learning acceptance, reinforcing the need to interpret adoption not only as a matter of usability but also as culturally situated meaning-making and classroom norms (He et al., 2024). Collectively, these studies indicate that understanding mobile learning in China requires attention to how cultural values, teacher guidance, and institutional practices jointly shape perceptions of usefulness, appropriateness, and sustained use.

Overall, existing international and China-based studies have clarified key determinants of mobile learning adoption, yet much of this evidence is model-driven and tends to privilege single-stakeholder perspectives, leaving the lived processes through which students and teachers negotiate benefits, risks, and use norms underexplored. Moreover, although culture is frequently invoked as an explanatory backdrop, few studies provide fine-grained, user-centred accounts of how specific Chinese socio-cultural values are experienced in daily mobile learning practices, creating a clear rationale for the present qualitative, dual-perspective inquiry.

3. METHODOLOGY

This study adopted a qualitative descriptive design to explore how Chinese undergraduate students and college teachers perceive and experience mobile learning in everyday formal teaching and learning. A qualitative approach was appropriate because the study aimed to capture participants' interpretations, culturally embedded meanings, and context-specific constraints that are difficult to infer from survey measures alone (Almaiah & Alismaiel, 2019). Data were collected through semi-structured one-to-one interviews with teachers and focus-group discussions with students, enabling both depth of individual accounts and the elicitation of shared norms through group interaction. The study was conducted in three private colleges in Chongqing, China. Chongqing was selected because it is a major municipality with a rapidly expanding higher education sector and strong uptake of commercial learning platforms, offering a relevant context for examining mobile learning in formal instruction (Ariffin & Zaibon, 2023). Private colleges were selected because they generally have greater flexibility in adopting commercial platforms and varied implementation practices across courses, which can illuminate practical challenges in sustained use (Alsswey & Al-Samarraie, 2019). Direct classroom observation was not adopted because mobile learning activities were distributed across different courses, platforms, and learning spaces, and the study focus was on perceptions and meanings rather than behavioural counts in a single classroom. All

participants had recent experience using mobile devices and institutionally adopted platforms for formal teaching or learning. The data were analysed using a thematic analysis approach(Huang et al., 2020).

3.1 Participants

This study adopted purposive sampling to recruit participants from three private colleges in Chongqing, comprising six teachers and 18 undergraduate students. Purposive sampling was used to ensure that participants had direct experience with mobile learning in formal higher education contexts and could provide information-rich accounts relevant to the research aims . Teacher participants were recruited based on the following criteria: (a) currently teaching College English or related courses in the participating colleges, and (b) having at least five years of teaching experience to ensure familiarity with classroom management and technology-supported instruction. Recruitment was conducted through departmental contacts and course coordinators, and participation was voluntary(Almaiah, 2018). To protect confidentiality, teachers were assigned identifiers (T1-T6). Demographic and teaching-related information on the teacher participants is presented in Table 1.

Table 1. Teachers Information in Interviews

Label	Teaching experience	Course	Gender	College
T1	16 years	English	Female	Chongqing Institute of Engineering
T2	20 years	English	Female	
T3	8 years	English	Female	
T4	15 years	English	Female	Chongqing College of International Business and Economics
T5	13 years	English	Female	Chongqing College of Mobile Communication
T6	10 years	English	Female	

Note: “T”= Teacher, for example T1=Teacher 1

In the present study, we focused on those students who had continued exposure to mobile platforms in formal classes and were able to reflect on benefits, barriers, and culturally situated learning norms. Inclusion criteria for student participants were: (a) current sophomores or juniors, (b) aged over 18 at the time of participation, and (c) having used mobile learning platforms or mobile-based tools as part of formal instruction for at least one semester. Students were invited via course teachers and class group announcements, and those who agreed participated in focus-group discussions. To protect confidentiality, students were assigned identifiers (FG1-FG3 for focus groups and S1-S18 for students). Participant information is provided in Table 2.

Table 2. Students Information in Focus Group

Label	Subject	Students/Gender					
FG1	Digital Media	S1	S2	S3	S4	S5	S6
		Female	Male	Male	Male	Male	Male
FG2	Business Administration	S1	S2	S3	S4	S5	S6
		Female	Male	Male	Female	Male	Male
FG3	Mathematics Education	S1	S2	S3	S4	S5	S6
		Female	Male	Male	Female	Female	Male

Note: “FG”= Focus Group, for example FG1=Focus Group 1

“S” =student, for example S1= Student 1

FG1 from Chongqing Institute of Engineering

FG2 from Chongqing College of Mobile Communication

FG3 from Chongqing College of International Business and Economics

3.2 Interviews and Focus group discussions

This study draws on individual interviews and FGDs to capture in-depth views and comments on mobile learning in formal higher education. Teacher interviews enabled detailed reflection on instructional decisions, perceived constraints, and classroom management issues, while FGDs were used to elicit shared experiences and peer-mediated norms among students. Each teacher interview lasted approximately 40-60 minutes. Three student FGDs were conducted (FG1-FG3), with six students in each group, lasting approximately 60-90 minutes. FGDs were moderated by the researcher using a semi-structured guide; a consistent facilitation procedure was used across groups to ensure comparability. At the start of each FGD, participants were reminded of confidentiality (e.g., not sharing others’ comments outside the group) and encouraged all participants to contribute. The moderator used follow-up probes to clarify meanings and to encourage examples when participants raised general statements.

All interviews and FGDs were conducted in Chinese to enable participants to express nuanced views and culturally embedded meanings. With participants’ permission, sessions were audio-recorded and supplemented by field notes. Regarding ethics, the study protocol was reviewed following the researchers’ institutional ethics procedures and approved as minimal-risk educational research (ethics approval details will be reported in the manuscript, including approval number where applicable). Before participation, all participants received an information sheet explaining the study purpose, procedures, and data use, and provided informed consent. Participation was voluntary; participants could decline to answer any question and withdraw at any time without penalty. To protect privacy, identifiers were used in transcripts and reporting, and any potentially identifying details were removed during transcription. All

audio files and transcripts were stored on password-protected devices with restricted access to ensure confidentiality and data security.

3.3 Semi-structured questions

The semi-structured, open-ended questions for interviews and FGDs were developed based on the study aims and informed by prior literature on mobile learning adoption, user experience, and culturally situated technology use, as well as the outcome of the previous study . The guide covered participants’ platform use and experiences, perceived benefits and barriers, emotional and behavioural influences, teachers’ support practices, and socio-cultural values shaping classroom norms. The teacher and student guides shared a comparable core structure to support cross-group analysis, with tailored prompts reflecting participants’ roles (teaching versus learning)(Yang & Jie, 2021). The guides were reviewed for clarity and piloted with two non-participating students to ensure the wording was understandable and culturally appropriate; minor revisions were made to improve flow and to clarify meanings. The full question list is presented in Table 3.

Table 3. Questions for Interview and Focus Group Discussion

Interview	
Domain	Questions
The teachers' experience	1.What do you understand about “mobile learning”? 2.Do you have some experience in teaching using mobile devices. Elaborate on it.
The teachers' attitude to mobile learning	3.From your experience, what are the advantages of mobile learning? 4.From your experience, what are the challenges of teaching using mobile devices?
The teachers' role in learning	5.What is the difference between the teachers' role in mobile learning comparing to face to face teaching?
The teachers' readiness	6.What support do you want to get in implementing mobile learning?
Focus Group	
The students' experience	1.Briefly can you explain your experiences in learning using mobile devices? Elaborate on it.
The students' attitude to mobile learning	2.From your experience, what are the advantages of mobile learning?
The teacher's role in learning	3.What is the role of the teachers you expect in mobile learning?
The parents' role in learning	4.How do your parents help you learn in a mobile learning environment?
The students' readiness	5.What support do you want to get in mobile learning?

3.4 Data analysis

The data analysis followed a thematic approach. Fig. 1 summarises the analytic process. First, all interviews and FGD recordings were transcribed verbatim in Chinese. The researchers then familiarised themselves with the dataset through repeated reading and listening to the audio, noting initial ideas. Second, initial codes were generated inductively from the data, focusing on meaningful units relevant to mobile learning experiences and perceptions. Third, codes were compared and grouped into candidate sub-themes, which were then reviewed and refined through an iterative process of reviewing coherence within themes and distinctiveness across themes. Fourth, higher-order themes were developed to capture patterned meanings across participants, and theme labels and definitions were refined to reflect both semantic content and culturally situated interpretations. To enhance trustworthiness, coding decisions and theme development were discussed among the researchers, and an audit trail was maintained to document key analytic decisions. In addition, a brief summary of preliminary themes was shared with a small subset of participants for comment, enhancing credibility (member checking).

Fig. 2 illustrates one example of the coding-to-theme development process. From the T6 transcript, the codes “network”, “large memory”, “no mobile version”, and “interface operation” were generated during open coding and grouped into the sub-theme “Network hardware and technical operations”. Similar codes such as “laggy network” and “no mobile app”, obtained from S6 in FG3 and T2, were also merged into this sub-theme. In parallel, the sub-theme “Usability evaluation” was developed from codes including “content quality” (S4, FG2), “redundant function” (T1), and “interface style” (S2, FG1). These sub-themes were then integrated into the overarching theme “Evaluation of Platform Technology and Usability”. The final themes were reviewed again to ensure they were grounded in the dataset and aligned with the study aims, and representative quotations were selected to support transparency of interpretation.

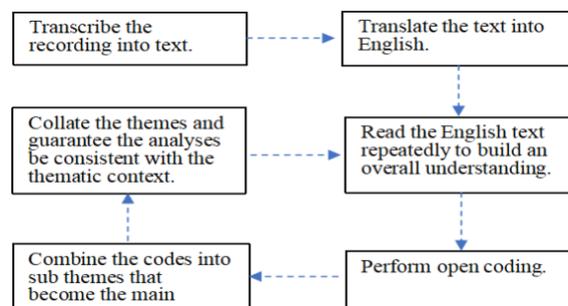


Fig. 1. Thematic Analysis Processes

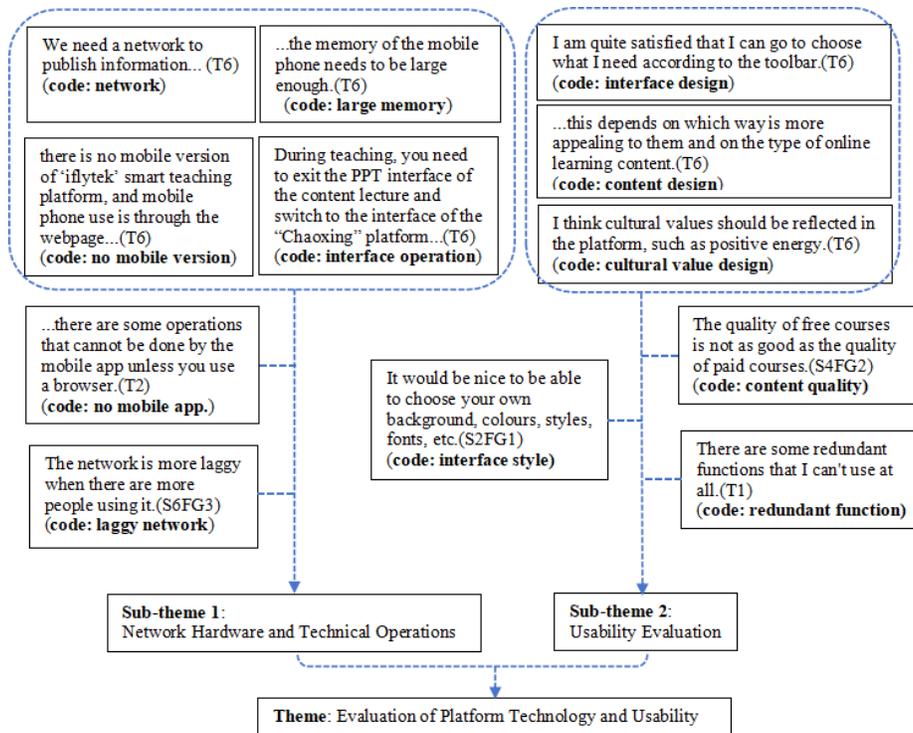


Fig.2. Thematic Analysis Example

4. FINDINGS

Thematic analysis of the teacher interviews and student focus-group discussions generated six themes: platform usage and user experience; mobile learning advantages and challenges; evaluation of platform technology and usability; teachers' roles; users' emotional and behavioural influences; and the influence of socio-cultural values (see Table 5).

Table 4. Generated Themes

Generated Themes	
1	Platform Usage and User Experience
2	Mobile Learning Advantages and Challenges
3	Evaluation of Platform Technology and Usability
4	Teachers' roles
5	Users' Emotional and Behavioural Influences
6	Socio-cultural Value Influences

4.1 Platform Usage and User Experience

Participants reported using only local Chinese mobile learning applications, and their usage was shaped by both institutional requirements and practical learning needs. For instance, one teacher noted that “the use of the Learning Link (platform) is mandatory” (T1), indicating policy-driven engagement. Both teachers and students also highlighted resource-related functions, such as access to information and downloadable materials: “get a great amount of information and data” (S1FG1) and “I can download materials... search a lot of learning materials” (S4FG3).

Teachers additionally described a “good experience” in terms of interaction affordances that can support classroom participation and engagement, such as functions that “mobilise the classroom atmosphere” (T5).

4.2 Mobile Learning Advantages and Challenges

Both students and teachers highlighted clear benefits of mobile learning, especially accessibility and participation. Students described the convenience of learning “anytime, anywhere” (S5FG2), and some perceived strong relevance to their academic field, such as exposure to “real projects” (S1FG1). Teachers also observed that online participation can reduce pressure for shy students, who may respond more actively when “they can’t see a real person” (T5).

At the same time, participants raised concerns about accountability and learning quality in mobile-supported activities. Teachers distinguished between tracking progress and evaluating learning quality, noting that there is “no way to monitor the quality of learning” (T6). This concern was repeatedly described as a key limitation when mobile learning is embedded into formal classes.

4.3 Evaluation of Platform Technology and Usability

Technical conditions were frequently raised as practical barriers. Students noted that network lag increases when many users are online, which disrupts interactive tasks such as “grab[bing] the question” (S6FG3). Teachers also pointed to functional incompleteness on mobile apps, reporting that some operations “cannot be done by the mobile app unless you use a browser” (T2).

Participants evaluated usability not only in terms of stability, but also content quality and feature design. Students compared free and paid resources (“free courses... not as good as... paid courses,” S4FG2), while teachers criticised redundant functions that make the platform “cumbersome” (T1). Students additionally expressed preferences for personalisation (e.g., “background, colours, styles, fonts,” S2FG1), suggesting that interface flexibility can shape perceived comfort of use.

4.4 Users' Emotional and Behavioural Influences

Participants linked engagement to emotional connection and interaction quality, particularly the perceived “presence” of teachers. One teacher argued that the teacher’s “personal image... speech and behaviour” can create impacts “that cannot be achieved by mobile learning,” including “emotional

connection” (T5). Students also highlighted emotional and interpersonal concerns in online interaction, mentioning “face anxiety, privacy protection, anonymity,” and the desire to “be your real self” (S4FG1).

Behavioural factors were also described as shaping sustained engagement. Teachers noted that some learners prefer paper-based reading and then “interact with the teacher face-to-face” after reading (T6). Students further described the need for self-regulation when learning on mobile devices, noting that mobile learning “relies on self-discipline… [and they] get distracted” (S1FG3).

4.5 Teachers' Roles

Both groups positioned teachers as central to effective mobile learning, describing platforms as supportive tools rather than replacements. A student stated that “the platform is an intermediary, and teachers cannot be replaced” (S5FG1). Students also expected teachers to provide multi-dimensional support— “supervision, guidance… learning… life… career development” (S2FG3)—indicating that teacher support was perceived as extending beyond content transmission.

Teachers emphasised the motivational role of evaluation and feedback: “students… care a lot about their teachers’ evaluation… affirmation is a positive push” (T2). Another teacher stressed the instructional design responsibility, stating that “m-learning can only exist if it is designed by the teacher” (T4), highlighting that meaningful mobile learning depends on teachers’ pedagogical planning rather than platform availability alone.

4.6 Influence of Socio-cultural Values

Socio-cultural influences were described as operating through school norms and family attitudes. Teachers reported that schools may designate platforms and prescribe usage frequency and functions, which can constrain autonomy and be “not conducive to the autonomy of teachers and students” (T6). Students also expressed expectations for institutional arrangements that enable use, such as having “free time slots to use m-learning platforms” (S3FG2), indicating that organisational routines can shape opportunities for engagement.

At the family level, participants highlighted the role of trust and home climate. Students noted that parents’ support often depends on recognising that usage is “the teacher’s teaching arrangement,” because parents “especially trust the teacher” (S5FG3). Teachers similarly linked a respectful family atmosphere to greater willingness to engage, suggesting that when parents respect students’ choices, students are “more willing to take up… challenges” (T2).

5. DISCUSSION

Using thematic analysis, this study identified six themes that together address the research questions on how mobile learning is adopted and how its effectiveness is perceived in Chinese higher education. Regarding adoption, both students and teachers reported routine use of local platforms and generally

associated mobile learning with convenience, accessibility, and support for personalised needs—judgements consistent with perceived usefulness and perceived ease of use. At the same time, participants’ descriptions suggest that adoption is often selective and pragmatic: mobile tools are commonly used for lightweight instructional tasks rather than consistently embedded into deeper learning activities.

In terms of effectiveness, participants emphasised that technical barriers (e.g., network instability and incomplete mobile functions) can interrupt learning, but the more critical constraints relate to learning quality: teachers and students highlighted difficulty in monitoring the authenticity and depth of engagement and the heavy reliance on students’ self-discipline in mobile-based tasks. These concerns help explain why mobile learning may be seen as convenient yet still fall short of expectations for learning outcomes, raising practical and ethical issues around appropriate use, oversight, and meaningful participation.

Finally, the findings clarify the cultural and contextual conditions shaping adoption and effectiveness in China. Institutional requirements were sometimes experienced as both enabling and restrictive, suggesting that “support” depends on how policies are enacted in practice. Teacher authority and culturally grounded trust emerged as central to sustained engagement—reinforced by students’ reliance on teachers’ guidance and parents’ endorsement—while emotional preferences for face-to-face connection and established study habits (e.g., pen-and-paper) further point to the value of blended approaches that combine mobile learning with structured teacher guidance in Chinese colleges.

6. CONCLUSION

This study examined mobile learning from the perspectives of Chinese college students and teachers in Chongqing’s private colleges. Thematic analysis identified six themes—platform usage and user experience; mixed perspectives toward mobile learning; evaluation of platform technology and usability; teachers’ roles; users’ emotional and behavioural influences; and the influence of socio-cultural values—which together show that mobile learning is widely perceived as convenient and useful, yet its effectiveness is conditional on technical stability, meaningful instructional design, and culturally situated norms of guidance, trust, and classroom order. By foregrounding these contextual mechanisms, the study extends mobile learning research beyond generic adoption factors and clarifies how school and family expectations can shape sustained use in Chinese higher education.

The findings offer implications for future research and for institutional practice in China. For research, they suggest the need to examine not only acceptance intentions but also the quality of engagement and the classroom processes through which mobile activities are monitored, supported, and evaluated. For institutions, the results point to several actionable directions: universities can strengthen network and platform reliability, but should also develop clear guidance for “appropriate use” in formal classes, including expectations for participation quality, privacy boundaries, and anti-distraction routines. Given the central role of teachers, professional development should prioritise mobile-supported pedagogical design (e.g., integrating formative feedback and interaction rather than using platforms mainly for administrative tasks), and departments can encourage peer collaboration to share effective practices. Finally, where feasible, institutions can improve learning effectiveness by adopting blended arrangements that preserve face-to-face emotional connection while using mobile tools to extend learning beyond class.

This study has limitations that constrain the generalisability of its conclusion. First, the teacher sample was limited to English-related courses, and the study site was restricted to three private colleges in Chongqing; therefore, the findings may not represent mobile learning experiences in other disciplines (e.g., STEM) or in public universities, where institutional policies, student profiles, and platform infrastructures may differ. Second, the sample size was small and qualitative, and the study reports perceptions rather than direct measures of learning outcomes; thus, claims about effectiveness should be interpreted as participants' experienced judgments rather than objective impact estimates. Third, researcher positionality may have influenced data collection and interpretation: participants were interviewed in Chinese, and although this facilitated nuanced expression, the researcher's cultural familiarity, language choices in probing, and subsequent translation/summary decisions could have shaped which meanings were emphasised. In addition, cultural assumptions may have affected interpretation of themes such as "teacher authority," "face concerns," and "family trust." To mitigate these risks, the analysis relied on systematic coding, researcher discussion, and careful anonymisation; nevertheless, future studies could strengthen credibility through multi-researcher coding with diverse cultural backgrounds, expanded member checking, and triangulation with classroom artefacts or platform log data.

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