

EFL Teachers' Attitudes Toward Mobile Teaching Affordances: An Agency Perspective

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ARTICLE INFO	ABSTRACT
Article History: Received: May Accepted: June	The increasing integration of mobile technologies into educational settings has opened new opportunities for English as a Foreign Language (EFL) instruction; however, there is limited knowledge about how teachers' attitudes toward mobile teaching affordances are associated with their sense of agency. This study examined the relationship between Iranian EFL teachers' attitudes toward mobile teaching affordances and their agency, and explored whether gender and qualification level were associated with their agency. Participants were 201 Iranian EFL teachers who completed two validated instruments. As the data did not meet the assumption of normality, appropriate non-parametric statistical tests were employed for the analysis. The results revealed a significant positive relationship between teachers' attitudes toward mobile teaching affordances and their agency, indicating that teachers who reported more positive attitudes also reported higher levels of agency. No statistically significant difference emerged between male and female teachers in terms of agency. In contrast, educational qualification significantly affected agency, with agency levels varying across qualification groups. These results underscore the significance of assisting teachers in effectively integrating mobile technologies into their pedagogy to strengthen their agency in EFL settings and provide insights for teacher training, policy development, and future research.
KEYWORDS Affordance EFL teachers Attitudes toward mobile teaching affordances Teacher agency	

1. Introduction

Over recent years, English has developed into the primary language used in technology and computing, and acquiring new technological skills has become closely linked with enhancing language proficiency in educational contexts (Albirini, 2006). Moreover, the growth of digital technologies has fundamentally transformed educational landscapes, creating new opportunities and challenges for English as a Foreign Language (EFL) instruction worldwide (Turner, 2022). As an emerging component of digital education, mobile learning has the potential to bring about substantial changes in educational systems and practices (Momeni, 2022). In this context, exploring how technological advancements influence English language teaching is particularly important, especially in developing countries where access to resources varies. Furthermore, the rise of mobile technology and the opportunities it affords teachers through various tools and resources have significantly impacted educational environments (Hedayati-Kakhki & Tabatabaee-Yazdi, 2023).

The extensive use of mobile devices and technologies in daily life has led EFL teachers to recognize their potential for facilitating learning opportunities that are accessible anytime and anywhere (Shirkhani & Poorhadian, 2024). Building on these educational possibilities, Klopfer and Squire (2002, as cited in Rostami & Kargozari, 2023) identified five educational affordances of mobile devices: connectivity, context sensitivity, individuality, portability, and social interactivity. These affordances emphasize the technological features of mobile devices that can facilitate and enhance learning (Chen & Denoyelles, 2013; David et al., 2010; Hartley et al., 2010; Peng et al., 2009). Recent scholarship has

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expanded this framework, acknowledging that modern mobile affordances encompass not only technological capabilities but also pedagogical and social dimensions that shape teaching and learning experiences (Derakhshan & Ghiasvand, 2024; Estaji, 2024).

Accordingly, scholars have examined mobile affordances from multiple perspectives, emphasizing different aspects such as usability, portability, and interaction. According to Orr (2010), data gathering is one of the main mobile affordances. So et al. (2008) referred to contextualization and active learning as key aspects of mobile affordances. Tan and So (2015) also assert that mobiles are the external setting for learning that greatly affects the efficiency of cognitive processes, behaviors, and language use. Contemporary research has further confirmed the complex relationship between technological affordances and educational outcomes, with particular attention to how artificial intelligence and machine learning technologies are reshaping EFL instruction (Derakhshan & Ghiasvand, 2024; Estaji, 2024). These developments have highlighted the importance of understanding not just what technologies can do, but how teachers perceive, adapt, and implement these tools within their specific contexts.

The COVID-19 pandemic contributed to a rapid shift online learning, while the growing availability of smartphones has made digital education more accessible globally (Webb et al., 2021). According to Brown and Lee (2015, as cited in Roohani & Dayeri, 2019), teachers must be prepared for vibrant, technology-driven classrooms, especially with mobile devices. Educational technologies and the opportunities they offer may facilitate new approaches to developing subject-related knowledge in second and foreign language learning environments (Santos-Trigo, 2020). According to Badia et al. (2011), educational technology can also be viewed as a set of digital interactive systems that support communication, collaboration, and content organization in online learning environments. Therefore, since technology adoption depends largely on teachers, it is crucial to examine their role in shaping digital learning environments. This brings us to the idea of teacher agency.

According to Ruan et al. (2020), teacher agency refers to teachers' active involvement in making decisions, taking purposeful actions, exercising control, and creating change within a particular context (p. 2). Contemporary research has further emphasized that teacher agency cannot be reduced to an individual characteristic alone but emerges from the dynamic interaction between teachers' personal capacities, structural conditions, and technological affordances available in their educational contexts (Lee & Jeon, 2024). Despite new policies, teachers often receive insufficient support, making it difficult to meet expectations (Wedell & Grassick, 2018). As teaching continues to evolve, researchers have become increasingly concerned with how teacher agency is enacted within educational policies and classroom practice (Coffman, 2015). In this sense, agency is defined as the active participation of individuals in shaping reality, an ability that is necessary throughout life and particularly at work (Leijen et al., 2020).

The importance of teacher agency became even more apparent during the COVID-19 pandemic, as educators had to adapt to online teaching with limited preparation. The difficulties of delivering second language instruction online during the COVID-19 pandemic highlighted the ecological nature of L2 teaching by drawing attention to the dynamic interaction between digital affordances and teacher agency. Studies conducted during and after the pandemic have shown that the link between digital affordances and teacher agency is especially strong in EFL contexts, where teachers are required to manage both technological difficulties and the complexities of instruction in a second language environment (Cong-Lem et al., 2024; Lo et al., 2024; Mohamed, 2024; Song & Song, 2023).

Similarly, the role of the teacher was greater in terms of delivering online courses using adaptive pedagogy rather than prepared teaching plans (Hodges et al., 2020). According to Levine (2020), at a broader macro-social level, the COVID-19 period intensified the interaction between digital affordances and teacher agency, drawing greater attention to the connection between classroom teaching and society at large. The intersection of mobile technology affordances and teacher agency has also been explored in relation to specific pedagogical approaches, with researchers examining how mobile-assisted project-based learning enhances both teaching effectiveness and teacher empowerment (Mohamed, 2024). These studies suggest that when teachers exercise agency in integrating mobile technologies, the benefits extend beyond immediate learning outcomes to encompass broader professional development and pedagogical innovation. Moreover, emerging research on AI-mediated learning and chatbot affordances in EFL classrooms suggests that the landscape of mobile teaching affordances is rapidly

evolving, requiring new frameworks for understanding teacher agency in technology-rich environments (Lo et al., 2024).

Although there is a growing focus on digital transformation in education, the interaction between teacher agency and mobile teaching affordances in EFL contexts—especially in Iran—remains under-researched. Accordingly, this study aims to address this gap by examining the relationship between Iranian EFL teachers' attitudes toward mobile teaching affordances and their agency through the following research questions:

RQ1. Is there any significant relationship between Iranian EFL teachers' attitudes toward mobile teaching affordances and their agency?

RQ2. Is there any significant difference in teacher agency between male and female Iranian EFL teachers?

RQ3. Does Iranian EFL teachers' qualification level have a significant effect on their agency?

2. Review of Literature

This study is grounded in the ecological model of teacher agency proposed by Priestley et al. (2015), which conceptualizes agency not as a fixed individual trait but as an emergent and context-dependent achievement shaped through the interaction of personal, temporal, and structural factors. According to this model, teacher agency is enacted through the dynamic interplay of three dimensions: the iterational, practical-evaluative, and projective dimensions.

The iterational dimension refers to teachers' past experiences, beliefs, and professional histories that influence how they interpret and respond to teaching situations. The practical-evaluative dimension concerns teachers' capacity to make context-sensitive judgments and decisions in response to present cultural, material, and institutional conditions. The projective dimension reflects teachers' aspirations, goals, and orientations future professional possibilities (Priestley et al., 2015).

This ecological perspective is particularly relevant to the present study because the integration of mobile teaching affordances in EFL contexts requires teachers to make pedagogical decisions within technology-rich and often constrained environments. Teachers' attitudes toward mobile teaching affordances may shape how they perceive opportunities for instructional innovation, while agency influences the extent to which they can adopt, adapt, and implement such technologies in classroom practice. Therefore, the ecological model offers a suitable theoretical lens for examining the relationship between EFL teachers' attitudes toward mobile teaching affordances and their professional agency.

In line with this framework, teacher agency in the present study was operationalized through the three dimensions of iterational, practical-evaluative, and projective agency, as measured by the validated inventory developed by Ghamoushi et al. (2022).

Research on teacher agency has explored its impact on various aspects of education, from professional development to curriculum implementation. The literature on teacher agency has approached the concept from diverse perspectives. Lai et al. (2016) and Ruan (2018) examined its effects on teachers' professional development and educational quality, while Jones and Charteris (2017) and Reichenberg (2022) investigated the role of reflective practices in fostering agency. Buchanan (2015) and Connolly et al. (2018) explored the relationship between classroom control, professional identity, and agency, whereas Tao and Gao (2017) focused on teacher identity commitment. Poulton (2020) and Ruan et al. (2020) examined the impact of curriculum reform on teacher agency.

A review of prior research indicates that most studies have focused on learners' experiences or broad technological integration, while the ways in which educators perceive and utilize mobile technologies in pedagogy remain insufficiently explored. In this regard, Tabatabaee-Yazdi et al. (2024) developed and validated a 26-item inventory to assess EFL teachers' attitudes toward mobile teaching affordances using Mokken Scale Analysis. Their findings confirmed the scale's reliability and construct validity, offering a structured framework for evaluating mobile-assisted teaching in EFL contexts. Liu et al. (2023) conducted a scoping review of 51 studies on Technology-Enhanced Language Education (TELE), highlighting that while teachers generally hold positive attitudes toward TELE, implementation is hindered by limited technological knowledge and institutional support. Hedayati-Kakhki and Tabatabaee-Yazdi (2023) also investigated the relationship between teachers' perceptions of mobile affordances and levels of burnout, reporting a significant negative correlation that indicates teachers who were more aware of the functional benefits of mobile technology tended to experience lower levels

of burnout. Gender differences were noted in burnout scores, though not in perceptions of mobile affordances. Alghamdi (2022) also examined Saudi EFL teachers' perceptions of Mobile-Assisted Language Learning (MALL) in the context of the COVID-19 pandemic, focusing on their attitudes toward its implementation in language teaching. Teachers viewed MALL positively but reported insufficient technical skills and emphasized the need for professional development. Moreover, Xue and Churchill (2020) investigated how Chinese teachers perceive the educational affordances offered by mobile social media. They identified five key affordances—motivation, resource sharing, feedback, administration, and content creation—but found that instructional design remained teacher-centered. Parsons et al. (2016) surveyed teachers in a postgraduate program to assess mobile learning activities. Although teachers frequently used mobile tools for basic tasks, the study highlighted a need for explicit guidance to adopt more sophisticated strategies.

There has also been a noticeable shift examining teacher agency within educational contexts. Weng (2025) examined the identity and agency development of emergent Language Teacher Educators (LTEs) in a virtual professional training program. Using autoethnography over three years, the study traced a shift from relational to individual agency and from uncritical to critical identity. Reflection journals and training materials showed how collaboration, critical reflection, and adaptability fostered LTE growth, with participant interaction prompting reassessment of instructional approaches. Haddadian and Haddadian (2024) explored the link between teacher agency and online self-efficacy among Iranian ELT instructors. Teachers with higher agency demonstrated greater confidence and adaptability in digital environments. Landim (2024) examined agency development in Brazilian ELT practicum settings, finding that teachers conceptualized agency in diverse ways—from institutional compliance to critical resistance—underscoring its sociocultural foundations. Tumelius and Kuure (2024) studied Finnish pre-service teachers' agency in hybrid learning environments. Their findings showed that collaborative problem-solving and multimodal interaction shaped pedagogical design and professional vision. Drawing on Priestley et al.'s (2015) ecological model of teacher agency, Ghamoushi et al. (2022) developed and validated a questionnaire to assess the construct in empirical studies. Their instrument demonstrated strong psychometric properties and provided a reliable tool for assessing teacher agency. Chen (2022) investigated digital affordances and teacher agency during emergency remote teaching. Teachers adapted their methods and exercised agency through reflective practice. Lim (2021) examined Korean EFL teachers' engagement with technology, revealing that ecological conditions and collaborative inquiry fostered agency despite systemic disparities. Leijen et al. (2020) emphasized the role of reflection—articulating theory of action, practical reflection, and critical reflection—in strengthening teacher agency. Finally, Hiver and Whitehead (2018) studied four Korean English teachers to see how agency and identity connect in classroom practice. They found teachers' efforts to support students were shaped by school limits and personal beliefs, with key classroom moments showing how agency and identity grow together over time.

3. Method

3.1. Participants and Setting

This study employed a quantitative correlational design to investigate the relationship between Iranian EFL teachers' attitudes toward mobile teaching affordances and their agency. A total of 201 Iranian EFL teachers voluntarily participated in the study through non-probability convenience sampling. Participants were recruited through professional networks and online distribution channels commonly used by EFL teachers in Iran. The sample included teachers aged 19–53 ($M = 29$, $SD = 6.99$), of whom 27.4% were male and 72.6% were female. Regarding academic qualifications, 4.0% held a diploma, 37.8% a BA, 49.3% an MA, and 9.0% a PhD.

3.2. Instrumentation

3.2.1. Mobile Teaching Affordances. To assess teachers' attitudes toward mobile teaching affordances, the validated inventory developed by Tabatabaee-Yazdi et al. (2024), which was validated using Mokken Scale Analysis, was employed. This 26-item, five-point Likert scale inventory includes 9 items measuring the Connectivity construct, 9 items measuring the Context-Sensitivity construct, 5 items measuring the Mobility and Interaction with Others construct, and 3 items measuring the Assessments construct.

3.2.2. Teacher Agency. To assess teacher agency the teacher agency scale (Ghamoushi et al., 2022) containing of 33 five-point Likert scale items was used. Consistent with Priestley et al.'s (2015) ecological model of teacher agency, the scale includes 9 items measuring the iterational dimension, 14 items assessing the practical-evaluative dimension, and 10 items examining the projective dimension.

4. Results

To address the research questions, the normality and reliability of the data were first examined. Normality testing using the Kolmogorov–Smirnov and Shapiro–Wilk procedures revealed significant deviations from normal distribution for both mobile affordances and agency variables. Consequently, nonparametric statistical methods were employed in the following analyses. Cronbach's alpha was used to examine the internal consistency of the instruments. Both scales demonstrated excellent reliability (mobile affordances, $\alpha = .964$; agency, $\alpha = .968$).

Spearman's rank-order correlation (Table 1) was conducted to examine the relationship between Iranian EFL teachers' attitudes toward mobile teaching affordances and their agency (first research question). The analysis revealed a significant positive correlation between the two variables ($r = .343$, $p < .01$), indicating that more positive attitudes toward mobile teaching affordances are associated with greater teacher agency.

Table 1
Spearman's Rho Correlations

		Agency
Mobile Affordances	Correlation	.343**
	<i>P</i>	.000
	<i>N</i>	201

Then, to compare agency levels between male and female Iranian EFL teachers, a Mann–Whitney U test (Table 2) was conducted. The results showed that although male teachers had a slightly higher mean rank (107.88) than female teachers (98.41), the difference was not statistically significant ($U = 3636.50$, $Z = -1.03$, $p = .303$), indicating that no statistically significant difference in teacher agency was found between male and female teachers.

Table 2
Mann-Whitney U

	Agency
Mann–Whitney U	3636.500
Wilcoxon W	14367.500
<i>Z</i>	-1.030
Sig. (2-tailed)	.303

A Kruskal–Wallis H test (Table 3) was conducted to examine differences in teacher agency across qualification levels (Diploma, BA, MA, PhD). The results revealed a significant difference among the groups, $H(3) = 9.587$, $p = .022$. Mean rank comparisons showed variation across qualification levels, with MA holders obtaining the highest mean rank (113.34), followed by diploma holders (102.75), BA holders (89.48), and PhD holders (80.97). However, because post-hoc pairwise comparisons were not conducted, the specific group differences should be interpreted with caution.

Table 3
Kruskal Wallis H Test

	Agency
Chi-Square	9.587
<i>Df</i>	3
Asymp. Sig.	.022

5. Discussion

This study sought to explore the relationship between Iranian EFL teachers' attitudes toward mobile teaching affordances and their agency through a correlational research design. The results demonstrated a significant positive correlation between teachers' attitudes toward mobile teaching affordances and their agency, suggesting that teachers with more positive attitudes tend to demonstrate higher levels of agency. This finding aligns with prior research emphasizing the empowering potential of educational technologies in promoting autonomy, reflective practice, and instructional creativity (Alghamdi, 2022; Balliammanda, 2021; Chen, 2022; Lim, 2021; Liu et al., 2023; Tabatabaee-Yazdi et al., 2024). Mobile affordances function as material and social resources within the teaching ecology, providing opportunities for teachers to enact their professional purposes more effectively. At the same time, contrasting studies indicate that simply having access to mobile technologies does not automatically lead to higher agency or innovative pedagogies, as outcomes depend on how teachers interpret and appropriate these tools within institutional and cultural contexts (Dinsmore, 2019; Xue & Churchill, 2020).

Regarding gender, no significant differences in agency were found between male and female teachers. Although males showed a slightly higher mean rank, the difference was not statistically meaningful, suggesting that gender may play a less prominent role in teacher agency than contextual, institutional, or experiential factors identified in previous research. This finding is consistent with studies showing comparable levels of professional autonomy among male and female teachers in similar teaching environments (Arabahmadi et al., 2023; Ghamoushi et al., 2022; Leijen et al., 2020; Liyuan et al., 2022). In contrast, some research has found gender differences in agency or burnout under specific institutional conditions (Hedayati-Kakhki & Tabatabaee-Yazdi, 2023; Soleimani & Hakimzadeh, 2025), suggesting that gender effects may emerge when school culture, workload, or access to resources vary.

Educational qualification was associated with differences in teacher agency, as indicated by the significant Kruskal–Wallis test. Although MA-qualified teachers demonstrated the highest mean rank, the present analysis does not permit firm conclusions regarding which qualification groups significantly differed from one another because post-hoc pairwise comparisons were not conducted. Future research should employ post-hoc analyses to examine the nature of these differences more precisely. The observed variation may be related to differences in pedagogical preparation, engagement with educational research, and opportunities for reflective practice reported in previous studies (Arabahmadi et al., 2023; Ghamoushi et al., 2022; Liyuan et al., 2022). These findings support ecological perspectives, highlighting the interaction of personal resources, contextual conditions, and professional purpose in shaping teacher agency.

Taken together, the results suggest that teacher agency is closely linked to positive attitudes toward mobile teaching affordances and may vary across qualification levels, while demographic factors such as gender appear to play a less decisive role.

6. Conclusion

In summary, the findings of this study revealed a significant relationship between Iranian EFL teachers' attitudes toward mobile teaching affordances and their agency. The results indicated that more positive attitudes toward mobile teaching affordances were associated with higher levels of professional agency. This suggests that mobile technologies, when effectively integrated into teaching, can serve as meaningful affordances that support teachers in making informed decisions, initiating instructional changes, and taking responsibility for students' learning. The study further revealed no significant difference in agency between male and female teachers, indicating that gender was not a determining factor in shaping agency in this context. In contrast, educational qualification was significantly associated with agency, with agency levels varying across qualification groups.

The findings have important pedagogical implications. Teacher training programs should focus on developing digital literacy and pedagogical skills to integrate mobile technologies effectively. Institutions should foster supportive cultures that encourage reflection, collaboration, and autonomy. Curriculum designers are encouraged to embed mobile affordances in syllabi to enhance learner engagement, flexibility, and interactivity. Professional learning communities can further reinforce collective teacher agency and facilitate the sharing of best practices.

Several limitations should be acknowledged when interpreting the findings of this study. First, the participants were recruited through convenience sampling, which may limit the generalizability of the findings to the broader population of Iranian EFL teachers. Additionally, the sample included a substantially higher proportion of female teachers than male teachers. Second, the study relied exclusively on self-report questionnaires to measure both teachers' attitudes toward mobile teaching affordances and teacher agency. Self-report measures are vulnerable to social desirability bias, response inflation, and subjective interpretation, meaning participants may have reported more favorable attitudes or higher levels of agency than reflected in actual classroom practice. Future research could strengthen validity by incorporating qualitative methods such as interviews, classroom observations, or mixed-methods designs to triangulate findings and provide a more comprehensive understanding of teacher agency and technology integration.

Finally, the study highlights avenues for future research. These include exploring students' perspectives on teachers' mobile-assisted instruction, conducting longitudinal studies on the development of teacher agency and technology use, comparing different cultural and institutional contexts, employing qualitative methods to understand teachers' lived experiences, and investigating the impact of teachers' mobile affordance use and agency on student learning outcomes.

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Declaration of AI-Generated Content

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