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# FACTORS AFFECTING FACULTY ACCEPTANCE OF BLENDED LEARNING IN CHINA'S PRIVATE UNIVERSITIES ON AN EXTENDED UTAUT MODEL

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UTAUT, Leadership Style, Blended Learning, Behavioral Intention

#### Abstract:

**Keywords:** 

Under the background of digital transformation in education, blended learning has become an important direction of teaching reform in universities, and the acceptance of teachers directly affects its promotion effect. Based on the extended UTAUT model, incorporating the leadership style variable, and using the systematic literature review method and content analysis method, this paper classifies and integrates the empirical research on the adoption of blended learning by college teachers in the SCOPUS and CNKI databases from 2010 to 2025, and sorts out the influence mechanisms of five key variables on teachers' behavioral intentions to use blended learning in private universities in China. The research finds that performance expectancy and leadership style are the most significant predictors, while effort expectancy, social influence and facilitating conditions also have a significant positive impact on the intention to use. The research has expanded the theoretical application boundary of the UTAUT model and provided a theoretical basis and practical path for improving the adoption rate of blended learning in private colleges and universities in China.



#### Introduction

Under the background of the global digital transformation of education and the rapid development of information technology, blended learning, as a new teaching mode integrating traditional face-to-face instruction and online learning, has become an important direction of higher education reform. Especially after the COVID-19 pandemic, the promotion speed of blended learning in Chinese universities has significantly accelerated. It has not only become one of the regular teaching methods but also been listed by the Ministry of Education as a strategic priority for promoting the improvement of teaching quality and teaching innovation (Wang et al., 2024). Against this background, private universities, as an important part of China's higher education system, are faced with both opportunities promoted by the blended learning system and challenges in terms of teaching staff capabilities, technical facilities and management support. How to enhance teachers' acceptance of blended learning has become one of the core issues affecting the in-depth advancement of teaching reform (Qin and Tan, 2022).

As the direct implementer of blended learning, teachers' acceptance of blended learning not only determines whether the teaching mode can be effectively implemented, but also relates to students' learning experience and the improvement of educational quality. Existing research indicates that the factors influencing teachers' acceptance of new teaching technologies are rather diverse, including teachers' own cognition, support from the external environment, ease of use of the technology and expected effectiveness, etc. (Dai et al., 2025). However, at present, the research on the acceptance of blended learning by university teachers in China is to some extent fragmented and one-sided, lacking systematic literature induction and integration. Especially, the attention paid to the group of teachers in private universities is relatively insufficient. Therefore, it is necessary to systematically sort out the relevant research on the basis of the existing theoretical framework, identify and analyze the key influencing factors.

The Unified Theory of Acceptance and Use of Technology (UTAUT) was proposed by Venkatesh et al in 2003. It is widely used to explain the behavioral intentions and usage behaviors of individuals during the process of technology adoption. This model includes four core independent variables: performance expectancy, effort expectancy, social influence and facilitating conditions, and has been widely applied in empirical research on the acceptance of educational technology (Zhang & Wareewanich, 2024). It is notable that in recent years, an increasing number of researchers have attempted to introduce external variables into the UTAUT model to enhance its explanatory power. Among them, "leadership style", as a key variable in organizational management, is considered to have a potential driving and moderating effect on teachers' acceptance of educational technology (Aziz et al., 2020). Based on the original UTAUT model, this paper intends to incorporate leadership style as a parallel extended variable into the research framework to explore its role in the acceptance of blended learning in private colleges and universities in China.

Most of the existing studies adopt quantitative research methods and lack systematic reviews from an integrated perspective. Furthermore, the interaction mechanism between leadership styles and UTAUT variables has also been insufficiently studied. Therefore, it is necessary to systematically summarize and analyze the relevant empirical literature, clarify the main variables and their internal mechanisms that affect teachers' acceptance of blended learning, so as to provide references for the expansion of theoretical models and educational management practices. Based on this, this paper aims to systematically review the relevant



empirical studies on the acceptance of blended learning by Chinese university teachers from 2010 to 2025, focusing on five variables: performance expectancy, effort expectancy, social influence, facilitating conditions and leadership style, and exploring their influence mechanisms on teachers' behavioral intentions and acceptance.

### **Theoretical Basis and Conceptual Framework**

# **UTAUT Model**

The Unified Theory of Acceptance and Use of Technology (UTAUT) was developed by integrating eight classic technology acceptance models. Including the Technology Acceptance Model (TAM), Innovation Diffusion Theory (IDT), Social Cognition Theory (SCT), etc. The UTAUT model proposes four key predictor variables: performance expectancy, effort expectancy, social influence and facilitating conditions. It is used to explain the relationship between an individual's behavioral intention towards information technology and actual use behavior (Venkatesh et al., 2003).

In the field of educational technology, the UTAUT model is widely used to study teachers' adoption behaviors of emerging technologies such as online learning platforms, smart classrooms, and artificial intelligence tools (Xu & Chen, 2024). Performance expectancy refers to the extent to which teachers believe that the use of blended learning can enhance their teaching performance and teaching quality; effort expectancy is expected to reflect the extent of effort that teachers believe is required to use this technology; social influence reflects the influence exerted by others in the organization (such as leaders, colleagues, and students) on teachers' attitudes towards adopting blended learning; facilitating conditions include external conditions such as technical support, resource guarantee and training support. The structure of UTAUT is clear and the variables are concrete. It can effectively predict the behavioral intentions of teachers in educational scenarios. Therefore, it is used as the main theoretical framework in this study.

### Extended variable: Introduction of Leadership Style

Although the UTAUT model has strong explanatory power, the original model does not involve important social context variables such as organizational environment and leadership behavior. In recent years, several studies have attempted to incorporate leadership style as an external variable of the UTAUT model to explore its influence on teachers' technical adoption (Aziz et al., 2020). Leadership style refers to the behavioral patterns exhibited by managers in aspects such as goal setting, organizational motivation, and support feedback. Common types include transformational leadership and transactional leadership.

Under the background of educational technology transformation, leadership style not only directly affects teachers' motivation and attitude, but also indirectly promotes the improvement of performance expectancy and behavioral intentions by creating an atmosphere of trust and support. For instance, transformational leadership can enhance teachers' job engagement and acceptance through vision incentives and individual care, while transactional leadership strengthens teachers' sense of responsibility for technology adoption by clarifying reward and punishment mechanisms (Seyal., 2015). Especially in the educational environment of private universities, where the organizational structure is relatively flexible and the management dependence is stronger, the influence of leadership style on teachers' technical behaviors is more significant.



Therefore, based on the four core variables of the UTAUT model, this paper incorporates "leadership style" as a parallel independent variable to construct an extended UTAUT model, in order to explain more comprehensively the key mechanisms that affect the acceptance of blended learning by teachers in private universities.

# Research Context: Private Universities in China and Blended Learning

In China's higher education system, private universities, as non-public educational entities, have developed rapidly in recent years and have become an important force in cultivating highlevel talents. However, compared with public universities, private universities generally face the following challenges: tight funds, scarce resources, high mobility of the teaching staff, and flexible but unstable professional Settings (Ma, 2025). These structural characteristics determine its complexity and particularity when promoting the reform of blended learning.

On the one hand, blended learning can provide a breakthrough for private universities in terms of "teaching quality" and "school-running characteristics", which is helpful to make up for the disadvantage of insufficient hardware resources. On the other hand, however, due to the uneven technical foundation, the varying information literacy of teachers, and the imperfect organizational support mechanism, there is a significant difference between teachers' willingness to accept blended learning and their actual adoption behaviors. Whether teachers accept and actively participate in blended learning is jointly influenced by multiple factors such as school support, leadership guidance, training resources and their expected cognition of technology. Therefore, it is necessary to conduct the test of the theoretical model and the integrated analysis of the variable path based on the specific situation of private colleges and universities.

### **Conceptual Framework**

Based on the above theoretical foundation, this paper constructs a conceptual framework (see Figure 1) integrating the UTAUT model and leadership styles. This model consists of five main influencing factors: performance expectancy (PE), effort expectancy (EE), social influence (SI), facilitating conditions (FC), and leadership style (LS), which jointly act on teachers' behavioral intention (BI) for blended learning.





Figure 1: Conceptual Framework

# **Research Significance**

# Theoretical significance

This research has the following three important values in theory:

Firstly, based on the Theory of Unified Technology Acceptance and Use (UTAUT), this paper integrates and summarizes the influencing factors of the acceptance of blended learning by teachers in private colleges and universities in China through a systematic literature review, enriching the application dimensions of the UTAUT model in the field of educational technology adoption. Compared with previous studies that mostly focused on college students or teachers in public colleges and universities, this study focuses on the specific group of teachers in private universities, filling the gap in the dimensions of educational level and institution type in current research.

Secondly, this paper innovatively incorporates leadership style as an extended variable into the UTAUT model, providing theoretical support for the expansion of this theoretical framework in the context of organizational management. Through literature review, it is found that leadership style not only reflects organizational culture but also forms direct and indirect influence paths with teachers' behavioral intentions. This integrated framework helps to expand the theoretical boundaries of the UTAUT model.

### **Practical Significance**

At the practical level, the research results of this paper have the following implications for educational administrators, policymakers and the construction of the teaching staff in colleges and universities:

Firstly, this paper reveals five key factors that influence teachers' adoption of blended learning, namely performance expectancy, effort expectancy, social influence, facilitating conditions and leadership styles, which is helpful for universities to formulate targeted support strategies in the process of promoting blended learning. For example, the positive cognition and behavioral



intention of teachers towards blended learning should be enhanced by clarifying the path to improve teaching effectiveness, simplifying the operation process, strengthening peer collaboration and resource guarantee.

Secondly, the research emphasizes the positive role of leadership styles in promoting teachers' adoption of technologies. Especially in the context of private universities where resource allocation is highly dependent on management decisions, the leading, motivating and supportive behaviors of school and college leaders can significantly enhance teachers' willingness to adopt. This finding suggests that managers should focus on creating a trust-based organizational culture and give full play to the moderating and motivating functions of leadership styles, thereby improving the success rate of the promotion of blended learning (Chen, 2024).

Finally, this study provides theoretical support and empirical basis for the optimization of the education governance system in private universities. Under the background of national strategies such as "Strong Country in Higher Education", promoting the digital transformation of private universities is a key path to enhance educational equity and quality. This article systematically identifies the influence mechanism of teachers' adoption of blended learning, which is helpful for schools to construct a more scientific training mechanism, technical support system and evaluation feedback mechanism at the institutional level, further stimulate teachers' intrinsic motivation, and improve teaching quality and students' learning outcomes.

### Methodology

To comprehensively sort out and analyze the main factors influencing the acceptance of blended learning among teachers in private universities in China, this paper adopts the Systematic Literature Review (SLR) method, through a structured process, relevant empirical studies are retrieved, screened and analyzed, to ensure the systematicness, scientificity and repeatability of the research results. This study follows the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guiding principle, and the research process is divided into four steps: literature retrieval, setting of inclusion and exclusion criteria, data extraction and coding, literature analysis and summary. This study selected core databases in both Chinese and English for systematic literature retrieval, including CNKI and Scopus database. The search time range was set from January 2010 to March 2025 to ensure the coverage of the latest progress in blended learning and UTAUT model research. This study employs Boolean operators (such as AND, OR, NOT) to exclude irrelevant research and focuses on the literature that directly addresses the research problem.

To ensure the scientificity and relevance of the included literature, this paper sets clear inclusion and exclusion criteria. The inclusion criteria include: the research subjects must be teachers from universities, and studies that clearly distinguish between public and private university backgrounds will be given priority. The research must be based on the UTAUT model as the theoretical foundation or cover its core constructs (such as performance expectancy, effort expectancy, social influences, and facilitating conditions); the research content should focus on teachers' behavioral intentions or actual usage behaviors; the types of literature include peer-reviewed journal articles, master's and doctoral dissertations, and conference papers; the language is limited to Chinese or English, and it must be a publicly published work with full text accessible. The exclusion criteria include: the research subjects are primary and secondary school teachers, students or non-educational groups; the research



content has nothing to do with the adoption of technology or is not based on any theoretical framework; lack of empirical data support, ambiguous research methods or low data quality; repeated publications, abstract literature and informal publications, etc.

# **Findings and Analysis**

### Influence of Performance Expectancy on Behavioral Intention to Use Blended Learning

In the research on teachers' technology adoption behavior, performance expectancy has always been regarded as a key predictor influencing their behavioral intentions. It reflects the subjective judgment of teachers on whether "technology helps to improve teaching efficiency and work performance". From early studies to the present, a large number of empirical studies at home and abroad have consistently shown that regardless of the type of technology or educational background, performance expectancy have a significant impact on the usage intentions of university teachers.

The research conducted by Martin Garcia et al. (2014) in Spain empiratically verified that performance expectancy was one of the most influential variables in teachers' intention to adopt the blended learning system, providing a preliminary verification of the applicability of UTAUT in the field of higher education. Liu (2016) conducted a study using teachers from a university in southern China as samples. The results also indicated that performance expectancy significantly positively influenced the intention to improve information-based teaching ability, and its explanatory power was superior to factors such as effort expectancy and social influence, demonstrating the consistency of this variable in both Chinese and Western contexts.

After 2020, researchers began to pay more attention to the interaction mechanism between performance expectancy and other variables. For instance, Gunasinghe et al. (2020) found in the process of studying the adoption of virtual learning environments (VLes) by university lecturers in Sri Lanka that performance expectancy not only directly affect behavioral intentions but also indirectly enhance teachers' willingness to adopt by alleviating technological anxiety.

Recent years, research began to focus on the adoption mechanisms of artificial intelligence technology and online platforms. Gupta (2024) research indicates that among university teachers in India, performance expectancy are one of the most powerful variables influencing the intention to adopt AI tools, explaining over 70% of the variation in behavioral intentions. Correspondingly, the research on online learning platforms conducted by Hu and Zhang (2024) in China also reached a similar conclusion, indicating that the path coefficient of PE is significantly higher than that of other UTAUT variables. Two studies from different countries have formed strong mutual evidence. Al-Sabri et al. (2025) once again verified the core position of PE in the research of universities in the United Nations system, emphasizing that it has a decisive influence on the performance belief of the use behavior of AI tools.

As can be seen from the above, performance expectancy have continuously demonstrated robust predictive power in the research on teachers technology adoption. When teachers are confronted with various digital technologies such as blended learning, AI platforms, mobile learning or online courses, their fundamental concerns always revolve around the core perception of "whether this technology can enhance teaching efficiency and students' learning



outcomes". Therefore, in the process of promoting technology adoption in future universities, they should focus on demonstrating the "teaching effectiveness" of tools to teachers rather than merely emphasizing system functions and facilitating, in order to stimulate their intrinsic motivation and thereby increase the adoption rate and continuous use behavior of blended learning.

# Influence of Effort Expectancy on Behavioral Intention to Use Blended Learning

In the exploration of the acceptance of blended learning techniques by teachers in university, effort expectancy has always been regarded as an important predictor variable influencing their behavioral intentions. Effort expectancy refers to the ease of use that an individual feels when using a certain technology. Since the UTAUT model was proposed, a number of empirical studies have verified the significant role of effort expectancy in the adoption process of educational technology.

Liu (2016) took universities in South China as samples and found that the intention of university teachers to use information-based teaching tools is closely related to the ease of use they perceive. Research indicates that systems that are easy to operate and have a friendly interface are more likely to be accepted by teachers. The enhancement of efforts and expectancy helps to reduce teachers' resistance to new technologies. Yang (2018) found in her research on micro-lesson teaching technology that the operational difficulty perceived by teachers in the actual usage process significantly affects their adoption behavior, especially being more sensitive in terms of time investment and technical adaptation. This confirms that teachers' acceptance of teaching techniques is not only subject to functional considerations, but also highly dependent on the simplicity of their user experience.

Herodotou et al. (2021) conducted a study on the use of predictive learning analytics (PLA) tools, and the results also confirmed the importance of effort expectancy. Research has found that if teachers think a certain technology is easy to get started with and can be mastered quickly, their participation and willingness to use it continuously increase significantly. Conversely, there is an obvious phenomenon of "technology fatigue".

Ye et al. (2022) took some universities in Jiangxi Province as samples and analyzed the mechanism of teachers' adoption of new technologies based on the structural equation model. They found that effort expectancy have a significant positive impact on the intention to use, especially among the older teacher group, indicating that the concern for the convenience of use increases with age. Furthermore, the empirical research conducted by Gupta (2024) in India indicates that when promoting AI-assisted teaching tools in higher education, whether the technology is easy to use by teachers directly affects their willingness to adopt it. If teachers consider the technical operation complex and the training cost high, their willingness to adopt it will decline. However, if the interface is friendly and the functions are clear, the acceptance will be significantly enhanced.

Overall, the effort expectancy has been proven to be a key variable for teachers' acceptance of new teaching technologies worldwide. Research across different cultural and technological environments continuously reveals that only when teachers believe that a certain technology is "worth spending time learning and easy to master" are they more likely to be willing to incorporate it into teaching practice. This discovery provides clear guidance for the promotion of blended learning - while promoting technological updates, attention should be paid to the



operational training of teachers and the optimized design of human-computer interaction on the platform.

# The Influence of Social Influence on Behavioral Intention to Use Blended Learning

Social Influence (SI) is one of the core constructs in the UTAUT model, referring to the degree to which an individual perceives the necessity of adopting a certain technology under the influence of others (such as leaders, colleagues, and organizations). In recent years, domestic and foreign studies have continuously explored the role of social influence in the process of technology adoption by university teachers, and its influence path shows the importance of adjusting with technological evolution but remaining stable all the time.

In an earlier study, Radovan and Kristl (2017), through an empirical study on the use of virtual learning platforms by higher education teachers in Slovenia, found that teachers' acceptance of new technologies largely depends on organizational support and the attitudes of colleagues. This study clearly states that in the initial stage of the use of educational technology, social influence is the key external driving factor that promotes teachers' adoption. Subsequently, Zacharis (2019) further confirmed this view in the empirical study of Greek universities, pointing out that social influence is more significant in the "learning community" culture, especially when the teacher's identity is not yet stable or the understanding of new tools is not deep, exemplary behaviors from others are particularly important.

Entering 2020, in the research on the adoption of e-Learning in Sri Lankan universities by Gunasinghe et al. (2020), it was pointed out that social influence, performance expectancy, and effort expectancy jointly affect teachers' willingness to adopt. Among them, social influence is more reflected in the institutional advocacy and organizational norms of online learning platforms by universities. This kind of "upward pressure" has a reinforcing effect on enhancing teachers' confidence and identification with the new platform.

Liu et al. (2023) conducted research in Jilin, China, focusing on the adoption intentions of university teachers in the mobile learning environment. They found that social influence affects teacher behavior through the "exemplary identification mechanism", that is, teachers are more likely to show a stronger adoption intention in situations where the application rate of technology in their department or team is higher.

In the latest research, Khlaif et al. (2024) and Zaim et al. (2024) respectively examined teachers' willingness to adopt AI generative tools in the context of higher education in the Middle East and Indonesia, and both found that social influence played a significant role in shaping behavioral intentions. Furthermore, Hu and Zhang (2024), taking the online learning platforms of Chinese universities as an example, empirically analyzed and confirmed that social influence is one of the important paths affecting the intention to use, indicating that university teachers are more inclined to refer to the suggestions of their superiors and the practices of their peers when accepting new platforms.

In conclusion, the influence of social influence on teachers' intention of technology adoption behavior is widely applicable in the practice of higher education at home and abroad. Its mechanism of action includes both "normative pressure" and "exemplary influence". Although the intensity of the influence of social influence fluctuates in different technological forms and cultural environments, as an important social external variable in the process of technological



acceptance, its predictive ability for behavioral intentions has always been supported by empirical evidence. Therefore, in the promotion process of blended learning, university administrators should attach importance to building a "social support field", such as setting up technology-leading teachers, creating a community atmosphere, and optimizing the training mechanism, in order to stimulate positive imitation and recognition among teachers, and thereby enhance the overall acceptance of technology.

*The Influence of Facilitating Conditions on Behavioral Intention to Use Blended Learning* Facilitating conditions refer to the external support resources and organizational guarantees perceived by an individual when using a certain technology, including equipment and facilities, training systems, technical support, institutional policies, etc. (Venkatesh et al., 2003). In recent years, scholars have conducted a large number of empirical studies on the role of facilitating conditions regarding the behavioral intentions of university teachers in using technological tools or adopting blended learning, and have formed relatively clear but not completely consistent research conclusions.

From the overall trend, most studies suggest that facilitating conditions have a significant positive impact on the willingness of university teachers to adopt technologies. In Spain, Martin Garcia et al. (2014) took 445 university teachers as samples and found that facilitating conditions had a significant influence on teachers' adoption of blended learning, especially significantly enhancing teachers' behavioral intentions in terms of technical training and resource support. Zacharis (2019)'s research conducted at Greek universities also pointed out that facilitating conditions, along with variables such as performance expectancy, social influence, and hedonic motivation, jointly influence teachers' willingness to use mobile learning devices, emphasizing the necessity of hardware facilities and teacher support systems.

In the research of Asian countries, Gunasinghe et al. (2020) empirically found through the UTAUT-3 model of Sri Lankan universities that facilitating conditions, along with performance expectancy and hedonic motivations, significantly affected the acceptance of e-learning systems by university teachers, while social influences and technological innovation tendencies were not significant. Herodotou et al. (2023), in a study on teachers' use of Predictive Learning Analytics (PLA) systems in British universities, further pointed out that the lack of facilitating conditions is a key inhibitory factor affecting teachers' adoption behavior, especially in the context of insufficient training support and technical assistance.

It is worth noting that some studies have found that facilitating conditions may have a negative or non-significant impact on behavioral intentions in specific situations. In the research conducted by Zaim et al. (2024) on the adoption of generative AI teaching in Indonesia, it was found that teachers were relatively satisfied with the existing teaching resources, thereby reducing their motivation to adopt new tools. The facilitating conditions even had a negative effect on behavioral intentions (i.e., the "saturation effect of facilitating conditions"). This indicates that in an environment where educational resources are relatively abundant, the marginal effect of facilitating conditions on teachers' behavioral intentions may weaken.

In the Chinese context, Zhang (2018), through an empirical study on the online training platform for university teachers in Zhejiang region, pointed out that convenient conditions play a key supporting role in enhancing teachers' participation, especially in aspects such as the simplicity of operation, the timeliness of technical services, and the organizational guarantee



system. Fu et al. (2021) further proposed that in blended learning, facilitating conditions influence teachers' behavioral intentions through the joint effect of task technical matching degree (TTF), suggesting that the role of facilitating conditions should be considered in combination with the teaching task itself.

Zhao et al. (2024) analyzed the structural equations of 56 related literatures and found that in the economically developed eastern regions of China, university teachers have a stronger perception of facilitating conditions, and their explanatory power for behavioral intentions is also significantly enhanced, suggesting that geographical and institutional backgrounds can regulate the effect size of facilitating conditions.

To sum up, the facilitating conditions, as an important influencing factor for the adoption of technology by university teachers, are supported not only by objective resources such as technical support and training guarantee, but also limited by teachers' subjective perception and usage scenarios. From the perspective of the logical path, the influence of facilitating conditions on teachers' intentions for blended learning behaviors may be either direct or mediating through indirect variables such as perceived ease of use and performance expectancy. Furthermore, its influence is moderated by factors such as regional differences, technological saturation, and platform stability. In future research, the structural dimensions of facilitating conditions should be further refined, and the interaction mechanisms between them and other variables should be explored to provide more targeted practical guidance for the promotion of educational technology.

# The Influence of Leadership Style on Behavioral Intention to Use Blended Learning

In the research on educational technology acceptance, leadership style, as a key organizational management variable, has gradually attracted the attention of the academic community. Leadership style not only affects teachers' attitudes and behavioral responses to organizational change, but also plays an important role in promoting teachers to adopt emerging educational technologies such as blended learning. Especially in the environment of colleges and universities where the organizational structure is clearly hierarchical and teaching autonomy and institutional orientation coexist, the behavioral patterns of leaders often indirectly affect the behavioral intentions of teachers by influencing their sense of trust, belonging and autonomous experience.

Leadership styles are closely related to teachers' technology adoption behaviors. Nguyen et al. (2020) conducted an empirical study in higher education institutions in Vietnam, which pointed out that transformational leadership significantly enhances teachers' intention to adopt technology by improving their psychological acceptance of technological changes and stimulating their intrinsic motivation. This study, based on the expansion of the UTAUT model, verified the independent predictive effect of leadership on behavioral intentions beyond social influence. Radovan and Kristl (2017) found in their research at the University of Slovenia that when managers implement virtual classroom platforms, positive leadership styles (such as emotional support and goal guidance) can enhance teachers' perception of the system's effectiveness, thereby increasing their willingness to use it.

Similar findings have also been made in studies in the United States and the United Kingdom. Herodotou et al. (2021) pointed out in a study on the use of predictive learning analytics systems by university teachers in the UK that the support and incentive strategies of leaders



are one of the key guarantee factors for teachers' continuous use of technology. Compared with task-directive leadership, vision-driven leadership can better stimulate teachers' participation motivation and commitment to use. Fu and Zhu (2021) took local colleges and universities as samples to explore the teacher behavior model integrated with the Task-Technology Matching Theory (TTF) and the UTAUT model. The research pointed out that leadership style has an indirect impact on teachers' perception of facilitating conditions and performance expectancy, which in turn affects their usage intentions.

Zhao et al. (2024) conducted a meta-analysis of 56 studies on teachers' technology adoption across the country. This study, through structural equation modeling, found that the transformational leadership style has core value in mobilizing teachers' intrinsic motivation and shaping an organizational trust atmosphere, especially in the central and western regions and higher vocational colleges, where its role is more significant. In the eastern regions where the technical infrastructure is relatively complete, the influence of leadership styles is manifested as a reinforcing effect on convenient conditions and social norms. Furthermore, this study also points out that transactional leadership style can enhance teachers' behavioral intentions to a certain extent through institutionalized management and goal setting, especially applicable to task-based teaching organizations.

Overall, leadership styles affect teachers' blended learning adoption behaviors through multiple paths: firstly, by directly influencing teachers' emotions and identities, they enhance the positive emotions of technology adoption; secondly, by supporting resource allocation and institutional incentives, enhance teachers' perception of convenient conditions and performance expectancy; thirdly, by shaping the organizational cultural atmosphere, it indirectly influences the social influence path. Under the background of the increasing institutionalization and technologization of blended learning, how to stimulate teachers' autonomy and intrinsic motivation no longer only depends on the characteristics of the technology itself, but is also profoundly influenced by leadership styles. Therefore, in the process of promoting the implementation of blended learning in the future, leadership training should be emphasized, and university administrators should be encouraged to transform from "controlling leadership" to "motivating leadership" to enhance teachers' recognition and adoption of teaching techniques.

### Conclusion

Based on the Extended Theory of Unified Technology Acceptance and Use (UTAUT), this study systematically reviews and analyzes the empirical research results on the acceptance behavior of blended learning by university teachers at home and abroad from 2010 to 2025, focusing on five key variables - performance expectancy, effort expectancy, social influence, facilitating conditions and leadership style. The aim is to reveal the key mechanisms and paths influencing the adoption of blended learning by teachers in private colleges and universities in China.

The research finds that performance expectancy have always been the strongest predictor influencing teachers' behavioral intentions, demonstrating robustness across cultural and technological forms. Effort expectancy reflects the fundamental guarantee role of "technical usability" for teachers' adoption decisions, especially having a greater influence among older teachers or new technical personnel. Social influence variables continue to play a positive role in organizational advocacy, peer demonstration and cultural identity, strengthening the guiding



function of the collective atmosphere on individual decision-making. Although the facilitating conditions show a diminishing marginal effect in some high-resource environments, in the context of private colleges and universities, which have a relatively weak technical foundation and an unstable support system, their supporting role remains significant. Leadership style, as an extended variable introduced in this study, shows a multi-dimensional influence path: it not only directly enhances teachers' adoption motivation, but also indirectly strengthens the role of other UTAUT variables, especially in an environment with insufficient resources or imperfect systems, and has key leading value.

At the theoretical level, this paper expands the explanatory power of the original theory in the dimension of organizational context variables by constructing the "UTAUT+ Leadership Style" model, providing an integrated analytical framework for the research on the adoption of educational technology. Furthermore, the adoption of the systematic literature review method enables the research conclusions to have stronger generalization, representativeness and theoretical value.

At the practical level, the research results have multiple inspirations for policymakers, university administrators and educational technology implementer: first, focus on performance-oriented publicity strategies and strengthen teachers' cognition of the effectiveness of blended learning through data and cases; secondly, the operation process should be simplified, the training mechanism optimized, and the "perceived cost" of teachers' adoption reduced; thirdly, the role of leaders in shaping organizational culture and allocating resources should be fully exerted, and the enthusiasm of teachers for adoption should be enhanced through incentive mechanisms and a supportive atmosphere; fourth, a supportive social environment should be established to promote peer collaboration, cultural identity and community building, and form an organizational synergy for technology adoption.

In conclusion, this study not only provides systematic theoretical support and empirical evidence for understanding the adoption behavior of blended learning by teachers in private universities in China, but also offers management inspirations and policy suggestions for promoting the digital transformation of higher education. Today, as educational modernization and educational equity increasingly become national strategies, enhancing teachers' ability to adopt technologies will be an important fundamental path for colleges and universities to achieve high-quality development.

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