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Factors Influencing Satisfaction and Perceived Learning Performance in Blended Learning Using The Chaoxing Learning Platform

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Abstract

Background and Aim: Despite the success of blended learning, student satisfaction, and perceived learning performance remain key indicators of its effectiveness. While existing studies have explored these factors, most treat technology platforms generically, with limited focus on specific platforms. Therefore, this study investigates the factors influencing satisfaction (SAT) and perceived learning performance (PLP) in blended learning, specifically using the Chaoxing Learning Platform.

Materials and Methods: A quantitative research design was employed using a structured questionnaire, grounded in blended learning theories and the Technology Acceptance Model. The survey targeted students at the School of Intelligent Manufacturing, Zhanjiang University of Science and Technology. Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) were used to analyze the data from 493 valid responses.

Results: The analysis revealed significant positive relationships between the factors and satisfaction. Perceived Ease of Use (PEU), Perceived Usefulness (PU), Social Presence (SP), Teaching Presence (TP), and Cognitive Presence (CP) all contributed to higher satisfaction levels. Additionally, satisfaction was found to be a strong predictor of perceived learning performance, indicating that satisfied students believed they had performed better academically.

Conclusion: This study confirmed five key factors influencing student satisfaction in blended learning using the Chaoxing Learning Platform. It demonstrated a strong positive relationship between satisfaction and perceived learning performance, highlighting the central role of satisfaction in determining educational outcomes in blended learning environments. However, the study's focus on a single institution may limit the generalizability of the findings. Future research should explore diverse contexts and measure actual learning outcomes for a more comprehensive understanding.

Keywords: Perceived Learning Performance; Student Satisfaction; Chaoxing Learning Platform; Technology Acceptance Model; Community of Inquiry Framework

Introduction

Lately, the educational landscape has seen a notable infusion of advanced technologies, including artificial intelligence and big data, showcasing their extensive application and influence. Driving the modernization of education with the adoption of intelligent learning solutions to enhance innovation in teaching and learning processes is a clear direction in today's digital era. (Zhu, 2016). Students who grew up in a digitally ubiquitous environment no longer learn in traditional ways. They are willing and adept at using smart devices in learning environments, making traditional learning methods unsuitable for all students. (Pikhart & Klímová, 2020; Szymkowiak et al., 2021).

Blended learning is considered a better approach. (Ma'arop & Embi, 2016). The earliest attempts at blended learning began in 2000, and it became a major global trend in education by 2006 (Allen & Seaman, 2006; Güzer & Caner, 2014). By 2020, the COVID-19 pandemic had challenged the traditional face-to-face teaching model, making blended learning the mainstream teaching method during this period. (Kaffenberger, 2021). Blended learning, merging the interactive benefits of conventional classroom instruction with online education's adaptability, has become an important direction for educational innovation. The effective implementation of this teaching model is crucial to unleash its technological potential and meet the needs of modern education, so more and more schools are beginning to adopt blended learning. (Horn & Fisher, 2017; Thomas, 2010).

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One example of a university that has successfully implemented blended learning is Zhanjiang University of Science and Technology. This institution was chosen for the case study due to its systematic and early adoption of blended learning, making it a suitable model for examining the factors that contribute to the success of this approach. Starting in 2020, in response to the COVID-19 pandemic and following the global trend, Zhanjiang University of Science and Technology incorporated blended learning into all its courses. To support this transition, the university provided access to the Chaoxing Learning Platform, a learning management system (LMS), for both teachers and students.

The execution of blended learning requires choosing from a variety of teaching models and technologies that are constantly updated. (Inoue, 2009). From a blended learning perspective, LMS provides learners with various advantages, such as easy access to learning materials, communication with peers, collaborative learning, and online teacher feedback. (Chaw & Tang, 2018). In this context, Learning Management Systems are now essential for teachers and educational organizations to administer and provide learning materials in both online and blended environments. (Kilag et al., 2023). The Chaoxing Learning Platform is a Learning Management System that combines the functions of course study, knowledge distribution, and management collaboration. (Yan et al., 2022). Utilizing the Chaoxing Learning Platform for blended learning has been effective in enhancing students' self-directed learning skills, fostering teacher-student engagement, improving educational outcomes, and increasing awareness of adapting to swiftly evolving educational technologies. (Chen, 2022).

Despite the success of this method, satisfaction, and perceived learning performance are important indicators to evaluate the teaching influence of blended learning. (Ofosu-Ampong et al., 2020; Wu & Liu, 2013). A review of existing literature shows that, while the variables influencing students' satisfaction with blended learning or perceived learning performance have been studied, it must be noted that different technology platforms are treated generically, and there are few empirical studies on a certain technology.(Kasim & Khalid, 2016; Laifa et al., 2023; Mirabolghasemi et al., 2021; Zou et al., 2022). It is, therefore, necessary to pinpoint the factors that influence satisfaction and perceived learning performance in blended learning using the Chaoxing Learning Platform.

By examining Zhanjiang University of Science and Technology as a case study, this paper aims to provide insights into how specific factors within the context of one university can offer broader lessons for blended learning's successful implementation, particularly through the lens of a widely adopted LMS.

Objectives

The research objectives of this study are as follows:

1. To investigate factors influencing student satisfaction in blended learning using the Chaoxing Learning Platform.
2. To identify the influence of satisfaction on perceived learning performance in blended learning using the Chaoxing Learning Platform.

Literature review

Blended Learning

Blended learning is an educational strategy that combines traditional face-to-face instruction with technology-based teaching methods. (Garrison & Kanuka, 2004; Graham, 2006). Initially, traditional face-to-face instruction and technology-based teaching methods were seen as two distinct approaches. However, over time, it has been recognized that these methods are complementary, each enhancing the educational experience in its unique way. (Malik & Riasat, 2022). Because it effectively offers flexibility, timeliness, and continuity in learning, blended learning is regarded as the most efficient and widely embraced instructional approach by educational entities. (Rasheed et al., 2020).

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Chaoxing Learning Platform

In the context of blended learning, the use of Learning Management Systems has become increasingly critical. The Chaoxing Learning Platform has become an essential component of modern educational technology, especially within blended learning settings. Research indicates that the use of the Shaoxing Learning Platform in such environments significantly improves students' engagement and learning outcomes. Furthermore, the platform's comprehensive resources and interactive capabilities significantly improve the effectiveness of the blended learning environment. (Bu, 2019). Chen (2022)Discovered that the blended learning approach supported by the Chaoxing Learning Platform contributes to the enhancement of students' autonomous learning skills, fosters communication between instructors and learners, improves instructional outcomes, and increases adaptability to swiftly evolving educational technologies. A separate investigation verified that employing a blended learning strategy, which integrates digital and traditional teaching methods via the Chaoxing Learning Platform, aids in the comprehensive growth of students across various learning stages. This approach bolsters the active participation of students, aligns their educational experiences with the pedagogical plans of educators, and enables more targeted instructional practices by teachers. As a result, it significantly enhances the efficiency and quality of course instruction. (Liu, 2022).

Perceived Ease of Use

Perceived Ease of Use refers to the degree to which an individual believes that operating a specific system will be free of effort and straightforward. (Bazelais et al., 2018). In studies conducted under the framework of the Technology Acceptance Model, Al-Azawei et al. (2017) Demonstrated that when users find an LMS easy to use, their learning experience is influenced, thereby increasing their satisfaction with using the LMS in their courses. Dziuban et al. (2018) Found that a user-friendly LMS can improve user satisfaction. Specifically, after receiving training on the LMS, users were able to use these systems more effortlessly, which directly influenced their overall satisfaction with the LMS. Furthermore, in a study conducted with 99 undergraduate students at XYZ University, Chandra and Napitupulu (2021) Discovered that Perceived Ease of Use is the most critical factor affecting students' engagement with the LMS for online learning activities.

Perceived Usefulness

Perceived Usefulness represents the degree to which an individual thinks that using a particular system will enhance their performance. (Mailizar et al., 2021). According to Davis (1989), technology-based learning methods have been widely adopted among college students, with their satisfaction largely based on Perceived Usefulness. Thus, if students perceive the use of an LMS as highly useful, they are more likely to be satisfied with it. Multiple studies have shown that Perceived Usefulness has a significant positive influence on user satisfaction. (Lin & Wang, 2012; Zviran et al., 2005). This relationship has been confirmed in research across various fields, including K-MOOC courses. (Joo et al., 2018) and Learning Management Systems (Haddad, 2018). Wu and Liu (2013) Suggest that students tend to embrace and find contentment in blended learning once they experience the useful and convenient aspects of enhanced learning outcomes efficiency, and easy interaction with peers and teachers in the context of a blended learning setting. Shah and Attiq (2016) Found that technology-based learning methods have been widely adopted among college students, with their satisfaction mainly based on Perceived Usefulness. Therefore, if students believe using the Chaoxing Learning Platform is highly useful, they are more likely to be satisfied with it.

Social Presence

In blended learning, Social Presence refers to collaborative learning facilitated through peer interaction and support, characterized by affective expression, open communication, and group cohesion (Szeto, 2015). Social Presence serves as a critical marker for the expression of emotions and the continuity of engagement in online education, significantly influencing student satisfaction within the online course environment (Armah et al., 2023; Martin et al., 2022). A survey of students participating in synchronous online group discussions via the Zoom application found a positive relationship between Social Presence

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and student satisfaction (Wijaya et al., 2021). Research-based on the Community of Inquiry framework in a blended learning course at a public university in Sabah, East Malaysia, also indicated a significant positive correlation between Social Presence and course satisfaction (Keong & Keong, 2021). Another meta-analysis further confirmed a robust positive correlation between the inclusion of Social Presence in virtual courses and the satisfaction of students (Richardson et al., 2017). Aragon (2003) noted that when Social Presence fosters student participation, a sense of connection, and overall enjoyment of the course, it can effectively enhance student satisfaction.

Teaching Presence

Teaching Presence is characterized by the organization, guidance, and management of a class to guarantee that students attain significant and valuable learning outcomes. (Law et al., 2019). Teachers establish a Teaching Presence by structuring and organizing the educational content, promoting learning, and guiding students in collaborative exploration to enhance the learning experience significantly.(Armah et al., 2023). A study examined Teaching Presence and its influence on the remote learning satisfaction of nursing education program students, identifying Teaching Presence as a factor influencing learning satisfaction. (Yoo & Jung, 2022). A different investigation utilized the CoI framework and its instruments to evaluate Teaching Presence and its connection to satisfaction in online courses, discovering a strong positive link between Teaching Presence and satisfaction with the course. (Khalid & Quick, 2016). Kucuk and Richardson (2019) Explored the structural connections among teaching, social, and Cognitive Presences, along with engagement and satisfaction in online education contexts. Their research revealed that the primary factor contributing to satisfaction was Teaching Presence, exerting both direct and mediated influences on satisfaction.

Cognitive Presence

Cognitive Presence entails the capacity of students to build understanding by engaging in discussion and reflection as they participate in a community of inquiry. (Law et al., 2019). Cognitive Presence significantly influences learners' satisfaction with their educational encounters, as research has shown it positively influences student satisfaction with their learning experiences. (Salimon et al., 2021). According to Giannousi and Kioumourtzoglou (2016), by examining cognitive, social, and Teaching Presence as important predictors of overall student satisfaction in blended learning courses, researchers found that Cognitive Presence made the greatest contribution to predicting student satisfaction. Compared to teaching and Social Presence, Cognitive Presence was a more effective predictor of student satisfaction. Richardson et al. (2017) Investigated the connection between Cognitive Presence and satisfaction in online courses at Saudi universities using a non-experimental and correlational study design, identifying Cognitive Presence as a potent predictor of satisfaction in these courses. According to Martin et al. (2022), the research further supported this view by conducting a meta-analysis of 19 empirical studies on the CoI framework in online and blended learning environments, highlighting the strong correlation between Cognitive Presence and satisfaction in online and blended learning environments. It is observed that students who engage deeply in cognitive tasks like critical thinking, problem-solving, and the creation of knowledge tend to report higher satisfaction with their learning experiences.

Satisfaction

Satisfaction is part of perceived learning performance, reflecting the degree of students' satisfaction with online learning. If students are more satisfied, they may perceive that they perform better in online courses. (Luo et al., 2023). Ofosu-Ampong et al. (2020) Indicate that by utilizing information systems like the Kahoot mobile learning application, which incorporates gamified content to improve student learning behaviors, there is a correlation where increased satisfaction from these gamified applications leads to a heightened sense of perceived learning performance.

Perceived Learning Performance

Perceived learning performance refers to the extent to which learners believe they have benefitted academically from using a certain technology in the classroom (Zou et al., 2022). Perceived learning performance, as a measure, encapsulates the overall sentiment students have regarding their educational

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achievements, highlighting the growing importance of considering students' perceived learning performance within educational environments (Teo et al., 2023). If students are more satisfied, they are likely to perceive that they perform better in their courses (Luo et al., 2023).

Previous research supports the influence of Perceived Ease of Use, Perceived Usefulness, Social Presence, Teaching Presence, Cognitive Presence, and satisfaction on perceived learning performance. Studies have shown that when students find the learning management system easy to use and useful, their satisfaction increases. In online learning contexts, the roles of Social Presence, Teaching Presence, and Cognitive Presence are equally important, significantly enhancing student satisfaction by fostering a sense of participation, connection, and critical thinking. This satisfaction, in turn, is believed to improve students' perceptions of learning outcomes. Overall, these studies support the significant influence of multiple factors on student satisfaction and their perceived learning performance within blended learning settings.

Conceptual Framework

As depicted in Figure 1, the conceptual framework for this study is developed on the foundation of prior theoretical contributions, integrating seven key variables relevant to this investigation. The development of this framework involved the amalgamation of blended learning theories, the TAM Model, and the CoI model, alongside three antecedent theoretical frameworks. The study by Laifa et al. (2023)Applied the initial theoretical framework to clarify the dynamics among the three principal components of the TAM: Perceived Usefulness, Perceived Ease of Use, and Satisfaction. Mirabolghasemi et al. (2021) Integrated the CoI model into blended learning research, highlighting the crucial role of Social Presence, Cognitive Presence, and Teaching Presence in fostering satisfaction. Additionally, Zou et al. (2022) Established satisfaction as a pivotal factor influencing Perceived Learning Performance.

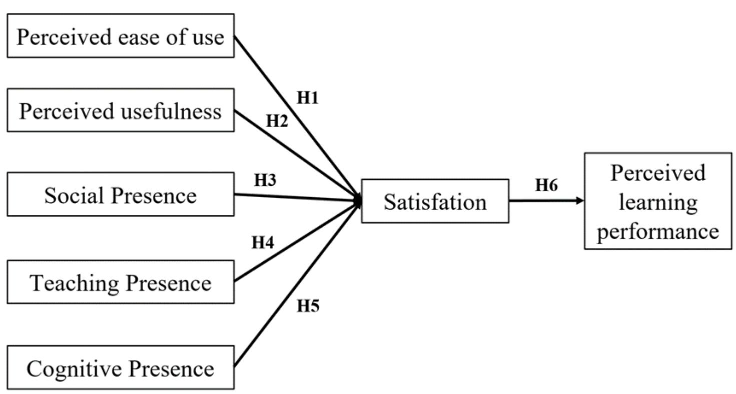

Figure 1 Conceptual Framework

The developed conceptual framework identifies seven attributes, organized into three categories: independent variables, dependent variables, and intermediary variables. The framework positions Perceived Usefulness, Perceived Ease of Use, Social Presence, Cognitive Presence, and Teaching Presence as the independent variables, Perceived Learning Performance as the sole dependent variable, and Satisfaction as the intermediary variable. Based on the objectives of the study and previous research, the following hypotheses were formulated:

$H_0$1:Perceived Ease of Use has no significant influence on Satisfaction.

Perceived ease of Use has a significant influence on Satisfaction.

$H_0$2:Perceived Usefulness has no significant influence on Satisfaction.

Perceived usefulness has a significant influence on Satisfaction.

$H_0$3:Social Presence has no significant influence on Satisfaction.

Social presence has a significant influence on Satisfaction.

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$H_0$4:Teaching Presence has no significant influence on Satisfaction.
Teaching presence has a significant influence on Satisfaction.
$H_0$5:Cognitive Presence has no significant influence on Satisfaction.
Cognitive presence has a significant influence on Satisfaction.
$H_0$6:Satisfaction has no significant influence on perceived learning performance.
Satisfaction has a significant influence on perceived learning performance.

Methodology

This quantitative research investigation was aimed at uncovering empirical evidence regarding the correlations among various factors, employing a quantitative survey questionnaire as the primary means of data collection. The study was specifically structured to identify the relationships between the variables through the application of Structural Equation Modeling.

Research Instrument

This research aims to pinpoint the determinants influencing satisfaction and perceived learning performance within a blended learning context through the Chaoxing Learning Platform, so a questionnaire is used. The questionnaire consisted of three parts: I. A screening question is set to ensure that participants meet the basic criteria for the study, which is having successfully finished at least one course delivered through a blended learning approach on the Chaoxing Learning Platform. II. This section was designed to collect basic demographic information from participants, including gender, the major they belong to, their grades, and age, among other details. III. This section, grounded in the conceptual framework previously described, is dedicated to evaluating the influences of seven critical variables on satisfaction and perceived learning performance. These variables are: Perceived Ease of Use, Perceived Usefulness, Social Presence, Teaching Presence, Cognitive Presence, satisfaction, and perceived learning performance. With 30 carefully designed items evaluated on a five-point Likert scale, this section seeks to deeply explore and quantify the importance and mechanisms of action of various factors in the online blended learning environment.

Population and Sample Size

The population consisted of students who were enrolled at the School of Intelligent Manufacturing, Zhanjiang University of Science and Technology. Using the A-Priori Sample Size Calculator for Structural Equation Models, the analysis determined that to detect the desired influence, a minimum sample size of 425 participants was necessary. To account for incomplete or invalid responses, the target number of surveys was set at 500.

Sampling Techniques

This study employed purposive sampling and quota sampling methods. Purposive sampling was used to select students who had completed at least one course utilizing the Chaoxing platform for blended learning, ensuring that participants had relevant experience. Quota sampling was based on the proportional distribution of students across different majors and grade levels, ensuring that the sample was sufficiently representative. All 500 students participated in the survey, but after validation, the data were valid for 493 of them.

Table 1 Number of Population and Sample Size

Eight target majors of the School of Intelligent Manufacturing	Grade	Population Size Total = 5415	Sample Size Total = 500
Electrical Engineering and Automation	Freshman	310	29
	Sophomore	246	23
	Junior	214	20
	Senior	148	14
	Freshman	155	14

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Eight target majors of the School of Intelligent Manufacturing	Grade	Population Size Total = 5415	Sample Size Total = 500
Electronic Information Engineering	Sophomore	128	12
	Junior	113	10
	Senior	126	12
Mechanical Design, Manufacturing and Automation	Freshman	160	15
	Sophomore	227	21
	Junior	198	18
	Senior	88	8
Computer Science and Technology	Freshman	423	39
	Sophomore	455	42
	Junior	564	52
	Senior	425	39
Automotive Service Engineering	Freshman	67	6
	Sophomore	27	2
	Junior	21	2
	Senior	0	0
Digital Media Technology	Freshman	179	17
	Sophomore	179	17
	Junior	102	9
	Senior	120	11
Internet of Things Engineering	Freshman	160	15
	Sophomore	86	8
	Junior	65	6
	Senior	55	5
Information Management and Information System	Freshman	159	15
	Sophomore	121	11
	Junior	48	4
	Senior	46	4

Data Analysis

In this study, an initial assessment of the event sequence was conducted through descriptive statistical analysis to provide a preliminary overview of the data. Subsequently, Confirmatory Factor Analysis was applied to examine the consistency between the data and the predetermined predictive model, ensuring that the structure of the variables under investigation aligns with theoretical expectations. During this process, key metrics such as the goodness of fit, factor loading, construct reliability, average variance extracted, and discriminant validity were meticulously evaluated. These assessment results were crucial for validating the reliability and effectiveness of the model. Furthermore, Structural Equation Modeling was used for an in-depth analysis of the hypotheses based on the results of the confirmatory factor analysis. Through sophisticated statistical methods, the relationships between variables and their influence on the predictive model are explored, thereby providing strong validation for the research hypotheses.

Results

Demographic Information

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In terms of gender distribution, the study included 328 male students, who made up 66.5% of the valid sample, while 165 students were female, accounting for 33.5% of the sample. Regarding grade level, the students were distributed as follows: 149 freshmen (30.2%), 134 sophomores (27.2%), 119 juniors (24.1%), and 91 seniors (18.5%).

As for the majors, the largest group of students was from the Computer Science and Technology program, with 168 students representing 34.1% of the sample. Other significant majors included Electrical Engineering and Automation with 86 students (17.4%), Mechanical Design, Manufacturing, and Automation with 61 students (12.4%), and Digital Media Technology with 53 students (10.8%). Smaller representations were observed in majors such as Electronic Information Engineering (47 students, 9.5%), Automotive Service Engineering (10 students, 2%), Information Management and Information Systems (34 students, 6.9%), and Internet of Things Engineering (34 students, 6.9%).

The detailed demographic data is summarized in Table 2, which presents the frequency and percentage distribution of these variables.

Table 2 Demographic Information of Samples

Variable	Category	Frequency	Percentage
Gender	Female	165	33.5%
	Male	328	66.5%
	Total	493	100%
Grade	Freshman	149	30.2%
	Sophomore	134	27.2%
	Junior	119	24.1%
	Senior	91	18.5%
	Total	493	100%
Major	Automotive Service Engineering	10	2.0 %
	Computer Science and Technology	168	34.1%
	Digital Media Technology	53	10.8%
	Electrical Engineering and Automation	86	17.4%
	Electronic Information Engineering	47	9.5%
	Information Management and Information System	34	6.9 %
	Internet of Things Engineering	34	6.9%
	Mechanical Design, Manufacturing and Automation	61	12.4%
	Total	493	100%

Confirmatory Factor Analysis

According to Mulaik et al. (1989) The Goodness of Fit for a Confirmatory Factor Analysis matrix is typically evaluated using various indices, such as the Comparative Fit Index, Root Mean Square Error of Approximation, and the Goodness of Fit Index. These indices are crucial for determining how well the proposed CFA model aligns with the observed data. Additionally, the chi-squared statistic serves as a test for exact fit within CFA models. Collectively, these measures provide researchers with essential insights into the degree of fit between the model and the data, thereby aiding in the validation of CFA matrices.

Based on the criteria of Hair et al. (2010) et al. and the actual values presented in Table 3, the results indicate that the model fits the data well across several key indices. The CFI, NFI, and TLI values are all well above the recommended threshold of 0.90, suggesting an excellent fit. The CMIN/DF ratio is below 3.00, indicating a well-fitting model that is not overly complex. Additionally, both the GFI and AGFI values exceed the 0.90 benchmark, further supporting the model's adequacy. The RMSEA value is below 0.05, which indicates a close fit between the model and the observed data. Given these favorable results, the model is considered to have a strong fit, allowing for the next steps in the analysis.

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Table 3 Goodness of Fit for Confirmatory Factor Analysis

Index	Criteria	Source	Result
CFI	CFI ≥ 0.90	Marsh et al. (2004)	0.981
NFI	NFI ≥ 0.90	Hair et al. (2010)	0.954
TLI	TLI ≥ 0.90	Bentler and Bonett (1980)	0.979
CMIN/DF	CMIN/DF < 3.00	Hair et al. (2010)	1.643
GFI	GFI ≥ 0.90	Hair et al. (2010)	0.919
AGFI	AGFI ≥ 0.90	Sica and Ghisi (2007)	0.902
RMSEA	RMSEA < 0.05	Hu and Bentler (1999)	0.036

Table 3 presents the results of the CFA, including the composite reliability and average variance extracted for each construct, offering a detailed overview of the model's performance and the adequacy of the items used to measure the latent variables.

Convergent validity was assessed to evaluate the construct validity of the measurement model. The criteria set forth by Hair et al. (2013) Were employed, which require Factor Loadings to be greater than 0.5 and the Average Variance Extracted to be greater than 0.50. These thresholds ensure that the constructs are adequately capturing the variance of the underlying indicators.

The analysis revealed that all constructs exhibited AVE values ranging from 0.693 for Satisfaction to 0.843 for Perceived Ease of Use. Each of these values surpasses the recommended cut-off of 0.50, indicating that a substantial portion of the variance is captured by the constructs, thereby confirming their convergent validity. Additionally, all factor loadings were greater than 0.5, which further supports the robustness of the model's measurement indicators. This suggests that the indicators associated with each construct are well-correlated, supporting the theoretical foundation of the measurement model. In simpler terms, it confirms that the items grouped under each construct are consistently measuring the same underlying concept, which is essential for the accuracy of the model.

Furthermore, the Composite Reliability values for all constructs were also found to be satisfactory, exceeding the 0.7 thresholds suggested by Hair et al. (2013). The CR values ranged from 0.871 for Satisfaction to 0.955 for Perceived Ease of Use, underscoring the internal consistency of the constructs. This high level of reliability suggests that the constructs are not only valid but also consistent in measuring the intended latent variables. These findings confirm that the measurement model is robust and suitable for further analysis.

Table 4 Confirmatory Factor Analysis Result, Composite Reliability (CR), and Average Variance Extracted (AVE)

Variable	Subject	Factor Loading (>0.5)	S.E.	T-value & P-value	CR (> .7)	AVE (>.5)
Perceived Ease of Use	PEU4	0.887	-	-	0.955	0.843
	PEU3	0.941	0.032	33.670 ***		
	PEU2	0.912	0.043	31.185 ***		
	PEU1	0.933	0.035	32.973 ***		
Perceived Usefulness	PU4	0.939	-	-	0.951	0.798
	PU3	0.868	0.027	31.476 ***		
	PU2	0.844	0.034	29.221 ***		

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Variable	Subject	Factor Loading (>0.5)	S.E.	T-value & P-value	CR (> .7)	AVE (>.5)
	PU1	0.916	0.026	37.084 ***		
	PU5	0.897	0.028	34.688 ***		
Social Presence	SP4	0.910	-	-	0.947	0.784
	SP3	0.867	0.039	29.087 ***		
	SP2	0.849	0.034	27.712 ***		
	SP1	0.878	0.035	29.999 ***		
	SP5	0.922	0.031	34.037 ***		
Teaching Presence	TP4	0.878	-	-	0.928	0.721
	TP3	0.741	0.034	20.091 ***		
	TP2	0.899	0.033	28.493 ***		
	TP1	0.819	0.033	23.809 ***		
	TP5	0.900	0.034	28.578 ***		
Cognitive Presence	CP4	0.915	-	-	0.941	0.762
	CP3	0.853	0.030	28.093 ***		
	CP2	0.879	0.029	30.155 ***		
	CP1	0.819	0.031	25.675 ***		
	CP5	0.896	0.033	31.587 ***		
Satisfaction	SAT3	0.763	-	-	0.871	0.693
	SAT2	0.856	0.062	18.984 ***		
	SAT1	0.875	0.060	19.215 ***		
Perceived Learning Performance	PLP3	0.858	-	-	0.889	0.728
	PLP2	0.916	0.051	23.820 ***		
	PLP1	0.781	0.052	20.400 ***		

Note: ***=P<0.001, **=P<0.01, *=P<0.05

Table 5 Discriminant Validity

	PLP	SAT	CP	TP	SP	PU	PEU
PLP	**0.853**						
SAT	0.378	**0.832**					
CP	0.119	0.390	**0.873**				
TP	-0.014	0.202	0.130	**0.849**			
SP	0.058	0.198	0.138	0.095	**0.885**		
PU	0.106	0.247	0.099	0.080	0.090	**0.893**	
PEU	0.133	0.258	0.236	0.237	0.228	0.261	**0.918**

As shown in Table 5, the square root of the AVE for each construct (indicated on the diagonal in bold) consistently exceeds the corresponding correlation coefficients with other constructs. This indicates that all constructs meet the discriminant validity criteria. Therefore, the discriminant validity among

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constructs is confirmed, providing a solid foundation for further structural equation modeling. This ensures that each construct is distinct and measures a unique aspect of the overall model.

Structural Equation Modeling

The SEM analysis results show that the model fits the data well. All fit indices meet or exceed the recommended thresholds, including CFI (0.980), NFI (0.952), TLI (0.978), GFI (0.916), and AGFI (0.901). The CMIN/DF value is 1.664, below the acceptable limit of 3.00, and the RMSEA is 0.037, indicating a very good fit. Overall, the model demonstrates strong fit and accuracy based on these key indices.

Table 6 The Goodness of Fit Results for SEM

GOF Indices	Criteria	Source	Result
CFI	CFI ≥ 0.90	Marsh et al. (2004)	0.980
NFI	NFI ≥ 0.90	Hair et al. (2010)	0.952
TLI	TLI ≥ 0.90	Bentler and Bonett (1980)	0.978
CMIN/DF	CMIN/DF < 3.00	Hair et al. (2010)	1.664
GFI	GFI ≥ 0.90	Hair et al. (2010)	0.916
AGFI	AGFI ≥ 0.90	Sica and Ghisi (2007)	0.901
RMSEA	RMSEA < 0.05	Hu and Bentler (1999)	0.037

Hypothesis Testing Results

Table 7 presents the SEM parameter estimates, offering a comprehensive analysis of the hypotheses tested in the study. It highlights the statistical significance and strength of each hypothesized relationship, which are essential for validating the proposed model. By summarizing the standardized coefficients (β), z-values, and the overall support for each hypothesis (Ha1 to Ha6), the table effectively demonstrates how well the data align with the theoretical assumptions underlying the research.

Table 7 Hypothesis Testing Results of the Structural Equation Model

Hypothesis	Standardized Coefficients (β)	z-value	Result
Perceived ease of Use has a significant influence on Satisfaction.	0.100	2.019*	Supported
Ha2: Perceived Usefulness has a significant influence on Satisfaction.	0.181	3.818***	Supported
Ha3: Social Presence has a significant influence on Satisfaction.	0.113	3.396*	Supported
Ha4: Teaching Presence has a significant influence on Satisfaction.	0.118	2.485*	Supported
Ha5: Cognitive Presence has a significant influence on Satisfaction.	0.327	6.788***	Supported
Ha6: Satisfaction has a significant influence on perceived learning performance.	0.364	7.446***	Supported

Note: *** (P<0.001) ** (P<0.01) * (P<0.05)

The first hypothesis (Ha1) posited that Perceived Ease of Use has a significant influence on Satisfaction. The analysis yielded a standardized coefficient (β) of 0.100 and a z-value of 2.019, which is statistically significant at the $p < 0.05$ level, thus supporting this hypothesis. This indicates that as students find the system easier to use, their satisfaction increases, reinforcing the importance of user-friendly design in educational technology.

Hypothesis Ha2, which proposed that Perceived Usefulness significantly influences Satisfaction, was also supported. The standardized coefficient (β) for this relationship was 0.181, with a z-value of 3.818, indicating significance at the $p < 0.001$ level. This suggests that the more useful students perceive the system

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to be, the more satisfied they are with it, highlighting the value of practical benefits in driving user satisfaction.

The third hypothesis (Ha3) suggested that Social Presence has a significant influence on Satisfaction. This was confirmed by the data, with a standardized coefficient (β) of 0.113 and a z-value of 3.396, also significant at the $p < 0.05$ level. This implies that the presence of social interactions within the learning environment positively influences student satisfaction, emphasizing the role of social connections in blended learning. In other words, fostering a sense of community among students can significantly enhance their overall satisfaction with the learning experience.

Hypothesis Ha4 tested whether Teaching Presence significantly influences Satisfaction. The results strongly supported this hypothesis, with a standardized coefficient (β) of 0.118 and a z-value of 2.458, indicating statistical significance at the $p < 0.05$ level. This highlights the crucial role of the organization, guidance, and management of the learning environment by the instructor in influencing student satisfaction, suggesting that effective instructional design and active facilitation are key factors in student success.

The fifth hypothesis (Ha5) examined the influence of Cognitive Presence on Satisfaction. The analysis provided support for this hypothesis as well, with a standardized coefficient (β) of 0.327 and a z-value of 6.788, significant at the $p < 0.001$ level. This indicates that deeper cognitive engagement through discussion and reflection within a community of inquiry leads to higher satisfaction, demonstrating that intellectual involvement in the learning process is crucial for positive learning experiences. Essentially, students who actively participate in constructing understanding through interaction and reflection are more likely to be satisfied with their learning outcomes.

Finally, Hypothesis Ha6 proposed that Satisfaction has a significant influence on Perceived Learning Performance. This hypothesis received robust support, with a standardized coefficient (β) of 0.364 and a z-value of 7.446, significant at the $p < 0.001$ level. This result underscores the strong influence of satisfaction on perceived learning performance, suggesting that students who are more satisfied with their learning environment are likely to perceive better academic performance. Simply put, if students are happy with how they are learning, they tend to believe they are doing well academically.

In summary, all six hypotheses (Ha1 to Ha6) were supported by the data, with each relationship demonstrating statistically significant influences in the hypothesized directions. These findings underscore the importance of Perceived Ease of Use, Perceived Usefulness, Social Presence, Teaching Presence, and Cognitive Presence in influencing Satisfaction, which in turn significantly influences Perceived Learning Performance.

The Structural Equation Model Path Diagram

The results presented in Table 8 and Figure 2 illustrate the direct and indirect effects of various constructs within the Structural Equation Model on Satisfaction and Perceived Learning Performance.

Table 8 Direct and Indirect Effects of the Interconnection

	Effect	CP	TP	SP	PU	PEU	SAT	PLP
SAT	DE	.327	.118	0.113	0.181	0.100	0.000	0.000
PLP	IE	.119	.043	0.041	0.066	0.037	0.364	0.000

Note: DE=Direct Effect, IE=Indirect Effect

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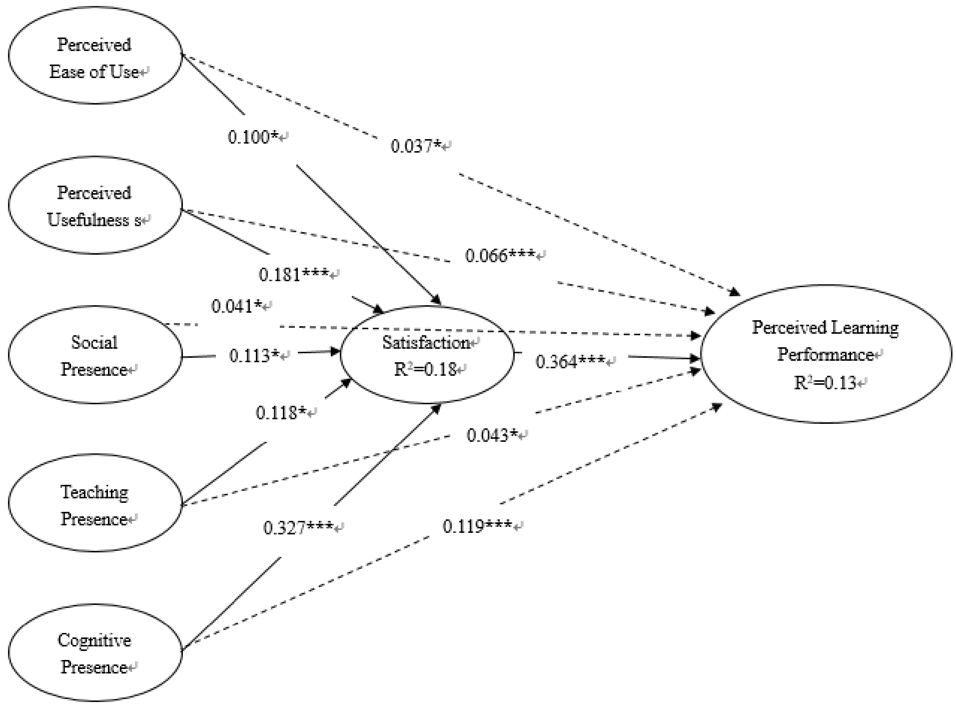

Note: ***p<0.001; **p<0.01; *p<0.05
Source: Constructed by author.
Figure 2 The Structural Equation Model Path Diagram of the Study

Perceived Ease of Use

Perceived Ease of Use contributes to Satisfaction with a direct effect coefficient of 0.100. This indicates that user-friendly design in educational tools is a significant factor in determining student satisfaction. Perceived Ease of Use does not directly affect Perceived Learning Performance but rather indirectly influences it through the mediating role of Satisfaction, with an indirect effect of 0.037. This suggests that while ease of use primarily boosts satisfaction, it also contributes modestly to improved perceptions of academic performance.

Perceived Usefulness

Perceived Usefulness has a substantial direct influence on Satisfaction, with a standardized coefficient of 0.181. This finding highlights the importance of students perceiving the learning system or method as beneficial and practical. The more useful students find the educational tools or methods, the more satisfied they are likely to be with the learning experience. Additionally, Perceived Usefulness indirectly influences Perceived Learning Performance through Satisfaction, with an indirect effect of 0.066. This underscores the idea that the perceived value of the learning experience not only enhances satisfaction but also positively affects students' perceptions of their academic performance.

Social Presence

Social Presence significantly influences Satisfaction, with a standardized coefficient of 0.113. This demonstrates that the sense of community and interaction among students positively influences their satisfaction with the learning experience. The data suggest that when students feel connected and engaged with their peers, their overall satisfaction with the course increases. Social Presence primarily affects Perceived Learning Performance through Satisfaction, with an effect size of 0.041. This indicates that the social dynamics within the learning environment first enhance satisfaction, which then mediates the improvement in perceived academic outcomes.

Teaching Presence

Teaching Presence plays a crucial role in enhancing student Satisfaction, with a direct effect coefficient of 0.118. This reflects the importance of the instructor's role in organizing, guiding, and facilitating the learning process. A well-executed Teaching Presence ensures that students feel supported and engaged, leading to increased satisfaction. Additionally, Teaching Presence has an indirect influence

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on Perceived Learning Performance through Satisfaction, with an effect size of 0.043. This suggests that while the instructor's presence primarily boosts satisfaction, it also contributes to improved perceptions of academic performance, albeit to a lesser extent.

Cognitive Presence

Cognitive Presence has a significant direct influence on Satisfaction, as evidenced by a standardized coefficient (β) of 0.327. This suggests that when students engage deeply with the content—through critical thinking, reflection, and meaningful discussions—their overall satisfaction with the learning experience increases. Furthermore, Cognitive Presence also exerts an indirect influence on Perceived Learning Performance, with an indirect effect of 0.119, mediated by Satisfaction. This indicates that strong cognitive engagement not only enhances student satisfaction but also positively influences their perception of academic performance through the mediating influence of satisfaction.

Satisfaction

Satisfaction has the strongest direct influence on Perceived Learning Performance with a standardized coefficient of 0.364, indicating that satisfaction serves as a crucial mediator between other influencing factors (such as Perceived Ease of Use, Social Presence, Teaching Presence, and Cognitive Presence) and perceived learning performance. This finding underscores the central role of satisfaction in determining how students perceive their academic success. The data suggest that when students are satisfied with their learning experience, they are much more likely to believe that they are performing well academically. Satisfaction, therefore, serves as a critical mediator between other factors (such as Cognitive Presence, Teaching Presence, and Perceived Usefulness) and perceived learning performance, highlighting its importance in the overall educational experience.

Discussion

First, the analysis confirmed five key factors that significantly influenced student satisfaction in blended learning environments using the Chaoxing Learning Platform: Perceived Ease of Use, Perceived Usefulness, Social Presence, Teaching Presence, and Cognitive Presence.

Perceived Ease of Use

The analysis revealed that students who found the Chaoxing Learning Platform easy to use were more likely to be satisfied with their learning experience. This finding aligns with the Technology Acceptance Model discussed earlier, where ease of use is a critical factor influencing user satisfaction. Dziuban et al. (2018) Similarly found that a user-friendly learning management system enhances overall student satisfaction.

Perceived Usefulness

The study showed that students who perceived the platform as beneficial to their studies reported higher satisfaction levels. This supports Davis's TAM, which suggests that Perceived Usefulness is a primary determinant of satisfaction. This finding is consistent with research by Lin and Wang (2012), who demonstrated that students' perceptions of the utility of learning tools significantly affect their satisfaction.

Social Presence

The data indicated that Social Presence, or the feeling of connectedness and interaction with peers, played a significant role in student satisfaction. This finding is supported by Keong and Keong (2021), who emphasized the importance of Social Presence in enhancing the learning experience in online and blended settings. When students feel connected to their peers, their engagement and satisfaction levels increase. This increase in satisfaction, in turn, positively influenced their perceived learning performance.

Teaching Presence

Teaching Presence, which involved the instructor's role in organizing and guiding learning activities, was found to have a strong influence on satisfaction. This is in line with findings by Kucuk and Richardson (2019), who highlighted the critical role of Teaching Presence in maintaining student engagement and satisfaction in blended learning environments. Effective teaching practices, including clear communication and timely feedback, were essential for student satisfaction.

Cognitive Presence

The study also found that Cognitive Presence, reflecting students' ability to construct and confirm meaning through reflection and dialogue, significantly influenced satisfaction. This finding aligns with the research by Salimon et al. (2021), who demonstrated that Cognitive Presence is a key predictor of satisfaction in online learning environments. Engaging students in meaningful cognitive activities enhanced their overall satisfaction with the learning experience.

Second, The analysis established a strong positive relationship between student satisfaction and perceived learning performance in blended learning environments using the Chaoxing Learning Platform.

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The results indicated that higher levels of satisfaction with the platform were associated with better perceived learning performance.

This finding is consistent with the literature discussed earlier. Studies byLuo et al. (2023) and Ofosu-Ampong et al. (2020) Similarly found that satisfaction with online learning tools correlates positively with students' perceptions of their academic performance. The present study extended these findings by demonstrating that satisfaction not only directly influenced perceived learning performance but also acted as a mediator between the influencing factors (Perceived Ease of Use, Perceived Usefulness, Social Presence, Teaching Presence, and Cognitive Presence) and perceived learning performance.

In essence, when students were satisfied with their learning experience—whether due to the platform's ease of use, perceived usefulness, or the presence of a supportive learning community—they were more likely to believe that they had performed well academically. This underscores the importance of focusing on student satisfaction as a key driver of perceived learning success in blended learning contexts.

Conclusion

This study identified and confirmed five key factors that influenced student satisfaction in blended learning using the Chaoxing Learning Platform: Perceived Ease of Use, Perceived Usefulness, Social Presence, Teaching Presence, and Cognitive Presence. The research demonstrated a strong positive relationship between satisfaction and perceived learning performance, highlighting the central role of satisfaction in determining educational outcomes in blended learning environments. These findings underscore the importance of developing user-friendly, engaging, and pedagogically sound blended learning environments. Educators should prioritize strategies that enhance Cognitive Presence, such as incorporating activities that promote critical thinking and reflective dialogue, alongside ensuring ease of use, practical benefits, and strong teaching and social interactions. This holistic approach will help maximize both satisfaction and perceived learning performance.

Recommendation

Future research could explore the long-term influences of student satisfaction on actual academic performance, as this study primarily focused on perceived learning performance. Investigating the relationship between perceived learning performance and actual learning outcomes could reveal whether students' satisfaction and perceptions accurately predict their real academic achievements over time, providing valuable insights into the long-term impact of satisfaction on academic success. However, this study focused only on perceptions and did not directly measure actual academic outcomes. Thus, conclusions about academic success should be treated cautiously until further empirical evidence is gathered.

Moreover, it is important to examine the role of technological support in blended learning environments. Technical support is crucial for ensuring that students can effectively use learning platforms like the Chaoxing Learning Platform. Future research could investigate how the availability and quality of technical support influence students' ease of use, perceived usefulness, and overall satisfaction, which in turn could affect their learning outcomes. The current study did not address ongoing technical support, a limitation that should be explored in future studies. Without proper technical assistance, even user-friendly platforms may fall short of students' expectations, leading to dissatisfaction and reduced learning performance.

Another essential area for future research is the influence of cultural differences on student satisfaction and learning performance. Cultural factors may shape students' expectations, learning styles, and interactions within blended learning environments. A more nuanced understanding of how students from different cultural backgrounds perceive and engage with platforms like Chaoxing could help educators and developers design more inclusive and adaptive learning environments. A limitation of this study is its focus on a single institution in a specific cultural context, which may limit the applicability of the findings in other settings.

Expanding this study to include different institutions, disciplines, and learning platforms would also help validate the generalizability of the findings. Different academic settings and disciplines may present unique challenges and opportunities in blended learning, affecting how students perceive ease of use, usefulness, and other critical factors. Exploring how demographic factors, such as learning styles, age, and cultural backgrounds, influence students' experiences in blended learning can provide deeper insights into how educational strategies can be tailored to meet diverse needs. The study's focus on students from the School of Intelligent Manufacturing limits the generalizability of the findings. Future studies should address this limitation by including more diverse samples to ensure the results apply to broader educational contexts.

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References

Al-Azawei, A., Parslow, P., & Lundqvist, K. (2017). Investigating the effect of learning styles in a blended e-learning system: An extension of the technology acceptance model (TAM). *Australasian Journal of Educational Technology*, *33*(2). https://doi.org/10.14742/ajet.2741

Allen, I., & Seaman, J. (2006). *Making the Grade: Online Education in the United States Needham.* MA: Sloan-C.

Aragon, S. R. (2003). Creating social presence in online environments. *New directions for adult and continuing education, 2003*(100), 57-68.

Armah, J. K., Bervell, B., & Bonsu, N. O. (2023). Modeling the role of learner presence within the community of inquiry framework to determine online course satisfaction in distance education. Heliyon, 9(5), 15803. doi: 10.1016/j.heliyon.2023.e15803.

Bazelais, P., Doleck, T., & Lemay, D. J. (2018). Investigating the predictive power of TAM: A case study of CEGEP students' intentions to use online learning technologies. *Education and Information Technologies,* 23, 93-111.

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological bulletin,* 88(3), 588.

Bu, X. (2019). The blended teaching mode based on Chaoxing learning APP—taking Advanced English course as an example. *2019 2nd International Conference on Education, Economics and Social Science (ICEESS 2019*),

Chandra, Y., & Napitupulu, T. A. (2021). Evaluation of student satisfaction in using the learning management system for online learning at XYZ University. *Turkish Journal of Computer and Mathematics Education (TURCOMAT),* 12(6), 2810-2816.

Chaw, L. Y., & Tang, C. M. (2018). What Makes Learning Management Systems Effective for Learning? *Journal of Educational Technology Systems*, 47(2), 152-169. https://doi.org/10.1177/0047239518795828

Chen, Y. (2022). Exploration of Blended Teaching in Comprehensive English Course Based on Chaoxing Mobile Platform. *2022 IEEE 2nd International Conference on Educational Technology (ICET), Beijing, China.*

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340. https://doi.org/10.2307/249008

Dziuban, C., Graham, C. R., Moskal, P. D., Norberg, A., & Sicilia, N. (2018). Blended learning: the new normal and emerging technologies. *International journal of educational technology in Higher education,* 15, 1-16. https://doi.org/https://doi.org/10.1186/s41239-017-0087-5

Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education,* 7(2), 95-105.

Giannousi, M., & Kioumourtzoglou, E. (2016). Cognitive, social, and teaching presence as predictors of students' satisfaction in distance learning. *Mediterranean Journal of Social Sciences*, 7(2), 439. DOI:10.5901/mjss.2016.v7n2s1p439

Graham, C. R. (2006). Blended learning systems. The handbook of blended learning: Global perspectives, *local designs*, 1, 3-21.

Güzer, B., & Caner, H. (2014). The past, present and future of blended learning: an in depth analysis of literature. *Procedia-social and behavioral sciences*, 116, 4596-4603.

Haddad, F. S. (2018). Examining the effect of learning management system quality and perceived usefulness on student's satisfaction. *Journal of Theoretical and Applied Information Technology,* 96(23), 8034-8044.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2013). *Multivariate Data Analysis.* Pearson Education Limited.

Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate Data Analysis.* 7th Edition, Pearson, New York.

Horn, M. B., & Fisher, J. F. (2017). New Faces of Blended Learning. *Educational Leadership,* 74(6), 59-63.

Hu, L. t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.

Inoue, Y. (2009). *Cases on Online and Blended Learning Technologies in Higher Education: Concepts and Practices: Concepts and Practices*. IGI Global.

Citation
Fan, M., & Li, C. (2025). Factors Influencing Satisfaction and Perceived Learning Performance in Blended Learning Using The Chaoxing Learning Platform. International Journal of Sociologies and Anthropologies Science Reviews, 5 (2), 225-242; DOI: https://doi.org/10.60027/ijsasr.2025.5626

Joo, Y. J., So, H.-J., & Kim, N. H. (2018). Examination of relationships among students' self-determination, technology acceptance, satisfaction, and continuance intention to use K-MOOCs. *Computers & Education*, 122, 260-272.

Kaffenberger, M. (2021). Modelling the long-run learning impact of the Covid-19 learning shock: Actions to (more than) mitigate loss. *International Journal of Educational Development*, 81, 102326.

Kasim, N. N. M., & Khalid, F. (2016). Choosing the right learning management system (LMS) for the higher education institution context: A systematic review. *International Journal of Emerging Technologies in Learning,* 11(6), 55-61.

Keong, T. C., & Keong, K. O. (2021). The Relationship of Teaching, Social and Cognitive Presence with Course Satisfaction in a TESL Programme Course in a Public University in Sabah, East Malaysia. Studies in English Language Teaching, 9(2). https://doi.org/10.22158/selt.v9n2p35

Khalid, M. N., & Quick, D. (2016). Teaching Presence Influencing Online Students' Course Satisfaction at an Institution of Higher Education. *International Education Studies,* 9(3), 62-70.

Kilag, O. K., Obaner, E., Vidal, E., Castañares, J., Dumdum, J. N., & Hermosa, T. J. (2023). Optimizing Education: Building Blended Learning Curricula with LMS. *Excellencia: International Multi-disciplinary Journal of Education (2994-9521*), 1(4), 238-250.

Kucuk, S., & Richardson, J. C. (2019). A Structural Equation Model of Predictors of Online Learners' Engagement and Satisfaction. *Online Learning,* 23(2), 196-216.

Laifa, M., Giglou, R.I. & Akhrouf, S. (2023). Blended Learning in Algeria: Assessing Students' Satisfaction and Future Preferences Using SEM and Sentiment Analysis. *Innov High Educ*. **48**, 879–905. https://doi.org/10.1007/s10755-023-09658-5

Law, K. M., Geng, S., & Li, T. (2019). Student enrollment, motivation and learning performance in a blended learning environment: The mediating effects of social, teaching, and cognitive presence. *Computers & Education,* 136, 1-12.

Lin, W.-S., & Wang, C.-H. (2012). Antecedences to continued intentions of adopting e-learning system in blended learning instruction: A contingency framework based on models of information system success and task-technology fit. *Computers & Education,* 58(1), 88-99.

Liu, Y. (2022). Study on the blended teaching mode of analog electronic technology based on chaoxing learning platform. *Advances in Vocational and Technical Education*, 4(1), 49-54.

Luo, Y. F., Kang, S., Yang, S. C., & Lu, C. M. (2023). The relationships among Taiwanese youth's polychronicity, multitasking behavior and perceived learning performance in online learning. *Frontiers in Psychology,* 14, 1131765.

Ma'arop, A. H., & Embi, M. A. (2016). Implementation of blended learning in higher learning institutions: A review of the literature. *International Education Studies,* 9(3), 41-52.

Mailizar, M., Burg, D., & Maulina, S. (2021). Examining university students' behavioural intention to use e-learning during the COVID-19 pandemic: An extended TAM model. *Education and Information Technologies,* 26(6), 7057-7077.

Malik, A., & Riasat, M. (2022). Decoding Blended Learning: Historical Development, Definitions and Components. *Sukkur IBA Journal of Educational Sciences and Technologies,* 2(1), 19-27.

Marsh, H. W., Hau, K.-T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings. *Structural equation modeling,* 11(3), 320-341.

Martin, F., Wu, T., Wan, L., & Xie, K. (2022). A Meta-Analysis on the Community of Inquiry Presences and Learning Outcomes in Online and Blended Learning Environments. *Online Learning,* 26(1), 325-359.

Mirabolghasemi, M., Shasti, R., & Hosseinikhah Choshaly, S. (2021). An investigation into the determinants of blended leaning satisfaction from EFL learners' perspective. *Interactive Technology and Smart Education,* 18(1), 69-84.

Mulaik, S. A., James, L. R., Van Alstine, J., Bennett, N., Lind, S., & Stilwell, C. D. (1989). Evaluation of goodness-of-fit indices for structural equation models. *Psychological bulletin,* 105(3), 430.

Ofosu-Ampong, K., Boateng, R., Kolog, E. A., & Anning-Dorson, T. (2020). Examining Information Quality and Perceived Learning Performance in a Gamified Environment. *2020 IEEE 22nd Conference on Business Informatics (CBI),*

Pikhart, M., & Klímová, B. (2020). eLearning 4.0 as a sustainability strategy for generation Z language learners: Applied linguistics of second language acquisition in younger adults. *Societies,* 10(2), 38. **https://doi.org/10.3390/soc10020038**

Citation
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Rasheed, R. A., Kamsin, A., & Abdullah, N. A. (2020). Challenges in the online component of blended learning: A systematic review. Computers & Education, 144, 103701. https://doi.org/10.1016/j.compedu.2019.103701

Richardson, J. C., Maeda, Y., Lv, J., & Caskurlu, S. (2017). Social presence in relation to students' satisfaction and learning in the online environment: A meta-analysis. *Computers in Human Behavior,* 71, 402-417.

Salimon, M. G., Sanuri, S. M. M., Aliyu, O. A., Perumal, S., & Yusr, M. M. (2021). E-learning satisfaction and retention: A concurrent perspective of cognitive absorption, perceived social presence and technology acceptance model. *Journal of Systems and Information Technology,* 23(1), 109-129.

Shah, H. J., & Attiq, S. (2016). Impact of technology quality, perceived ease of use and perceived usefulness in the formation of consumer's satisfaction in the context of e-learning. *Abasyn J. Soc. Sci,* 9(1), 124-140.

Sica, C., & Ghisi, M. (2007). The Italian versions of the Beck Anxiety Inventory and the Beck Depression Inventory-II: Psychometric properties and discriminant power. Leading-edge psychological tests and testing research, 27-50.

Szeto, E. (2015). Community of Inquiry as an instructional approach: What effects of teaching, social and cognitive presences are there in blended synchronous learning and teaching? *Computers & Education,* 81, 191-201.

Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., & Kundi, G. S. (2021). Information technology and Gen Z: The role of teachers, the internet, and technology in the education of young people. *Technology in Society, 65*, 101565.

Teo, S. C., Lilian, A., & Koo, A. C. (2023). Examining the effects of academic motivation and online learning on Malaysian tertiary students' psychological well-being and perceived learning performance. *Cogent Education,* 10(1), 2186025.

Thomas, P. Y. (2010). *Towards developing a web-based blended learning environment at the University of Botswana*. University of South Africa.

Wijaya, M. I., Suzanna, S., Utomo, D., & Adnizio, K. (2021). Analysing The Impact of Social Presence on Student Satisfaction Through Small Group Discussion in A Synchronous Online Learning. *2021 International Conference on Software Engineering & Computer Systems and 4th International Conference on Computational Science and Information Management (ICSECS-ICOCSIM),*

Wu, J., & Liu, W. (2013). An Empirical Investigation of the Critical Factors Affecting Students' Satisfaction in EFL Blended Learning. Journal of Language Teaching and Research, 4, 176-185. https://doi.org/10.4304/jltr.4.1.176-185

Yan, J., Yang, H., Niu, J., & Chen, Y. (2022). Smart Teaching Reform and Practice of Flipped Classroom in Culture Geography Course Based on Chaoxing Learning Platform. *Journal of Education and Learning,* 11(6). https://doi.org/10.5539/jel.v11n6p103

Yoo, L., & Jung, D. (2022). Teaching Presence, Self-Regulated Learning and Learning Satisfaction on Distance Learning for Students in a Nursing Education Program. *Int J Environ Res Public Health,* 19(7). https://doi.org/10.3390/ijerph19074160

Zhu, Z. (2016). New developments of smarter education: from flipped classroom to smart classroom and smart learning space. *Open education research,* 22(1), 18-26.

Zou, C., Li, P., & Jin, L. (2022). Integrating smartphones in EFL classrooms: Students' satisfaction and perceived learning performance. *Education and Information Technologies,* 27(9), 12667-12688.

Zviran, M., Pliskin, N., & Levin, R. (2005). Measuring user satisfaction and perceived usefulness in the ERP context. *Journal of computer information systems,* 45(3), 43-52.