

## EXAMINING ENGLISH MAJORS' PERCEPTIONS OF THE RELATIONSHIP BETWEEN TEACHING PRESENCE, SATISFACTION AND ACADEMIC ACHIEVEMENTS IN SYNCHRONOUS ONLINE CLASSES

**An Ngoc Minh PHAM**

ORCID: 0000-0002-0697-4557  
Faculty of English  
FPT University  
Can Tho City, VIETNAM

**Cao-Tuong DINH**

ORCID: 0000-0002-3879-7655  
Faculty of English  
FPT University  
Can Tho City, VIETNAM

**Anh Phuong Ngoc TRAN**

ORCID: 0000-0002-3879-7655  
Faculty of English  
FPT University  
Can Tho City, VIETNAM

**Received:** 10/04/2025 **Accepted:** 15/08/2025

### ABSTRACT

Growing interest in online education has led to considerable research on factors influencing students' learning outcomes, yet research on the relationship between teaching presence and student satisfaction and academic achievements in synchronous online English classes in developing countries is scanty. The current study aimed to address this gap by employing a quantitative design and Partial Least Squares Structural Equation Modeling (PLS-SEM) for data analysis. A total of 182 surveyed respondents from a private Vietnamese university, enrolling in various general English levels in synchronous online modes for at least one semester, completed a closed-ended five-point Likert scale questionnaire survey over a two-month period. The findings indicate that teaching presence was significantly associated with both extrinsic and intrinsic motivation, as well as student satisfaction in synchronous online English classes, although it does not directly influence academic performance. Extrinsic motivation showed a significant positive relationship with academic achievement, whereas intrinsic motivation shows no significant effect. Student satisfaction functions as a mediator between teaching presence and academic performance, with higher satisfaction correlating with improved academic outcomes. The research underscores the importance of teaching strategies that promote satisfaction and extrinsic motivation to bolster student success in online learning environments, specifically in the Vietnamese context, where online learning mode is burgeoning. Moreover, this study contributes to current research by providing additional empirical evidence on theoretical insights and applied applications for online English learning environments by focusing on the unique challenges and opportunities that synchronous online classes present in the Vietnamese educational system, thereby addressing a gap in research from developing countries.

**Keywords:** Teaching presence, synchronous online learning, satisfaction, academic achievement, EFL.

## INTRODUCTION

The COVID-19 pandemic has expedited online teaching and learning modalities as the “new normal.” A lack of physical presence in online classes makes teaching presence a much-needed factor to boost students’ participation and motivation (Li & Wang, 2024). Ay and Daghan (2023) explored how the integration of the Community of Inquiry (CoI) model into flipped learning can enhance students’ critical thinking and their perceptions of social, teaching, and cognitive presence. Their findings suggest that this integration significantly improves students’ engagement and critical thinking, reinforcing the importance of teaching presence in motivating students and fostering deeper learning in online environments. Yorganci (2025) found that integrating synchronous online discussions with flipped learning approaches significantly enhances student engagement and self-regulation, which is crucial in maintaining motivation in the absence of physical presence. Kucuk and Richardson (2019) found that teaching presence was one of the significant predictors of satisfaction among public university graduate students in online learning environments. In a similar vein, Pang (2022) highlighted that teaching presence in web-based flipped learning improves EFL learners’ critical thinking and engagement, showing that instructors’ effective presence can significantly boost student interaction and participation. Ladyshewsky (2013) highlighted the central role of instructors in influencing student satisfaction and emphasized the importance of teaching and social presence in driving learning quality. Similarly, Abualadas and Xu (2023) conducted a systematic review comparing non-traditional (online) and traditional (face-to-face) anatomy teaching in medical schools, arguing that teaching presence played a crucial role in enhancing student satisfaction and academic performance in online education by incorporating relevant and engaging learning experiences, addressing technical challenges, and meeting students’ expectations. Furthermore, the use of interactive instruments in online teaching could yield similar learning effectiveness for both higher and lower-performing postgraduate students (Wang et al., 2021).

Regarding the impact of teaching presence on students’ academic achievements, Nieuwoudt (2020) found the increase in students’ academic success in online learning when they were provided with various activities to participate and interact online. Another study demonstrated that teaching presence, which includes instructional design, facilitating interaction, and direct instruction, significantly enhances students’ learning outcomes and satisfaction (Li & Wang, 2024).

Previous research has extensively documented the correlation between teaching presence and student satisfaction within virtual learning environments. For instance, Cai et al. (2022) found a positively significant impact of teaching presence on students’ satisfaction in their mixed-methods design for the investigation of the impact of diverse communication channels on undergraduate students’ experience in synchronous online environments in two universities in southwest China. In a similar vein, previous research also found students’ positive perception of teaching presence on their motivation through basic psychological needs in blended learning environments (Adam et al., 2023). However, Duha et al. (2022) did not find the relationship of students’ perceived values of teaching presence and their contentment in cyber learning modes.

The existing literature underscores the pivotal role of teaching presence in augmenting students’ satisfaction and academic performance within online learning environments. Active instructor engagement, through guiding discussions, offering support, and fostering a positive learning atmosphere, has been found to significantly enhance both student satisfaction and academic outcomes. However, the effectiveness of this productive synchronous online environment, particularly for students learning general English at various proficiency levels, remains to be fully explored. Therefore, this study aims to examine the specific impact of teaching presence on the satisfaction and academic achievements of EFL students in synchronous online classes. To obtain this objective, three research questions were framed:

1. To what extent does teaching presence have an impact on students’ motivation and satisfaction in synchronous online English classes?
2. To what extent do extrinsic and intrinsic motivations influence students’ academic outcomes in synchronous online English classes?
3. What mediating effects does student satisfaction exert on the relationship between teaching presence and academic performance in synchronous online English classes?

## LITERATURE REVIEW

### Students' Perceptions of Learning in Online Learning

The integration of the internet and computers has opened up many educational opportunities. In particular, online learning has been emerging and bringing a plethora of benefits and challenges for a broad range of learners. Consequently, a considerable amount of research has been conducted to examine students' perceptions of the advanced type of learning, revealing both positive and negative reactions.

Regarding the strengths of online learning perceived by students, Hussein et al. (2020) pointed out that this form of learning, in response to the COVID-19 pandemic, could supply students with a secure and comfortable learning environment. While this study focuses on online learning in general, it provides insights that may be relevant to online language learning. Additionally, online learning has been shown to improve efficiency in terms of both time and cost by minimizing the demand for traveling (Shim & Lee, 2020). Similar findings, which focus on general online education, were echoed by Muthuprasad et al. (2021), whose study found that flexibility and convenience were key factors enhancing online learning. This suggests that students in both general online learning and online language learning contexts benefit from re-watching recorded classes, freely choosing their learning pace, and accessing course materials from the convenience of their home computers. Moreover, studies such as that by Besser et al. (2022) highlight that online learning can foster students' competencies in using technology, a benefit likely applicable to language learning environments. Finally, Nurohmat (2020) argues that, when tailored to students' needs, online learning can outperform traditional learning - an observation that may also hold true in the context of online language education.

More than the positive opinions about online learning, studies have shown the challenges too, though these mostly center on online education in general and not on the specific context of language learning. To illustrate, the connectivity problem has remained a major roadblock (Amir et al., 2020; Muthuprasad et al., 2021; Shim & Lee, 2020). This problem, such as both unstable internet and out-of-sync problems between the voice and the image, is not exclusively a language learning issue but encompasses all other online learning contexts. The home environment, for example, may be one of the distractions that exist, which seriously challenges students' concentration and thus, they are not able to remain focused (Amir et al., 2020; Hussein et al., 2020; Muthuprasad et al., 2021). Besides, many studies emphasize that there is "insufficient interactivity" which is experienced in online learning environments (Besser et al., 2022) and that limits students' capacity to interact with their teachers and peers. This problematic issue, which is prominent in online language learning where communication is of utmost importance, was furthermore aggravated by students' disinclination to open cameras resulting in isolation (Oliveira et al., 2021). Consequently, scores of students reported that they were more stressed and less satisfied with online learning during the pandemic (Amir et al., 2020), a statement that was often seen in both general online and language-based studies. Contrasts in online classes are clearly demonstrated by Jan (2020) who found that learners usually prefer face-to-face interactions which are relevant to both ordinary and language-centered online learning.

### Effect of Teaching Presence on Students' Motivation and Student Satisfaction in Online Learning

Teaching presence plays a vital role in determining the success of online education, describes the behavior of teachers in online classrooms (Garrison et al., 2010) and "the 'methods' that instructors use to create the quality online instructional experiences that support and sustain productive communities of inquiry" (Bangert, 2008, p. 40). Therefore, the research-related aspects of teaching presence still attract many researchers and educators.

The relation between teaching presence and student satisfaction has been a subject of thorough study in the online learning environment, but not all of these studies focus only on online language learning. Researchers Richardson et al. (2015) explored instructor presence in fully asynchronous online courses and identified teaching presence as a main factor with instructor involvement that showed a direct relationship with the entire student satisfaction in virtual learning environments. Therefore, although

this discovery is applicable to various kinds of online learning, it can also be to language learning settings, as well. In one study, researchers found a high degree of connection between teaching presence and student satisfaction in blended and full online courses, which was then confirmed by various other pieces of research (Khalid & Quick, 2016; Lim, 2018). However, Caskurlu et al. (2020) in a meta-analysis of predominantly asynchronous and blended learning studies reported that the link between teaching presence and satisfaction was moderate, pointing out that the specificity of the situations should be taken into account. Fatani (2020) conducted a comprehensive study on synchronous online learning through video conferencing platforms in a wider sense, providing grounds to show that students felt the teaching presence was the most gratifying thing as a faculty could support them and develop interaction with groups, albeit the technical challenges related to video conferencing tools. On the other hand, Cai et al (2022), through a synchronous online environment, stated that by decreasing the perceived gap between teachers and students, educators can evoke the teaching presence, which will consequently lead to increased satisfaction - something that is essentially true for online language learning. Likely, Turk et al. (2022) found out that teaching presence is a pivotal element of satisfaction which is based on the students' sense of competence. They say that teaching presence in both general online learning and language-specific contexts is a vital aspect, thus elaborating on the differences between the two when looking at the literature.

Along with the development of the online learning area, many studies have been carried out to find ways to increase and maintain student motivation but only a few have focused on English language learning settings particularly. An example is given by Reeve (2006) who stressed out the significance of the teacher's motivating style which is a key element in the promotion of student motivation in all online learning types. Hsu et al. (2019) examined the introduction of the Self-Determination Theory (SDT) in asynchronous online classes, and they reported a positive relationship between the teacher's provision of support and student motivation which could be adapted to language learning but was not targeted in this study specifically. However, in synchronous online environments which are examples related more to language learning, Kozar (2016) concluded that teachers' successful webcam use can increase students' social presence which subsequently ups their interaction with online language classes. Furthermore, Zoom can also be used to enhance student learning by Kohnke and Moorhouse (2022). Furthermore, another researcher, Baker (2010), contends that the authentic role of the teacher was one of the factors that enhance student motivation. Teachers can also use appropriate pedagogical techniques and activities that promote intrinsic and extrinsic motivation. These findings are in line with a more recent study by Shi et al. (2021). Despite the studies performed by Bosch and Spinath (2023), which target student motivation in online learning in general, there is a certain deficiency in the work designed to investigate how teachers can motivate students in synchronous online language learning environments. Therefore, it is of utmost importance that the findings which are of a general nature concerning online learning are discerned from those which are direct to language learning so that a more focused and correct review of the literature can be made.

### **Effect of Teaching Presence on Students' Academic Performance in Online Learning**

Ulum's (2022) meta-analysis revealed that online education during the pandemic had a moderate, consistent effect on academic achievement across various student levels, methodologies, and lecture facilitators. Teaching presence has been shown to foster students' academic performance in online EFL listening courses (Suharno et al., 2023) and has been recognized as a principal determinant of success in engineering education using e-learning platforms (Purwandari et al., 2022). Studies that are particularly relevant to language learning, Tussyana et al. (2023) attributed teaching presence as the key factor that promoted students' academic success; therefore, it was suggested that additionally provided student support in online learning environments is required. This result follows the findings of the study by Joksimovic et al. (2015), who demonstrate the contribution of teaching presence as the fundamental element of improving academic performance in which most probably can be extended to those in online language courses where teaching presence is a fundamental component. Kanellopoulou and Giannakoulou (2020) are also the ones to have shown that students' lack of communication and guidance from the teacher caused their motivation to fall which, in due course, resulted in low academic achievements, a phenomenon clearly linked to online

language learning where communication is crucial. Consequently, educators should not only improve the virtual learning environment but also offer them inspiration, encouragement, and motivation so that students will be thereby both satisfied and academically successful (Abuhassna et al., 2020; Atmojo & Nugroho, 2020). These results imply the need for the operation of generic online learning to be clearly distinct from language-based online learning, as teaching presence and the support one has might vary in the two settings, focussing more on language.

From the above literature review, it can be concluded that teaching presence is a pivotal element in enhancing student academic performance. Therefore, we hypothesized that it also had positive effects on students' learning English in synchronous online classes.

### **Effect of Students' Motivation on Student Satisfaction in Online Learning**

Student satisfaction is characterized by students' perceptions of their educational experience (Sahin & Shelley, 2008). It has been identified as a predictor of both the success of the courses and student accomplishments (Alqurashi, 2019; Kucuk & Richardson, 2019), particularly in asynchronous online environments. Although student satisfaction in traditional face-to-face learning environments is shaped by various factors, such as interaction with instructors and peers, the establishment of these relationships has become increasingly difficult for students in synchronous online learning settings (Cai et al., 2022). It is believed that student satisfaction with an online course might be anticipated by their previous experience, attitudes toward online learning, and their motivation (Kovacevic et al., 2021).

Recent studies consistently show that motivation, both intrinsic (personal interest) and extrinsic (external rewards), significantly influences satisfaction in online learning environments. Wei and Chou (2020) in the context of asynchronous online learning, found that students' perceptions of their readiness and resources in online learning environments play a critical role in shaping their learning performance and satisfaction, highlighting that intrinsic motivation alone may not fully account for satisfaction without considering students' preparedness and the perceived quality of online course structures. Ryan and Deci (2020) emphasized that intrinsic motivation, driven by interest and enjoyment, has a more direct relationship with student satisfaction and academic performance, fostering deeper engagement and long-term satisfaction. In blended learning environments, intrinsic motivation fosters deeper engagement and long-term satisfaction by encouraging proactive learning behaviors, while extrinsic motivation offers shorter-term benefits (Liu et al., 2024). These motivations also shape online learning behaviors, mediating their impact on satisfaction and academic performance (Ferrer et al., 2022; Liu et al., 2024). Bailey et al. (2021) and Hettiarachchi et al. (2021) identified motivation as a key factor in enhancing student satisfaction with online learning, although Layona et al. (2018) noted that high satisfaction was not always due to high motivation, while low satisfaction was often linked to low motivation in asynchronous, web-based augmented reality learning environments.

From the above analysis, it can be inferred that motivation is one of the key factors in predicting and improving student satisfaction with online learning. However, the relationship between motivation and satisfaction is complicated and impacted by various other factors, including prior experiences, attitudes, the quality of various kinds of interactions, and inherent hindrances in online learning contexts. Identifying factors that can enhance student motivation should be a key focus for educators and institutions to improve student satisfaction and overall success in online education.

### **Effect of Students' Motivation on Students' Academic Performance in Online Learning**

Metriana (2014) proposed two key learning outcomes for students: academic achievement, measured by GPA, and post-graduation life quality. They acknowledge GPA as the main academic achievement measure, emphasizing its dominance in assessing student success. Several research findings show a link between strong motivation and students' academic performance (Lamb, 2017; Soodmand Afshar et al., 2014). Soodmand Afshar et al. (2014) explored the link between motivation, critical thinking, autonomy, and academic performance in 100 Iranian English learners found positive correlations among all four variables. A strong correlation was observed between instrumental motivation and GPA, suggesting a key role of motivation in

academic success. This result is in line with those of Kilic et al. (2021), in which they concluded that learners' motivation is likely to affect their academic success. Similarly, in their study conducted with 144 Turkish EFL learners, Ozer and Badem (2022) found a strong association between motivation and academic achievement in online learners in fully online virtual classrooms. Notably, increased motivation significantly predicted higher grades, while low motivation emerged as a strong predictor of weaker academic performance.

In a similar vein, Akhtar et al. (2017) examined the relationship between intrinsic motivation and academic achievement, particularly at the secondary level in traditional classrooms, showing that intrinsic motivation is positively related to students' academic success. Their findings indicate that when students are intrinsically motivated, they tend to perform better academically, which aligns with studies highlighting the role of motivation in driving higher academic achievement in various learning contexts, including online learning environments.

## Research Model and Hypotheses

Based on the previous research that has been reviewed in the literature and the purposes of the study which aim at investigating the English major students' perceived values of teaching presence in their synchronous online classes on their academic performances, and the predictive ability of the proposed model, the research model and hypotheses are formed and demonstrated as in Figure 1.

- H1. Teaching presence is positively associated with students' motivation, satisfaction, and academic performances in synchronous online English classes
- H2. Motivation is positively associated with students' satisfaction and academic performances in synchronous online English classes
- H3. Satisfaction is positively associated with students' academic performances in synchronous online English classes

Details of the hypotheses and the proposed model are illustrated as follows:

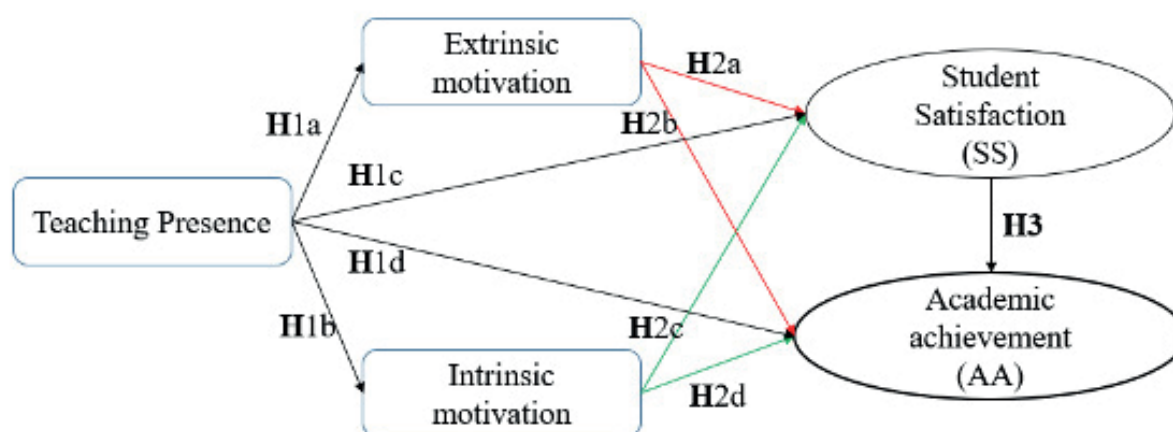


Figure 1. The proposed research model

## METHOD

### Design

This study employed a quantitative design, utilizing surveys as the primary data collection method. The research involved a two-section questionnaire distributed to English majors in synchronous online classes at a private Vietnamese university. The survey was administered over a month period and aimed to assess the impact of teaching presence on students' motivation, satisfaction, and academic performance.

## Participants

The study utilized convenient sampling, which means participants were selected based on their availability and accessibility rather than random selection. Although convenience sampling was useful for obtaining the participants during the time of the study, it may limit generalizability. The inclusion criteria required participants to be English majors enrolled in synchronous online courses and had engaged with at least one semester of synchronous online learning in the 2025 academic year. These students are primarily first- and second-year English majors aged 18 to 20. The gender distribution was almost equal, with 55.5% female and 44.5% male students. All participants were in synchronous online English learning during the study period.

This study involved 204, aging from 18 to 20, English majors from a non-public higher education institution located in the Mekong Delta region of Vietnam, who participated in synchronous online learning for their mandatory subjects during the 2025 academic year. To explore their perspectives on the issue under investigation, a convenience sampling technique was utilized. The questionnaires and a Consent Form were distributed to participants through email.

After the data screening, 182 out of 204 responses met the criteria for data analysis. Kock and Hadaya (2018) asserted that for a PLS-SEM analysis with a significance level of 5% and a minimum path coefficient of 0.2, a minimum sample size of 155 participants is required. This ensures that the analysis possesses sufficient statistical power to detect the specified path coefficient. Table 1 below presents an overview of the participants' demographics.

**Table 1.** Participant demographics

		N	Percentage (%)
Gender	Male	81	44.5
	Female	101	55.5
Academic year	1st	75	41.2
	2nd	40	22
	3rd	67	36.8

The observed disparity, with a higher percentage of first-year students (41.2%) compared to second-year students (22%), could be attributed to several factors. Firstly, the convenience sampling might have led to a disproportionate response rate among year levels. Additionally, first-year students may have been more responsive or available during the data collection phase. This disparity highlights the challenge in securing balanced representation across year levels in convenience sampling and may reflect the academic year's timing or specific interest among first-year students in participating in such studies.

## Research Instruments

The 2-section questionnaires included 32-modified items adapted from previous studies. The first section of the questionnaire collected participants' demographic information, while the second section explored students' perceptions of teaching presence, using 28 items on a 5-point Likert scale, coded from 1 (strongly disagree) - 5 (strongly agree). The survey also measured students' intrinsic and extrinsic motivation, as well as their satisfaction with the courses. The items related to teaching presence were adapted from Wertz (2022), while the motivation items were based on the work of Utvær and Haugan (2016). To assess student satisfaction and academic performance, items were modified from the work of Ejubovic and Puska (2019). Moreover, the questionnaire was translated from English into Vietnamese using a forward-translation and back-translation method to ensure clarity and comprehension for all participants. In other words, two bilingual experts, both holding Master's degrees in applied linguistics, independently translated the items into Vietnamese, and a third expert - currently pursuing a Ph.D.

in the same field - carried out the back-translation into English to ensure semantic accuracy. The team then worked together to review and resolve any discrepancies between the original and back-translated versions, ensuring the final translation was both accurate and culturally appropriate. These procedures collectively support the content validity and appropriateness of the instrument for use in the Vietnamese educational context.

### Data Collection and Analysis

The questionnaires were surveyed via Google Form, from 01 - 27 February, 2025. Five-point Likert scale was used, starting from Strongly disagree to Strongly agree, to investigate the participants' perspectives on the issue under investigation. Before the main data collection phase, the questionnaire was piloted with thirty students from the researcher's class. The variables demonstrated a Cronbach's Alpha between 0.85 and 0.93, indicating the instrument's reliability for subsequent analysis. In the data analysis phase, Smart-PLS 4.0, which has demonstrated its efficacy in various other fields that employ multivariate statistical methods (Cheah et al., 2023), was utilized to evaluate the reliability of the questionnaire by examining the causal relationships between dependent and independent variables using a reflective measurement model. Moreover, if the research aims to elucidate the "causal-predictive" associations between investigated constructs, the sample size is small ( $n < 100$ ), complex model, and non-metric data, PLS-SEM would well suited (Hair Jr. et al., 2017).

While PLS-SEM was chosen due to its suitability for complex models, smaller sample sizes, and its focus on prediction rather than confirmation (Hair Jr. et al., 2017), it is important to acknowledge its limitations. Specifically, PLS-SEM is not designed to establish definitive causal relationships, as this study lacks the statistical control inherent in experimental or longitudinal designs (Sarstedt et al., 2014). Therefore, the interpretations in this study should be understood as correlational and exploratory in nature. Furthermore, standard assumptions for reflective measurement models were assessed, including reliability, convergent validity ( $AVE > 0.5$ ), discriminant validity ( $HTMT < 0.90$ ), and collinearity ( $VIF < 3$ ), following the guidelines of Hair Jr. et al. (2021). These evaluations confirm that key statistical assumptions were adequately met for the application of PLS-SEM in this context.

### ANALYSIS AND FINDINGS

In order to evaluate the structural model of the researched study, all exogenous and endogenous variables should ensure the indicator reliability, intrinsic consistency reliability, and the convergent validity, variance inflation factor (VIF) values, the coefficient of determination ( $R^2$  values), and the model's predictive power - Q square (Hair Jr. et al., 2021), and discriminant validity - HTMT correlations  $< 0.9$  (Henseler et al., 2015). These values are calculated as follows:

#### Instrument Reliability: Pre-Survey and Post-Survey

**Table 2.** The reliability and validity of the instrument

Dimensions	Items	Factor loadings	Cronbach's $\alpha$	CR	AVE
Teaching presence (TP)	TP1	0.838	0.912	0.93	0.66
	TP2	0.862			
	TP3	0.712			
	TP4	0.843			
	TP5	0.827			
	TP6	0.844			
	TP7	0.734			
Extrinsic motivation (EM)	EM1	0.878	0.85	0.91	0.77
	EM2	0.845			
	EM3	0.902			

Intrinsic motivation (IM)	IM1	0.846	0.92	0.94	0.71
	IM2	0.852			
	IM3	0.863			
	IM4	0.846			
	IM6	0.848			
	IM7	0.779			
	Satisfaction (SS)	SS1			
SS2		0.919			
SS3		0.908			
SS4		0.915			
Academic performance (AA)	AA1	0.886	0.91	0.94	0.79
	AA2	0.909			
	AA3	0.888			
	AA4	0.869			

Table 2 shows that all constructs met the standards for factor reliability (exceeding 0.7), internal consistency reliability (Cronbach's Alpha and Composite Reliability both above 0.7), and convergent validity (Average Variance Extracted over 0.5) (Hair Jr. et al., 2021). Additionally, each item's HTMT value was below 0.9, confirming the scale's discriminant validity. Table 3 shows that all the constructs have good discriminant validity since all values are less than 0.9 (Henseler et al., 2015).

**Table 3.** Discriminant validity

	<b>AA</b>	<b>EM</b>	<b>IM</b>	<b>SS</b>	<b>TP</b>
AA					
EM	0.534				
IM	0.423	0.775			
SS	0.878	0.448	0.458		
TP	0.407	0.632	0.649	0.507	

## Structural Equation Modelling Analysis

### Collinearity Analysis

According to Hair Jr. and his cohorts (2021), to prevent collinearity problems, the variance inflation factor (VIF) must be kept lower than 3. In this study, the indicator value is well below 3 (Table 4), indicating that collinearity among the formative indicators is not present.

**Table 4.** Evaluating Collinearity of Scale

	<b>AA</b>	<b>EM</b>	<b>IM</b>	<b>SS</b>	<b>TP</b>
AA					
EM	2.044			2.028	
IM	2.207			2.168	
SS	1.349				
TP	1.793	1	1	1.669	

### Explanatory Ability of The Model

The coefficient of determination ( $R^2$ , ranging from 0.25 and 0.9) is used to assess the model's explanatory power. As shown in Table 5, the  $R^2$  values for AA were around 0.7, demonstrating strong explanatory relationships among the study constructs (Hair Jr. et al., 2021). In other words, the researched model accounted for nearly 70% of the variance in students' academic performance in an online learning environment.

**Table 5.** R2 Values

Dimensions	R2	R2 adjusted
Academic performance (AA)	0.699	0.692
Extrinsic motivation (EM)	0.314	0.311
Intrinsic motivation (IM)	0.359	0.355
Satisfaction (SS)	0.259	0.246

### Predictive Ability of The Model

The  $Q^2$  predict value is calculated by comparing the prediction errors of the PLS-SEM model against the mean predictions of the training sample. A  $Q^2$  value greater than 0 signifies that the model possesses predictive relevance, whereas a  $Q^2$  value equal to or less than 0 indicates a lack of predictive relevance (Shmueli et al., 2019). In case PLS-SEM  $Q^2$  predict value is larger than 0, there are three cases to consider: If  $PLS-SEM < LM$ , the model's predictive power is low if few indicators have lower  $PLS-SEM\_RMSE$  than  $LM\_RMSE$ , medium if most indicators do, and strong if all indicators do (Shmueli et al., 2019). Table 6 below indicates the study model's predictive capacity:

**Table 6.** Q2 Values

Items	$Q^2_{predict}$	PLS-SEM_RMSE	LM_RMSE
AA1	0.118	1.131	1.166
AA2	0.124	1.135	1.142
AA3	0.086	1.139	1.147
AA4	0.073	1.155	1.142
EM1	0.284	0.85	0.855
EM2	0.173	0.984	1.012
EM3	0.236	0.803	0.827
IM1	0.192	0.8	0.789
IM2	0.2	0.773	0.773
IM3	0.22	0.829	0.834
IM4	0.233	0.819	0.849
IM6	0.285	0.776	0.791
IM7	0.289	0.83	0.843
SS1	0.157	1.06	1.101
SS2	0.198	1.065	1.086
SS3	0.162	1.019	1.042
SS4	0.154	1.163	1.173

It can be seen that all items'  $Q^2_{predict}$  values are bigger than 0, and the majority of the dependent variable's indicators produced lower  $PLS-SEM\_RMSE$  compared to  $LM\_RMSE$  values (except for AA4 and IM1), hence the proposed model has fairly high medium predictive power.

## Hypotheses Testing

The path coefficients and p-values for each hypothesis was illustrated in Table 7 and Figure 2 below.

**Table 7.** Hypothesis testing results

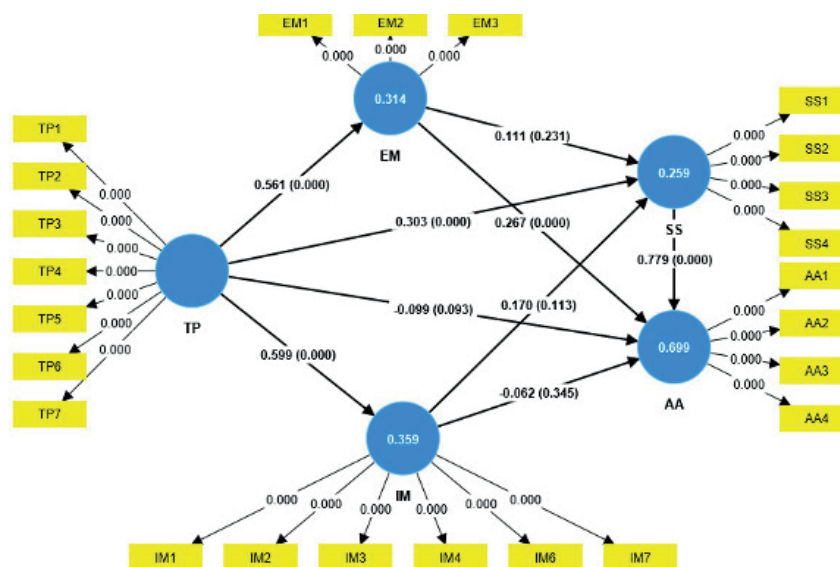
Hypothesis	Paths	Path Coefficients	P values	Results
H1a	TP -> EM	0.561	0.000	Supported
H1b	TP -> IM	0.599	0.000	Supported
H1c	TP -> SS	0.303	0.000	Supported
H1d	TP -> AA	-0.099	0.093	Rejected
H2a	EM -> SS	0.111	0.231	Rejected
H2b	EM -> AA	0.267	0.000	Supported
H2c	IM -> SS	0.17	0.113	Rejected
H2d	IM -> AA	-0.062	0.345	Rejected
H3	SS -> AA	0.779	0.000	Supported

Table 7 shows that teaching presence had direct positive impact and on satisfaction and on either kind of motivation. While extrinsic motivation had a direct positive effect on academic achievement, intrinsic motivation showed no statistical significance of the impact. What is more, both did not have any effects on satisfaction. Interestingly, further analysis on the indirect effects of teaching presence on academic performance, the results indicated the mediating roles of extrinsic motivation and satisfaction on this relationship (Table 8). The study once again confirmed the direct positive impact of satisfaction on academic achievement.

Among these correlations, the effect of satisfaction (SS) on academic achievements (AA) was strongest, followed by the impacts of teaching presence (TP) on motivation, then on SS. Although teaching presence has indirect positive effects on academic performance, the effect was pretty small (0.15-0.24). Both extrinsic and intrinsic motivation (EM and IM) did not contribute to students' satisfaction in their synchronous online English classes.

**Table 8.** Indirect impact of Teaching presence on Academic performance

Paths	Path Coefficients	P values	Results
TP -> EM -> AA	0.149	0.000	Significant
TP -> SS -> AA	0.236	0.000	Significant



**Figure 2.** The results of path coefficients

## DISCUSSION

The current study delved into the sophisticated dynamics of teaching presence, student motivation (both intrinsic and extrinsic), satisfaction, and academic performance in synchronous online English classes for English majors. This section presents discussion on the findings on the aspects involved in the research model in relation to the reviewed previous research.

### Teaching Presence and its Impact on Motivation and Satisfaction

Teaching presence, as an amalgam of course design, facilitation, and direct instruction, has been consistently linked to higher levels of student satisfaction and motivation. The study suggests a significant impact of teaching presence on both intrinsic and extrinsic motivation, as well as student satisfaction, but not directly on academic performance.

However, it contrasts with Suharno (2023) and Purwandari et al. (2022) who identified a direct influence of teaching presence on academic performance. The unsupported hypothesis warrants reflection. Academic performance in synchronous online English classes may depend on multiple factors beyond teaching presence alone, as indicated by the significant predictive role of extrinsic motivation. Unlike previous studies that emphasized a stronger impact on intrinsic motivation (Cai et al., 2022), this study found a significant role of extrinsic motivation. These variances might be susceptible to the specific focus on synchronous online classes and English majors, suggesting that the impact of teaching presence can vary depending on the discipline and mode of delivery. Recent work in Vietnam similarly shows that COI presences, particularly teaching presence, shape students' perceptions and behavioral intentions in digitally supported courses (Nguyen & Tran, 2025) and documents how Vietnamese lecturers adapt agentic teaching practices to enact presence in online distance programs (Nguyen et al., 2024).

The literature emphasizes that teaching presence can have indirect effects on academic performance, mediated by factors like satisfaction and motivation. Studies by Tusyanah et al. (2023) and Abualadas and Xu (2023) support this view, illustrating that teaching presence often impacts academic success indirectly by fostering a conducive learning environment.

### Extrinsic and Intrinsic Motivation: Influences on Satisfaction and Academic Performance

The interplay between extrinsic and intrinsic motivation in online learning environments presents a complex picture. On one hand, intrinsic motivation, driven by interest and enjoyment, seems to have a more direct relationship with student satisfaction and academic performance, as indicated in studies by Ryan and Deci (2020) and Reeve (2006). On the other hand, extrinsic motivation, fueled by external rewards and recognition, while influential, may not sustain long-term engagement and satisfaction to the same degree. The impact of motivation on satisfaction and academic performance is also significant, as evidenced by the work of Metriyana (2014), Kovacevic et al. (2021), Wei and Chou (2020), and Bailey et al. (2021). This dichotomy suggests that while both forms of motivation are important, their impact on satisfaction and academic outcomes may vary.

In contrast, the current study found that extrinsic motivation played a more significant role in predicting academic achievements but not of intrinsic motivation, which is consistent with previous findings (Kucuk & Richardson, 2019; Wei & Chou, 2020). This is also partly in line with Kovacevic et al. (2021) who suggested that student satisfaction in online courses could be predicted by their motivation. Akhtar et al. (2017) further support this view by emphasizing the critical role of intrinsic motivation in students' academic achievement, showing that when students are intrinsically motivated, they tend to perform better academically. The emphasis on extrinsic motivation in this study might reflect specific cultural or contextual factors influencing English majors in Vietnam, highlighting the need to consider local educational contexts in interpreting such findings.

This study also found out that both extrinsic and intrinsic motivations do not have significant direct effects on student satisfaction. This null result suggests that in synchronous online English learning contexts, students' satisfaction may not have a more direct relationship with their individual motivational orientations but instead is contingent on other factors like the quality of teaching presence or the learning environment (Kucuk & Richardson, 2019; Kovacevic et al., 2021). Furthermore, intrinsic motivation did not show a

significant direct effect on academic performance. This might highlight that while intrinsic motivation is important, it may not play a recent role in directly shaping academic outcomes - in this case in a highly structured online learning environment that emphasized performance over learning. This suggests that extrinsic factors and support systems help to support the learning process (Wei & Chou, 2020). These results highlight the complex ways different aspects of motivation operate during an online education.

### **The Role of Satisfaction in Academic Performance**

In line with the findings from previous studies (Alqurashi et al., 2019; Kucuk & Richardson, 2019), the study identified student satisfaction as a key predictor of academic achievements in synchronous online English classes. Similar findings were found by Cai et al. (2022) and Duha et al. (2022) highlighting the strong correlation between teaching presence and student satisfaction, which in turn positively impacts academic performance. In addition, satisfaction played as a mediating factor between teaching presence and academic performance, offering a nuanced view compared to some studies that directly linked teaching presence with academic performance (Purwandari et al., 2022; Suharno, 2023). Interestingly, the proposed research model indicated a pretty high predictive power of exogenous variables, namely teaching presence, extrinsic and intrinsic motivation, and satisfaction towards English major students' academic performances as presented in the Results section.

The study's exploration of teaching presence, motivation, satisfaction, and academic performance aligns closely with several key theoretical frameworks, notably the Community of Inquiry (CoI) framework and Self-Determination Theory (SDT). The CoI framework, which underpins the construct of teaching presence, emphasizes that teaching presence involves instructional design, facilitation, and direct instruction to support an engaging learning community (Garrison et al., 2010). These elements resonate with the positive effects observed on motivation and satisfaction, highlighting that structured instructor guidance fosters a conducive learning atmosphere even in synchronous online settings.

For motivation, SDT posits that motivation is driven by the fulfillment of basic psychological needs for autonomy, competence, and relatedness (Deci & Ryan, 1985). In this study, extrinsic motivation played a predictive role in academic achievement, which may reflect cultural and contextual factors specific to Vietnamese learners. This finding aligns with SDT's assertion that extrinsic rewards can significantly impact academic outcomes when basic needs are met. This application of SDT enhances the understanding of motivation's role in online English learning contexts and the specific pathways through which it impacts academic performance.

The study contributes to the field of online education by detailing the nuanced effects of teaching presence in synchronous English learning environments, especially in non-Western contexts like Vietnam. While existing literature underscores the general benefits of teaching presence on student satisfaction and motivation, this study identifies satisfaction as a key mediator between teaching presence and academic performance, providing evidence for the indirect influence of teaching presence on academic outcomes. Furthermore, the findings emphasize the context-dependent role of extrinsic motivation, suggesting that structured and goal-oriented online instruction may be particularly effective in cultures emphasizing external validation and achievement.

### **Implications for Boosting Student Satisfaction and Academic Performance in Synchronous Online Education**

The research elucidates several pivotal implications for augmenting student satisfaction and academic performance within synchronous online learning contexts, particularly through the facilitation of teaching presence. Evidence has indicated a favorable influence on both intrinsic and extrinsic motivation; nevertheless, the direct correlation with academic performance was not documented within the confines of this investigation. Instead, the influence of teaching presence on academic outcomes was mediated through student satisfaction and motivation. This finding underscores the importance of enhancing teaching presence in online classes to create more engaging and supportive learning experiences. This observation accentuates the necessity of bolstering teaching presence in virtual classrooms to foster more engaging and supportive educational experiences. By prioritizing a coherent course structure, interactive facilitation, and prompt feedback, academicians can enhance students' overall satisfaction and engagement in synchronous online learning environments.

The research indicated that extrinsic motivation serves as a substantial predictor of academic success. While intrinsic motivation, which is propelled by personal interest or enjoyment, did not establish a direct association with academic performance, extrinsic elements such as rewards, recognition, and performance-related feedback emerged as significant indicators of academic achievement. This suggests that in synchronous online settings, educators should emphasize external incentives and structured support to enhance student performance. Offering opportunities for tangible rewards, recognition of effort, and clear performance goals can help sustain student engagement and improve outcomes.

Student satisfaction was identified as a key predictor of academic achievement, performing as a mediator between teaching presence and academic performance. Enhancing satisfaction through effective instructional strategies, such as reducing technical difficulties, promoting interactive learning, and providing emotional and academic support, can lead to better academic outcomes. Instructors should prioritize student satisfaction by fostering an inclusive and engaging online environment, addressing challenges promptly, and ensuring that students feel supported throughout the learning process.

In conclusion, these findings offer actionable suggestions for the improvement of online instructional practices and student learning, with special reference to private universities in the Vietnamese and other comparable contexts, where synchronous online learning and resources remain underdeveloped. By highlighting the significant role of teaching presence, extrinsic motivational strategies, and the enhancement of interactive and supportive learning environments, these insights could support teacher training and course planning. Specifically, teachers and course designers can use these insights to better organize classes, give prompt feedback, and provide focused support to keep students motivated.

## CONCLUSION AND RECOMMENDATIONS

The study has contributed valuable insights into the interplay of teaching presence, motivation, satisfaction, and academic performance in synchronous online English classes. While teaching presence is a critical factor in enhancing motivation and satisfaction, its impact on academic achievements is indirect via external motivation and satisfaction. Both extrinsic and intrinsic motivation are important, but their influences on satisfaction and academic performance are distinct and nuanced. Satisfaction, while a key predictor of academic success, is influenced by teaching presence. These findings suggest the need for the faculty to carefully consider their approaches to fostering satisfaction in online learning settings to enhance academic outcomes. Moreover, the current study expands the frameworks, including the Community of Inquiry (CoI) model and Self-Determination Theory (SDT), by applying them to synchronous online learning in Vietnam, a country with scarce resources and an evolving online learning format. It challenges existing research undertaken in Western settings by examining how teaching presence and student motivation function in resource-limited contexts. The findings emphasize the need for context-specific strategies in teacher training, course design and student engagement regarding cultural and technological differences.

The current study, however, has several limitations. First, the participants were solely from a single private university in the Mekong Delta, Vietnam, resulting in a limitation on the generalizability of the findings to other contexts. Second, the use of a cross-sectional survey design prevents causal inferences and captures only a snapshot of the students' perceptions during one period. Third, the reliance on self-reported data raises issues about response accuracy.

Based on the findings of the current research, further studies should probably place an emphasis on longitudinal studies to observe the long-term effects of teaching presence on student motivation, satisfaction, and academic performance, as well as examine how teaching strategies impact these variables over time. Also, to triangulate the findings, future studies should use a mixed-methods design for a more comprehensive understanding of the issue under investigation. Moreover, comparative studies across different types of institutions, such as public versus private universities, could reveal whether institutional contexts shape the relationship between teaching presence and learning outcomes. Additionally, future investigations could explore how educators adapt teaching presence in low-resource environments. Such studies could identify context-specific practices that sustain student satisfaction and achievement despite resource constraints.

**Acknowledgements:** We sincerely thank our colleagues and all of the participants for their assistance. Without their support, this study could not have been completed.

## BIODATA AND CONTACT ADDRESSES OF AUTHORS



**An Ngoc Minh PHAM** is a Lecturer at FPT University, Can Tho Campus. Her research interests primarily focus on English as a Medium of Instruction (EMI), Massive Open Online Courses (MOOCs), learning modes for English as a Foreign Language (EFL) students, and educational technology (Edutech). She earned her Master's degree in Principles and Methods in English Language Education in November 2017. Ms. Pham has published over 10 papers in reputable journals, contributing valuable insights to the field of language education. She has also actively participated as a speaker at international conferences, where she shares her expertise on enhancing language learning through technology.

An Ngoc Minh PHAM

Faculty of English, FPT University, Can Tho Campus, Vietnam

Address: 600 Nguyen Van Cu Street (ext.), An Binh Ward, Ninh Kieu District, Can Tho City, Vietnam

Phone: +84 365731045

E-mail: [AnPMN@fe.edu.vn](mailto:AnPMN@fe.edu.vn)



**Cao-Tuong DINH** is a PhD researcher at Can Tho University, Vietnam. His research focuses on TESOL and applied linguistics. He is also interested in ICT integration in language education, particularly its role in self-regulated learning, EMI, and vocabulary acquisition. He has published several articles in Scopus-indexed journals and serves on the editorial boards of the *International Journal of Education and Practice* and the *International Journal of English Language and Literature Studies*.

Cao-Tuong DINH

Faculty of English, FPT University, Can Tho Campus, Vietnam

Address: 600 Nguyen Van Cu Street (ext.), An Binh Ward, Ninh Kieu District, Can Tho City, Vietnam

Phone: (+84) 0941651191

E-mail: [TuongDC@fe.edu.vn](mailto:TuongDC@fe.edu.vn)



**Anh Ngoc Phuong TRAN** is a lecturer in the English Faculty at FPT University, Vietnam. She holds an MA in TESOL from Sheffield Hallam University, UK. She teaches courses in academic writing, culture, and public speaking for English-major students. She also supervises undergraduate research projects in applied linguistics and English language teaching. Her research interests include teacher professional development and motivation in language learning and teaching.

Anh Ngoc Phuong TRAN

Faculty of English, FPT University, Can Tho Campus, Vietnam

Address: 600 Nguyen Van Cu Street (ext.), An Binh Ward, Ninh Kieu District, Can Tho City, Vietnam

Phone: +84 352640913

E-mail: [anhntp@fe.edu.vn](mailto:anhntp@fe.edu.vn)

## REFERENCES

- Abualadas, H. M., & Xu, L. (2023). Achievement of learning outcomes in non-traditional (online) versus traditional (face-to-face) anatomy teaching in medical schools: A mixed method systematic review. *Clinical Anatomy*, 36(1), 50–76. <https://doi.org/10.1002/ca.23942>
- Abuhassna, H., Al-Rahmi, W. M., Yahya, N., Zakaria, M. A. Z. M., Kosnin, A. B. M., & Darwish, M. (2020). Development of a new model on utilizing online learning platforms to improve students' academic achievements and satisfaction. *International Journal of Educational Technology in Higher Education*, 17(1). <https://doi.org/10.1186/s41239-020-00216-z>
- Adam, M. S., Hamid, J. A., Khatibi, A., & Azam, S. M. F. (2023). Autonomous motivation in blended learning: Effects of teaching presence and basic psychological need satisfaction. *Learning and Motivation*, 83, 101908. <https://doi.org/10.1016/j.lmot.2023.101908>
- Akhtar, S. N., Iqbal, M., & Tatlah, I. A. (2017). Relationship between intrinsic motivation and students' academic achievement: A secondary level evidence. *Bulletin of Education and Research*, 39(2), 19–29.
- Alqurashi, E. (2019). Predicting student satisfaction and perceived learning within online learning environments. *Distance Education*, 40(1), 133–148. <https://doi.org/10.1080/01587919.2018.1553562>
- Amir, L. R., Tanti, I., Maharani, D. A., Wimardhani, Y. S., Julia, V., Sulijaya, B., & Puspitawati, R. (2020). Student perspective of classroom and distance learning during COVID-19 pandemic in the undergraduate dental study program Universitas Indonesia. *BMC Medical Education*, 20(1), 1–8. <https://doi.org/10.1186/s12909-020-02312-0>
- Atmojo, A. E. P., & Nugroho, A. (2020). EFL Classes Must Go Online! Teaching Activities and Challenges during COVID-19 Pandemic in Indonesia. *Register Journal*, 13(1), 49–76. <https://doi.org/10.18326/rgt.v13i1.49-76>
- Ay, K., & Daghan, G. (2023). The effect of the flipped learning approach designed with community of inquiry model to the development of students' critical thinking strategies and social, teaching and cognitive presences. *Education and Information Technologies*, 28(11), 15267–15299. <https://doi.org/10.1007/s10639-023-11809-2>
- Bailey, D., Almusharraf, N., & Hatcher, R. (2021). Finding satisfaction: intrinsic motivation for synchronous and asynchronous communication in the online language learning context. *Education and Information Technologies*, 26(3), 2563–2583. <https://doi.org/10.1007/s10639-020-10369-z>
- Baker, C. (2010). The impact of instructor immediacy and presence for online student affective learning, cognition, and motivation. *Journal of Educators Online*, 7(1), 1–30. <https://doi.org/10.9743/JEO.2010.1.2>
- Bangert, A. (2008). The influence of social presence and teaching presence on the quality of online critical inquiry. *Journal of Computing in Higher Education*, 20(1), 34–61. <https://doi.org/10.1007/BF03033431>
- Besser, A., Flett, G. L., & Zeigler-Hill, V. (2022). Adaptability to a Sudden Transition to Online Learning During the COVID-19 Pandemic: Understanding the Challenges for Students. *Scholarship of Teaching and Learning in Psychology*, 8(2), 85–105. <https://doi.org/10.1037/stl0000198>
- Bosch, E., & Spinath, B. (2023). Students' motivation in an online and a face-to-face semester. *Zeitschrift Fur Psychologie*, 231(2), 93–102.
- Cai, Y., Pan, Z., Han, S., Shao, P., & Liu, M. (2022). The Impact of Multimodal Communication on Learners' Experience in a Synchronous Online Environment: A Mixed-Methods Study. *Online Learning Journal*, 26(4), 118–145. <https://doi.org/10.24059/olj.v26i4.3448>
- Caskurlu, S., Maeda, Y., Richardson, J. C., & Lv, J. (2020). A metaanalysis addressing the relationship between teaching presence and students' satisfaction and learning. *Computers and Education*, 157, 103966. <https://doi.org/10.1016/j.compedu.2020.103966>

- Cheah, J. H., Magno, F., & Cassia, F. (2023). Reviewing the SmartPLS 4 software: the latest features and enhancements. *Journal of Marketing Analytics*, *12*, 97–107. <https://doi.org/10.1057/s41270-023-00266-y>
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Springer. <https://doi.org/10.1007/978-1-4899-2271-7>
- Duha, M. S. U., Richardson, J. C., Maeda, Y., & Kucuk, S. (2022). The Role of Prior Online Learning Experience on Student Community of Inquiry, Engagement, and Satisfaction Scores. *Online Learning Journal*, *26*(4), 475–493. <https://doi.org/10.24059/olj.v26i4.2949>
- Ejubovic, A., & Puska, A. (2019). Impact of self-regulated learning on academic performance and satisfaction of students in the online environment. *Knowledge Management and E-Learning*, *11*(3), 345–363. <https://doi.org/10.34105/j.kmel.2019.11.018>
- Fatani, T. H. (2020). Student satisfaction with videoconferencing teaching quality during the COVID-19 pandemic. *BMC Medical Education*, *20*(1), 1–8. <https://doi.org/10.1186/s12909-020-02310-2>
- Ferrer, J., Ringer, A., Saville, K., A Parris, M., & Kashi, K. (2022). Students' motivation and engagement in higher education: the importance of attitude to online learning. *Higher Education*, *83*(2), 317–338. <https://doi.org/10.1007/s10734-020-00657-5>
- Garrison, D. R., Cleveland-Innes, M., & Fung, T. S. (2010). Exploring causal relationships among teaching, cognitive and social presence: Student perceptions of the community of inquiry framework. *Internet and Higher Education*, *13*(1–2), 31–36. <https://doi.org/10.1016/j.iheduc.2009.10.002>
- Hair Jr., J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer.
- Hair Jr., J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, *1*(2), 107. <https://doi.org/10.1504/ijmda.2017.087624>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Hettiarachchi, S., Damayanthi, B. W. R., Heenkenda, S., Dissanayake, D. M. S. L. B., Ranagalage, M., & Ananda, L. (2021). Student satisfaction with online learning during the COVID-19 pandemic: A study at state universities in Sri Lanka. *Sustainability (Switzerland)*, *13*(21), 1–24. <https://doi.org/10.3390/su132111749>
- Hsu, H. C. K., Wang, C. V., & Levesque-Bristol, C. (2019). Reexamining the impact of self-determination theory on learning outcomes in the online learning environment. *Education and Information Technologies*, *24*(3), 2159–2174. <https://doi.org/10.1007/s10639-019-09863-w>
- Hussein, E., Daoud, S., Alrabaiah, H., & Badawi, R. (2020). Exploring undergraduate students' attitudes towards emergency online learning during COVID-19: A case from the UAE. *Children and Youth Services Review*, *119*(November), 105699. <https://doi.org/10.1016/j.childyouth.2020.105699>
- Jan, A. (2020). A phenomenological study of synchronous teaching during COVID-19: A case of an international school in Malaysia. *Social Sciences and Humanities Open*, *2*(1), 100084. <https://doi.org/10.1016/j.ssaho.2020.100084>
- Joksimovic, S., Gasevic, D., Kovanovic, V., Riecke, B. E., & Hatala, M. (2015). Social presence in online discussions as a process predictor of academic performance. *Journal of Computer Assisted Learning*, *31*(6), 638–654.
- Kanellopoulou, C., & Giannakouloupoulos, A. (2020). Engage and Conquer: An Online Empirical Approach into Whether Intrinsic or Extrinsic Motivation Leads to More Enhanced Students' Engagement. *Creative Education*, *11*(2), 143.
- 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. <https://doi.org/10.5539/ies.v9n3p62>

- Kilic, M. E., Kilic, M. Y., & Akan, D. (2021). Motivation in the classroom. *Participatory Educational Research*, 8(2), 31–56.
- Kock, N., & Hadaya, P. (2018). Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods. *Information Systems Journal*, 28(1), 227–261. <https://doi.org/10.1111/isj.12131>
- Kohnke, L., & Moorhouse, B. L. (2022). Facilitating Synchronous Online Language Learning through Zoom. *RELC Journal*, 53(1), 296–301. <https://doi.org/10.1177/0033688220937235>
- Kovacevic, I., Labrovic, J. A., Petrovic, N., & Kuzet, I. (2021). Recognizing predictors of students' emergency remote online learning satisfaction during COVID-19. *Education Sciences*, 11(11), 1–16. <https://doi.org/10.3390/educsci11110693>
- Kozar, O. (2016). Perceptions of webcam use by experienced online teachers and learners: a seeming disconnect between research and practice. *Computer Assisted Language Learning*, 29(4), 779–789. <https://doi.org/10.1080/09588221.2015.1061021>
- Kucuk, S., & Richardson, J. C. (2019). A structural equation model of predictors of online learners' engagement and satisfaction. *Online Learning Journal*, 23(2), 196–216. <https://doi.org/10.24059/olj.v23i2.1455>
- Ladyshevsky, R. K. (2013). The role of peers in feedback processes. *International Journal for the Scholarship of Teaching and Learning*, 7(1), 1–24. <https://doi.org/10.20429/ijstl.2013.070105>
- Lamb, M. (2017). The motivational dimension of language teaching. *Language Teaching*, 50(3), 301–346. <https://doi.org/10.1017/S0261444817000088>
- Layona, R., Yulianto, B., & Tunardi, Y. (2018). Web based Augmented Reality for Human Body Anatomy Learning. *Procedia Computer Science*, 135, 457–464. <https://doi.org/10.1016/j.procs.2018.08.197>
- Li, W., & Wang, W. (2024). The impact of teaching presence on students' online learning experience: Evidence from 334 Chinese universities during the pandemic. *Frontiers in Psychology*, 15, 1–11. <https://doi.org/10.3389/fpsyg.2024.1291341>
- Lim, J. (2018). *Disciplinary Differences in a Community of Inquiry*. Doctoral dissertation, Purdue University.
- Liu, Y., Ma, S., & Chen, Y. (2024). The impacts of learning motivation, emotional engagement and psychological capital on academic performance in a blended learning university course. *Frontiers in Psychology*, 15, 1–12. <https://doi.org/10.3389/fpsyg.2024.1357936>
- Metriana, M. (2014). *Studi komparatif pengaruh motivasi, perilaku belajar, self-efficacy dan status kerja terhadap prestasi akademik antara mahasiswa bekerja dan mahasiswa tidak bekerja* (Doctoral dissertation, Universitas Diponegoro). Universitas Diponegoro Institutional Repository.
- Muthuprasad, T., Aiswarya, S., Aditya, K. S., & Jha, G. K. (2021). Students' perception and preference for online education in India during COVID -19 pandemic. *Social Sciences and Humanities Open*, 3(1), 100101. <https://doi.org/10.1016/j.ssaho.2020.100101>
- Nguyen, P.T., Nguyen, L.T. & Nguyen, V.M. (2024). Teacher practices regarding teaching presence in Vietnamese tertiary online distance education programmes. *Humanities and Social Sciences Communications*, 11, 1062. <https://doi.org/10.1057/s41599-024-03549-6>
- Nguyen, D.T., Tran, V.D. (2025). The impact of community of inquiry on university students' behavioral intention towards blended learning in Vietnam: the moderating of “understanding Covid-19”. *Humanities and Social Sciences Communications*, 12, 1020. <https://doi.org/10.1057/s41599-025-04930-9>
- Nieuwoudt, J. E. (2020). Investigating synchronous and asynchronous class attendance as predictors of academic success in online education. *Australasian Journal of Educational Technology*, 36(3), 15–25. <https://doi.org/10.14742/AJET.5137>
- Nurohmat, D. (2020). The Effect of Online Learning on Students' English Learning Achievement. *Scripta: English Department Journal*, 7(2), 58–65.

- Oliveira, C. F. de, Sobral, S. R., Ferreira, M. J., & Moreira, F. (2021). How Does Learning Analytics Contribute to Prevent Students' Dropout in Higher Education: A Systematic Literature Review. *Big Data and Cognitive Computing*, 5(4), 64. <https://doi.org/10.3390/bdcc5040064>
- Ozer, O., & Badem, N. (2022). Student Motivation and Academic Achievement in Online EFL Classes at the Tertiary Level. *LEARN Journal: Language Education and Acquisition Research Network*, 15(1), 361–382.
- Pang, Y. (2022). The role of web-based flipped learning in EFL learners' critical thinking and learner engagement. *Frontiers in Psychology*, 13, 1–12. <https://doi.org/10.3389/fpsyg.2022.1008257>
- Purwandari, E. P., Junus, K., & Santoso, H. B. (2022). Exploring e-learning community of inquiry framework for engineering education. *International Journal of Instruction*, 15(1), 619–632. <https://doi.org/10.29333/iji.2022.15135a>
- Reeve, J. (2006). Teachers as facilitators: What autonomy-supportive teachers do and why their students benefit. *Elementary School Journal*, 106(3), 225–236. <https://doi.org/10.1086/501484>
- Richardson, J. C., Koehler, A. A., Besser, E. D., Caskurlu, S., Lim, J. E., & Mueller, C. M. (2015). Conceptualizing and investigating instructor presence in online learning environments. *International Review of Research in Open and Distance Learning*, 16(3), 256–297. <https://doi.org/10.19173/irrodl.v16i3.2123>
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, 54–67. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Sahin, I., & Shelley, M. (2008). Considering students' perceptions: The distance education student satisfaction model. *Educational Technology & Society*, 11(3), 216–223.
- Sarstedt, M., Ringle, C. M., & Hair Jr., J. F. (2014). PLS-SEM: Looking back and moving forward. *Long Range Planning*, 47(3), 132–137. <https://doi.org/10.1016/j.lrp.2014.02.008>
- Shi, Y., Tong, M., & Long, T. (2021). Investigating relationships among blended synchronous learning environments, students' motivation, and cognitive engagement: A mixed methods study. *Computers and Education*, 168(December 2020), 104193. <https://doi.org/10.1016/j.compedu.2021.104193>
- Shim, T. E., & Lee, S. Y. (2020). College students' experience of emergency remote teaching due to COVID-19. *Children and Youth Services Review*, 119(October), 105578. <https://doi.org/10.1016/j.childyouth.2020.105578>
- Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J. H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. *European Journal of Marketing*, 53(11), 2322–2347. <https://doi.org/10.1108/EJM-02-2019-0189>
- Soodmand Afshar, H., Rahimi, A., & Rahimi, M. (2014). Instrumental motivation, critical thinking, autonomy and academic achievement of Iranian EFL learners. *Issues in Educational Research*, 24(3), 281–298.
- Suharno, S., Suherdi, D., & Gunawan, W. (2023). The effects of teaching presence on students' motivation and performance in a long-term online gamified EFL listening course. *International Journal of Instruction*, 16(2), 1111–1134. <https://doi.org/10.29333/iji.2023.16259a>
- Turk, M., Heddy, B. C., & Danielson, R. W. (2022). Teaching and social presences supporting basic needs satisfaction in online learning environments: How can presences and basic needs happily meet online? *Computers and Education*, 180, 1–15. <https://doi.org/10.1016/j.compedu.2022.104432>
- Tusyanah, T., Handoyo, E., Suryanto, E., Indira, F. R., & Mayasari, T. M. (2023). What affects students' academic performance and soft skills based on the community of inquiry (CoI) theory? *International Journal of Technology in Education*, 6(1), 49–68. <https://doi.org/10.46328/ijte.345>
- Ulum, H. (2022). The effects of online education on academic success: A meta-analysis study. *Education and Information Technologies*, 27(1), 429–450. <https://doi.org/10.1007/s10639-021-10740-8>

- Utvær, B. K. S., & Haugan, G. (2016). The Academic Motivation Scale: Dimensionality, Reliability, and Construct Validity Among Vocational Students. *Nordic Journal of Vocational Education and Training*, 6(2), 17–45. <https://doi.org/10.3384/njvet.2242-458x.166217>
- Wang, P., Ma, T., Liu, L. B., Shang, C., An, P., & Xue, Y. X. (2021). A comparison of the effectiveness of online instructional strategies optimized with smart interactive tools versus traditional teaching for postgraduate students. *Frontiers in Psychology*, 12, 1–8. <https://doi.org/10.3389/fpsyg.2021.747719>
- Wei, H. C., & Chou, C. (2020). Online learning performance and satisfaction: Do perceptions and readiness matter? *Distance Education*, 41(1), 48–69. <https://doi.org/10.1080/01587919.2020.1724768>
- Wertz, R. E. H. (2022). Learning presence within the Community of Inquiry framework: An alternative measurement survey for a four-factor model. *Internet and Higher Education*, 52, 100832. <https://doi.org/10.1016/j.iheduc.2021.100832>
- Yorganci, S. (2025). The impact of synchronous online discussions and online flipped learning on student engagement and self-regulation among preliminary undergraduates in a basic math course. In *Educational technology research and development*. Springer US. <https://doi.org/10.1007/s11423-025-10459-0>