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eISSN: 2773 - 868x © 2020 AU-GSB e-Journal.
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The Effect of Behavioral Intention to Use Hybrid Education: A Case of Chinese Undergraduate Students

Haifeng Xie*, Krisana Kitcharoen, Charnsid Leelakasemsant, Manoj Mechankara Varghese

Received: July 19, 2022. Revised: September 11, 2022. Accepted: October 4, 2022.

Abstract

Purpose: The purpose of this study is to examining factors affecting undergraduate painting students' behavioral intention toward hybrid education in three public universities in Chongqing, China. Perceived ease of use (PEOU), perceived usefulness (PU), perceived satisfaction (PS), social influence (SI), performance expectancy (PE), facilitating conditions (FC), and behavioral intention (BI) were used to develop the conceptual framework of this study. **Research design, data, and methods:** The researchers used quantitative study to distributing questionnaire to 500 participants, who are undergraduate students in the major of painting. The survey was conducted in three sample techniques which are judgmental sampling, quota sampling and convenience sampling methods. An item-objective congruence (IOC) of content validity and Cronbach's Alpha reliability test with 30 pilot samples were earlier assessed. Statistical analyses involve Confirmatory Factor analysis (CFA) and Structural Equation Model (SEM), including model goodness of fit, validity, and reliability. **Results:** Most hypotheses were supported with the strongest influence between perceived ease of use and perceived usefulness, except facilitation conditions which had no significant influence on behavioral intention. **Conclusion:** The recommends are that administrators in the educational sector of public institutions should emphasize the main contributors to hybrid learning implementation to increase student engagement and learning efficiency.

Keywords: Hybrid Education, Performance Expectancy, Social Influence, Facilitating conditions, Behavioral Intention

JEL Classification Code: E44, F31, F37, G15

1. Introduction

Hybrid education is a concept that emerged in the United States due to the advantages of e-learning. The mixture of online and physical learning is one of the most common forms of blended or hybrid education. The three most frequently mentioned definitions are integrated instructional models or instructional media (Rojabi, 2019), integrated instructional methods, and integrated online and face-to-face instruction (Graham et al., 2020). In addition, the debate about the impact of media and methods on learning is reflected in the first two perspectives (Clark, 1983; Kozma, 1991, 1994).

Since the introduction of "hybrid education" in China, it has attracted the interest of many scholars. In 2004, the Department of Educational Technology, School of

1 * Haifeng Xie, Department of Painting, School of Fine Arts and Design, China and ASEAN College of Arts, Chengdu University, Sichuan, China. Email: 136104059@qq.com
2 Krisana Kitcharoen, Lecturer, Graduate School of Business and Advanced Technology Management, Assumption University, Thailand. Email: krisana@au.edu
3 Charnsid Leelakasemsant, Lecturer, Graduate School of Business and Advanced Technology Management, Assumption University, Thailand. E-mail: charnsidllk@au.edu
4 Manoj Mechankara Varghese, Lecturer, Connecta Education. Email: mvmanojdxb@gmail.com

Educational Technology, Peking University proposed that hybrid education can improve teaching effectiveness, increase interaction space, and save development cost and time. Through the examination of actual teaching, many theorists pointed out that hybrid education might integrate traditional teaching with IT teaching (Graham et al., 2020). This study focuses on the current status and current limitations of hybrid education in the painting program in China.

Since the emergence of the coronavirus, the traditional teaching model has been severely impacted. In the traditional model, both teachers and students are presence in the classroom and can only be divided into dominant and passive recipients. Using the hybrid education model, we can get rid of the shortcomings of traditional course teaching and online open courses. The modern student-centered education concept can also be applied in the teaching process, which makes the hybrid teaching model more complete and has positive prospects for development (Graham et al., 2020).

This study found that hybrid education has been a trend and has recently been accelerated by the Covid-19. The platforms are such as Chinaooc, Basic Smartedu and many mores. In 2020, around 33 million undergraduate students were enrolled in degree programs at public colleges and universities in China (Textor, 2021), which present a large population of student in higher education and worthwhile to be studied. Thus, the researchers investigate the factors influencing the behavioral intentions of hybrid education from the most widely accepted adoption model, TAM and UTAUT, including perceived ease of use, perceived usefulness, perceived satisfaction, social influence, performance expectancy and facilitating conditions.

1.1 Objectives of this Research

a) To investigate the factors influencing the behavioral intentions of hybrid education among undergraduate students in a painting major in three public institutions in Chongqing, China.

b) To investigate the causal relationship between variables that have significant influence on behavioral intention.

c) To make recommendations for subsequent improvement aspects to ensure the successful adoption of hybrid education and optimize students' learning literacy.

1.2 Conceptual Framework

Guided by TAM and UTAUT theoretical research methods, the conceptual framework was constructed by reviewing three previous theoretical frameworks. Firstly, Shin and Kang (2015) investigated the association between perceived ease of use (PEOU), perceived usefulness (PU), and behavioral intention (BI). Cigdem and Ozturk (2016) examined the association between perceived satisfaction Mtebe and Raisamo (2014) explored the association between Performance Expectancy (PE), Social Influence (SI), Facilitating conditions (FC), and Behavioral Intention (BI). The researcher's framework was constructed by reviewing previous studies, as shown in Figure 1.

The purpose of this investigation was to examine the key factors of behavioral intention (BI) that are associated with perceived ease of use, perceived usefulness, perceived satisfaction, performance expectancy, social influence, and facilitating conditions. The target of interest is undergraduate students, majoring in painting at three key public universities in Chongqing, China. In addition, to explore the influencer od behavioral intention, this study analyzed the causal relationships and structural paths between each potential variable.

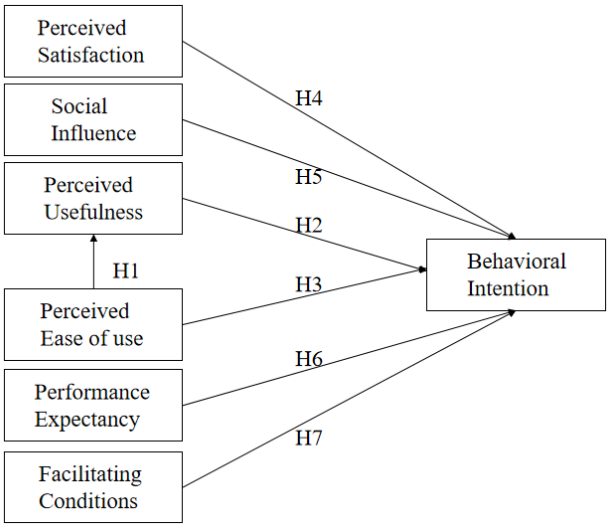

Figure 1: Conceptual Framework
Source: Created by the author

1.3 Significance of the Study

The study determines behavioral intention of whether students embrace a hybrid learning model to enhance their learning's literacy. In addition, researchers have found that the technology adoption is keen to the behavioral intention to use a technology (Netemeyer & Bearden, 1992). The stronger a person's desire to do something, the more likely that activity will occur (Vallerand et al., 1992). The findings will give a clear concept of factors affecting behavioral intention to adopt hybrid learning.

Firstly, the findings are expected to help frontline professional teachers to understand better of the technology

adoption process. It could produce a concrete contribution to teachers' academic research as well as teaching outcomes. Secondly, the universities concerned in this study can develop management systems that are more in line with the characteristics of hybrid education and adjust the small amount of investment in software, hardware, and other resources for hybrid education. Finally, the results of this study will be beneficial to future scholars who want to explore or analyze hybrid education at the university level.

2. Literature Review

2.1 Perceived Ease of Use

Researchers defined perceived ease of use as the extent to which college students use online educational technology and perceive it to be more efficient and convenient (Neo et al., 2015). Perceived ease of use is defined as the extent to which students perceive the hybrid education system as simple and effective to utilize (RuI-hsin & Lin, 2018). This potential variable also encourages people' desire to use modern technology (Player-Koro, 2012). This idea has been used to estimate students' uptake of new teaching and learning tools (Elkaseh et al., 2016). It also demonstrates learners' motivation and the impact of e-learning technology, which in an important area such as how it is used and set up (Vululleh, 2018). Based on previous literatures, hypotheses are proposed:

H1: Perceived ease of use has a significant influence on perceived usefulness of hybrid education.

H3: Perceived ease of use has a significant influence on behavioral intention of hybrid education.

2.2 Perceived Usefulness

Perceived usefulness is described as a component in the technology acceptance model that describes and forecasts the user's purpose and adoption of a given technology (Davis, 1989; Davis et al., 1989). Perceived usefulness is an incentive from performing a behavior. It is defined as the amount to which employing a technology might increase their job performance. The perceived usefulness of a person is a fundamental determinant of their behavioral objectives (Davis, 1989). Perceived usefulness, according to previous research, frequently leads to successful users' technology adoption (Ong & Lai, 2006). Hybrid education is thought to have advantages in e-learning systems that deliver enrichment resources at the proper time and place to help and enhance college students' learning (Chen & Tseng, 2012). Consumer preparedness to embrace the target system is determined in a part of perceived usefulness (Guritno & Siringoringo, 2013). Thereby, a hypothesis is proposed:

H2: Perceived usefulness has a significant influence on behavioral intention of hybrid education.

2.3 Perceived Satisfaction

According to Mahmood et al. (2012), the presence of the teacher is the most important factor on how students evaluate online learning. In both face-to-face and online learning models, the structure of interaction is crucial (Kuo et al., 2013). Therefore, the well-designed structure of learning can enhance the perception of satisfaction of learners. Numerous studies confirmed the significant relationship between perceived satisfaction and behavioral intention. Evidences have shown that in almost learning situation, the frequency and quality of student interaction has a significant impact on student well-being. However, researchers have revealed that demographic and cultural aspects influence the design of effective online learning interactive technology (Francisco et al., 2012). Hence, a hypothesis is developed.

H4: Perceived satisfaction has a significant influence on behavioral intention of hybrid education.

2.4 Social Influence

According to Venkatesh et al. (2003), social influence refers to how essential it is to an individual that other people believe he or she should utilize the new system. An individual's perspective or conduct that is impacted by others is referred to as social influence (Mazman et al., 2009). In voluntary or utilitarian situations, social influence is not a major predictor of behavioral intention, but it becomes crucial in mandatory settings, according to Venkatesh et al. (2003). Even though students' behavioral intention to use technology for educational reasons is an example of voluntary technology usage, this study looked at the direct effect of social influence on behavioral intention (Gao et al., 2022). The theory behind social influence is that not all activities are self-activating to determine whether humans do or do not perform some behavior. Hence, H5 is indicated:

H5: Social influence has a significant influence on behavioral intention of hybrid education.

2.5 Performance Expectancy

Performance expectancy, as described by Venkatesh et al. (2003), are the degree to which a person believes that utilizing the system will assist him or her achieve and improve work performance. This study clarifies performance expectancy as the extent to which students believe that adopting mobile learning would help them enhance their academic performance and gain better marks

(Wang et al., 2003). The amount to which decision makers feel that technology would assist them in their everyday operations will favorably influence the success of technology implementation in higher education institutions, (Venkatesh et al., 2003). The biggest predictor of voluntary and involuntary behavioral intents to utilize various technologies was determined to be performance expectancy (Mtebe & Raisamo, 2014). Consequently, the following hypothesis is obtained:

H6: Performance expectancy has a significant influence on behavioral intention of hybrid education.

2.6 Facilitating Conditions

The extent to which an individual believes that organizational and technological infrastructure exists to support the use of the system is described as a facilitation condition (Venkatesh et al., 2003). In this study, facilitating conditions are the extent to which a student believes that educational institutions provide infrastructure and equipment's to facilitate the use of the hybrid learning system. Facilitating conditions in TAM determine and impact instructors' intentions to utilize technology as well as their perceptions of its ease of use (Teo, 2011). According to Venkatesh et al. (2003), facilitation influences the behavioral intention to use a system technology. When using new and unfamiliar virtual learning settings, facilitating conditions can be hardware, software, usage guidelines, leaning contents etc. (Rienties et al., 2016). Based on these assumptions, a hypothesis is developed:

H7: Facilitating conditions have a significant influence on behavioral intention of hybrid education.

2.7 Behavioral Intention

Behavioral intention is defined as the amount to which a person makes a deliberate plan to execute or not perform an activity, and there are numerous aspects that impact a learner's behavioral intention to use technology in the learning process (Warshaw & Davis, 1985). The essential theoretical foundation for influencing users' behavioral intents is characterized as rational behavior, planned behavior, and TAM (Ajzen, 1991; Ajzen & Fishbein, 1975; Davis, 1989). Behavioral intention has been shown to influence perceived usefulness, perceived ease of use, perceived satisfaction, effort expectation, convenience, and social influence in prior research (Vatanasakdakul et al., 2010). The items needed to gauge behavioral intentions are supplied in the application of TAM (Agarwal & Prasad, 2007). In TAM, behavioral intention is a great contributor to actual usage behavior (Kitcharoen & Vongurai, 2021).

3. Research Methods and Materials

3.1 Research Methodology

The researchers applied quantitative method and used a nonprobability sampling technique to distribute survey to 500 undergraduate students in painting major from three public universities in the Chongqing, China, who have been adopting hybrid education. Selected universities are Sichuan Fine Arts Institute (SCFAI), Chongqing Normal University (CNU) and Southwest University (SWU). Interpretive information was generalized and explored to identify the essential factors that have a significant impact on the behavioral intention of hybrid education. The assessment was divided into three parts. Screening questions are initially used to identify and survey respondents with specific characteristics (Voß et al., 2021). In addition, demographic questions are used to obtain basic data about the participants, such as gender, primary orientation, and institutional information (Lodico et al., 2006). Finally, a five-point Likert scale is used for evaluation of measuring items, with a score of 5 indicating absolute agreement and 1 indicating extreme disagreement (Salkind, 2017).

Three experts with doctoral degrees and mixed educational professionals were invited to complete an item-objective congruence (IOC) of content validity to test the appropriate objectives proposed by the instrument designers for this study. As a result, all items were reserved at the score equal or above 0.67. In the pilot test, Clark-Carter (2018) pointed out that 30 respondents are sufficient. This study conducted a preliminary test of internal consistency reliability using Cronbach's Alpha scale with 30 college students with all constructs are approved including perceived ease of use (0.787), perceived usefulness (0.818), perceived satisfaction (0.932), social influence (0.956), performance expectancy (0.823), facilitating conditions (0.753), and behavioral intention (0.946).

After validity and reliability assessments were conducted and approved, questionnaires were distributed to 500 undergraduate students from selected universities. The data was examined by using IBM SPSS and AMOS. In addition, confirmatory factor analysis (CFA) was used to assess factor loadings, t-values, composite reliability (CR), average variance extracted (AVE), and discriminant validity. Subsequently, structural equation modeling (SEM) was used to assess hypotheses, as well as the direct, indirect, and total effect of the potential variable relationships.

3.2 Population and Sample Size

The target subject of this research are undergraduate students majoring in painting from three public universities in the Chongqing area of China, namely, Sichuan Fine Arts

Institute (SCFAI), Chongqing Normal University (CNU) and Southwest University (SWU). According to Israel (1992), the minimum sample size for a complex framework in a structural equation model should be 200-500 students. Through judgmental sampling and quota selection, 500 participants were an appropriate size.

3.3 Sampling Techniques

The researchers applied multiple sampling techniques, which was divided into three stages. Initially, the researchers used judgmental sampling to select 1,200 undergraduate painting students from three public universities in the Chongqing, China area who had previously participated in at least one month of hybrid education. In addition, 500 participants were identified in a quota sampling as the final sample in each subgroup. Lastly, convenience sampling was to distributing survey via offline through administration offices and online via emails and chat application.

Table 1: Sample Units and Sample Size

Target Public Universities	Student Grade	Population Size Total = 1200	Proportional Sample Unit Size Total = 500
Sichuan Fine Arts Institute (SCFAI)	Freshman	160	67
	Sophomore	160	67
	Junior	160	67
	Senior	165	69
Chongqing Normal University (CNU)	Freshman	100	42
	Sophomore	75	31
	Junior	75	31
	Senior	65	27
Southwest University (SWU)	Freshman	60	25
	Sophomore	60	25
	Junior	60	25
	Senior	60	25

Source: Created by the author.

4. Results and Discussion

4.1 Demographic Information

The data of demographics of the 500 respondents included 26.09% of male and 73.91% of female respondents. 53.79% are students from Sichuan Fine Arts Institute (SCFAI), 26.29% from Chongqing Normal University (CNU), and 19.92% from Southwest University (SWU). In terms of student year, 26.67% of respondents were from freshman year, 24.58% from sophomore year, 24.58% from junior year, and 24.17% from senior year. In addition, 23.80% of the students are oil painting, 24.20%, watercolor, 6.60%, printmaking, 25.00%, general art, and 20.40% of the students had not yet chosen a major.

4.2 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) was conducted to explore whether the constructs and factor loadings of the observed variables were consistent with assumptions. The significance of the factor loadings for each observed variable and acceptable value demonstrated the goodness of fit of the study matrix (Hair et al., 2006). The results of SPSS AMOS were confirmed the fit model of CFA's measurement model. According to the statistical results summarized in Table 2, all values of Cronbach's Alpha were greater than 0.70, factor loadings greater than 0.30, t-values greater than 1.98, p-values less than 0.50, composite reliability (CR) greater than 0.70 and mean variance extracted (AVE) greater than 0.50 (Hair et al., 2009). Accordingly, all assessments were significant.

Table 2: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Latent Variables	Source of Questionnaire	No. of Items	Cronbach's Alpha	Factor Loadings	CR	AVE
Perceived Ease of Use (PEOU)	Cigdem and Öztürk (2016)	5	0.847	0.645-0.913	0.857	0.549
Perceived Usefulness (PU)	Cigdem and Öztürk (2016)	6	0.884	0.616-0.913	0.892	0.586
Perceived Satisfaction (PS)	Mtebeb and Raisamo (2014)	4	0.861	0.681-0.852	0.864	0.616
Social Influence (SI)	Mtebeb and Raisamo (2014)	4	0.864	0.573-0.872	0.874	0.640
Performance Expectancy (PE)	Mtebeb and Raisamo (2014)	4	0.789	0.544-0.837	0.805	0.515
Facilitating Conditions (FC)	Mtebeb and Raisamo (2014)	4	0.824	0.621-0.869	0.837	0.568
Behavioral Intention (BI)	Shin and Kang (2015)	4	0.812	0.546-0.899	0.831	0.561

Source: Created by the author.

The convergent validity was determined when the value of CR is greater than AVE, while the AVE is higher than 0.50 (Hair et al., 2009). Additionally, the values of the discriminant validity were examined and demonstrated in Table 3 exceeded the critical point values. Consequently, the convergent validity and the discriminant validity of this

research were assured. Additionally, these matrix evaluation consequences consoled discriminant validity and the validation to assess the validity of succeeding structural model estimation.

Table 3: Discriminant Validity

	PEOU	PU	PS	SI	PE	FC	BI
PEOU	**0.741**						
PU	0.308	**0.766**					
PS	0.263	0.183	**0.785**				
SI	0.335	0.198	0.158	**0.800**			
PE	0.294	0.321	0.222	0.236	**0.718**		
FC	0.286	0.289	0.247	0.255	0.288	**0.754**	
BI	0.406	0.245	0.285	0.300	0.28	0.237	**0.749**

Note: The diagonally listed value is the AVE square roots of the variables
Source: Created by the author

4.3 Structural Equation Model (SEM)

After the CFA process, structural equation modeling (SEM) is performed to estimate a specific set of linear equations and verify the fit of the model. In addition, SEM determines the causal relationship between each variable in a given matrix and includes inaccurate or unreliable estimates in the corresponding coefficients (Jaruwanakul, 2021). The results are shown in Table 4, adjusted by SPSS AMOS of CMIN/DF, GFI, AGFI, CFI, TLI, and RMSEA. Therefore, each metric of the SEM validation goodness of fit for this study is acceptable.

Table 4: Goodness of Fit for Structural Equation Model

Index	Criterion	Source	After Adjustment Values
CMIN/DF	< 5.00	(Al-Mamary & Shamsuddin, 2015)	1203.944/418 or 2.880
GFI	≥ 0.85	(Sica & Ghisi, 2007)	0.851
AGFI	≥ 0.80	(Sica & Ghisi, 2007)	0.823
NFI	≥ 0.80	(Wu & Wang, 2006)	0.860
CFI	≥ 0.80	(Bentler, 1990)	0.903
TLI	≥ 0.80	(Sharma et al., 2005)	0.892
RMSEA	< 0.08	(Pedroso et al., 2016)	0.061

Source: Created by the author.

4.4 Research Hypothesis Testing Result

According to Figure 2, the significance of each variable is based on the regression weights and R2 variance. Hypotheses are significantly supported with p-values less than 0.05. According to the results in Table 5, the strongest influence is the relationship between perceived ease of use and perceived usefulness with a standardized path coefficient (β) result of 0.290 (t-value = 5.654***), perceived usefulness influenced behavioral intentions with a β of 0.107 (t-value = 2.211*), perceived ease of use had a significant influence on behavioral intentions with a β of 0.238 (t-value = 4.643***), perceived satisfaction influenced behavioral intentions with a β of 0.155 (t-value = 3.228**), social influence to behavioral intentions with a β is 0.193 (t-value =3.979***), β of performance expectations to behavioral intentions is 0.154 (t-value =3.146**), and β of facilitating conditions to behavioral intentions is 0.032 (t-value =0.690).

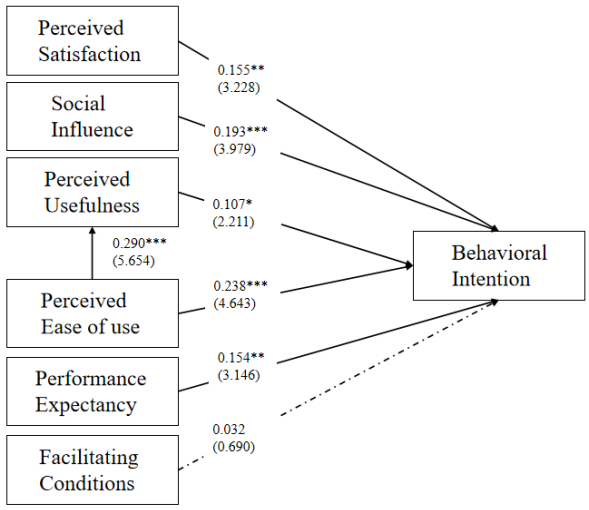

Figure 2: Structural Equation Modeling (SEM)
Note: *** p<0.001, ** p<0.01, * p<0.05
Source: Created by the author

Table 5: Hypothesis Results of the Structural Equation Modeling

Hypothesis	Standardized Coefficients (β)	S.E.	t-value	Result
H1: PEOU→PU	0.290	0.076	5.654***	Supported
H2: PU→BI	0.107	0.051	2.211*	Supported
H3: PEOU→BI	0.238	0.081	4.643***	Supported
H4: PS→BI	0.155	0.061	3.228**	Supported
H5: SI→BI	0.193	0.067	3.979***	Supported
H6: PE→BI	0.154	0.065	3.146**	Supported
H7: FC→BI	0.032	0.060	0.690	Not Supported

Note: *** p<0.001, ** p<0.01, * p<0.05
Source: Created by the author.

Based on the data in Figure 2 and Table 5, the following extensions can be obtained:

H1 confirms that perceived ease of use is one of the important factors of perceived usefulness, with a standardized path value of 0.290. The result is aligned with previous literatures that students perceive the benefits of hybrid education system as simple and effective to utilize (Elkaseh et al., 2016; Player-Koro, 2012; Rui-Hsin & Lin, 2018).

In H2, the statistical results support that perceived usefulness has a significant influence on behavioral intention. The standardized coefficient value for this hypothesis is 0.107. Therefore, the results of Lee (2011) show that perceived usefulness is the most important factor that can motivate student's intention to use hybrid education.

H3 shows that perceived ease of use has a significant influence on behavioral intention with a standardized median value of 0.238. Perceived ease of use demonstrates learners' motivation and behavioral intention to use hybrid education (Vululleh, 2018).

For H4, perceived satisfaction has a significant influence on behavioral intention, but its effect is weaker compared to the other hypotheses. According to many scholars, students evaluate hybrid education in both face-to-face and online learning models, So the well-designed structure of learning can enhance the perception of satisfaction of learners. (Kuo et al., 2013; Francisco et al., 2012; Mahmood et al., 2012).

H5 indicated that social influence has a significant influence on behavioral intention with a standardized path value of 0.193, proving that the opinions of others can influence one's feelings about a given information technology (Sun & Chen, 2016; Wu et al., 2010), especially when the technology is new or there is considerable uncertainty.

The effect of performance expectations on behavioral intentions is also evidences in H6, with a standardized path value of 0.154. It confirms that performance expectancy as the extent to which students believe that adopting hybrid education would help them enhance their academic performance and gain better marks (Mtebe & Raisamo, 2014; Venkatesh et al., 2003; Wang et al., 2003).

Finally, in H7, the influence of facilitating conditions on behavioral intentions is not supported, which has a standardized path value of only 0.032, and does not meet the criterion of p-value < 0.05. The result opposes the number of studies that a student believes that educational institutions provide infrastructure and equipment's to facilitate the use of the hybrid learning system (Rienties et al., 2016; Teo, 2011).

5. Conclusions and Recommendation

5.1 Conclusion

The purpose of this paper is to examine the significant influencers of behavioral intentions of undergraduate students majoring in painting at three public universities in Chongqing, China. Hypotheses were formulated in a conceptual framework. A questionnaire was administered to 500 undergraduate students who had at least one month experience of hybrid education. Statistical analyses were conducted through validating factor analysis (CFA) to check the validity and reliability. In addition, structural equation modeling (SEM) was used to validate the main influences on the factors affecting behavioral intention.

Through the researcher's investigation, perceived ease of use had the strongest impact on college students' perceived usefulness of hybrid education, a result consistent with previous research in which technology that is perceived as easy to use is considered useful (Porter & Donthu, 2006). The findings suggest that perceived usefulness and perceive ease of use, perceived satisfaction, social influence and performance expectancy were validated on students' behavioral intentions, and it is clear from the literature that active learning is critical in online learning environments (Green et al., 2018; Pereira et al., 2021). Nevertheless, facilitating conditions are not a predictor of behavioral intention in this study. The majority of education in painting is done in traditional classrooms, and when students do not perceive the new technology as practical enough, a decrease in active learning may produce undesirable results.

In the context of China, the country has a large population of undergraduate students and most hybrid platforms are invented to use within the country. This study found that perceived ese of use on hybrid education platform in China encourages Chinese students' desire to use new teaching and learning tools (Elkaseh et al., 2016). The benefits of using hybrid education have been carried on since during Covid-19 which reflect the higher degree of ese of use and behavioral intention. The satisfaction, social influence and performance expectancy are drivers of Chinese student's behavioral intention. On the other hand, facilitation conditions are not clearly implied Chinese student behavioral intention which can be assumed that painting class has been not well-designed in the hybrid learning format.

5.2 Recommendation

The study taught an exploration of behavioral intentions of undergraduate students majoring in painting in Chongqing, China. Therefore, it is recommended that these aspects be promoted in the design and reform of future hybrid education courses for painting majors in order to achieve more desirable teaching and learning outcomes and results. Curriculum designers for painting majors should take into account students' behavioral intentions in order to improve student learning by providing the learning materials and equipment per appropriate to both on-site and virtual learning.

Behavioral intention is a key variable for the successful technology adoption whether students embrace a hybrid learning model to enhance their learning's literacy. Education professionals should have a clarity on the technology adoption process and develop management systems of hybrid education to be simple and beneficial for

the maximization of student satisfaction and learning performance. This recommendation can be implied to the significant influence among perceived ease of use, perceived usefulness, perceived satisfaction and behavioral intention to use hybrid learning.

In the main implementation of hybrid education, we should focus on three aspects. Firstly, the school level should provide an online teaching platform with excellent performance. Secondly, teachers need to pay more attention to students' learning pressure in allocating face-to-face teaching and online teaching time. In the design and painting courses, the behavioral intentions of painting students in using related technologies should be fully considered, and the painting syllabus should be reformed in an adaptive way. Finally, students should pay more attention to the advantages of new technologies in learning.

5.3 Limitation and Further Study

This study has the following limitations. Initially, the survey population and sample were selected from only three public universities in the Chongqing region of China. Therefore, the study results cannot cover other regions and the research framework should be extended to other regions of China in future studies. Next, as revealed in the discussion section, students' acceptance and use of hybrid education was interfered with from the traditional learning model. Therefore, two options could be considered for further research in the future. Finally, other potential variables, such as trust, perceived interaction, learning motivation, performance expectations, and facilitation conditions, could be further explored within the research framework.

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