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Factors Affecting Behavioral Intention and Usage Behavior of Mixed Painting Education of Students in Chengdu, China

Xiaoyan Zhan*

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Abstract

Purpose: This study investigates factors affecting students' behavioral intention and actual use of mixed painting education in Chengdu, China. The research model is perceived ease of use, perceived usefulness, attitude, social influence, facilitation conditions, behavioral intention, and actual usage. **Research design, data, and methodology:** The researchers adopted a quantitative approach (n=500) and sent questionnaires to 9–11-year-old students' parents. The sampling techniques are purposive, quota, convenience sampling, when collecting data and distributing online and offline surveys. Before the data collection, the index of item-objective congruence (IOC) and Cronbach's Alpha for pilot test (n=50) were employed. Structural equation modeling (SEM) and confirmatory factor analysis (CFA) are used for data analysis, including model fit, reliability, and structure validity. **Results:** Perceived ease of use has a significant effect on perceived usefulness. Perceived usefulness and perceived ease of use significantly affect attitude. Perceived usefulness, perceived ease of use, social influence, and facilitating conditions significantly affect behavioral intention. Behavioral intention has a significant effect on actual usage. **Conclusion:** The teaching plan of non-academic art schools should pay more attention to the behavior intention and practical application of students and parents. Therefore, operators should also pay attention to cultivating parents' awareness of investment in art education.

Keywords: Perceived Usefulness, Perceived Ease of Use, Attitude, Social Influence, Behavioral Intention

JEL Classification Code: E44, F31, F37, G15

1. Introduction

This paper mainly studies the behavior intention and actual use of local painting talents under the mixed mode of online and offline, and puts forward the actual combination according to the status quo of painting training institutions in the main city and outside city of Chengdu. Among the 15 painting training institutions managed by the researchers, the four most representative institutions are selected, which have the most direct research significance for improving their own operating profits and improving the level of management team. In addition, it also has certain value for other painting training institutions in Chengdu, and has certain reference value for the operation analysis of the industry market.

The stage of universal participation in outside art is mainly concentrated in the primary school stage, because the academic class in the primary school stage is much smaller than that in the middle school stage, and parents and students have a lot of spare time for their children to develop artistic talent and skills, so the sample of the study is aimed at this stage.

The mixed online and offline education model was applied to out-of-school education and training institutions during the epidemic. Art training has its particularity and such classes must be conducted face to face. One-to-one or face-to-face tutoring is helpful for children's art skills, but institutions may not be able to give online lectures on closures due to China's stricter prevention and control

1*Xiaoyan Zhan, Jintang Branch School of Chengdu Normal Affiliated Primary School, China. Email: 502592839@qq.com

measures. During this period, studying the mixed mode of teaching online and offline provides a respite for the practical operation, so it is of great practical significance for the whole painting training institutions and the entire education industry.

The teaching model of off-campus training institutions is different from that of public schools and universities. Since primary school students are not as responsible for province-wide outbreaks as college students, school authorities have widely adopted epideia-normal teaching during the outbreak, which is closer to the campus, and students can study and live on campus on a daily basis. Reflecting that primary schools, whether public or private, need to close in time when the epidemic is spreading, while external training institutions will be more reluctant to carry out any activities during the epidemic period, allowing only online progress. Based on these realities, it is urgent to develop a mix of online and offline teaching.

The variables selected in this study are perceived ease of use, perceived usefulness, attitude, social influence, promotion conditions, behavioral intention and practical use, as well as factors closely related to theory and reality, online and offline, and the study of these factors has strong practical value and academic reference value.

2. Literature Review

2.1 Perceived Ease of Use

Perceived ease of use and perceived usefulness are the two most basic factors in the TAM model, and the vast majority of information systems or online teaching literature, almost without exception, involve these two most basic variables. This independent variable is the factor that can affect the perceived usefulness. Many articles have also described the correlation between perceived usability and the attitude of complex buildings. As more data was collected for this study, the perception concept was the most used and widely applied related factor structure (Shiue & Hsu, 2017). In the process of developing video games, some innovation researchers have concluded that there is a positive correlation between perceived ease of use and attitude and perceived usefulness, so user acceptance of the product depends on the effective implementation of the product or teaching method (Pando-Garcia et al., 2016). However, other studies have found that PEOU cannot impact users' attitudes towards usage in any scenario. The statistical results that are completely contrary to the TAM model may be due to the forced use of the software system or the infrequent use of the user. Thus, it can be concluded for all researchers that each model in practice needs to be applied to its study scenario, and it is normal for statistics to show different results (Liao et al., 2007). In addition to attitudes and tendencies towards the subject, perceived ease of use strongly correlates with the subject's perceived convenience (Chang, 2012).

H1: Perceived ease of use has a significant effect on perceived usefulness.

H3: Perceived ease of use has a significant effect on attitude.

2.2 Perceived Usefulness

Zhong et al. (2022) define perceived usefulness as the belief that technology helps improve teaching efficiency. This view is also supported by Usluel and Mazman (2010), who argue that the best explanation for perceived usefulness is the belief that individuals have increased efficiency through new technologies. These views are undoubtedly based on the interpretation of perceived usefulness by Davis (1989), the scholar who first proposed the concept of perception. He believes that subjects have a strong sense of trust in the information system technologies they choose because they think these technologies can help them improve their performance and have a strong sense of usefulness. Other scholars have explicitly emphasized the value of perceived usefulness directly in noun explanations. For example, Wozney et al. (2006) Perceived usefulness is a decisive factor in users' subjective belief that the system can accomplish its task. When searching for the interpretation of terms, it is found that scholars have also put forward explanations for the perceived usefulness of the mixed online and offline teaching modes. The subjects of this study are college students.

H2: Perceived usefulness has a significant effect on attitudes.

H5: Perceived usefulness has a significant effect on behavioral intention.

2.3 Attitude

Technology acceptance model theory attitude, this variable is the role of the intermediary variable. Most documents retain the value of the mediator, and users need to see its impact. The body of an applied investment is the best language to explain attitudes (Ajzen & Fishbein, 1980; Lee et al., 2015). This direct, immediate response can explain attitudes. Lee et al. (2015) injected new variables into TAM theory: perceived playfulness and compatibility cognition. This study is based on the idea of entertainment and compatibility to realize the assumption of system service satisfaction, which is different from other articles that study relatively rare variables and are not open to the experience of researchers. The literature emphasizes the evaluation system, focuses on user needs and attitudes rather than the system itself, and has a broad development vision. Based on the explanation and correlation of attitude, this study assumes that this variable can directly lead students and

parents to choose our courses. Without system management and follow-up management service tracking, they will likely choose other painting training institutions (Agarwal & Prasad, 1998).

H4: Attitude has a significant effect on behavioral intention.

2.4 Social Influence

Social influence is one of the three independent variables in the UTAUT model. It is an individual's perception of the system others are using, influencing his level of use. Finally, whether an individual will use the system may be influenced by factors such as age, gender, experience with online use, etc. (Venkatesh et al., 2003). Therefore, the variable "social impact" may not have a positive causal relationship with the findings in each research paper. Thomas et al. (2013) and Briz-Ponce et al. (2017) have tested the social impact, indicating that it is an important factor affecting students' attitudes and behavioral willingness to use mobile learning.

Based on different statistical results in the literature, researchers need to pay attention to more "influential" factors to promote online systems' development better. Since online learning systems break the limit of learning due to spatial expansion, there must be large differences in the level of network operation of learners, so common variables in UTAUT may not fully explain the degree of technology acceptance and the development of system technology needs to consider the convenience of user operation (Sife et al., 2007) because these factors are very helpful for universities to continuously implement and promote online learning models (Rubaai & Hashim, 2019).

H6: Social influence has a significant effect on behavioral intention.

2.5 Facilitation Conditions

By referring to relevant literature on research facilitating conditions, it is found that the term facilitating conditions in articles on online learning by teachers is explained as follows: lecturers engaged in teaching positions perceive that basic hardware facilities and software technical support can help them realize the use of technology (Venkatesh et al., 2003). Maruping et al. (2017) believe that facilitating conditions is an objective factor not controlled by the will, which is accompanied by a large expected value of the subject. It is a process in which individuals try to use the information technology system operable in the use environment. Facilitating conditions as an effective perception of online learning fully indicates students' trust in the system (Efiloğlu & Tingöy, 2017). All online users can get software or hardware support for online learning, which refers to facilitating conditions (Khechine et al., 2020).

H7: Facilitation conditions have a significant effect on behavioral intention.

2.6 Behavioural Intention

Davis proposed the famous technology acceptance model (Davis, 1989), revealing that subjects' behavioral intentions consisted of perceived usefulness and ease of use. It is the context for the action, and the intention of the action is strongly expressed because the word will predict actual use (Ajzen, 1991; Taylor & Todd, 1995), which is why this variable was used in this study as an intermediary before actual use. In the study of Bonnes and Bonaiuto (2002), "behavior" is the subjective behavior in which individuals tend to maintain continuous movements (Moon et al., 2015). This concept grew out of research surrounding agency behavior. The first study of behavioral intent is that it is the calculation and evaluation of the will that an individual will carry out as an actual action, i.e., the subject is determined by the intention of that action whether to use the product or other product of its choice (Davis et al., 1989). Behavioral intent refers to subjective rationality, including subjective attitudes and norms (Do et al., 2021).

The earliest explanation of behavioral intent and the most cited literature comes from Fishbein and Ajzen (1975), who argue that behavioral intent manifests a vision of behavioral intent. Behavioral intention verifies the level at which students are willing to complete the prescribed behavior (Wang et al., 2016). Therefore, scholars will reduce this factor to the content of behavioral theory because the behavior of a specific technical system presented by the recipient refers to the behavioral intention (Chauhan, 2015).

H8: Behavioral intention has a significant effect on actual usage.

2.7 Actual Usage

McCauley and Kilgour (1990) proposed that actual usage quantifies students' classroom behavior, not limited to attendance, as an indicator of classroom participation. Balakrishnan (2017) studied the actual usage (AU) in the same field, which is also interpreted as using social networks in learning. Actual use is the frequency of users' use of the selected system, which is evaluated by the time and times used in technical interaction (Davis, 1989). Moon and Kim (2001) have several conditions to measure the actual use of users :1. Real use; 2. Use is reliable because of trust; 3. Use frequency 100%. Davis (1989) was the author of the technology acceptance model. He believed that actual use meant to explain the extent to which users used the system. Balakrishnan (2017) defined the actual use of the system as a variable determined by the user's behavioral intention to use the system. DeLone and McLean (2016) and Kim et al.

(2007) describe actual use as the degree and form of users' ability to use information systems, including frequency and quantity of use, suitability, and purpose. Usage metrics reflect how often the technology is used and how long it is used. Therefore, actual usage is defined as the consumption and output of the system based on actual usage reports (Petter & McLean, 2009).

3. Research Methods and Materials

3.1 Research Framework

Conceptual frameworks express the variables researchers need to study and their correlations. Conceptual frames express independent variables and causal or mediating variables (Hair et al., 2013). These graphs are constructed based on previous studies, so they have some reference value for their research (Clark & Ivankova, 2016; Cooper & Schindler, 2014). With this principle in mind, articles on education and information systems have been selected to support this research to the greatest extent possible. During the novel coronavirus pandemic, Chengdu, China, was one of the cities with the best virus control. Online and offline education systems such as MOOCs existed three years before the outbreak, and most schools have their subject-specific MOOCs, synchronous and asynchronous SPOCs, which are the basis for pushing the concept of widespread learning in China. Moreover, the emergence of the pandemic has just further popularized the technological form of online teaching.

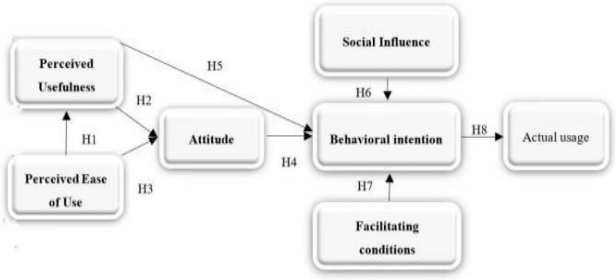

Figure 1: Conceptual Framework

H1: Perceived ease of use has a significant effect on perceived usefulness.
H2: Perceived usefulness has a significant effect on attitude.
H3: Perceived ease of use has a significant effect on attitude.
H4: Attitude has a significant effect on behavioral intention.
H5: Perceived usefulness has a significant effect on behavioral intention.
H6: Social influence has a significant effect on behavioral intention
H7: Facilitation conditions have a significant effect on behavioral intention.
H8: Behavioral intention has a significant effect on actual usage.

3.2 Research Methodology

In the questionnaire design process, all questions, from the topic selection to the main content, were based on the questionnaire items in the references and combined with the specific professional scope of the study. In the process of sampling, this study pays attention to the accuracy of the sample, avoids the inaccuracy of the target population with absolute control ability, and ensures the reliability of the sample population to the maximum extent.

The index of item-objective congruence (IOC) analysis enlisted the expertise of four experts who independently rated each scale item. Notably, all items achieved a commendable score of 0.67 or higher, affirming their alignment with the intended objectives of the study. Furthermore, a pilot test was carried out with the participation of 30 individuals, following which the reliability of the questionnaire was quantified using the Cronbach alpha coefficient. The outcomes of this analysis were notably robust, with all questionnaire items exhibiting a high level of internal consistency, boasting a reliability score of 0.60 or greater. This aligns with established guidelines for questionnaire reliability (Hair et al., 2010), affirming the soundness of the instrument employed in the research.

In order to improve the statistical fit of the data, several indicators were selected in the research method content of this paper to explain the rationality of several hypotheses and conceptual models of this study. The key influencing factors of quantitative research methods were analyzed in confirmatory factor analysis, structural validity, convergence validity, mean-variance extraction, and discriminant validity. Finally, Goodness of fit and SEM are analyzed, structural equation models are tested, and tabular summaries are made.

3.3 Population and Sample Size

In this study, students and their parents in the self-operated painting training institutions were divided into two regional sections: the new and main districts. The target population of this paper is primary school students and their parents participating in painting training in Chengdu, China, and is divided into sample size is determined to be 500.

3.4 Sampling Technique

This study selected multi-stage and hierarchical divisions to design the sampling process. The sampling process must be arranged in a group with similar characteristics and information, and the statistical results must be evaluated and

judged according to the characteristics of the statistical data (Xie, 2012). The sampling techniques are purposive, quota, convenience sampling. In purposive sampling. 9–11-year-old students' parents were selected. The quota sampling is calculated into subgroups as of Table 1. Convenience sampling is employed by using online and offline questionnaire, conducting under the school and parents' permission.

Table 1: Sample Units and Sample Size

Green League Painting Training School	Population Size	Proportional Sample Size
Main Town - Qingyang area	167	153
Main Town - Golden Bull Area	172	157
Xincheng - Shuangliu District	106	97
Xincheng - Jintang District	103	93
Total	**548**	**500**

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

In the table with descriptive statistics, the gender, population details, and proportion of the two sample respondents of the low age group and the high age group, as well as the painting professional content they have learned, are explained. Both the numbers and percentages show the details and characteristics of the sample population. The statistical scale shows that the gender proportion of females who studied painting training is slightly higher.

One of the fundamental aspects of any demographic analysis is gender distribution. In our sample of 500 individuals, we observed a notable gender imbalance. Out of these respondents, 317 (63.4%) are female, while 183 (36.6%) are male. The majority of respondents come from the Qingyang district, which constitutes 37.8% of the sample. Twin Streams, another outlying town, also has a significant representation with 27.6%.

Notably, the majority of respondents, accounting for 46.2%, express an interest in "Creative Arts for kids." This suggests a strong inclination towards creative activities for children within the surveyed population. "Sketch" emerges as the second most popular direction of interest, attracting 33.4% of respondents. In contrast, "Oil painting" and "Chinese painting realism" have relatively small proportions of interest. "Plank printing" also garners a noteworthy level of attention, at 18.4%.

Table 2: Demographic Profile

Demographic and General Data (N=500)		Frequency	Percentage
Gender	Male	183	36.6%
	Female	317	63.4%
District	Qingyang (Main urban area)	189	37.8%
	Taurus (Main Town)	106	21.2%
	Jin Tang (Out town)	67	13.4%
	Twin Streams (Out town)	138	27.6%
The main direction	Creative Arts for kids	190	46.2%
	Oil painting	12	0.8%
	Sketch	171	33.4%
	Plank printing	102	18.4%
	Chinese painting realism	25	1.2%

Source: Constructed by author

4.2 Confirmatory Factor Analysis (CFA)

Social science researchers use Confirmatory Factor Analysis (CFA) to analyze and observe underlying variables and the structure of their hypotheses (Byrne, 2010). As an analytical tool of multivariate structure statistics, CFA can quantitatively analyze sample data through the validity and reliability of hypotheses in the concept of the theoretical model, so it has been widely used in the field of social science research (Betsy McCoach & Newton, 2016; Hair et al., 2010). Thus, many social science researchers, Teel and Verran (1991), use confirmatory factor analysis to explain their hypotheses and model frameworks. Some researchers point out that CFA hypothesis testing is required for any research content. Nevertheless, CFA is not a perfect test tool and needs more convenient confirmatory factor model analysis software (Stommel et al., 1992).

This discovery is substantiated by the data presented in Table 3, where it is evident that the Cronbach's Alpha values surpass the 0.7 threshold, indicating a strong level of internal consistency. Furthermore, the composite reliability (CR) scores exceed the 0.70 benchmark, providing additional evidence of the measurements' reliability. Convergent validity, a critical component of construct assessment, was also successfully established. The average extracted variance (AVE) consistently exceeded the 0.50 mark, underscoring the robustness of convergent validity. Moreover, all factor loading values surpassed the 0.50 threshold, serving as further validation of the underlying factors' strength and coherence (Hair et al., 2010).

Table 3: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Cronbach's Alpha	Factors Loading	CR	AVE
Perceived Usefulness (PU)	Vululleh (2018)	5	0.831	0.735-0.817	0.882	0.599
Perceived Ease of Use (PEOU)	Vululleh (2018)	5	0.896	0.684-0.827	0.878	0.591
Attitude (A)	Bashir and Madhavaiah (2015)	5	0.873	0.711-0.794	0.868	0.558
Behavioral Intention (BI)	Bashir and Madhavaiah (2015)	5	0.868	0.770-0.903	0.910	0.671
Facilitating Conditions (FC)	Mtebe and Raisamo (2014)	4	0.877	0.763-0.917	0.904	0.703
Social Influence (SI)	Mtebe and Raisamo (2014)	4	0.859	0.673-0.887	0.865	0.617
Actual usage (AU)	Bardakcı (2019)	3	0.850	0.795-0.873	0.870	0.690

In order to assess the validity of the study, the square root of the average variance extracted is analyzed to verify that all correlations are higher than the corresponding correlation values for each variable, as presented in Table 4. Furthermore, various fit indices, such as GFI, AGFI, NFI, CFI, TLI, and RMSEA, are employed to evaluate the model fit during the CFA testing.

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values Before Adjustment	Statistical Values After Adjustment
CMIN/DF	< 3.00 (Hair et al., 2010)	2.115	1.857
GFI	≥ 0.90 (Bagozzi & Yi, 1988)	0.897	0.910
AGFI	≥ 0.80 (Filippini et al., 1998)	0.876	0.891
RMSEA	< 0.05 (Browne & Cudeck, 1993)	0.048	0.042
CFI	≥ 0.90 (Hair et al., 2006)	0.948	0.960
NFI	≥ 0.90 (Wu & Wang, 2006)	0.906	0.918
TLI	≥ 0.90 (Hair et al., 2006)	0.941	0.955
Model Summary		**Not in harmony with empirical data**	**In harmony with empirica l data**

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, RMSEA = Root mean square error of approximation, CFI = Comparative fit index, NFI = Normed fit index and TLI = Tucker-Lewis index

Discriminant validity, also known as divergent validity, Taherdoost (2016), is mainly used to detect whether unrelated constructs have actual relevance. Zait and Bertea (2014) also believe that discriminant validity can show the correlation of different contents in the measured content.

Table 5: Discriminant Validity

	PU	PEOU	A	FC	SI	BI	AU
PU	**0.774**						
PEOU	0.372	**0.769**					
A	0.486	0.316	**0.747**				
FC	0.069	0.031	0.120	**0.819**			
SI	0.202	0.093	0.187	0.163	**0.838**		
BI	0.420	0.187	0.350	0.248	0.317	**0.785**	
AU	0.321	0.057	0.176	0.154	0.135	0.383	**0.831**

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

4.3 Structural Equation Model (SEM)

According to Hair et al. (2010), structural equation modeling (SEM) validated the causal relationship between the variables in the proposed model and included measurement inaccuracies of the structural coefficients. The goodness-of-fit indicators of the structural equation model (SEM) are shown in Table 6. The model fit measurement should not end with a Chi-square/freedom (CMIN/DF) ratio of 3 and GFI and CFI higher than 0.8, as Greenspoon and Saklofske (1998) suggested. The calculations are performed in sem, and the model is adjusted using SPSS AMOS version 26. The fitting results of the fitting indexes were CMIN/DF = 1.937, GFI =0.902, AGFI = 0.886, NFI = 0.917, CFI =0.958, TLI =0.954, RMSEA = 0.044, and the acceptable values were shown in Table 6.

Table 6: Goodness of Fit for Structural Model

Index	Acceptable	Statistical Values Before Adjustment	Statistical Values After Adjustment
CMIN/DF	< 3.00 (Hair et al., 2010)	2.190	1.877
GFI	≥ 0.90 (Bagozzi & Yi, 1988)	0.890	0.906
AGFI	≥ 0.80 (Filippini et al., 1998)	0.872	0.890
RMSEA	< 0.05 (Browne & Cudeck, 1993)	0.050	0.043
CFI	≥ 0.90 (Hair et al., 2006)	0.943	0.958
NFI	≥ 0.90 (Wu & Wang, 2006)	0.900	0.915
TLI	≥ 0.90 (Hair et al., 2006)	0.937	0.954
Model Summary		**Not in harmony with empirical data**	**In harmony with Empirical data**

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, RMSEA = Root mean square error of approximation, CFI = Comparative fit index, NFI = Normed fit index and TLI = Tucker-Lewis index

4.4 Research Hypothesis Testing Result

This chapter uses regression or standardized path coefficients to test correlations between the independent and dependent variables of 8 hypotheses. The assumptions reflected in the table below all pass. Data results for the age group 9-11 years in the sample. In the data for the senior group, perceived usefulness had the strongest causal performance with attitudes. In contrast, the weakest causal performance was in attitudes and actual use by students and parents.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-Value	Result
H1: PEOU→PU	0.417	7.956 *	Supported
H2: PU→A	0.484	8.748 *	Supported
H3: PEOU→A	0.366	3.183 *	Supported
H4: A→BI	0.130	4.538 *	Supported
H5: PU→A	0.425	5.041 *	Supported
H6: SI→BI	0.236	2.285 *	Supported
H7: FC→BI	0.202	6.207 *	Supported
H8: BI→AU	0.432	8.435 *	Supported

Note: * p<0.05
Source: Created by the author

The results of Table 7 can be refined as:

H1: A significant causal relationship exists between perceived ease of use (PEOU) and perceived usefulness (PU). The data show that the PEOU and PU of the young group of mixed online and offline art education samples have a strong statistical correlation with the standardized path parameter in the sample of the high age group is 0.417, and there is a correlation between the two factors, and the T-value is 7.796 *, so the hypothesis is valid. **H2:** A significant causal relationship exists between perceived usefulness (PU) and attitude (A). The data show that the standardized path parameter of perceived usefulness (PU) and attitude in the sample of the young group of mixed online and offline art education is 0.484, and there is a certain statistical correlation between the two, and the T-value is 8.748*. **H3***:* There is A significant causal relationship between Perceived ease of use (PEOU) and Attitude (A). The data shows that the standardized path parameter of perceived ease-of-use and attitude in the sample of the young age group of mixed online and offline art education is 0.366, and there is a high correlation between the two, with a T-value of 3.183*. **H4:** A significant causal relationship exists between attitude (A) and behavioral intention (BI). The data tabulation hypothesis supports H4. The standardized path parameter of attitude and behavioral intention in the sample of the young group of mixed online and offline art education is 0.130, and there is a high correlation between the two, and the T-value is 4.538*. **H5:** A significant causal relationship exists between perceived usefulness (PU) and behavioral intention (BI). Hypothesis 5 shows: Support. Mixed Online-Offline Arts Education This parameter is 0.425 in the 9-11 age group sample, and there is a correlation between the two, with a T-value of 5.041 *. **H6:** There is a significant causal relationship between social influence (SI) and behavioral intention (BI). This parameter is 0.236 in the 9–11-year age group sample, and the two are correlated, with a T-value of 2.285*. **H7:** There is a significant causal relationship between behavioral intention (BI) and facilitating condition (FC). This parameter of online and offline mixed art education is 0.202 in the sample of high age group, and there is a correlation between the two, with a T-value of 6.207 *. **H8:** There is a significant causal relationship between behavioral intention (BI) and actual use (AU). In the sample of age group 9-11 years old, the parameter is 0.432, and there is a correlation between the two, with a T-value of 8.435*.

5. Conclusion and Recommendation

5.1 Conclusion and Discussion

Among the seven variables in this study, four variables affect the user behavior intention of the intermediary variable, including three independent variables and four dependent variables. The whole variable is proposed according to the model structure designed based on four basic theoretical models: classroom-based Global Collaboration (CBGC), Planned Behavior theory (TPB), Technology acceptance model (TAM), and Technology Acceptance and Use Theory (UTAUT). Eight hypotheses were proposed, and the correlation of each factor passed the statistical test. SPSS and Amos tested all the statistical data with reliability and validity. All the data examined different variables that affect behavioral intention and actual use, leading to the hypothesized conclusions proposed by the researchers. In addition, various assessment methods were used in the measurement and structural models. This study used a paired critical ratio test for parameter estimation to quantify the path diversity of different potential variables in the two sets of samples. The data results meet the requirements of quantitative research.

According to the statistical results, the variable that directly affects perceived usefulness is perceived ease of use. Both of these factors have an impact on attitude. Moreover, the numerical consequences of the response are greater. Four variables influence behavioral intention differently, among which perceived usefulness has the greatest influence on 9-11-year-old children's behavioral intention. The study

statistics confirmed that all variables were correlated to varying degrees in the two samples. Students' actual use of online and offline mixed art education is directly affected by the behavioral intention of the mediating variables.

5.2 Recommendation

This study is a phased education model under a special background. To deal with the public crisis and force majeure factors to explore a new education model. In order to ensure the student's academic progress to the maximum extent, the mixed education model of painting students in the Chengdu area is proposed as an alternative education means. The resulting thinking on the teaching and management system reform of the whole painting amateur training school should fully consider some factors put forward to maximize the effective teaching effect. The teaching plan of non-academic art schools should pay more attention to the behavior intention and practical application of students and parents. Education itself is a long-term personal investment, and with the speed of human evolution and the intensification of competition, perceived usefulness and perceived ease of use are the supporting conditions of the premise because art training in China requires more than just educational investment products. Therefore, in this study, in addition to several factors to pay attention to, operators should also pay attention to cultivating parents' awareness of investment in art education.

5.3 Limitation and Further Study

This study has a strong academic malleability, and there is much room for expansion. Geographical expansion, variable expansion, and interdisciplinary expansion, from basic education to higher education, from amateur training to academic qualification system, are all research. From the individual point of view, scientific research needs to have a large theoretical foundation, a large collection of basic literature, and the actual business environment as the basis for research. In addition, multi-group sample statistics in this study can also be used for experimental comparative research in future studies.

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