Determinants of Undergraduate Students' Attitude and Continuance Intention Toward Online Gaming in Chongqing, China

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Abstract

Purpose: This paper aims to study the factors influencing the intention of sophomores and above to continue playing online games at Chongqing Industrial Vocational and Technical College. The conceptual framework suggests a causal relationship exists between perceived enjoyment, attitude, subjective norm, social interaction, flow experience, perceived ease of use, and continuous intention. **Research Design, Data, and Methods:** The researcher used quantitative techniques (n=500) to conduct a questionnaire survey among the target student population of Chongqing Industrial Vocational and Technical College, China. Non-probability sampling includes judgment sampling to select students who have been in school for one year or more, quota sampling to determine sample size, and convenience sampling to collect data and distribute questionnaires online. The researchers used confirmatory factor analysis (CFA) and structural equation modeling (SEM). **Results:** Perceived enjoyment significantly impacts continuous intention, and attitude is an intermediate variable of perceived enjoyment. Subjective norms, flow experience, social interaction, perceived ease of use, and attitude all significantly impact students' willingness to continue playing online games, among which social interaction has the greatest impact and subjective norms have the least impact. **Conclusion:** This study provide assistance for strengthening student management and formulating corresponding educational policies but also help the game industry and software development companies to provide user motivation in online game design to encourage users to use it.

Keywords: Subjective Norm, Social Interaction, Flow Experience, Perceived Ease of Use, Continuance Intention

JEL Classification Code: E44, F31, F37, G15

1. Introduction

Today, environmental ethics is an important issue for with the development of science and technology, the Internet has become an indispensable part of contemporary human life, and online games are also rising in the Internet field. Internet users usually want to meet and communicate with others as in the real world. Consumers can entertain themselves through online games and make friends, so more and more online games are being sold on various Internet platforms (Chang, 2013). Since online games are used by people of all ages in many places, it is a new culture that is expected to have a bright future (O'Driscoll, 2022). However, while bringing entertainment to people, it also has other

effects (Chen, 2015). For example, online games are an important part of various virtual activities, and people may spend much time on games (Voiskounsky et al., 2004). As the number of online games increases, the number of game players also increases. Game merchants use the Internet to drive consumers' demand for more online game access (Armitage et al., 2006), but this also increases competition among online games because consumers can have a variety of choices in games, which is also a concern for online game manufacturers (Lee, 2009). Therefore, game developers need to analyze the various situations online game players face and determine the factors that affect players' continued use (Li et al., 2015). O'Driscoll (2022) believes that online games have the following characteristics: First, players can

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interact directly with the game server. Second, players can share. Third, role-playing, simulation, and multi-user dimension games can be carried out. For online game developers, it is necessary to find process experience construction strategies that may help attract players, pay more attention to establishing interactions between players (social interaction) and online games (human-computer interaction) (Lee, 2009), and greatly change the way netizens spend their leisure time (Boyle et al., 2012).

Previous studies have explored the cognitive trends and emotional motivations of games (Bae et al., 2016), as well as factors affecting online game behavioral intentions, gender differences in online game acceptance, etc. (Wang & Wang, 2008). There are also explorations of the appeal of online games and their impact on students' Internet addiction (Tone et al., 2014). As well as studying many external factors that affect players' acceptance of online games, such as user perception, perceived ease of use, perceived usefulness, and attitude (Zhu et al., 2012).

Based on the above background, this study has two main contributions. One is to provide user motivation for the game industry and software development companies when designing online games to encourage users to use them. The second is to help education practitioners understand the game attitudes and the continued willingness of student players from the perspective of student management and reveal their physical and mental health status. This point will be analyzed later in this article.

2. Literature Review

2.1 Perceived Enjoyment

Lee (2009) extended the theory of planned behavior (TPB) into flow experience, perceived Enjoyment, and interaction and proposed a theoretical model to explain and predict people's behavioral intentions when playing online games. Research has found that perceived Enjoyment has a significant impact on attitudes. Yu and Huang (2022) investigated users' potential attitudes and intentions toward mobile viewing. The survey results show that respondents have a positive attitude and strong intention to continue mobile viewing, among which perceived Enjoyment significantly impacts attitude. Wong et al. (2022) explored the role of gamification in promoting mobile payment technology and found that perception of Enjoyment indirectly moderates user attitudes. Foroughi et al. (2023) explored factors influencing individuals' continuance intentions to use a gamified task manager application and found that perceived Enjoyment impacted attitudes. Hsiao and Chiou (2012) used a social capital theory approach to explore how players' network centrality in online gaming communities affects their attitudes and intentions to continue playing massively multiplayer online games (MMOGs). The analysis showed that perceived Enjoyment positively impacted players' attitudes. In studying how social comparison processes influence participants' propensity to continue, (Esteves et al., 2021) found that perceived Enjoyment positively impacted attitudes.

H1: Perceived enjoyment has a significant impact on attitude.

2.2 Attitude

Attitude refers to an individual's evaluation of people, things, and objects as good or bad (Davis, 1989). According to TAM, attitude is a key determinant of an individual's behavior towards technology usage. Previous research on various types of IS/IT supports meaningful associations between personal attitudes and intention to continue using (Alhassan et al., 2020; Foroughi et al., 2019; Khayer & Bao, 2019). Foroughi et al. (2023) used technology continuity theory (TCT) to explore the factors that influence individual persistence intentions using a gamified task manager application and found that attitude is an important factor influencing users' persistence intentions. Liang and Yeh (2011) explored the hedonic nature of mobile games and found that attitude significantly moderates the willingness to continue playing mobile games. Yu and Huang (2022) investigated users' potential attitudes and intentions toward mobile viewing. The survey results show that respondents have a positive attitude and strong intention to continue watching on mobile, and their attitudes significantly impact their intention to continue watching.

H2: Attitude has a significant impact on continuous intention.

2.3 Subjective Norm

Liang and Yeh (2011) explored the hedonic nature of mobile games and found that subjective norms significantly moderate the willingness to continue playing mobile games. Yu and Huang (2022) investigated users' potential attitudes and intentions toward mobile viewing. The findings show that although SN is not directly related to CI, it can indirectly affect CI through the mediating variable ATT. (Al-Emran et al., 2020) Al-Emran et al. (2020) studied the topic of mobile learning adoption or acceptance, built an integrated model, and conducted an analysis. The results showed that subjective norms are an important predictor in explaining the continued use of mobile learning. Rahmayanti and Rahyuda (2020) studied the effects of perceived risk and subjective norms on beliefs and intentions to continue use, the effect of trust on intentions to continue use, and the mediator of trust in the effects of perceived risk and subjective norms on intentions to continue use effect. The research results show that subjective norms positively impact continuation

intention. Chen et al. (2012) selected four social factors: subjective norms, image, critical mass, and electronic reputation to study the application of Web 2.0. The results show that subjective norms, images, and critical mass significantly affect satisfaction.

H3: Subjective norm has a significant impact on continuous intention.

2.4 Social Interaction

According to the research, explaining the user continuity of hedonic information systems is invalid. Li et al. (2015) established a continuation model of hedonic information systems and conducted an empirical evaluation. Finally, social interaction affected the intention to continue using social network games. Wang and Chiang (2009) explored how interactions within online auction communities affect the willingness of online auction participants to continue trading with others, using a social perspective based on social capital theory and IS literature to explore how interactions between participants contribute to the creation and development of social capital. The results show that the impact of user interaction on online auction continuation intention is mediated by the creation of various dimensions of social capital at the community level. Gong and Huang (2023) found that social interaction positively impacted players' intention to continue studying the emotional psychology and interactive behavior of female players. Chang (2013) studied the continued use of social network games (SNGs) and concluded that social interaction can indirectly affect users' continued intention to use social game websites. It also provides practical and theoretical significance for SNG marketing strategies. Lei and Lee (2020) studied the continued intention to use mobile games in China from the perspective of experiential marketing and network externalities and ultimately concluded that social interaction indirectly impacts the continued intention to use mobile games.

H4: Social interaction has a significant impact on continuous intention.

2.5 Flow Experience

Lei and Lee (2020) studied the intention to continue using mobile games in China from the perspective of experiential marketing and network externalities and finally concluded that flow experience directly impacts the intention to continue using mobile games. In a study of persistent use of social network games, Chang (2013) concluded that streaming experiences directly affect users' willingness to continue using social gaming sites. Based on the integrated theoretical framework of the causal and expectation confirmation model (ECM) of stream experience, Zhao and

Khan (2022) discuss the driving effect of the central stream experience on online English teaching platforms on online students' intention. The results show a significant correlation between flow experience and the continuous intention of online students. Guo et al. (2016) tested an integrated model to study the factors influencing students' flow experience and the impact of flow experience on their willingness to continue online learning. The results show that flow experience has an indirect moderating effect on students' continuous online learning. Wang et al. (2022) explored the possible correlation between perceived usefulness and continued intent in the context of language learning, and the results showed that flow experience played multiple mediating roles in the relationship between perceived usefulness and continued intent and had a significant impact on continued intent. Chiu and Chen (2023) studied how the implementation of Google Meet affected the learning process experience of Taiwanese students during the epidemic and explored the impact of flow experience on satisfaction and willingness to continue learning. The results show that flow experiences directly impact continuous learning while providing important implications for theory and learning theory, as well as specific recommendations for teaching practice and educational learning platforms.

H5: Flow experience has a significant impact on continuous intention.

2.6 Perceived Ease of Use

Yu and Huang (2022) investigated users' potential attitudes and intentions toward mobile viewing. The survey results show respondents have a positive attitude and strong intention to continue using mobile viewing. Although PEOU is not directly related to CI, it can have a moderating effect on CI indirectly through the mediation of ATT. Liang and Yeh (2011) studied the use of mobile services in different environments based on the definition of tasks and consumption places and took mobile games as an example to explore the hedonic nature of mobile games. The results show that perceived ease of use significantly moderates the intention to continue playing mobile games. (Al-Emran et al. (2020) studied the adoption or acceptance of mobile learning by integrating three different theoretical models: the Technology Acceptance Model (TAM), the Theory of Planned Behavior (TPB), and the Expectation Confirmation Model (ECM) theme. The model was built and analyzed, showing that perceived ease of use significantly predicts sustained use of mobile learning. Based on the Technology Acceptance Model (TAM), Jiang et al. (2023) explored the factors influencing users' willingness to continue using the AR virtual shoe trial function. The research results show that perceived ease of use positively impacts user attitudes and indirectly moderates users' willingness to continue using.

Gupta et al. (2021) studied the specific antecedents that influence consumers to continue using messaging applications, in which perceived usefulness and ease of use mediate. Causal analysis through structural equation modeling found a relationship between perceived ease of use and information quality, system quality, and interactivity, both mediating variables that lead to users' intention to continue using the application.

H6: Perceived ease of use has a significant impact on continuous intention.

2.7 Continuance Intention

Continuance intention refers to learners' willingness to continue taking courses (Joo et al., 2018). Ozturk et al. (2016) define Continuance intention as users' behavioral intention to continue using MHB technology. Tsai and Hung (2019) define Continuity intention as the extent to which customers will repeatedly use the peer-to-peer sharing services provided by SE platforms in the future. Continuance intention is the user's intention to continue using the current product or service (Hong et al., 2013). Continuance intention refers to an individual's judgment of re-using a particular product or service from the same business, considering their current and possible future situations (Hellier et al., 2003). Continuance intention was defined as the degree to which current cloud storage service users continue to use cloud storage services (Yang & Lin, 2015).

3. Research Methods and Materials

3.1 Research Framework

The basic theories referred to in this study include the planned behavior theory proposed by Ajzen and Fishbein (1980), the technology acceptance model theory proposed by Davis (1989), the uses and gratification theory proposed by Katz et al. (1974), and the flow experience proposed by Csikszentmihalyi and LeFevre (1989). On this basis, the searchers constructed the conceptual framework of this study, as shown in Figure 1.
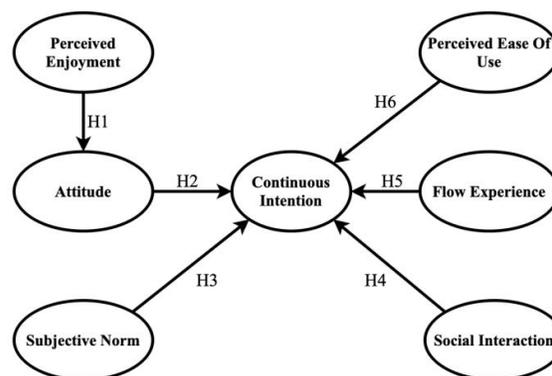

Figure 1: Conceptual Framework

H1: Perceived enjoyment has a significant impact on attitude.
H2: Attitude has a significant impact on continuous intention.
H3: Subjective norm has a significant impact on continuous intention.
H4: Social interaction has a significant impact on continuous intention.
H5: Flow experience has a significant impact on continuous intention.
H6: Perceived ease of use has a significant impact on continuous intention.

3.2 Research Methodology

The researchers used a quantitative analysis method of non-probability sampling to distribute questionnaires to the study's target population through an online questionnaire platform (Steffens et al., 2014). The target population of this study was students who were sophomores or above and studying at Chongqing Industrial Vocational and Technical College. The majors of these students were mechanical engineering, electronic technology, computer science, and automotive engineering. We analyzed the questionnaire data and explored the factors that affect college supercontinent willingness to play online games. This study questionnaire consisted of three parts. The first consisted of screening questions, including whether the student was a student of the school, whether the major studied was one of the four mainstream majors in the survey (mechanical engineering, electronic technology, computer science, and automotive engineering), and whether the student had more than one year of online game experience. The second part was a 5-point Likert scale for all variables, which was used to measure the six hypotheses of this study. The measurement range was from (1) strongly disagree to (5) strongly agree. The third part was demographic questions, including gender, age, number of online games on smart devices, and number of times online gamesmanship per week. Before conducting a large-scale

questionnaire survey, the researchers conducted a pretest on 50 respondents. The questionnaire used in the pretest was scored by the expert's item-objective consistency index (IOC).

3.3 Population and Sample Size

Using the Cronbach's Alpha method, the questionnaire of this study passed the validity and reliability test (Den Hartog & Verburg, 2004). The researcher distributed this questionnaire to the target respondents, obtained acceptable feedback from 500 responses, and tested and analyzed the data of the questionnaire feedback using AMOS, an advanced statistical software. To test the accuracy and validity of convergence, confirmatory factor analysis (CFA) was used. These measures verified the fit of the conceptual framework of this study and ensured the validity and reliability of the model. On this basis, the researcher used the structural equation model (SEM) to test the causal relationship between the variables, demonstrating the robustness of the study.

3.4 Sampling Technique

The researchers used non-probability sampling, judgment sampling, and quota sampling methods and finally selected students from four key engineering majors (Mechanical Engineering, Electronic Technology, Computer Science, and Automotive Engineering) who had studied at Chongqing Industrial Vocational and Technical College for more than one year, and distributed questionnaires through an online questionnaire platform. Table 1 shows the specific sampling situation of this study.

Table 1: Sample Units and Sample Size

Eight Main Subjects	Population Size	Proportional sample size
Zhongyuan District	97	63
Erqi District	106	69
Jinshui District	162	106
Guancheng District	82	54
Huiji District	56	37
Zhongdongxin District	96	63
Gaoxin District	56	36
Jinkai District	34	22
Total	**689**	**450**

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

Demographic information collected from the participants was about the gender and age of the students and the number of times per week they played online games (Van Veen & Sleegers, 2009). The study was conducted on students who had studied at Chongqing Polytechnic for over a year and majored in Mechanical Engineering, Electronic Technology, Computer Science, and Automotive Engineering. A questionnaire survey was conducted. Among the respondents, 38 were women, and 462 were men, accounting for 7.6 percent and 92.4 percent, respectively. There were 156 (31.2%) people aged 18-20, 237 (47.4%) people aged 20-22, and 107(21.4%) people aged 22-24. Eighty-seven people (17.4%) played online games 0-1 times a week, 103 people (20.6%) played online games 1-3 times a week, 198 people (39.6%) played online games 3-5 times a week, and 112 people (22.4%) played online games 5-7 times a week. Table 2. Demographic information of this study.

Table 2: Demographic Profile

Demographic and General Data (N=500)		Frequency	Percentage
Gender	female	462	92.4%
	male	38	7.6%
Age	18-20 years old	156	31.2%
	20-22 years old	237	47.4%
	22-24 years old	107	21.4%
Times of playing online games each week	0-1 time	87	17.4%
	1-3 times	103	20.6%
	3-5 times	198	39.6%
	5-7 times	112	22.4%

4.2 Confirmatory Factor Analysis (CFA)

This paper used confirmatory factor analysis (CFA) to measure each variable in the conceptual framework of this study. The measurement results showed that all scale items for each variable were significant. In addition, the factor loading values for each scale item were acceptable, indicating that the conceptual framework of this study was a good fit. All of the factor loading values for this study were greater than 0.30, all of the p-values were less than 0.05, all of the construct reliabilities were greater than 0.70, and all the mean extracted variances were greater than 0.50. These estimates were all significant. Table 3 shows all of these values.

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 Enjoyment (PE)	Adela et al. (2012)	3	0.801	0.738-0.770	0.801	0.573
Attitude (ATT)	Frauke and Sven (2020)	3	0.826	0.771-0.794	0.826	0.612
Subjective Norm (SN)	Muhammad (2019)	3	0.816	0.758-0.780	0.816	0.597
Social Interaction (SI)	Sevda and Sigrid (2016)	4	0.840	0.730-0.769	0.840	0.568
Flow Experience (FE)	Abdul et al. (2019)	3	0.801	0.726-0.813	0.802	0.575
Perceived Ease Of Use (PEOU)	Amlan et al. (2020)	3	0.805	0.709-0.797	0.808	0.584
Continuous Intention (CI)	Muhammad (2019)	3	0.823	0.742-0.811	0.824	0.610

Table 4 displays the square roots of the level differences extracted, and these values indicate that the correlations between all the variables in this study are appropriate. This study used GFI, AGFI, NFI, CFI, TLI, and RMSEA as model fit indicators in the CFA test.

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	<5.00(Al-Mamary & Shamsuddin, 2015; Awang, 2012)	1.606
GFI	≥ 0.85(Sica & Ghisi, 2007)	0.947
AGFI	≥ 0.80(Sica & Ghisi, 2007)	0.929
NFI	≥ 0.80(Wu & Wang, 2006)	0.937
CFI	≥ 0.80(Bentler, 1990)	0.975
TLI	≥ 0.80(Sharma et al., 2005)	0.969
RMSEA	< 0.08 (Pedroso et al., 2016)	0.035
Model Summary		Acceptable Model Fit

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, NFI = normalized fit index, CFI = comparative fit index, TLI = Tucker Lewis index, and RMSEA = root mean square error of approximation

Table 5 shows the convergent and discriminant validity of this study. These two values were acceptable. All the measurements validated the validity of the structural model estimated in this study.

Table 5: Discriminant Validity

	PE	ATT	SN	SI	FE	PEOU	CI
PE	**0.757**						
ATT	0.396	**0.782**					
SN	0.397	0.406	**0.773**				
SI	0.247	0.28	0.247	**0.754**			
FE	0.369	0.344	0.371	0.274	**0.758**		
PEOU	0.281	0.346	0.232	0.309	0.322	**0.764**	
CI	0.373	0.34	0.333	0.374	0.343	0.322	**0.781**

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

4.3 Structural Equation Model (SEM)

Awang (2012) recommended that the Chi-square/degrees-of-freedom (CMIN/DF) ratio for model fit measures was less than 5.00, a criterion also supported by Al-Mamary and Shamsuddin (2015). Sica and Ghisi (2007) suggested AGFI and NFI were both greater than 0.80. Bentler (1990) suggested that the CFI was greater than 0.80. Sharma et al. (2005) suggested that the TLI was greater than 0.80. Hu and Bentler (1999) suggested that the RMSEA was less than 0.08. The researchers used SPSS AMOS version 26 for the SEM calculations and adjusted the model. The fit index results for this study presented a good fit. CMIN/df = 3.688, GFI = 0.862, AGFI = 0.828, NFI = 0.844, CFI = 0.880, TLI = 0.864 and RMSEA = 0.073. Table 6 demonstrates these values.

Table 6: Goodness of Fit for Structural Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	<5.00(Al-Mamary & Shamsuddin, 2015; Awang, 2012)	3.688
GFI	≥ 0.85(Sica & Ghisi, 2007)	0.862
AGFI	≥ 0.80(Sica & Ghisi, 2007)	0.828
NFI	≥ 0.80(Wu & Wang, 2006)	0.844
CFI	≥ 0.80(Bentler, 1990)	0.880
TLI	≥ 0.80(Sharma et al., 2005)	0.864
RMSEA	< 0.08 (Pedroso et al., 2016)	0.073
Model Summary		Acceptable Model Fit

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, NFI = normalized fit index, CFI = comparative fit index, TLI = Tucker Lewis index, and RMSEA = root mean square error of approximation

4.4 Research Hypothesis Testing Result

Based on each variable's regression weight and R2 variance, the researcher calculated the significance of the research model. Table 6. shows the calculation results. These results support all hypotheses of this study. Perceived Enjoyment affects Attitude (β=0.491), Attitude affects Continuous Intention (β=0.183), Subjective Norm affects Continuous Intention (β=0.182), Social Interaction affects Continuous Intention (β=0.287), and Flow Experience affects Continuous Intention (β=0.187) and Perceived Ease Of Use affect Continuous Intention (β=0.183).

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-value	Result
H1: PE→ATT	0.491	8.520*	Supported
H2: ATT→CI	0.183	3.522*	Supported
H3: SN→CI	0.182	3.466*	Supported
H4: SI→CI	0.287	5.317*	Supported
H5: FE→CI	0.187	3.519*	Supported
H6: PEOU→CI	0.183	3.469*	Supported

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

Based on the results in Table 7, the researchers conclude that establishing H1 indicates that Attitude is one of the key drivers of Perceived Enjoyment, with a standard coefficient value of 0.491 for its structural path. The establishment of H2 indicates that Continuous Intention is one of the key drivers of Attitude, and the standard coefficient value of its structural path is 0.183. Establishing H3 indicates that Continuous Intention is one of the key drivers of the Subjective Norm, with a standard coefficient value of 0.182 for the structure path. Establishing H4 shows that Continuous Intention is one of the key drivers of Social Interaction, and the standard coefficient value of its structure path is 0.287. Establishing H5 shows that Continuous Intention is one of the key drivers of Flow Experience, and the standard coefficient value of its structural path is 0.187. The establishment of OfH6 shows that Continuous Intention is one of the key driving factors affecting Perceived Ease Of Use, and the standard coefficient value of its structural path is 0.183.

5. Conclusion and Recommendation

5.1 Conclusion

This study aims to comprehensively analyze the factors that influence students' persistent willingness to play online games at Chongqing Polytechnic of Industry, China. Online

games play an important role in contemporary university culture. They are games and a form of social entertainment for college students, who can release pressure through online games after busy study and extracurricular activities. However, some people have reservations about online games; they think that online games consume too much time and energy, and they worry that indulging in games will affect college students' normal social interaction and study and thus have a great negative impact on their physical and mental health, personality, values, outlook on life, world outlook, etc. Therefore, how can college students avoid indulging in online games? Understanding what factors can make them develop a sustained willingness to play games is an important condition for teachers to manage students to prevent game addiction. Therefore, this study proposes six hypotheses to explore the relationship between these factors.

The target population of this study is students who have been at Chongqing Polytechnic for more than a year. A questionnaire survey was conducted on 500 students from four majors. The data from these responses were analyzed, supporting the conceptual framework of this paper. This framework is built on the foundation of previous literature, which has provided valuable insights into the factors influencing students' willingness to play online games. SPSS and JAMOVI analyzed the 500-point sample data of this study. AMOS tests the conceptual framework of the project factor structure to determine the suitability of this study's factor structure and validation model, and the relevant data were reasonably fitted (West, 2002).

Data from 500 questionnaires passed the confirmatory factor Analysis (CFA) measure. The results show that the conceptual model of this study is valid through validity and reliability tests. The results of the convergence validity test -- composite reliability, Cronbach's alpha reliability, factor loading and mean-variance extraction analysis, and discriminant validity -- prove the concept of this study (Steigenberger, 2015). This study used structural equation modeling (SEM) to analyze the effects of perceived enjoyment (PE), attitude (ATT), subjective normality (SN), social interaction (SI), flow experience (FE), and perceived ease of use (PEOU) on continuation intention (CI). These results prove that the hypothesis proposed in this paper is valid. They supported all six research hypotheses in the study. The results show that First, Perceived Enjoyment (PE) directly affects Attitude (ATT) and indirectly influences Continuous Intention (CI). Second, Subjective Norm (SN), Social Interaction (SI), Flow Experience (FE), Perceived Ease of Use (PEOU), and Attitude (ATT) also have a direct impact on Continuous Intention (CI). This means that all six hypotheses presented in this paper are valid. Therefore, educators can start from perceived pleasure (PE), subjective norm (SN), social interaction (SI), flow experience (FE),

perceived ease of use (PEOU), attitude (ATT), and other aspects to formulate reasonable rules and regulations to prevent college students from being addicted to online games.

5.2 Recommendation

Based on the findings of this paper, we make the following recommendations. First, schools can popularize the possible negative effects of online games on students through class meetings, lectures, and other activities, such as the impact on academic performance, health problems, and social barriers. At the same time, the positive effects of moderate games, such as the value of relaxation and entertainment, should also be emphasized. Second, through courses or training, improve students' self-management and time management abilities so that they can better balance study, life, and entertainment. Please encourage students to participate in rich extracurricular activities, such as sports, art performances, and academic clubs, which can relax students and promote their social skills and comprehensive quality development.

Schools can set up psychological counseling centers to provide assistance to students who are overly addicted to online games, help students understand the psychological mechanism of addiction, and cultivate a healthier mentality and lifestyle.

5.3 Limitation and Further Study

The limitation of this study is that the variables are at the individual level, and the data measuring these variables is from a centralized period (Glick, 1985). The students who provided these data were from a specific school. In future studies, it would be beneficial to include variables similar to those in this study, adopt longitudinal or experimental designs, and collect data continuously at different times and locations, which would take the research further.

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