

Investigation and Research on the Influence of Online Game Behavior on Students' Academic Achievements

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Abstract: With its unique charm, online games attract people, especially college students. Playing online games has become an important part of college students' online life. How to reduce the negative impact of online games on college students has become an urgent problem facing today's society and higher education. Through questionnaire survey, this paper understands the basic situation of college students' use of the Internet and analyzes the influence of online game behavior on students' academic achievements. The survey results show that college students in the sample mainly play online games for three to five hours a day, accounting for 46.5%; Followed by one to three hours, accounting for 28.1%; There are also many students who last for five to eight hours, accounting for 17.9%. In terms of enthusiasm for learning motivation, those with normal internet use are the most enthusiastic, followed by those with excessive internet use and severe internet addiction, and the lowest is those with internet addiction tendency. The purpose of college students playing online games is diversified. Among them, the most important purpose of playing online games is to make many new friends, accounting for 25.7%. Pure entertainment accounts for 31.4%. After college students are addicted to online games, their academic achievements drop rapidly. Accounting for 16.51% of the college students surveyed. Although the factors of social expansion and self-efficacy in the game are significantly related to the participation time of college students in online games, they have no significant contribution to the prediction of participation time. The conclusion of the investigation is helpful for university educators to correctly grasp the online game behavior of college students and carry out targeted educational guidance.

Keywords: Students; Online Game; Game Behavior; Academic Achievements.

1. Introduction

The rapid development of Internet and information technology has enriched people's entertainment methods and promoted the popularity of online entertainment. Using network learning has become one of the main forms of college students' learning at present. The online game industry based on the Internet has developed rapidly with the popularity of the Internet. Online games attract people with their unique charm, especially by college students [1]. Playing online games has become an important part of college students' online life. College students are quick to accept new things, have strong creativity, pursue excitement and like entertainment, which makes them become the beneficiaries of the Internet and the high-risk group of Internet addiction. Therefore, it is of great value to study the network relationship of college students.

How to play the positive role of online games, solve the problems existing in online games and reduce the negative impact of online games on college students has become an urgent problem facing today's society and higher education. Through questionnaire survey, this paper understands the basic situation of college students' use of the internet, analyzes the influence of online game behavior on students' academic achievements, and puts forward some reference suggestions for the school to carry out ideological and political education for college students.

2. Research Objects and Methods

In this survey, students from freshmen to juniors were selected, and data were collected by questionnaire survey and interview. In view of the problem of the ratio of male to female in different majors, in the sample selection, students

with online game experience were selected by different colleges and grades to conduct a sample survey, among which 400 questionnaires were distributed and 368 valid questionnaires were recovered, with an effective recovery rate of 92%. At the same time, for a few special samples, data were collected by combining interview with questionnaire survey.

Self-compiled questionnaire on the influence of online game behavior on students' academic achievements. The author consulted the literature of online games, interviewed college students about online games, and compiled a formal interview outline. The questionnaire consists of two parts, the first part is a closed question, and the second part is an open question. The first part has 21 small topics, including six aspects: students' basic information, family relations, the purpose of online games, their understanding of online games, the influence of online games and the control of online game time. The measured data were statistically analyzed by SPSS.

3. Results and Analysis

3.1. The Duration of College Students' Contact with Online Games

The survey results show that college students in the sample mainly play online games for three to five hours a day, accounting for 46.5%; Followed by one to three hours, accounting for 28.1%; There are also many students who last for five to eight hours, accounting for 17.9%. It can be found that nearly half of college students play online games for almost 25.8%-41.21% of their daily time. With the popularization of the Internet, college students spend more and more time surfing the Internet once, and some of them will continue to contact online games. Once such groups lack the necessary guidance, they will easily become dependent on the Internet.

3.2. The Influence of College Students' Different Degrees of Using Online Games on Their Learning Motivation

Motivation is the internal function of causing individual activities, maintaining the activities that have been caused, and promoting the activities towards a certain goal [2-3]. Learning motivation belongs to social motivation and is an important concept of educational psychology. Learning

motivation is the subjective intention of students' learning activities and an internal psychological force that directly promotes students' learning activities. Students' internet addiction will make their academic achievements decline [4]. Figure 1 shows that in terms of enthusiasm for learning motivation, those with normal internet use are the most enthusiastic, followed by those with excessive internet use and severe internet addiction respectively, and the lowest is those with internet addiction tendency.

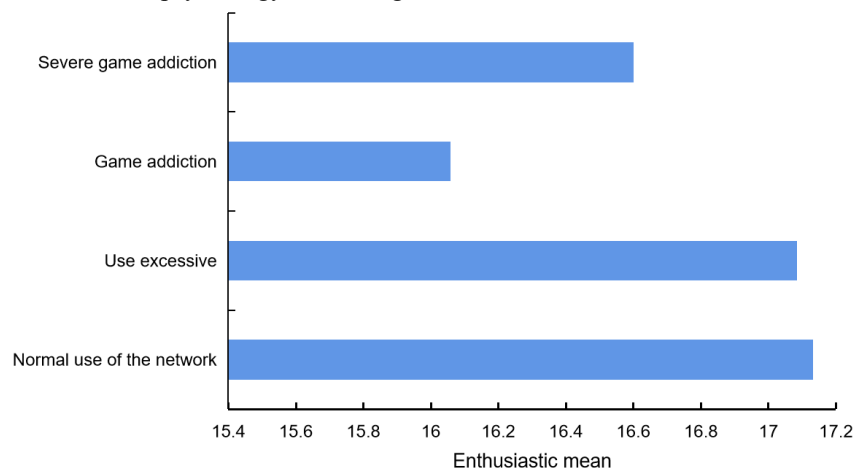


Figure 1. Marginal estimation means of college students' enthusiasm with different degrees of online game use

3.3. The Purpose of College Students Playing Online Games is Diversified

The results of the questionnaire on the influence of online

game behavior on students' academic achievements are shown in Table 1.

Table 1. The results of the questionnaire on the influence of online game behavior on students' academic achievements

Purpose of online game	content	Number of people percentage (%)
Favorite game content	Gorgeous fighting	33.2
	Aestheticism scene	30.1
	Violent slaughter	20.3
	Intellectual competition	16.4
Game level and game equipment	often	33.2
	sometimes	30.7
	Mention occasionally	21.8
	never	14.3
The reason why you like playing online game	Make many new friends	1.3
	Pure entertainment	24.3
	Exercise intelligence	15.7
	Become a master of games	58.7
The benefits of playing online games	Get friends	33.9
	Exercise team skills	30.7
	Get happiness	16.8
	Get a sense of satisfaction	18.6

It can be seen that the purpose of college students playing online games is diversified, among which the most attractive content in the game is beautiful scenes accounting for 30.1% and gorgeous fighting accounting for 33.2%; In the survey of the main purpose of playing online games, making many new friends accounted for 25.7%; Pure entertainment accounts for 31.4%; Cross-training intelligence accounts for 15.7%; 58.7% of them became game masters.

3.4. Correlation Analysis between Online Game Behavior and College Students' Academic Achievements

The survey results show that online games have a positive correlation with college students' academic achievements. The surveyed college students agree that online games are a

good way to reduce their study pressure. Participating in online games can also improve the proficiency of college students in using computers. Appropriate participation in online games is conducive to reducing learning pressure, increasing college students' computer knowledge, and promoting the cultivation of college students' creativity.

After college students became addicted to online games, their academic achievements declined rapidly, accounting for 16.51% of the college students surveyed. After college students are addicted to online games, they can't extricate themselves from online games, which not only damages their physical and mental health, but also greatly affects their study and life, which brings family problems and social problems. Performance in academic achievements is the rapid decline in academic achievements, incorrect learning attitude, bad study habits, decreased learning ability, some college students can

not get a degree, serious academic achievements can not meet the requirements of the school and was dropped out of school.

3.5. Regression Analysis

Based on literature review and research hypothesis, the author found that there may be seven factors influencing college students' participation in online games, namely, demographic factors, social communication factors, psychological factors, self-efficacy seeking, perceived ease of use, game quality perception and cost factors. The significance of independent variables is preliminarily tested

by correlation analysis, and its significance and correlation are judged by significance and correlation coefficient. The results of correlation analysis show that family location, strong sense of responsibility, professional achievements, social development in the game world, strong sense of goal, self-confidence to meet expectations, and competitive winning psychology are all significantly related to college students' online game participation time. The above independent variables and participation time are analyzed by multiple regression, and the results are as follows: Table 2.

Table 2. Regression analysis results

Variable category/quantity	variable	Beta	VIF
Demography /16	Family location	0.172*	1.165
	Professional achievements	0.354*	1.053
ΔR^2		0.008	
Personality factor /6	A strong sense of responsibility	0.136*	1.243
		0.017	
ΔR^2			
Psychological factors /2	Psychology of winning by competition	0.163*	1.409
		0.143	
ΔR^2			

Note: * $p < 0.05$

Although the factors of social expansion and self-efficacy in the game are significantly related to the participation time of college students in online games, they have no significant contribution to the prediction of participation time. Psychological factors are the main factors that affect the participation time of college students in online games. Among them, the psychology of winning in competition ($p=0.001$, $\beta=0.163$) has a significant positive impact on the participation time of college online games. Professional grades ($p=0.003$, $\beta=0.354$) have a significant positive impact on the participation time of online games in universities.

4. Countermeasures and Suggestions for Preventing and Controlling College Students' Online Game Addiction

4.1. Instruct College Students Addicted to Online Games to Participate in Online Games Correctly

We should make college students realize the harm of indulging in online games, and combine the examples of college students who are addicted to online games in our school to educate students to treat online games correctly. Many college students are addicted to online games. In addition to the charm of online games, there is also an important reason for the lack of online moral education. Therefore, universities should strengthen the network moral education for college students [5-6]. Make them form the habit of surfing the internet in line with network ethics from the beginning. In order to ensure that college students have network morality, schools must regularly carry out network moral education, so that college students can understand the correct network morality, treat online games correctly and form civilized online habits. First, establish the correct purpose of surfing the Internet, and then arrange the time of playing games on the Internet reasonably. While learning computer knowledge, college students also need to pay attention to online learning methods. In this regard, professional teachers should teach college students the basic

methods of using online learning and tell students to use search engines correctly. How to find websites of famous universities at home and abroad and websites related to majors? At present, many universities have open courses, which is helpful for learning professional knowledge.

In addition, university teachers must manage and educate students in a targeted and scientific way on the basis of a deep understanding of their psychological characteristics [7]. College students are in the youth of their lives, during which their physical and mental development has entered a new stage. The emotional instability of college students is related to many factors, such as life experience and self-realization, physical development and health, fatigue and relaxation, external constraints and personal demands.

In short, these are all caused by the contradiction between self-realization and object restriction. Therefore, teachers should have a deep understanding of students' psychological characteristics, and set up an education mode based on persuasion according to their thinking characteristics, so that they can learn and master the scientific view of understanding things as soon as possible, and understand the surrounding things with the positions and methods of dialectical materialism and historical materialism; Teachers and parents should use model figures or advanced examples as examples of evaluation and imitation to help them carry out self-evaluation and self-understanding in time [8]. It is worth noting that in the process of education, we should cultivate their self-esteem, change passive education into active education, and avoid suppressing the creativity of college students.

4.2. Strengthen Social Management

The problem of college students' addiction to online games is the product of the weakening of social control in the process of college students' socialization. The main reasons for college students' online game addiction are the lack of prevention and lagging measures in society. Therefore, strengthening social control is an urgent task to control college students' online game addiction.

First of all, to strengthen the network legal system, we must work hard on network legislation. In view of the problems existing in the operation of online games, the relevant

government departments have also issued a large number of countermeasures, which have played a positive role to some extent. However, the phenomenon of college students indulging in online games still exists, and the influence is getting worse, which shows that there are still loopholes and deficiencies in the government's policies, regulations and other management mechanisms for this industry. In this regard, the relevant government departments should intensify control and improvement to make up for the lack of management mechanism [9].

Secondly, the society needs to actively participate, and the development of the Internet cannot rely solely on government departments. The online game industry must straighten out the relationship between social morality and commercial profit-seeking, lead an honest and clean life, actively strengthen industry self-discipline, and the general public should also actively participate in cooperation and carry out public supervision. In a word, it is a necessary condition to solve the problems of college students to promote the construction of a harmonious network environment with the strength of the whole society.

Finally, to standardize the management of Internet cafes, many Internet cafes operate computer gambling games, which make many college students indulge in it. This affects the study and physical and mental health of college students, and it is easy to form online game addiction. Therefore, the management of Internet cafes should be standardized step by step through technical prevention and intensified investigation, and a healthy and harmonious network environment should be provided for college students.

4.3. Strengthen the Guiding Role of Online Games

On the positive side of online games, news and other media should give full play to their guiding role, increase publicity on the correct use of online games, and at the same time take a clear-cut stand against the negative impact and harm of excessive addiction to online games, so that the public can quickly and truly understand online games and prevent addiction. The public can be guided by typical examples [10]. Through the media's continuous reports on typical cases of online games, such as college students dropping out of school because of online games, it can arouse the public's awareness of prevention and enhance the society's attention to college students' contact with online games, thus joining the team to prevent college students from indulging in online games. At the same time, the spread of public opinion also reflects the public's demand for green grid's games, which can also enable game operators to develop in the direction of green games, and introduce and develop more harmless games, which are educational and entertaining.

5. Conclusion

Through questionnaire survey, this paper understands the basic situation of college students' use of the Internet and analyzes the influence of online game behavior on students' academic achievements. The survey results show that college students in the sample mainly play online games for three to five hours a day, accounting for 46.5%; Followed by one to three hours, accounting for 28.1%; There are also many students who last for five to eight hours, accounting for 17.9%. In terms of enthusiasm for learning motivation, those with

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