

# The Influence of e-learning on Students' Learning Motivation in Jiangsu University

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**Abstract:** Learning motivation refers to the basic form of learning activities that learners show in order to complete the corresponding learning tasks. The choice of learning motivation is not only influenced by subjective factors but also changed by the change of learning environment, which has a distinct era. The formation of the online learning environment has significantly changed the learning style of all college students, which profoundly impacts their way of thinking. It is of great theoretical and practical value to study college students' learning motivation systematically and deeply in the online environment by the method of literature research and investigation. Accordingly, the new changes and characteristics of college students in the online environment affected their learning motivations; thus, this paper analyzes the current situation of Jiangsu College using the questionnaire survey method. The results showed that students' learning motivation is concentrated and shallow, with high utility and fewer college students wanting to study independently or in-depth. Therefore, the author puts forward targeted improvement strategies for the current situation of learning motivation of college students in Jiangsu Province.

**Keywords:** Online environment; College students; Learning motivation; Jiangsu region.

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## 1. Introduction

### 1.1. Basis of topic selection

With the rapid development of computer technology, the Internet has been deeply integrated into modern people's studies, work, and life. According to the 40th China Internet Development Statistics Report released by the China Internet Information Center, the number of Internet users in China reached 751 million in June 2017, with a high Internet penetration rate of 54.3 percent. Among the many Internet users, the student group accounts for the largest share of 25.0 percent. 73.7 percent of Internet users are in the age group of 10 to 39 years old, while the proportion of Internet users in the age group of 20 to 29 years old is the highest, reaching 30.3 percent. These figures show that students are the backbone of Internet users in China and there is a strong connection between the Internet and students. In the past, students acquired their knowledge reserves mainly through schools and books. Nowadays, with the exuberant development of information technology and the popularization of smartphones, students have diversified their access to resources and channels. Advances in the Internet age have led to radical changes in the way students perceive, and the Internet is becoming more and more embedded in many aspects of people's learning and lives. Integrating the Internet and education means that traditional education must face the challenges of new environments and models. For today's students, the question of how to change and adjust their learning styles in time is a must.

### 1.2. Significance of the Study

First of all, it helps optimize the learning style of contemporary college students. In the 21st century, everyone inevitably lives, studies, and works in the online environment. Therefore, it is an essential ability and quality for today's college students to use the Internet for learning, which is in line with the demand for lifelong learning advocated by modern society. This study reflects the current situation of

Chinese college students' learning style in an online environment by investigating the current situation of Jiangsu college students' learning style in the online environment, and proposes corresponding countermeasures for learning style transformation in response to their shortcomings, to help students change to deeper learning style and stimulate their interest in online learning. It is beneficial to promote the development of online learning and education on a larger scale and helps teachers to understand students more comprehensively so as to provide targeted guidance to students, which has certain practical significance.

Secondly, it helps to promote the reform of education and teaching in higher education institutions. The main functions of higher education institutions are talent cultivation, scientific research, social service, and cultural inheritance. In the past, institutions of higher education have been focused on the role of cultivating excellent talents, but in the context of information globalization, the competition for talent in society has become increasingly fierce, and the learning needs of contemporary college students have undergone significant changes. The study of college students' learning styles in the online environment can help institutions of higher education establish students as the main body of teaching, reshape the teaching concept of colleges and universities, view online technology and use online technology with a scientific development perspective, further build digital campuses, and deepen the development of the digital campus. The study on the learning style of college students in the online environment can help higher education institutions to establish students as the main body of teaching, reshape the teaching concept of colleges and universities, view online technology with scientific development vision, use online technology, further build the digital campus, and deepen education and teaching reform.

### 1.3. Research Methodology

A survey research method is a common method used in scientific research. It generally collects the relevant information of the investigation subjects through

questionnaires, interviews, and other methods. In order to ensure the rigor of scientific research, this paper adopted the method of a questionnaire survey to get the relevant information and data about the learning motivation of college students in Jiangsu Province in the online environment and infer the general characteristics from it.

## 1.4. Objectives of the Study

Combined with the background of the Internet age, experts and scholars in the education field need calmer and thinking when thinking about how to deal with the challenges of the "Internet plus" era. We should know that "Internet + education" not only means updating education and teaching methods with Internet technology but more importantly, it promotes educational innovation and even educational reform with the help of Internet thinking. Based on the theoretical study of learning methods and the questionnaire survey of students' learning motivation in the contemporary online environment, this paper puts forward the strategies for college students to make the best use of online learning and puts forward relevant suggestions on the theory of the transformation from passive learning to active learning.

## 1.5. Conceptual framework

### 1.5.1. The Generation of online learning environment

The view of knowledge and cognition from the perspective of constructivism coincides with that under the contemporary online environment. That is, knowledge is no longer regarded as an unchangeable objective existence, but the subject of knowledge constantly constructs new knowledge and new understanding on the basis of existing experience. The dynamic nature of knowledge and the complexity of knowledge make people no longer pay too much attention to the transmission mode of knowledge, but focus on the creation of a learning environment, thinking about how to provide opportunities for learners to interact with the environment, and encouraging learners to complete the meaning construction by optimizing resources and tools in the learning environment. The online learning environment is influenced by the following three aspects: (1) Learner factors. It mainly refers to learners' personal learning needs and personal characteristics that may affect the online learning environment; (2) The participatory elements that directly urge and guide learners in the learning process mainly include learning objectives, learning activities, and learning evaluation; The essence of the learning process is the process of interaction between learners and learning environment under the guidance of established learning objectives. (3) Supporting factors to maintain the stability of the learning process mainly include learning resources, learning tools and learning support. As far as learners themselves are concerned, these three elements are the objective objects of their functions. They complement each other and interact with each other to jointly ensure and maintain the whole learning process and ultimately promote the achievement of learning goals.

### 1.5.2. Definition of the concept of college students' learning style under the online environment

The word learning style was first put forward by American scholar Herbert Thelen in 1954 according to Jung's personality classification view, which is also regarded as the origin of learning style. At present, experts and scholars in different fields still have many different views on the definition of learning style. Obviously, different conclusions

can be drawn from different research perspectives, and most experts agree that the concept of learning style is multi-dimensional. Currently, two disciplines, psychology, and pedagogy, have conducted relatively concentrated research on learning styles. Due to different research perspectives, the meanings of learning styles in these two disciplines are also different. Psychology takes individual learners as the research perspective and understands learning style as a certain way that learners have or prefer in the learning process, which has strong personal characteristics.

The learning style in pedagogy emphasizes the ways, forms, and means adopted in the learning process, and defines the category of learning style from the perspective of teaching mode and teaching structure. Bakri Rena and others (2019) believe that the core of learning style theory is that different students have their own learning styles. When teachers' teaching matches students' favorite learning styles, it will help to improve their learning. The way of learning in the field of education is more from the perspective of teaching methods, that is, how to optimize learning, how to break through the traditional classroom teaching mode and emphasize various new teaching modes oriented by learner-centered autonomous learning. Because learners' personality characteristics and cognitive styles are different, each student has different ways to process information in a specific learning environment. It is necessary to identify each learner's learning styles and preferences according to students' physiological, psychological, emotional, environmental, social, and other factors, and combine corresponding teaching methods and means to effectively stimulate and promote students' learning.

## 2. Review of Related Theories

### 2.1. Learner motivation

Motivation is a complex psychological concept that refers to an internal process or internal psychological posture that promotes the activity of an organism, maintains the existing activity, and directs that activity toward an internal psychology aimed at satisfying the organism's needs. Motivation is based on the premise of internal and external motivation, where internal motivation is the force that promotes the organism, and internal motivation is subdivided into two types of internal physiological and internal social motivation forces.

When the behavior of a creature is stimulated by intrinsic motivation and directed to certain triggers, the creature will tend to behave and then engage in certain activities. Various combinations of different types of motivation cause all human activities and motivate the prime mover of all activities. Therefore, as an important activity for human development, the occurrence and maintenance of learning require certain motivation to regulate it, and this type of motivation is learning motivation. Learning motivation is what inspires and supports students to carry out learning activities, as traditional psychology believes. Later, with the development of psychology, psychologists' understanding of the connotation of learning motivation became richer, and learning motivation got a new definition, "the tendency to seek the meaning of learning activities and to actively try to gain knowledge, experience, lessons, and other contents from the activities"(Xue, 2019).

### 2.2. E-learning

The dynamic nature of knowledge and the complexity of

understanding have led to a shift away from an excessive focus on how knowledge is delivered and instead focus research on the creation of learning environments, considering how to gradually increase the opportunities for learners to interact with the environment, encourage learners to engage in seminal constructions of meaning and enhance the tutorials and methods used in the learning environment from three areas that have an impact on the online learning environment: (1) The learner factor. It refers to the learner's personal learning needs and personal characteristics that may influence the online learning environment; (2) the participatory elements that directly supervise and guide the learner in the learning process, mainly including learning goals, learning activities, and learning evaluation; the process of learning in which the learner follows the formulated learning goals and the learning environment is the learning process. (3) Support elements that maintain the stability of the learning process, mainly including learning resources, learning tools, and learning support. As far as the learners themselves are concerned, these three elements are the objective objects of their roles (Yi, 2019). The three complement each other and interact with each other to ensure and maintain that the whole learning process can be carried out smoothly and without errors until the learning goal is finally achieved.

### 3. Research Design of Learner Motivation in An Online Environment

#### 3.1. Questionnaire design

##### 3.1.1. Questionnaire design

Through the method of a questionnaire survey to investigate the learning motivation of Jiangsu University students in the online environment, we summarized the different learning motivation situations of college students revealed in the online environment.

##### 3.1.2. Data Gathering Procedure

The questionnaire survey method was used to conduct a comprehensive investigation study on the current situation of learning styles of students at Jiangsu University in the online environment. The scientific nature of the questionnaire design is a prerequisite for the validity of the questionnaire survey. The main framework of the questionnaire of this study, the Student Learning Process Questionnaire prepared by the famous psychologist John B. Biggs et al. (1993) based on the information processing theory of cognitive psychology, is the basis of this research study. The learning styles were subdivided into two of them, superficial and deep learning styles, by Biggs et al. (1993). Among them, superficial learning styles are divided into superficial and surface motivation. The questionnaire has been used by domestic and foreign experts and scholars many times and has high reliability and validity.

#### 3.1.3. Population of study

The subjects of this study are college students of Jiangsu University. This survey is filled out anonymously. A total of 1020 questionnaires were distributed in this survey, and 996 questionnaires were recovered, with a recovery rate of 97.6%. There were 868 valid questionnaires, and the effective rate was 87.1%.

#### 3.1.4. Ethical Considerations

Respondents are free to choose whether to participate in this study at any time. Voluntary participation means that all subjects are free to choose to participate without any pressure or coercion. All participants can quit or leave the study at any time without feeling obligated to continue, and participants do not need to provide reasons for leaving the study. No identification was asked of the respondents; thus, their anonymity was protected. The results of the study were given to the respondents and to the university for awareness and dissemination.

### 3.2. Reliability analysis

The degree of stability of the questionnaire measurement results is referred to as reliability, i.e., the amount of reliability of the questionnaire. The accuracy of the measurement results is not directly related to reliability; checking whether the measurement itself is stable is what it is all about. Common methods for the reliability of scale reliability include retest reliability, replicate reliability, and internal consistency reliability. In this study, internal consistency reliability was used to analyze the reliability of the questionnaire survey. Generally, a scale coefficient of 0.9 or above indicates that the scale has good reliability, and above 0.8 is acceptable, but if it is below 0.7, the scale needs to be modified slightly, and below 0.5 means that the survey results cannot be used. The author used Excel and Spss19.0 to carry out data analysis and statistics, did Cronbach' Alpha reliability statistics on the information filled in by the respondents and measured the score of 0.947 for all options, which indicates that the internal consistency of the questionnaire is high, that is, the questionnaire has high reliability and can be used for actual measurement, as shown in Table 1 below:

**Table 1.** Reliability statistics

Cronbach's Alpha	Cronbach alpha based on standardized terms	Number of items
.910	.914	36

### 3.3. Investigation process

The target population of this study is A colleges and universities in Jiangsu province, and this survey is filled out anonymously. In this survey, 1020 questionnaires were distributed and 996 were collected, with a recovery rate of 96.5%. The number of valid questionnaires among the recovered questionnaires is 868, and the effective rate is 87.1%. The distribution of the sample is shown in Table 2.

**Table 2.** Basic information on sample distribution

	Grade	Number of people (gender)		Total number of Respondents	Percentage
		Boys	Girls		
Grade/number distribution of valid questionnaires	Freshman year	105	109	214	24.70%
	Sophomore	102	120	222	25.60%
	Junior	117	103	220	25.30%
	Senior Year	109	103	212	24.40%
	Total	433	435	868	100%

## 4. Analysis of Factors Influencing Learners' Motivation in The Online Environment

### 4.1. General Analysis

Learning styles in the online environment can be divided into surface and deep learning styles based on differences in the degree of student engagement in learning. It is all the corresponding learning motivation and learning strategies that make up this.

Since each motivation and learning strategy in the entire questionnaire contains 9 sub-questions, each question is a positive question on a scale of 1 to 5. Therefore, for motivation and learning strategies, a mean score of 27 means that the student is "half-compliant" with the motivation or strategy, and a score of 36 means that the student is "basically compliant". For learning style, it is the sum of motivation and

learning strategy, so when the average test score of learning style reaches 54, it is "half-compliant", and when it reaches 72, it is "basically compliant". When the average test score of learning style is 54, it is "half-compliance", and when it reaches 72, it is considered "basic compliance".

**Table 3.** Descriptive statistics

	N	Average value	Standard deviation
Surface motivation	868	28.8456	5.04528
Deep motivation	868	27.4343	4.82081
Valid N (list status)	868		

According to Table 3, the scores for superficial motivation are about 28.85, and for deep motivation are about 27.43.

### 4.2. Factor analysis

#### 4.2.1. Coping with learning tasks

**Table 4.** Descriptive statistics of the percentage of learning tasks due

Title	Effective Percentage				
	Not at all	Basic non-conformity	Half of them match	Basic compliance	Fully compliant
I use the Internet for studying just to make it easier and faster to complete the tasks assigned by the teacher.	7.14	13.62	28.69	36.04	14.51
I cared more about whether I could use online study to pass the exam and less about whether I actually figured out the questions.	5.18	17.05	31.11	30.3	16.36
Whether I am interested in learning in an online environment or not, I will try to complete the learning tasks.	15.21	20.18	30.53	23.35	10.73
Total (coping with learning tasks)	9.18	16.95	30.11	29.9	13.87

Table 4 shows that 43.77 percent of the students at Jiangsu University said that they cope with learning tasks in the online environment; 26.13 percent of the university students said that they do not cope with learning tasks in the online environment; in addition, one-third of the students were

neutral about it. This shows that the vast majority of students use the Internet for learning with the mentality of coping with learning tasks.

#### 4.2.2. Acquiring superficial knowledge

**Table 5.** Descriptive statistics of the percentage of access to superficial knowledge

Title	Effective Percentage				
	Not at all	Basic non-conformity	Half of them match	Basic compliance	Fully compliant
I use the Internet for learning because it allows me to know anything I want to know quickly.	2.53	12.9	26.5	38.25	19.82
It's hard for me to concentrate for long periods of time on the Internet, so I just want to focus on the most direct and tangible knowledge.	14.98	26.5	33.76	16.94	7.83
When I study online, I prefer to focus on questions that I can understand at a glance.	2.65	13.02	32.83	35.25	16.24
Total (acquisition of superficial knowledge)	6.72	17.47	31.03	30.15	14.63

As shown in table 5, 44.7 percent of college students use "acquiring superficial knowledge" as their motivation for online learning, 31.03 percent have a neutral attitude, and 24.19 percent do not use it as their motivation for learning. It is noteworthy that 58.07 percent of college students said they use online resources for learning because of the convenience

of online search; 51.49 percent of students said they prefer to pay attention to issues that can be understood at a glance when learning online, and both figures are more than half, so it is easy to see that learners are relatively impatient for learning in the online environment.

### 4.2.3. Pursuit of practical utilitarianism

**Table 6.** Descriptive statistics of the percentage of practical utilitarian pursuits

Title	Effective Percentage				
	Not at all	Basic non-conformity	Half of them match	Basic compliance	Fully compliant
I use online resources for my studies because it will help me to finish my studies and get a better job later.	4.38	13.13	32.14	32.95	17.4
I believe that using online platforms and online resources to learn can help me find a stable or well-paying job in the future.	4.26	15.09	29.49	32.49	18.66
I will keep learning in an online environment until I am well-equipped to get a satisfactory job.	5.41	18.55	36.52	25.23	14.29
Total (pursuit of practical utilitarianism)	4.68	15.59	32.72	30.22	16.78

From Table 6, we can see that: 47 percent of college students' purpose in the learning process is to pursue practical utilitarianism, accounting for nearly half of the total. From this, it is not difficult to infer the importance of employment for today's college students. More and more college students set the criterion of success of study as whether they are satisfied with employment, which has actually gone into the misunderstanding of higher education, and it needs continuous efforts from students, schools, and society to reverse the misconception; in addition, 20.27 percent of

college students think that they do not have a strong desire to pursue practical utilitarianism; and 32.72 percent of college students are indifferent to this. The excessive pursuit of "practical and utilitarian" as their learning motivation is a manifestation of superficial motivation, and the excessive pursuit makes college students' learning utilitarian and purposeful nowadays, which will make them lose their original and pure interest in learning itself.

### 4.2.4. Passive Use of the Web

**Table 7.** Descriptive statistics of the percentage of passive use of the network

Title	Effective Percentage				
	Not at all	Basic non-conformity	Half of them match	Basic compliance	Fully compliant
In online courses, I only study the homework assigned by the instructor and never look for extra things to study online.	18.78	33.18	25.35	14.06	8.64
I will use online resources to study only if my teacher asks me to do so.	22.93	33.41	24.65	10.48	8.53
I don't spend time online studying something that I know is not relevant to the exam.	16.71	30.18	29.15	13.59	10.37
Total (Passive use of the network)	19.47	32.26	26.38	12.71	9.18

Table 7 shows that only 21.89 percent of Jiangsu University students passively use the Internet for learning; up to 51.73 percent or more than half of the university students said they would not use such learning strategies, and less than 30 percent of the students hold a neutral position on this. This result is in fact inseparable from the general background of

the online environment. Due to the interlocking websites and information overload on the Internet platform, we often unconsciously click on various web links or tweets to browse or study according to our own preferences.

### 4.2.5. Debris utilization network

**Table 8.** Descriptive statistics of the percentage of debris utilization network

Title	Effective percentage				
	Not at all	Basic non-conformity	Half of them match	Basic compliance	Fully compliant
I think quick browsing is the best way to learn in an online environment.	3.92	15.67	32.83	29.61	17.97
When using online resources for learning, I prefer content that is superficial and descriptive rather than content that requires extensive reading or in-depth understanding.	3.34	14.29	31.68	31.45	19.24
For an online study, I think it's best to just know the facts and details of the content, not to comprehend it all.	10.14	30.65	31.57	16.82	10.83
Total (debris utilization network)	5.8	20.2	32.03	25.96	16.01

As can be seen from Table 4.6, the proportion of college students who hold a neutral view on the fragmented use of the Internet is about one-third, 26 percent of college students say they will not adopt this strategy, and another 42.97 percent of Jiangsu University students say they will fragment the use of Internet resources in the online environment. This kind of fragmented interpretation of knowledge can have serious

adverse effects because without a deep and comprehensive understanding of knowledge, it is impossible for students to paint a picture in their minds, form their own opinions, and improve their knowledge of themselves.

#### 4.2.6. Web Utilization Tooling

**Table 9.** Descriptive statistics of web utilization instrumentalization percentage

Title	Effective percentage				
	Not at all	Basic non-conformity	Half of them match	Basic compliance	Fully compliant
When I do study online, I prefer to learn hands-on, skills-based knowledge.	4.61	19.35	37.79	29.95	8.29
I would spend a lot of time online to watch training videos for qualification exams and so on.	7.49	20.97	42.97	21.31	7.26
I think it is especially important to use online learning to focus on the efficacy of knowledge.	4.38	16.47	37.9	30.65	10.6
Total (Web Utilization Tooling)	5.49	18.94	39.55	27.3	8.72

Table 9 shows that 36.02 percent of college students prefer to use instrumental strategies for learning in online learning, 24.43 percent say they will not use instrumental strategies, and 39.55 percent of college students have a neutral attitude toward this strategy. From the data, the high number of students with neutral attitudes indicates to some extent that college students are somewhat confused about the instrumental learning strategy and are not able to give accurate answers about whether to adopt it.

### 4.3. Summary Discussion

On the whole, the majority of Jiangsu University students learn in a superficial learning style in the online environment. After comparing the corresponding motivations and strategies, we found that most students had "pursuing practical and utilitarian" as their motivation, followed by "acquiring superficial knowledge", and finally "coping with learning tasks". Among the superficial strategies, the largest number of students used "using the Internet in pieces" as their learning strategy, followed by "instrumentalizing the use of the Internet" and finally "passively using the Internet". The reasons for this are: firstly, the huge employment pressure forces contemporary college students to use the Internet for learning, which is always limited to the aspects that are beneficial to their career development rather than the aspects that they are really interested in. With the development of science and technology, education has been alienated into a tool for the purpose of cultivating scientific and technical personnel and educated people today, resulting in university education turning into vocational education, making college students more and more specialized and technical, communication between people will be less and less, and people are more and more like the means and tools of science and technology and industrial development, eliminating humanity, which is especially obvious in online learning. Secondly, the competition in modern society is getting more and more fierce, the pace of life is accelerating, and "fast food culture" are all the rage. Especially in the online environment, learners are easily tempted by all kinds of explosive information, and only with a high degree of physical and mental involvement can learning be effective. The students who are not able to "immerse themselves in learning" in the

online environment, but only have a little knowledge of the subject, think that their learning ability is worthwhile. There are also some students who are eager to learn in the online environment, but due to the overload of information and disorganized learning resources, their learning cannot form a systematic knowledge structure, and their knowledge only stays in their minds in the form of "points". Finally, since most learning activities in primary and secondary schools are carried out in the traditional environment, many college students have unconsciously developed a negative and solidified learning mode, and the direct manifestation of this mode transferred to the online environment is passive learning, if the purpose of learning is only to complete the errands explained by others, without making in-depth thinking about the knowledge and problems themselves.

## 5. Strategies to Motivate and Enhance Students' Motivation in The Online Environment

### 5.1. Teachers provide autonomous support and timely coaching

Students can make use of the information on the Internet to learn about various fields of expertise, which leads to a significant reduction in the number of lectures given by teachers and a change in teaching methods from traditional "indoctrination" to "guidance". Teachers should guide students to set learning goals based on their own abilities; guide them to develop good online learning habits, not simply to understand the information collected in a general way, but to think about it and then really absorb and digest it through information reprocessing, and finally form deep learning strategies; guide them to start from their own interests, mobilize their learning enthusiasm, and continuously explore their learning potential; Students are guided to learn how to use reasoning and other methods to develop calm and logical thinking skills; students are guided to learn the ability to distinguish the validity of information, and to explore and acquire knowledge on their own; in teaching, teachers and students can also share their learning achievements and experience ideas on an equal footing, and teachers can find out what students lack in their communication, and at the

same time make students aware of their lack of knowledge by guiding them in a corresponding way. The teacher is able to find out the lack of knowledge in the student's communication, make the students realize the lack of knowledge by guiding them accordingly, and then provide appropriate suggestions for the student's lack of knowledge, provide methods to acquire knowledge, guide the students to learn independently and give appropriate suggestions when the students need help so that the students can build a knowledge system independently and learn at a deeper level.

## 5.2. Finding the right learning style

Students are the main body of learning, so in the learning process college students should establish learning goals, correct learning attitudes, clarify the purpose of learning, correctly understand the learning activities during college, and face up to the achievements and honors achieved. A major element influencing students' autonomous learning motivation is interest. In their daily learning life, college students should pay attention to stimulate and cultivate their interest in learning, reduce or eliminate the anxiety arising in learning, always believe in themselves, be confident in themselves, and enhance their autonomous learning motivation. In the learning process, a suitable learning method is especially important. College students should choose a learning method that meets their physical and mental development level and can promote their own thinking to take the initiative to learn and improve their learning efficiency. One of the main reasons why college students are not interested in online learning is that they are used to the "duck-fill" classroom teaching mode in traditional education, and they are not ready to accept this new way of learning psychologically and mentally. University teachers should focus on guiding students' communication and exchange methods to an advanced level, constantly infiltrating students' awareness of using online resources to promote their own learning, encouraging students to conduct independent learning, systematic learning, and inquiry learning through online learning platforms, and stimulating students' interest in online learning.

## 5.3. Enhance communication and collaboration among peers

College students have a more obvious perception of communication and exchange with their peers in the learning process and also have the same topic to talk about. Most students prefer to communicate and learn with their peers in the learning process, forming a learning community and forming a group. "A good group tends to organize collaborative online learning, creating a good learning atmosphere where group members can also actively express their views and interact with group members to participate in more active learning. Healthy competition among peers in learning plays an important role in motivating students to learn. Healthy competition among peers helps motivate college students to learn and increases their independent learning motivation. In the learning process, we should pay attention to strengthening communication and exchange among college students and guiding them to engage in healthy competition with each other. In the learning process of collaborative competition among college students, educators should think of special teaching methods to stimulate college students' learning participation to guide them to produce good competition and eventually achieve the purpose of enhancing

students' autonomous motivation.

## 6. Conclusions and Recommendations

First of all, the rise of the online society has constructed a brand-new online learning environment, and the generation of the online learning environment has greatly changed and reshaped the human learning style and influenced people's way of thinking and development, which must be studied to lead the development of the learning style and the benign interaction between the development and progress needs of human society. This study highly focuses on and deeply reveals the overall situation of college students' learning motivation in the online environment, deeply reveals the main performance, and refines the main types, which lays a reliable factual foundation for the development of the study and the optimization of the path. Secondly, new features and trends such as rapid changes, diversified types, and complex influences are all embodied in college students' learning styles in the online environment, which must be grasped holistically and deeply revealed from the perspective of combining theory and practice.

Based on the findings of the research on the learning styles of Jiangsu University students in the online environment, the author proposes the main paths and basic strategies to help college students transition from surface learning styles to deep learning styles, starting from the three levels of teachers, themselves, and peers.

After an objective review of the development and change trends of the online society and education teaching, and a systematic review and reflection of the research process and progress, the research on the learning styles of college students in the online environment will show more obvious trends in the following aspects: First, survey research is a proven empirical analysis method in the study of college students learning styles in the online environment, and the preparation of questionnaires is the core link. Through the review of this study, it is necessary to make full use of the latest research results of experts in this subject area on learning styles in the online environment in the extraction and refinement of questionnaire dimensions, and to fully and extensively absorb their opinions and suggestions, so as to compile a questionnaire that can reflect the research topic comprehensively, objectively and accurately in a scientific and reasonable way; at the same time, it is necessary to combine typical case analysis, authoritative data analysis, domestic and foreign and educational development, and the development of information technology. At the same time, it is still necessary to combine typical case analysis, authoritative data analysis, and comparative analysis of regions and universities at different levels of information development at home and abroad, to reveal and present the real state of the problem in multiple dimensions and enhance the reliability and applicability of the research. Secondly, the rapid development of information technology and online technology, such as big data and artificial intelligence, and the continuous promotion of lifelong learning society will change education and teaching forms, concepts, and learning methods more profoundly and drastically, resulting in rapid and complex changes in college students' learning styles. We need our research to track and continuously pay attention to these new changes and new characteristics, propose corresponding strategies, promote the development of learning theory, and lead college students to form more scientific and effective learning styles.

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