Effective Ways to Strengthen Ideological Education of College Students in Information Age

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Abstract: With the rapid development of human society, science and technology change with each passing day. With the rapid development of information technology and Internet of Things technology, the amount of information and data shows a nuclear fusion growth, which affects the ideological education in contemporary colleges and universities. Therefore, based on the information age, this paper studies the effective ways of ideological education for college students. Firstly, this paper discusses the concept, characteristics and existing problems of ideological education for college students in the information age, and then studies the relevant technologies in the information age. This paper also adopts the form of questionnaire survey to investigate the status quo of ideological education of contemporary college students. Finally, the survey results show that there are three teaching modes in the modern information age: the new teaching mode of strong integration of modern information technology and teaching mode, the multi-specification, multi-type and multi-level teaching mode of talent cultivation, and the human-oriented teaching mode to meet the personalized needs of students. Among the respondents, most students think that the current teaching mode is closely combined with the current information technology.

1. Introduction

With the continuous development of information technology, networking and informatization have become the development trend of The Times. College students have a strong demand for information. However, the current education and teaching mode in China is still in the traditional classroom teaching mode [1-2]. The lack of interactive communication platform between teachers and students leads to the deviation of teacher-student relationship and disharmonious factors affect the improvement of the quality of contemporary social life and learning. On the other hand, with the continuous updating and improvement of modern information technology, the ideological and political work in colleges and universities is facing new development opportunities. Therefore, strengthening the ideological education of college students in the information age is an important subject that must be solved at present.

There have been many researches on information technology. In foreign countries, with the development of society, there has been in-depth research on information technology and ideological and political education. Western developed countries began to implement "information engineering" as early as the 1970s. The United States is the first country in the world to put forward this theory and apply it to teaching practice [3-4]. The teachers in colleges and universities have also realized

that to strengthen students' ideological and moral construction, improve the level of college students' comprehensive quality, the importance of some schools will also open computer network as a subject, use of modern information technology means such as multimedia to assist classroom education and carry out various activities to enhance the quality and efficiency of teaching [5-6]. At the same time, Chinese scholars also believe that there are the following methods to strengthen students' ideological education: one is to use network technology to reform and innovate the teaching mode. The second is to use multimedia information to carry out teaching activities. The third is to use various forms to enhance students' interest in learning and stimulate their enthusiasm and initiative to improve teachers' work efficiency, etc. [7-8]. The above research has laid the research foundation for this paper.

With the rapid development of China's social economy, college education is playing a more and more important role in talent training. In the information age, it has a profound influence on the healthy growth of students' ideology and politics. Therefore, strengthening ideological education of college students is required by the current situation. Based on the information background, this paper analyzes the psychological, physiological and behavioral effects of network culture and values on contemporary Chinese college students. In view of these situations, effective measures are put forward to guide and standardize coping strategies to provide more help for college teachers in teaching.

2. Discussion on Strengthening Ideological Education of College Students in Information Age

2.1 Ideological Education of College Students in the Information Age

2.1.1 Concept definition

Ideological education for college students is based on the world outlook, outlook on life and values of the students, to cultivate their moral character, intellectual factors and other aspects, and to shape their good character and behavior habits. In today's society, colleges and universities emerge as The Times require is a new type of talent. It not only includes the education of socialist core values to college students, but also trains them to become qualified talents with all-round development of morality, intelligence, body and beauty. In the information age, colleges and universities should strengthen ideological and political education with modern information technology as the carrier, to assist the traditional teaching content, to convey positive energy to students, shape a positive attitude towards life and enhance the knowledge of innovation ability. It requires us to the traditional theory teaching method combined with modern information technology to change the current status of China's higher education development lag behind, and to promote socialist modernization progress in an all-round way as their goals, to information technology to enhance the ideological education on students' quality and efficiency are properly guided science important way [9-10].

2.1.2 Characteristics

(1) Open thinking. In the information age, students can obtain information through the Internet, and is not limited by time and space. In the information age, with the sharing of information resources, the ideological education of college students can communicate with the outside world through the network platform. Multimedia technology can be used to obtain teaching materials between teachers and students as well as within the school. At the same time, it is necessary to

establish a good campus cultural atmosphere and rich and colorful activity places, etc. These diverse and attractive contents that are easy to spread can be accepted and used by college students. In this case, the ideological education of college students can be carried out better.

- (2) Thoughts are highly inclusive. With the continuous development and popularization of information technology such as computer technology and digital media technology into people's lives, college students have begun to accept new things, bringing various changes. At the same time, as all aspects of social economy and culture are in a period of great change, it poses a challenge to the traditional education model. Therefore, students will encounter various problems in the learning process, such as network security and information leakage, etc. [11-12].
- (3) The thought is obviously epochal. In the information society, college students' ideological and political workers should not only impart their professional knowledge, but also pay attention to the cultivation of their comprehensive quality. Therefore, multimedia and other means are needed to enhance the teaching effect. Teachers can through the network, telephone network or mobile phone platform to release information, can also according to the topic of college students interested in sending emails to them or video data and so on form, let them understand the latest information and news dynamic, in order to attract more students to pay attention to the ideological and political education work, so as to realize effective guide.

2.1.3 Existing problems

In the traditional teaching mode, the teacher is the main body, and the students just passively accept, but can not learn independently. In the information age, with the continuous development and updating of computer technology and network technology, and the popularization and application of information literacy, people's requirements for information literacy are becoming higher and higher, and the social demand is also increasing, which requires schools to strengthen the ideological education of college students with The Times. However, most colleges and universities in China pay little attention to the psychological health and personality soundness of college students in the new era and are not thorough and comprehensive enough. The teaching content of traditional ideological and political theory courses in colleges and universities is stiff and lacks novelty, with low student participation, little interaction in class and poor learning atmosphere. Teachers tend to focus on the knowledge points they are good at or have a strong understanding of when teaching. In this way, college students become interested in professional courses and ignore their own skills and qualities. In addition, the "spoon-feeding" indoctrination caused by the serious influence of the exam-oriented education mode and the single teaching form of the traditional ideological and political theory course is also one of the reasons for the passivity and lack of enthusiasm of college students in receiving information.

2.2 Technology in the Information Age

2.2.1 Role

In the information age, the speed of information development is very fast, it has changed people's way of life and thinking mode to a great extent. With the continuous improvement of social and economic level, science and technology is more and more developed. College students come into contact with the new knowledge is not just limited to the textbook learning theory knowledge but actively to explore, practice and innovation, at the same time because of network information technology has the characteristics of strong communication and interaction, enable it to better

service for the ideological education, provide good information environment for college students to promote their healthy growth and development.

2.2.2 Related Technical Support

In terms of ideological and political education methods, although Quality education has been emphasized in China, teachers of ideological and political education in colleges and universities mostly adopt the traditional teaching mode of exam-oriented education, taking theory indoctrination as the main way, and judging students' ideological and moral status with examination paper scores. The educational mode is relatively rigid and the educational effect is uncertain. With the arrival of big data, new thinking and new concepts play an important guiding role in innovating ideological and political education methods. Ideological and political educators should improve their own data sensitivity, form big data thinking, and integrate into the concept of teaching and education. "Big data" enables ideological and political educators to pay attention to the specific dynamics of each individual when guiding all students in ideological and political education. Through the use of big data technology to collect all the students' thought and behavior data for accurate analysis, can realize the prediction of students' thought and behavior. Among them, data mining is one of the technical supports of information education.

Its meaning is defined below: assume $I=\{il,i2...,im\}$, represents the set of m different items. If a single transaction database D is determined (which means the set of a single transaction), all factors (transaction)T are all sets of a single group of items within 1, which is expressed as TsI. Then the association rule can be expressed as X=Y, where $X\in I$, $Y\in I$, and $X\cap Y=\phi$. Where, X represents antecedent, and Y represents antecedent or result. Mining association rules is to find all association rules that meet the minimum support and confidence defined by users. Of course, the support and confidence of the above correlation should be greater than or equal to the minimum support and confidence. The ability to express X and Y as conditional unions (Boolean expressions). The Ai = True/False. Ai represents a single element (or item) in set 1. If the above expression in the result is expressed as Cj=True/False, then the association rule can be expressed as the following functional expression:

$$(Al = True/False)^{\land} (A2 = True/False)A - - - A(An = True/False)$$

$$\Rightarrow (C1 = True/False)^{\land} (C2 = True/False)^{\land} ...^{\land} (Cm = True/False)$$
(1)

After simplification of the above equation (1), it can be seen that, assuming that the expression of all conditions is functionally True (because any False expression can be converted into a single True expression), the functional expression of the association rule is as follows:

$$(A1) \land (A2) \land ... \land (An) \Rightarrow (C1) \land (C2) \land ... \land (Cm)(2)$$

Ai $(1 \le I \le n)$ and C_i $(1 \le i \le m)$ in (1) and (2) above represent item set parameters.

2.3 Practical Basis of Ideological Education for College Students under Informatization

With the development of the information age, the ideological education of college students is facing new situation and new requirements, so in practical teaching, we should make full use of information technology to train the ideological state and moral quality of college students. The first is information literacy and application skills. College students are important resources for the country to train talents, and they are active in thought and have strong acceptance ability. Carrying out information education activities among college students can help them improve their own quality. The second is to study modern new technology and advanced theory. Now many schools

have begun to use the Internet to enrich their campus cultural life. Finally, through various ways to understand social hot issues and other content to enrich their school's cultural connotation, for college students to establish a correct scientific world outlook values to provide a good environment for the foundation.

3. Investigation on the Status Quo of Strengthening Ideological Education of College Students in the Information Age

3.1 Survey Objectives

College students are the main body of education and teaching, as well as the important carrier of ideological and political education activities, so it is particularly crucial to strengthen the correct and effective guidance to college students. In order to improve the comprehensive quality of the contemporary youth generation in China, it is necessary for them to grow up healthily in the new century, new period and new situation. This article through studies the enhancement of higher education information age "information" and "educational" organic combination, and the characteristics of the students' development, to analyze college students' ideological situation existing problems and their causes, and puts forward some countermeasures, in order to help the people of teachers understanding of the current information technology education environment of college students psychological status and changing trend.

3.2 Survey Subjects

The object of the survey is mainly students. Under the network environment, the information consciousness and behavior of college students have been greatly affected. Therefore, it is necessary to investigate the status quo of ideological education of college students. Through the use of Internet and other media, channel, etc to understand contemporary social youth groups for the current era of informatization development trend, state policy and related laws and regulations knowledge, at the same time also need to know is that most of the students are able to skillfully use all kinds of modern tools equipment, when have some problems, They are also able to deal with and solve problems or difficulties in a timely manner.

3.3 Investigation Process

In the process of information education for students, the first step is to determine the ideological status of college students, through questionnaires to understand their views and opinions on the teaching mode, classroom learning mode and content of colleges and universities in the current information age. The second step is to analyze the collected data and draw conclusions. The third step is to take a variety of forms and methods to collect information or use the network platform to find some useful information resources and materials for effective integration. The fourth step is to summarize the problems existing in the current ideological situation of college students according to the survey results.

- **4.** Investigation and Analysis on the Status Quo of Strengthening Ideological Education of College Students in Information Age
- 4.1 Investigation of Teaching Mode in Colleges and Universities in the Information Age

Table 1 shows the data of teaching mode in colleges and universities in the information age.

Table1: Teaching mode in colleges and universities in the Information Era

	Be completely in conformity with	Compare in line with	Basically in line with	A little out of line	Not at all
The strong integration of modern information technology and teaching mode	12%	30%	50%	5%	3%
Establish a multi-standard, multi-type and multi-level talent training system	15%	23%	48%	10%	4%
Under the guiding ideology of "people-oriented", we can truly meet the personalized needs of students	10%	36%	51%	2%	1%

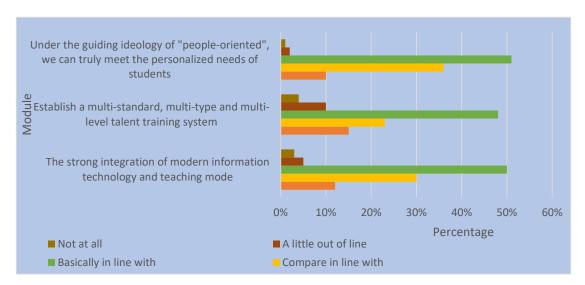


Figure 1: Investigation on College Teaching Mode in the Information Era

The traditional teaching mode is teacher-centered and passively accepted by students, which is not conducive to cultivating individual personality. In the information age, ideological and political education in colleges and universities should also change the original "teacher-oriented" and "student-assisted", so as to meet the needs of independent learning ability of college students. It can be seen from Figure 1 that there are three teaching modes in the modern information age: the new teaching mode with strong integration of modern information technology and teaching mode; the multi-specification, multi-type and multi-level teaching mode of talent cultivation; and the human-oriented teaching mode that meets students' personalized needs. Among the respondents,

most students think that the current teaching mode is closely combined with the current information technology.

90% 84% 74% 80% 71% 70% 60% Percentage 50% 40% 30% 21% 20% 20% 10% 8% 6% 6% 10% 0% Use multimedia for learning Use online software Use online software to complete assignments Conform to the

4.2 Survey on Classroom Learning in Colleges and Universities

Figure 2:Investigation on Classroom Learning in Colleges and Universities

Group

Compared with

■ Do not conform

In the teaching method, interactive face-to-face teaching is gradually favored by university professors. Classroom teaching in colleges and universities is a multi-stakeholder activity in which teachers and students participate and communicate with each other. As can be seen from Figure 2, in the interactive teaching of college classroom, teachers make full use of information tools to gradually inspire and guide students, leave certain reflection space for students, and emphasize participation in various activities, so as to better mobilize and give full play to students' enthusiasm and truly become the leading role of students. Learning and teachers. This kind of equal and cooperative interaction between teachers and students can make the classroom lively and interesting, and also help students actively participate in various teaching activities and take the initiative to acquire knowledge. Interactive courses can promote students' innovative spirit and team spirit, and also have a positive effect on developing students' self-confidence and initiative.

4.3 Effective Ways to Strengthen Ideological Education of College Students

In the process of investigating the current situation of ideological education for college students, we find that there are many problems in college students. The effective ways to strengthen the ideological education of college students are as follows. First of all, students are not interested enough in the teaching activities carried out by the school, so it is necessary to investigate students' interests, and then carry out more relevant teaching activities. Secondly, teachers should adopt diversified, innovative and interesting teaching methods in class to promote the interaction between teachers and students. Thirdly, teachers should pay enough attention to the subject requirements

under the development trend of information technology in the new era. These are the aspects that university education workers generally need to pay attention to, which is also the problem that can not be ignored in the current ideological education of college students in the information age.

5. Conclusion

College students are the "trend" of The Times, discovering new technologies first and relying too much on mobile devices such as mobile phones. Lai has networked his thoughts and actions to become a major data producer in the era of big data. College ideological education is a comprehensive subject that examines and guides students to establish correct values. In view of the new characteristics of the times and the new characteristics of the object of education, how to innovate the ideological and political education in colleges and universities and improve the actual effect of education, the educational dilemma has become a hot topic.

References

- [1] Yuzhu Yang: On Detecting Abnormal Access for Online and Political Education. Int. J. Distributed Syst. Technol. 12 (2): 35 to 45 (2021).
- [2] Jorge Felipe Grybosi, Joao Luiz Rebelatto, Guilherme Luiz Moritz: Information of SIC-Aided Massive IoT Networks With Random Access. IEEE Internet Things J. 9(1): 662-670 (2022).
- [3] Saad Kriouile, Mohamad Assaad, Ali Maatouk: On the Global Optimality of Whittle's Index Policy for Minimizing the Age of Information. IEEE Trans. Inf. And found 68 (1): 572-600 (2022).
- [4] Juan Antonio Vazquez Trejo, Manuel Adam-Medina, Carlos D. Garcia-Beltran, Gerardo Vicente Guerrero-Ramirez, Betty Yolanda Lopez Zapata, Eduardo-Mael Sanchez-Coronado, Didier Theilliol: Robust Formation Control Based on Leader-Following Consensus in Multi-Agent Systems With Faults in The Information Exchange: Application in a Fleet of Unmanned Aerial Vehicles. IEEE Access 9: 104940-104949 (2021).
- [5] Rohit Kumar Dubey, Tyler Thrash, Mubbasir Kapadia, Christoph Hoelscher, Victor R. Schinazi: Information Theoretic Model to Simulate Agent-Signage Interaction for Wayfinding. Cogn. Comput. 13(1): 189-206 (2021).
- [6] Nadine Ostern, Guido Perscheid, Caroline Reelitz, Jurgen Moormann: Keeping Pace with the Healthcare Transformation: a literature review and research agenda for a new decade of health information systems research. Electron. Mark. 31(4): 901-921 (2021).
- [7] Current Position: Pre information a novel relational reasoning environment and an agent model for relational information extraction. Turkish J. Electr. Eng. Comput. Sci. 29(2): 1259-1273 (2021).
- [8] Andrea Baiocchi, Ion Turcanu: Age of Information of one-hop Broadcast Communications in a CSMA Network. IEEE Commun. Lett. 25(1): 294-298 (2021).
- [9] Chanmee Sirichanya, Kraisak Kesorn: Semantic data mining in the Information Age: Systematic Review. Int. J. Intell. Syst. 36(8): 3880-3916 (2021).
- [10]Delores Springs: A Qualitative Exploratory Study in Health Information and Health Communication Leadership in the Age of the COVID-19 Pandemic. Int. J. Smart Educ. Urban Soc. 12(4): 27-35 (2021).
- [11] Wuxue Jiang: Multi-agent-based distributed text information filtering method. Int. J. Reason. based Intell. Syst. 13(3): 123-131 (2021).
- [12] Christopher Ballweg, William H. Ross, Davide Secchi: 'Do I want to work for him?' The

effects of variations in content, source, and age of managers' social networking information on prospective job applicants' attitudes. Int. J. Web Based Communities 17(3): 217-246 (2021).