

The Construction of Online + Offline Dual Classroom Teaching Mode of Mental Health Education for College Students

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Abstract: In recent years, with the development of science and technology and social modernization, under harsh and difficult competition conditions, the pressure of college students' life and study has been increasing, and various psychological problems have gradually been revealed. Mental health education for college students (CS) has always been a hot issue of common concern and debate in the society. Improving the problem of mental health education (MHE) for CS has allowed experts and scholars to reach a strong consensus. On campus, there are often suicides, self-harm, and deliberate harm to others. Therefore, how to effectively solve the problem of students' MHE and promote the continuous development of students' mental health is an important task facing universities, society and the government. This article outlines the online + offline dual classroom teaching model of CS' MHE. Analyzed the problems of students' mental health; adopted density deviation sampling algorithm to detect the relevant data of CS' mental health, and constructed a model of online + offline dual classroom teaching mode of CS' MHE, thereby improving CS' mental health and psychological quality. Promote the spiritual growth of students.

1. Introduction

The achievements and development of our country's CS' MHE are obvious to all, but the existing problems are also obvious. In terms of research content, the focus of MHE research is on the status quo, and the lack of intervention measures for the status quo; for research topics, most researchers mainly focus on students in some majors. But in the mental health problem, not only students, teachers and social workers also exist. Education is the driving program of students' psychological development and has a very important impact on students' physical and mental health. Some teachers always pay more attention to the distressed students, thinking that they have psychological problems [1-2].

In the field of mental health, a large number of domestic and foreign experts have done a lot of research and achieved good results. For example: Yuan S proposed that in the teaching process of

CS' MHE courses, teachers are the main body of teaching, and teachers are the indispensable guides in teaching. Evaluation of the quality, teaching ability and teaching attitude of teachers as guides is essential [3]. Auerbach R P proposed that the educational purpose of cultivating comprehensive talents determines the foundation of CS' MHE, because the fundamental requirement of education is a healthy mental state, and at the same time, a healthy mentality is also the guarantee for the growth and development of students [4].

Through a large number of literature readings and experimental investigations, this article introduces the background of CS' MHE and teaching, as well as the current research status at home and abroad. The focus of this article is: students' behavior and habits for MHE must know a lot of relevant information, and it's an empirical study, and a lot of investigation, statistics and analysis should be carried out. Then use the theoretical methods of research, analysis and optimization of the collected data to improve the quality of the research, increase the number of professional theories, in order to better solve the problem, these are the focus of this article, but also the difficulty of this article. Through the development of students' MHE, it is possible to summarize the data of students' general mental health problems [5-6].

2. MHE

2.1 MHE and Teaching

(1) The diversified classroom teaching resources of online + offline dual classrooms are derived from various high-quality channels. Network platforms and course publishers download network resources to the cloud platform to collect and integrate electronic resource libraries. It will be released in the traditional resource collection channel courses among various universities, and the teaching resources will also be released on other network platforms to allow more students to receive MHE [7-8]. Universities can provide teachers and students with high-quality teaching resources from excellent online courses [9-10].

(2) The online + offline dual classroom model is reflected in two aspects: one aspect is the subject of the course, the courses on the online platform are everyone on the Internet, as long as you are interested in the courses, you can learn from the mailbox arrive. Another aspect of dominance is openness. The relationship between teachers and students is subversive. Teachers are no longer the ultimate class leaders. They become the guidelines for student learning [11-12]. On the contrary, students convert to their own learning and play subjective initiatives. Therefore, the diversification of the network sequence sets the opening of the network teaching environment.

(3) MHE is a basic education course that guides students in psychology. While promoting the healthy psychological quality of all students, it is also necessary to respond to the needs of students for self-study and actively develop self-psychological construction. The online course e-learning platform of mental health training emphasizes the novel teaching methods of teachers, allowing students to learn actively while meeting their subjective learning needs. MHE teachers must combine the knowledge points of MHE with the actual problems of students in order to promote student learning and provide students with new ways of independence. In addition, the MHE course provides students with mobile learning support on the online learning platform. Students can make full use of any leisure time and get a rich classroom experience.

2.2 Sampling Algorithm Based on Density Deviation

This paper uses the density bias sampling algorithm to detect the relevant data of the online +

offline dual classroom teaching model of CS' MHE to construct the online + offline dual classroom teaching model of CS' MHE. The formulas of (1) and (2) need to be substituted when constructing the model. The density deviation sampling algorithm divides a data set containing N data points and f dimensions into g small aggregates. If the size of the i-Th aggregate (the number of data points) is set to i, if G is the total of all aggregated samples When $k = p = g/G$, the sampling is a simple random sampling. The sampling probability of each data point in the same aggregation is equal. Starting from the above conditions, in order to achieve density deviation sampling, it is defined in each aggregation the probability function of each data point being extracted is equation (1):

$$f(G) = a/G(0 \leq X \leq 1) \tag{1}$$

$$g = \sum_{i=1}^X g_i f(g_i) = \sum_{i=1}^X g_i a / g_i^X \tag{2}$$

Where X is a constant. When X=0, the sampling is simple random sampling, and the sampling probability function of each aggregation is the same; when X=1, the same number of data points are sampled in each aggregation. Generally, the value of X is set to 0.5. Obtain g as (2) formula. From the above implementation steps of the relevant data density deviation sampling algorithm of the online + offline dual classroom teaching mode of CS' MHE, it can be seen that the probability of data points being selected in areas with dense data distribution is small, while in areas with sparse data distribution. The probability of being sampled is larger, so as to realize the density deviation sampling. Density deviation sampling can effectively solve the problem of sampling unevenly distributed large-scale data sets. Substituting the algorithm of the above formula into the relevant data using the density deviation sampling algorithm to detect the online + offline dual classroom teaching mode of CS' MHE, the best college student MHE teaching model can be obtained.

3. Experiments on the Teaching Mode of MHE for CS

3.1 Experimental Background

With the rapid development of computer technology, it is more and more common to use computer networks to solve problems in our work. In order to construct the online + offline dual classroom teaching model of CS' MHE, this paper uses the density deviation sampling algorithm to detect the relevant data of the online + offline dual classroom teaching model of CS' MHE, and constructs the online MHE of CS. + Offline dual classroom teaching model.

3.2 Experimental Method

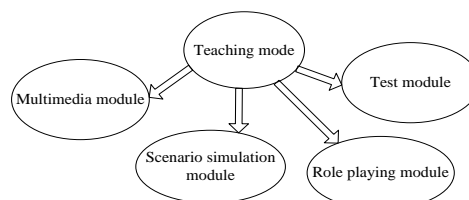


Figure1: Control Variables of Innovation and Entrepreneurship Ability of Business Administration Students

Figure 1 is the online + offline dual classroom teaching model of MHE for CS established in this article. The imminent thing that colleges and universities must solve is to improve the classroom teaching effect of CS' MHE theory. First, increase financial support, and continuously improve and optimize the school's psychological education and psychological counseling related supporting hardware facilities. Schools should also respect the developmental laws of students at each stage and offer corresponding psychological education courses. Teachers themselves should also strengthen their own theoretical literacy and teaching ability, and should not follow the text and change the traditional mechanical teaching mode. The online + offline dual classroom teaching model of MHE for CS established in this article includes online + offline multimedia modules, scenario simulation modules, role-playing modules, test methods modules and other inter-integrated teaching models to cultivate students' mental health theory. The interest in the class stimulates their enthusiasm, enhances their enthusiasm, gives full play to their initiative, and makes rigid activities alive in the classroom.

4. Analysis of Experimental Data on the Teaching Model of MHE for CS

4.1 Analysis of Online + Offline Dual Classroom Teaching Mode of MHE for CS

The following is the teaching effect parameter table of the online + offline dual classroom teaching mode of MHE for CS. The experimental data is shown in Table 1.

Table 1: CS' MHE Line + Line Double Classroom Teaching Mode Analysis

User number	Multimedia module	Scenario simulation module	Role playing module	Test module
The first batch	21.3%	19.6%	31.1%	28%
Second batch	25.4%	33.52%	17.78%	23.3%

Table 1 is a parameter table of the teaching effect of the online + offline dual classroom teaching mode of MHE for CS. It can be seen from the table that the teaching effect of the online + offline dual classroom teaching mode of MHE for CS. Among them, the first batch of CS' MHE online + offline dual classroom teaching mode multimedia module teaching effect parameter table is 41.3%, the situational simulation module teaching effect parameter table is 41.3%, and the role-playing module teaching effect parameter table is 41.3 %. The teaching effect parameter table of the test method module is 41.3%; while the second batch of CS' MHE online + offline dual classroom teaching mode multimedia module teaching effect parameter table is 41.3%, and the scenario simulation module teaching effect parameter table is 41.3%, the teaching effect parameter table of the role-playing module is 41.3%, and the teaching effect parameter table of the test method module is 41.3%. It shows that the teaching effect of the online + offline dual classroom teaching model is getting better and better.

4.2 Analysis of Classroom Teaching of MHE for CS

As shown in Figure 2, the following is an analysis diagram of the voting data of the expected levels of the MHE classroom (traditional teaching, full online learning, online + offline teaching, group discussion) of three different classes of CS in a college.

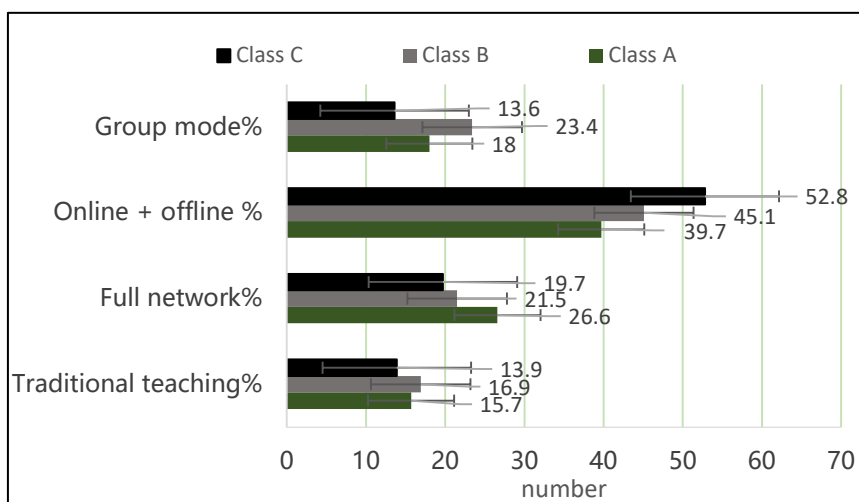


Figure2: Analysis of the expectation data analysis of CS' MHE classroom teaching

Figure 2 is an analysis diagram of the voting data of the expectations of three different classes of CS in a MHE classroom (traditional teaching, full online learning, online + offline teaching, group discussion) teaching. From the figure, we can see the degree of expectation of CS for the classroom teaching of MHE. Among them, the expectation value of the traditional teaching value of the MHE classroom of a certain college A student is 15.7%, the expectation value of the whole online learning of the MHE classroom is 26.6%, and the expectation value of the online + offline teaching of the MHE classroom It is 39.7%, and the expectation value of group discussion in MHE classroom is 18%; the expectation value of traditional teaching in MHE classroom of a college B students is 16.9%, and the expectation value of online learning in MHE classroom is 21.5 %. The expectation value of online + offline teaching of MHE classroom is 45.1%, and the expectation value of group discussion in MHE classroom is 23.4%; the expectation value of traditional teaching of MHE classroom for students in Class C of a college 13.9%, the expected value of online learning in the MHE classroom is 19.7%, the expected value of online + offline teaching in the MHE classroom is 52.8%, and the expected value of group discussion in the MHE classroom is 13.6%. It shows that CS in three different classes in a college have higher expectations for online + offline teaching in MHE classrooms.

5. Conclusions

Doing a good job in student MHE is the preliminary work for cultivating new talents. It can enable students to adapt to the comprehensive development of society, have good ideological and moral qualities, and have strong scientific and cultural qualities and healthy physical conditions. But we also must have good psychological qualities. Enhancing the education of students' mental health is a necessary condition for student development. Teachers, colleges and universities should focus on the psychological education of students to create the necessary prerequisites for future student development. In addition, strengthening the spiritual education of CS is also an inevitable requirement for improving ideological and policy education. The government should increase its efforts, invest in higher-quality teachers and more advanced support facilities, and open more MHE institutions. Carry out more MHE activities, let MHE resources produce 1+1>2 results, and provide services for students. This article constructs a model of online + offline dual classroom teaching

mode for CS' MHE, and conducts a survey of the teaching effect of this model and the CS' respective MHE classrooms (traditional teaching, full online learning, online + offline teaching), Group discussion) survey of the expected level of teaching. The survey shows that CS have higher expectations for online + offline teaching in MHE classrooms.

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