

knowledge comes from information and data. The process of transforming data into knowledge is the process of extracting, storing, analyzing, mining and applying data from data. For the analysis of the current situation of education development, textbooks should be compiled based on the original data according to the current situation of big data application, including personal, curriculum, school, regional and national textbooks. In the information construction of middle schools, only by continuously developing educational information and mining the value of different data can we provide practical data for the application of educational information and the relationship between variables. Through extensive analysis of material information, information-based teaching has become an important part of middle school teaching, so as to create a scientific basis for educational research and educational decision-making.

**Objective:** The continuous development of big data and multimedia technology has brought new vitality to the traditional teaching methods. Through analyzing and combing the literature about junior middle school students' learning pressure, learning anxiety and learning strategies, this paper discusses the basic theory. By analyzing the current situation of junior middle school students' learning pressure, learning anxiety and learning strategies, this paper probes into the relationship between the three, and examines whether learning strategies can play a mediating role in the impact of learning pressure on learning anxiety.

**Subjects and methods:** 400 middle school students with learning anxiety were randomly divided into control group and experimental group, with 200 students in each group. The experimental group was given the new teaching mode of big data construction, and the control group was given the conventional traditional teaching mode. Before and after teaching, the Self-rating Anxiety Scale (SAS) was used to evaluate before and after teaching. The score limit was 50 points. More than 50 points indicated anxiety. The lower the score, the healthier the psychology. Relevant data are calculated and counted by Excel software and SPSS20.0 software.

**Results:** Before teaching, there was no significant difference in anxiety between the two groups ( $P > 0.05$ ). After teaching, the anxiety of the experimental group was improved, and the number of students with anxiety decreased significantly ( $P < 0.05$ ). The control group decreased ( $P > 0.05$ ). After teaching, the improvement of anxiety in the experimental group was significantly better than that in the control group ( $P < 0.05$ ). See Table 1.

**Table 1.** Anxiety of students before and after teaching (n / %)

Anxiety state	Experimental group		Control group		P
	Before teaching	After teaching	Before teaching	After teaching	
Without anxiety	40(20.0)	76(58.0)	52(26.0)	88(44.0)	<0.05
Mild anxiety	100(50.0)	72(36.0)	100(50.0)	72(36.0)	<0.05
Moderate anxiety	40(20.0)	12(6.0)	36(18.0)	36(18.0)	<0.05
Severe anxiety	20(10.0)	0(0.00)	12(6.0)	4(2.0)	<0.05

**Conclusions:** In the big data environment, the reform and innovation of information-based teaching mode in secondary schools has become the focus of education reform research. At present, China's secondary schools still face many problems in the reform of information-based teaching mode. The traditional teaching mode is deeply rooted, the teaching mode is relatively single and lack of innovation. Therefore, in view of these problems, this paper puts forward the countermeasures for the research of information-based teaching mode in colleges and universities under the big data environment. The results of this study show that after teaching, the anxiety improvement of the experimental group is significantly better than that of the control group ( $P < 0.05$ ), indicating that the new teaching model based on big data proposed in this study can effectively improve the learning anxiety of junior middle school students, and its application value is higher than that of the traditional teaching model.

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## RESEARCH ON THE EXPLORATION AND PRACTICE PATH OF COLLEGE STUDENTS' MANAGEMENT WORK FROM THE PERSPECTIVE OF COLLEGE STUDENTS' MENTAL HEALTH

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**Background:** In recent years, with the birth of the Internet, new media technology has had a certain impact on the mental health of college students. It is believed that applying the unique advantages of new media to the management mechanism of educational work will have unexpected effects on the mental health of college students. Compared with traditional media, new media has the advantages of interactivity and personalization, popularity and immediacy. As the psychological cultivation of contemporary college students is in an active period, a series of changes have taken place in the mental health of college students in the new media era. New media has both positive and negative effects on the mental health of college students. For the positive role of college students' mental health, the application of new media is of great significance to the extension of college students' cognitive sense. The use of new media can deepen the breadth and depth of college students' thinking and exploring the world. The application of new media also gives college students the ability to constantly reveal social drawbacks and create a fair and just social atmosphere. New media plays an important role in cultivating college students' good character such as integrity, fairness and integrity. For the negative aspects of college students' mental health, the development of new media makes it easier for college students to meet their spiritual needs in the virtual world, and also has a series of negative effects on college students' psychological cultivation. At the same time, the virtuality of the new media network makes it more convenient for college students to receive, publish and disseminate harmful words and deeds anonymously. However, the imperfect supervision mechanism of the new media network leads to the confusion of college students' psychological judgment and cognition. New media provides virtual convenience for college students to accept and spread information, so that college students can wantonly use their hidden identity to publicize information content, and make college students have bad psychology of indifferent interpersonal relationship, loneliness, depression and anxiety. The virtualization and concealment of new media network also reduce the psychological security of college students, which leads to the occurrence of trust crisis. The new media provides a new communication platform for college students. On this platform, college students can get rid of the eyes and public opinions of acquaintances, so that the external binding force can be eliminated, so as to indulge the subconscious desire to pursue, and make college students lack a lot of sense of responsibility. If college students encounter setbacks on this platform, they may cause sensitive, suspicious and insensitive psychological diseases. Through the analysis, we can see that the new media has a difficult regulatory and regulatory impact on the development of college students' mental health education.

**Objective:** Under the background of the accelerating development of science and technology, the influence of new media has gradually expanded. As the main position of talent training, colleges and universities also need to make timely adjustments to the work of higher education. College students' mental health is the primary concern of college educators. New media has also had an important impact on college students' mental health. University educators should analyze the characteristics of new media and the factors that affect the mental health of college students, so as to give full play to the advantages of new media in education, and use the advantages of new media to build a platform for college students' mental health education, so as to provide conditions for cultivating mental health and high-quality talents.

**Subjects and methods:** 400 students with negative emotions were selected to give the platform teaching mode of college students' mental health education based on new media, and the improvement of students' negative psychology before and after teaching was analyzed. In this study, Hamilton Depression Scale (HAMD) and Hamilton Anxiety Scale (HAMA) were used to evaluate learning. Relevant data are calculated and counted by Excel software and SPSS20.0 software.

**Results:** The results showed that the total scores of HAMA and HAMD of students after teaching were significantly lower than those before teaching ( $P < 0.05$ ).

**Table 1.** Comparison of anxiety and depression of tourists before and after travel

Score	Factor	
	Before teaching	After teaching
HAMA total score	18.59	9.76
HAMD total score	23.43	19.82

**Conclusions:** With the vigorous development of science and technology, it is necessary to explore the management mechanism of college students' mental health under the new media. Colleges and universities should actively and fully use the new media technology to cultivate college students' psychological awareness of self-discipline and self-examination. The total scores of HAMA and HAMD of the students after teaching decreased significantly compared with those before teaching ( $P < 0.05$ ), which indicates that the students with negative emotions have significantly improved their negative emotions after applying the teaching mode of college students' mental health education platform based on new media, which has higher effect and application value compared with the routine daily education.

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## THE INFLUENCE OF THE APPLICATION OF ENVIRONMENTAL PROTECTION CONCEPT IN VISUAL COMMUNICATION DESIGN ON CONSUMERS' PSYCHOLOGICAL BEHAVIOR

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**Background:** Visual communication design involves a wide range of aspects, including advertising, packaging, corporate identity and so on. In order to achieve a certain business purpose, it is necessary to grasp the psychological dynamics of consumers in time and design with a clear aim, so as to achieve twice the result with half the effort. There are many factors that affect consumers' psychology, including external and internal factors. Among them, external factors include culture, social status, reference group, environment and other factors, and culture and reference group are the most important factors. Culture is a complex composed of knowledge, information, art and other factors. Culture affects almost everything in the consumer's behavior and thought process. In terms of form, the Chinese people stress one center and have a symmetrical form, which can be confirmed from the aspects of China's traditional architecture and furniture modeling. Although the diversified development of social education has had a great impact on the traditional culture, it still acts on the cultural outlook of modern people with the most stable spiritual level, affecting people's aesthetic outlook and consumer psychology. The views and values of reference groups are used by individuals as the basis for the current behavior of others. A reference group is a group that an individual uses as a behavior guide in a particular situation. The influence of reference groups on consumers mainly includes three aspects: informational influence, normative influence and value performance influence. Internal factors mainly include intuition and experience. Perception constitutes the perception process through three stages: exposure, attention and understanding. Only by being perceived can short-term or long-term memory be formed, and memory is a prerequisite for purchasing. The occurrence of exposure does not necessarily require the individual to receive the stimulus information. Usually, the individual faces only a small part of the exposed stimulus. Some scholars pointed out that perception is greatly influenced and dominated by pre-experience. Pre-experience is the result of experience accumulation and the psychological form of pre-experience participating in perceptual activities. Active participation in artistic perception can be seen in three aspects: orientation, classification and perceptual modeling. With the rapid development of industry, a large number of productions has caused serious damage to the environment, so the environmental problem has become a global problem. Design is an integral part of production. The application of environmental protection concept in design plays a positive role in reducing environmental pollution. Visual communication design conveys information to consumers through visual image, thus affecting consumers' behavior. However, it remains to be studied which behaviors of consumers will be affected by visual communication design with environmental protection concept, and what impact these behaviors will have.

**Objective:** Environmental protection has always been one of the issues that must be paid great attention to on the road of human development. The application of environmental protection concept in design plays a positive role in the cause of environmental protection. It is easy to understand the impact of environmental protection design from the perspective of industrial design, but it is rare to analyze the impact of visual communication design with environmental protection concept. This study analyzes what behaviors of consumers will be affected by visual communication design with environmental protection concept, and analyzes consumers' consumption psychology.

**Subjects and methods:** Collect data from residents in several communities in an area, and use the application mode of environmental protection concept in visual communication design to carry out psychological intervention on community residents. Before and after the intervention, the happiness index scale (IWB) was used to evaluate the psychological well-being of residents. Relevant data are calculated and counted by Excel software and SPSS20.0 software.

**Results:** As shown in Table 1, under the psychological intervention of the application mode of environmental protection concept in visual communication design, the scores of IWB scale were significantly lower than those before the intervention ( $P < 0.05$ ).

**Conclusions:** Visual communication design based on environmental protection concept will affect people's consumption behavior and promote consumers to implement environmental protection behavior. Visually communicating effective environmental protection information to consumers can positively affect the consumption behavior of the public, so as to promote the development of enterprises. However, the