

the context of big data, improve teaching quality and teaching effect, improve students' symptoms of the logic disorder, and help them improve their learning level and mental health level.

Research objects and methods: The research takes the students with thinking logic disorder in a special school as the research object, collects the basic information such as students' learning status, existing problems and current teaching effect, and then integrates the teaching means and teaching methods with the development background of big data to reform and innovate them. In the process of reform, a teaching system that can fully consider the needs and feedback of students with thinking logic obstacles is designed in order to improve students' learning effect and school teaching quality.

Method design: After collecting and analyzing the data of students' learning status and teaching status, the experimental method is designed by using an analytic hierarchy process combined with fuzzy comprehensive evaluation theory, and the teaching quality is evaluated and the model is constructed for the teaching content, teaching method, teaching means, teaching ability, students' needs and so on, fully consider the learning difficulties and teaching problems of students with thinking logic obstacles. The model is applied to mathematics courses, Chinese courses and political courses respectively. The data of the learning effect and the improvement of thinking logic obstacles of the research objects before and after the experiment are sorted and analyzed, and the differences are compared with the scoring system, so as to better explore the optimization effect of thinking logic obstacles on teaching reform under the background of big data.

Methods: The teaching model was constructed with the help of the analytic hierarchy process and fuzzy comprehensive evaluation theory, and the data were sorted and classified with Excel.

Results: Big data thinking is actually the derivation of human and natural cognitive model based on the digitization of information, and the teaching reform under the background of big data is to actively guide and transform the generation, correlation and application of information around innovation. Paying attention to the learning needs of students with thinking logic disorder and improving their learning quality and efficiency can speed up the achievements of teaching reform, involve more aspects and tend to be perfect. The experiment found that the new model of teaching reform can effectively improve the logical misunderstanding of students with thinking disabilities and improve their learning efficiency and quality. Table 1 shows the statistics of learning satisfaction of students with different degrees of thinking logic before and after the experiment.

Table1. Statistics of learning satisfaction of students with different degrees of thinking logic before and after the experiment

Degree	Before and after the experiment	Chinese course (%)	Mathematics course (%)	Political course (%)
Mild cognitive impairment	Before	64.3	58.7	62.4
	After	82.1	76.3	84.2
Moderate cognitive impairment	Before	54.2	47.6	51.6
	After	83.2	81.4	86.3
Severe cognitive impairment	Before	47.9	42.8	46.2
	After	87.5	79.5	86.1

Conclusions: Under the background of big data and the development trend of the information age, promoting the integration of information technology and education and teaching, and promoting the reform of education service supply mode and teaching mode is an important task of current education. Under the guidance of the overall teaching logic and big data thinking, we should promote teaching reform from multiple angles and aspects to help students get out of the misunderstanding of thinking logic, develop ideal education characterized by teaching students according to their aptitude and personalized learning optimization.

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INFLUENCE OF REGIONAL CULTURE INTEGRATION AND ART DESIGN TEACHING ON ALLEVIATING COLLEGE STUDENTS' ANXIETY

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Background: Anxiety, as an emotional state of fear and anxiety, is often accompanied by the sense of powerlessness caused by physical activation and efforts to deal with threats, and its threats mainly come from the fear of potential and other unknown things. There are individual differences in the forms and types of anxiety, and college students have particularity in anxiety psychology. According to the survey, anxiety disorder has become beyond depression and a common psychological problem among college students, and more than 20% of students in China have serious psychological problems of anxiety. College students often have anxiety problems in the form of examination anxiety, interpersonal anxiety, choice conflict anxiety, procrastination anxiety and so on due to unbalanced physical and mental development, excessive pressure burden, improper self-awareness and other reasons. The main mechanism of college students' anxiety is that they can't make timely decisions on unexpected behaviors, and fall into a state of repeated thinking and weighing, but can't find solutions. Learning anxiety is a kind of emotional psychology that college students often show in course learning. The rationality of content, the division of learning difficulty and the interest of classroom will affect students' enthusiasm and initiative to participate in the classroom, and then feed back to their completion of learning tasks. A good learning attitude will produce good learning results, and then produce a virtuous circle. A relatively low learning attitude and negative emotion will reduce college students' learning initiative, and a large psychological gap will increase their anxiety. At the same time, students are vulnerable to the influence of the external environment, resulting in cognitive bias and anxiety. The opening of art design teaching course is mainly to cultivate students' perception, understanding and creativity of art works through the study and practice of art design theory. However, the learning content of art design course is relatively fixed and has certain learning difficulties, so some students are prone to learning fatigue or have a learning attitude of dealing with things, resulting in learning anxiety in the practice of learning results and the completion of tasks. At the same time, change the teaching methods of art teaching courses to make their learning contents more vivid and interesting, so as to mobilize students' learning enthusiasm, help students better understand themselves, perceive the environment and improve their anxiety with the help of course teaching, which is the focus and difficulty of teaching. In recent years, with the deepening of the public's attention to regional culture, most scholars are committed to giving full play to the characteristics and charm of regional culture and integrating it with education, so as to make education and teaching more vibrant. The integration and innovation of distinctive regional culture and art design teaching can effectively help students improve their perception ability and interest in art, improve their professional ability and self-awareness level, and alleviate their anxiety.

Objective: To study the integration of regional culture into art design teaching, make teaching resources more diverse, not only reflect the characteristics of local teaching, but also give full play to students' creative thinking, make the cultural content more consistent with the teaching content, and strengthen students' initiative and emotional release in the learning process, effectively intervene and solve their anxiety and negative psychological problems.

Research objects and methods: The research takes 500 students majoring in art in a university as the research object. Before the experiment, first, evaluate the basic situation of students' anxiety level and psychological status, then innovate the teaching methods of art design course, integrate regional culture and art teaching, and explore the teaching mode of the new course. And use the new model teaching means to explore the relief of students' anxiety and mental health level.

Method design: After evaluating the anxiety level of art students, the subjects were randomly divided into experimental group and control group. The subjects in the experimental group were taught with the new model of regional culture integration art design teaching, while the control group was taught with normal art design teaching for three months. The anxiety scores and mental health status of the two groups of students after the experiment were statistically analyzed and compared with the data before the experiment.

Methods: Firstly, the analytic hierarchy process is used to screen the indicators and assign the weight of the factors affecting students' psychological anxiety, and then the teaching design in the construction of the new teaching model of proud regional culture and art design is improved according to these impact indicators, so as to better study the improvement of students' anxiety caused by the new model, the data processing in the experiment is sorted and analyzed with the help of SPSS statistical analysis tool.

Results: The combination of regional culture and art teaching can effectively improve the interest and vividness of teaching effectiveness, and the innovative new model can effectively improve students' anxiety and mental health. The scores of learning anxiety of the two groups decreased in different ranges after the experiment, and there was significant statistical difference between the two groups ($P < 0.05$). Figure 1 shows the statistics of the number of subjects with different anxiety levels after the experiment. The level 1-5 of anxiety indicates the severity from light to heavy.

Table1. Statistics of the number of subjects with different anxiety levels after the experiment

Grouping	Level 1	Level 2	Level 3	Level 4	Level 5
Experience group	267	179	30	14	10
Control group	20	13	264	105	98

Conclusions: Regional culture can not only provide rich resources for teaching and guide students to actively participate in teaching courses, but also help to show local teaching characteristics and improve students' psychological status. Therefore, in the course teaching design, we should fully permeate the connotation of regional culture and art, ensure the fit of the two, and build an innovative and regional teaching system and teaching scheme.

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OPTIMIZATION STRATEGY OF COMPUTER NETWORK INFORMATION SECURITY FROM THE PERSPECTIVE OF COGNITIVE IMPAIRMENT

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Background: With the development of science and technology and the advent of the big data information age, the application scope of Internet technology has gradually expanded, breaking through the limitations and sense of bondage between people's time and space. The integration between the development of big data and traditional industries has expanded the development space of various industries in society and enriched the media and means of people's communication. In the big data environment, the increase in the number of users and the acceleration of the flow of information and data not only provide convenience for people's life, but also provide an opportunity for some illegal elements, resulting in the leakage of private information and data of enterprises and individuals, and even pose a great hidden danger to the network security of the state and society. Under the characteristics of virtual open big data environment, information is easily affected by objective and subjective factors in the process of processing and transmission, such as network system vulnerabilities, non-human damage of data, improper human operation and virus intrusion, and its security is difficult to guarantee. With the popularization and sinking of Internet applications, people's personal information saved on the Internet increasingly involves some highly sensitive and private information. However, compared with the rapid development of computers under the Internet, the process of Internet information security infrastructure in some parts of China is slow, this will bring great use risk and uncontrollable security to Internet vulnerable users with a certain degree of cognitive impairment. Therefore, it is particularly important to strengthen the guarantee and protection of network information security in the context of big data from the perspective of cognitive impairment. Paying attention to the use needs of this group of users can effectively improve the level and quality of network information security. Cognitive impairment refers to the impairment of memory, time and space orientation function, executive ability and language understanding. It can be divided into dysfunction and clinical disorder, and dysfunction is the main factor affecting its network use. Dysfunction includes memory impairment, problem-solving disorder, attention disorder, language understanding and expression disorder, calculation disorder and visual reading disorder, which makes it more difficult for patients with cognitive impairment to understand web pages and process information in the process of computer use. Research at home and abroad shows that people with cognitive impairment can effectively improve their daily life and cognitive activities by using a personal digital assistant and computer-assisted learning. Therefore, strengthening the design and optimization of computer network information and building a barrier-free network environment can improve the satisfaction of patients with cognitive impairment and the security of information, so that they can benefit from the network.

Objective: Based on the needs of people with cognitive impairment, constantly modify and monitor the design and maintenance of computer network, design a barrier-free network use environment for patients with cognitive impairment, and improve the security of their use of information, such as optimization and improvement in font, visual expression, concentration enhancement of attention and content and form transformation, Promote the construction of network information infrastructure services.

Research objects and methods: The study selected some patients with cognitive impairment as the research object, collected their experience and problems in the process of using the computer network,