

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,

constructed the computer network optimization model through their feedback information, such as visual impairment of language web pages and difficulty in paying attention, and designed a network security system that meets the cognitive needs of patients with cognitive impairment, In order to improve its use satisfaction and information security.

**Method design:** After collecting the basic information about the current situation and existing problems of Internet users with cognitive impairment, a network security system meeting the cognitive needs of Internet users was designed, and the computer web page and design were optimized in the aspects of information cognition, content memory and risk prevention. Data collection and processing will be carried out on the mitigation of cognitive impairment and the improvement and intervention of patients with different degrees of cognitive impairment before and after optimization. Through comparative experiments, the direction of computer network information security and protection under the background of cognitive impairment will be explored, and the construction of network infrastructure will be improved.

**Methods:** The optimized model and comparative experiment were used to collect the data of cognitive changes of netizens with cognitive impairment before and after the experiment, and with the help of SPSS22.0 statistical analysis tools to process and analyze data.

**Results:** The user needs of people with cognitive impairment were less met and reflected in the process of computer network. With the help of computer services, artificial intelligence and other means, it can effectively improve the cognitive level of this group in life and learning and improve their barrier behavior. experiments show that the optimized computer network security information system can effectively improve the cognitive level of patients with cognitive impairment. Table 1 shows the cognitive changes of patients with cognitive impairment before and after the experiment.

**Table1.** Statistics of cognitive changes of patients with cognitive impairment before and after the experiment

Experiment	Visual impairment	Information identification and processing	Concentration	Memory impairment
Before experiment	17.63±1.98	18.37±1.69	15.14±1.73	17.35±1.29
After the experiment	9.23±1.24	8.26±1.47	7.25±1.05	9.23±0.45

**Conclusions:** The increase in the number of users makes the information of Unicom on the Internet have the characteristics of a large number and complex content, and the network virtual environment increases the risk of information and financial disclosure. At the same time, under the trend of profit-seeking, network illegal elements will constantly update the means of virus transmission, mislead Internet users to browse the information search on the Internet through the increase of content and pop-up advertising, increase the difficulty of patients with cognitive impairment when using the Internet, and virtually increase the risk and pressure of information disclosure. The optimized computer security system can effectively help netizens with cognitive impairment use the Internet more safely, and improve their cognitive level and network use satisfaction to a certain extent.

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## INFLUENCE OF TRADITIONAL PHYSICAL EXERCISE ON COLLEGE STUDENTS' MENTAL HEALTH

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**Background:** With the development of China's education and the deepening attention to quality education, the proportion of physical exercise in higher education is gradually increasing. College students are in a critical period of physical and mental development. The changes of teaching forms and social environment will make students have to consider individuals in society and collective, and then require students to have better adaptability and adaptability. College education pays more attention to students' autonomy and self-discipline, and encourages students to deal with the relationship and changes between themselves and the surrounding environment. However, due to the differences between individuals, they lack good cognitive understanding ability and evaluation criteria for things, which is more prone to mental health problems. The quality of mental health will affect students' learning efficiency and their correct evaluation of their own value, so it is necessary to actively guide and intervene students' psychological problems. The main state of students is learning. In order to improve students' mental health level, we first