application effect of Marxist philosophy curriculum on alleviating college students' mental health problems, hoping to provide help for improving college students' Ideological and political consciousness and put forward new treatment schemes for college students' mental health problems.

Subjects and methods: In this study, 200 college students were selected by stratified cluster random sampling to understand the mental health education function of Marxist philosophy course in colleges and universities, analyze the current teaching situation of Marxist philosophy course in colleges and universities, and analyze the current situation of mental health problems of college students. The study used a comparative experiment to explore the treatment effect of Marxist philosophy course on college students' mental health problems. 50 college students with mental health problems were divided into experimental group and control group. The students in the experimental group received the mental health education integrating the study of Marxist philosophy, while the students in the control group received the mental health education under the traditional mode without the intervention of Marxist philosophy. The mental health problems of the two groups of students before and after the experiment were compared and analyzed to understand the therapeutic effect of Marxist philosophy course on college students' mental health problems.

**Results:** The scoring results of the treatment effect of Marxist philosophy course on students' mental health problems are shown in Table 1. Marxist philosophy course has high scores on the treatment effect of different types of students' mental health problems.

**Table 1.** Scoring results of the therapeutic effect of Marxist philosophy course on students' mental health problems

Survey object	Freshman	Sophomore	Junior	Senior
Anxious	4	4	3	4
Depressed	4	4	4	3
Paranoid	3	3	3	4
Hostile	4	3	4	3

Conclusions: Based on the course of Marxist philosophy, mental health education for college students can effectively intervene the mental health problems of college students, guide college students to establish a healthy and positive outlook on life, values and world outlook, and treat the obstacles of college students' self-consciousness. Strengthening the development of college students' mental health work integrating Marxist philosophy in higher education can effectively enhance college students' psychological tolerance and pressure resistance, improve college students' mental health level, alleviate college students' psychological anxiety and depression, and reduce the probability of mental health problems in college students.

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## INFLUENCE OF TEACHING CONSTRUCTION OF ENVIRONMENTAL ENGINEERING SPECIALTY BASED ON EDUCATIONAL PSYCHOLOGY ON COGNITIVE IMPAIRMENT OF COLLEGE STUDENTS

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Background: Educational psychology takes the psychological changes of objects in the process of education and teaching as the main research content, and takes psychological theory as the guidance to provide help for the development of educational activities. Educational psychology is mainly divided into behaviorism and cognitivism. Behaviorism believes that learning is a process of strengthening habits. Learning in the teaching process is a complex of stimulation and reflection. Teachers stimulate students repeatedly to form a habit of knowledge. Learning is not only a cognitive process, but also a cognitive process based on students' subjective awareness. Compared with behaviorism, cognitivism puts more emphasis on the main role of students in teaching activities and advocates giving full play to students' autonomous ability in learning. The role of teachers is more inclined to guide and assist.

Cognition refers to the process that the brain processes the acquired information and skills intelligently. In the process of cognition, it will involve a series of complex social behaviors and activities such as learning,

memory, emotion, thinking and so on. When the human cerebral cortex is damaged by various factors, the brain's intelligent processing process will be limited and abnormal, which will lead to cognitive impairment. Previous studies have shown that there are many causes of cognitive impairment. The most common ones are genetic abnormalities, viral infection, abnormal secretion of neurotransmitters, and chronic cerebral ischemia. These factors will lead to different degrees of damage to human cerebral cortex, which will limit brain function and eventually lead to cognitive impairment. The learning, communication and memory of patients with cognitive impairment will be impaired, which will affect their daily life. In severe cases, there may even be disability, aphasia, etc. The learning, memory and life of patients with cognitive impairment will be affected, which reduces the quality of life of patients and is not conducive to the harmonious development of society. Therefore, finding an appropriate method to alleviate the cognitive impairment of college students and improve their mental health level is of great significance to the healthy growth of students and the harmonious development of society. Therefore, many experts have carried out in-depth research on cognitive impairment. The research found that the causes of cognitive impairment are different, and the performance of cognitive impairment is also different. According to the clinical manifestations of patients with cognitive impairment, cognitive impairment is generally divided into three categories: perception impairment, memory impairment and thinking impairment.

**Objective:** Guided by educational psychology, combined with the analysis of students' professional learning psychology, and starting from the actual situation of environmental engineering teaching, this paper discusses the teaching mode and current situation of environmental engineering in colleges and universities, so as to provide theoretical and methodological reference for students with cognitive impairment to learn environmental engineering courses and knowledge. This paper analyzes the current teaching situation of environmental engineering specialty in colleges and universities, deeply excavates the problems existing in the teaching system of environmental engineering specialty in colleges and universities, and puts forward the teaching optimization means and strategies of environmental engineering specialty in colleges and universities on this basis, hoping to provide new development ideas for teaching reform in colleges and universities and promote the innovative development of environmental engineering specialty education in colleges and universities.

**Subjects and methods:** Based on the teaching quality evaluation report of a city's colleges and universities in 2021, the research obtains the evaluation statistical data of colleges and universities from the evaluation report to understand the existing problems of environmental engineering teaching in colleges and universities. Based on the evaluation report data, this paper analyzes the development status of environmental engineering teaching in colleges and universities, puts forward the implementation path of innovative development of environmental engineering teaching in colleges and universities, and establishes a new teaching mode of environmental engineering in colleges and universities under the guidance of experiment. The research adopts the method of random sampling, takes 200 college students majoring in environmental engineering as the research object, uses the new teaching mode of college environmental engineering under the guidance of experiment for teaching, analyzes the correlation between students' cognitive impairment mitigation and the new teaching mode in combination with Pearson correlation coefficient, and explores the effect of the new teaching mode of college environmental engineering under the guidance of experiment on the learning of students with cognitive impairment, analyze the application effect of the new teaching mode under the guidance of experiment in students' cognitive impairment and professional learning.

**Results:** The changes of students' cognitive impairment before and after the application of the new teaching mode of environmental engineering specialty in colleges and universities under the guidance of experiment are shown in Table 1. The scores of students' cognitive impairment under the new teaching mode decreased significantly.

**Table 1.** Changes of students' cognitive impairment before and after the application of the new experiment-oriented teaching model

Time	Score
Before reform	4.27
After reform	1.35

Conclusions: The traditional teaching mode of environmental engineering in colleges and universities is relatively backward, and the teaching method is single, which is not conducive to the learning of environmental engineering professional knowledge by students with cognitive impairment. Therefore, starting from the current situation of environmental engineering teaching in colleges and universities and relying on students' educational psychological analysis, this paper puts forward a new teaching mode of environmental engineering specialty under the guidance of experiment, and optimizes the existing teaching

methods of environmental engineering specialty in colleges and universities in combination with the learning characteristics of students with cognitive impairment. By optimizing the experimental teaching mode and establishing an open teaching environment, we can improve the learning efficiency of students with cognitive impairment on the professional knowledge of environmental engineering.

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## ANALYSIS OF LANGUAGE CHARACTERISTICS AND TRANSLATION SKILLS OF AEROSPACE ENGLISH UNDER THE BACKGROUND OF COGNITIVE PSYCHOLOGY

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Background: Cognitive psychology is a branch of psychology that began to rise in 1950. It mainly studies human advanced psychological processes, such as attention, perception, thinking and language. Based on psychological knowledge, cognitive psychology theory absorbs the essence of modern information theory, cybernetics and other advanced theoretical achievements, and analyzes the process of individual psychological change from the perspective of experiment and information processing. Cognitive psychology believes that human cognitive process is the process of responding to external stimuli. Human cognition of knowledge or information goes through individual processing and storage, and finally stimulates individual sensory organs and enters individual memory. Cognitive psychology also emphasizes the enthusiasm of individuals in information search and processing. Individuals use strategies to actively search for information, process, store and express it. The orientation of cognitive psychology focuses on the mode of thinking and reasoning by using cognition, which is mainly to explain the law of individual psychological changes in the process of cognition. In the theory of cognitive psychology, individual learning process is actually a process of gradual construction and improvement of knowledge, not only the absorption and digestion of knowledge, but also the process of using their own knowledge to build new knowledge. After the environment stimulates the individual to produce information, the individual obtains the ability through the internal cognitive processing of these information, so that the learning and the learning situation are always consistent. Therefore, cognitive psychology believes that the individual cognitive process is essentially the process of individual brain processing symbolic information. The main human activities include three aspects: cognitive activities, emotional activities and will behavior, which can be explained and expounded by the theory of cognitive psychology.

With the in-depth development of international aerospace technology in the new era, China's aerospace research is also deepening. In aerospace research, the translation and transformation of aerospace English has important auxiliary significance, which can effectively help aerospace workers and researchers use aerospace English to study relevant literature and form an effective international communication chain. However, aerospace English has many characteristics, such as strong professionalism and large vocabulary. In aerospace English, professional terms account for a large proportion, the complexity of professional terms is high, and the sentence structure in aerospace English is complex. Therefore, the translation of aerospace English needs the assistance of professional knowledge and certain aerospace English translation skills. As a professional English for science and technology, aerospace English is based on modern English and integrates professional aerospace related knowledge. There are many professional terms, newly created words and abbreviations in aerospace English, and it has special syntactic and lexical characteristics, so its translation is difficult. Therefore, the research is based on cognitive psychology, combined with the analysis of psychological characteristics of information cognition and processing, explores the language characteristics and translation skills of aerospace English, and puts forward the basic principles and strategies of aerospace English translation, so as to provide reference for promoting aerospace English translation teaching.

**Objective:** Starting from the individual information cognition and processing process, cognitive psychology analyzes the individual knowledge cognitive characteristics and psychological connotation memory from the perspective of psychology. Combined with the analysis of cognitive psychology, cognitive psychology deeply explores the language characteristics of aerospace English, and puts forward the translation skills and strategies of aerospace English. Through the analysis of the special language characteristics of aerospace English, this study explores the principles and strategies of aerospace English in translation, hoping to provide help for the development of aerospace English translation and promote the development of aerospace English related translation teaching.

Subjects and methods: By mean of reform pilot and comparative analysis, this study explores the