

**Conclusions:** Educational psychology is the core foundation of higher vocational colleges' educational reform. With the continuous improvement of students' independent consciousness, higher vocational colleges should pay more attention to students' psychological changes in educational reform. Moreover, teaching psychology in the educational reform not only promotes students' school enthusiasm, but also improves the teaching system of higher vocational colleges. In the employment guidance of higher vocational colleges, the employment guidance for students is directly related to the future development of students. How to use educational psychology to promote students' learning population and improve students' employment satisfaction to a certain extent. In the research, it is proposed that the teaching quality of employment guidance can be greatly improved from four aspects: students' motivation, psychological differences, teachers' group and teachers' level. Therefore, in the choice of employment guidance path in higher vocational colleges, we should fully consider students' learning psychology and teachers' teaching psychology, and formulate corresponding strategies to ensure the normal development of employment guidance.

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## **SPECIALTY GROUP ECOLOGY AND GOVERNANCE PATH OF “DOUBLE HIGH PLAN” OF VOCATIONAL EDUCATION UNDER COGNITIVE IMPAIRMENT**

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**Background:** Professional group is the main driving force for the development of colleges and universities, and in a large number of high-level Higher Vocational Colleges in China, the professional group of colleges is more obvious. At the same time, with the reform measures of national manufacturing education, how to build a professional group ecosystem with Chinese characteristics in higher vocational colleges has become the research object of a large number of educators. The proposal of “double high plan” provides a new direction for vocational education. With the increasing teaching requirements of higher vocational colleges, a large number of professional construction plans have been proposed and implemented, and vocational education has a further development direction. In the “double high plan”, the construction path of high-level professional groups is divided into two directions. The first point is the external leading direction promoted by the external industrial chain, and the second point is to realize the internal leading direction of the systematic growth of professional groups through the self-evolution of professional groups. From the current development trend, the professional group system dominated by external factors is limited by the changes of external industrial chain. At present, with the continuous development of information technology, the emergence of Internet industry and the emergence of new industries, the professional group system is constantly impacted. Therefore, in this environment, how to avoid external interference and realize the ecological maintenance and governance of professional groups from the self-growth of professional group system is a problem to be solved.

In the current vocational education, the specialty group system construction of the “double high plan” is mainly subject to external conditions. Generally speaking, the specialties in the specialty group ecosystem interact with each other, and there will be a chain reaction after a certain impact. Cognitive psychology believes that there will be certain cognitive obstacles in education and teaching. From the ecology of professional groups, it can be seen that due to the influence of ecological structure and external factors, internal majors are bound to have cognitive obstacles, including cognitive obstacles of individual professional groups, cognitive obstacles at the level of professional groups and cognitive obstacles at the level of professional groups. Under the influence of cognitive impairment, there will be evolutionary obstacles among individuals, populations and communities. The cognitive impairment of professional groups seriously affects the ecological balance of professional groups, and also leads to the fact that the ecology of professional groups cannot benefit from the organic coordination between different majors in the system to achieve sustainable and circular development like natural ecology. From the perspective of psychology, cognitive impairment is a risk factor of psychological pain. Psychological pain is an obvious emotional response. The generation of psychological pain will cause a variety of emotional experiences, including behavioral cognition and spiritual cognition. It is easy to lead to individual behavioral reactions such as vulnerability and fear, as well as individual negative psychological reactions such as anxiety and depression. At the same time, some studies have found that there is a significant positive correlation between psychological pain and cognitive impairment, that is, under the influence of cognitive impairment, patients are more likely to have negative emotions such as psychological pain. In the professional group system of

vocational education “double high plan”, individual cognitive impairment and group cognitive impairment will lead to psychological pain in education. How to put forward the corresponding ecosystem governance strategies according to the cognitive barriers has great teaching significance.

**Objective:** To understand the ecological structure of the professional group of vocational education “double high plan”, analyze the cognitive obstacles, and put forward the governance path of the professional group ecosystem of vocational education “double high plan” from the perspective of improving cognitive obstacles.

**Research design:** Using the literature method to obtain the high-level professional groups in higher vocational colleges, formulate a questionnaire to conduct a questionnaire survey on the teachers and students in the three higher vocational colleges. The survey content is the main tasks of teachers and students in the professional group ecosystem, put forward the professional group ecosystem governance scheme of the “double high plan” of vocational education, and evaluate the effect of the scheme.

**Results:** The survey results used five grades of 0-4 to quantify the influence value of specific factors. 0 means irrelevant, 1 means slight impact, 2 means general impact, 3 means obvious impact and 4 means complete impact. In order to reduce the large error caused by personal subjectivity in evaluation, the evaluation value of 100 teachers and students in higher vocational colleges is taken as the average value. The cognitive impairment at three levels of individual, population and community of professional group under cognitive impairment has a significant impact on the proposal of governance plan, as shown in Table 1.

**Table 1.** Impact of cognitive impairment on ecological governance

Content	Individual cognitive impairment	Population cognitive impairment	Community cognitive impairment
Governance scheme	3	3	3

**Conclusions:** Cognition is the processing process of the body in receiving external information, including the acceptance, processing and learning of information. Cognitive impairment has defects in the above contents. The cognitive impairment in the ecosystem of the professional group of the vocational education “double high plan” is mainly manifested in the cognitive impairment of the subsystem in the ecosystem. It is unable to accept and learn, which leads to the evolution of the ecosystem. From the perspective of cognitive impairment, the research focuses on the cognitive impairment at all levels in the professional group ecosystem of the “double high plan” of vocational education. It is learned that in order to better manage the system, it is necessary to cultivate professional groups with characteristics from the three aspects of individual, population and community, and resources should be shared among professional groups, develop in the form of collectivization and under the relevant guarantee mechanism.

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## DISCUSSION ON ELECTRICAL ENGINEERING TRAINING AND APPLICATION OF ELECTRICAL AND ELECTRONIC TECHNOLOGY UNDER THE BACKGROUND OF COGNITIVE IMPAIRMENT

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**Background:** With the continuous expansion of industrial production, electrical engineering, as an indispensable part of industrial production, has attracted more and more attention. And in terms of the current international situation, electrical engineering plays a positive role in promoting scientific and technological innovation. Therefore, the development degree of a country’s electronic engineering determines the country’s competitiveness in international scientific and technological innovation. The earliest definition of electrical engineering is the systematic science that combines electronics and electricity. In the process of social and scientific and technological development, electronic and photonic technology also belong to the research content of electrical engineering. The main electrical engineering