improvement of patients with cognitive impairment

Category	No improvement	Slightly improved	Significant improvement
Language ability	1	26	23
Recall function	2	27	21
Memory ability	1	25	24
Directional force	3	26	21

Conclusions: Applying data science to the risk preference intervention program of investment psychology to improve mild cognitive impairment, especially in language ability and recall function. The results provide a new idea for the treatment of mild cognitive impairment.

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ON THE INFLUENCE MECHANISM OF COMMUNICATION ADAPTATION BARRIERS ON COLLEGE ENGLISH CULTURAL COMMUNICATION TEACHING REFORM

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Background: According to the college English classroom teaching requirements (for Trial Implementation) issued by the Ministry of education, the teaching goal of college English teaching course should change the original "using English as a tool to obtain professional information" to "cultivate students' comprehensive application ability of English, so that they can effectively communicate oral and written information in English". Accelerating the cultivation of English communication talents is the problem and focus of current education. Under the background of quality education and teaching goal reform, the evaluation of students' English quality and ability is no longer based on the five abilities to listen, speaking, reading, writing and translation, but pays more attention to the emphasis and cultivation of English majors' communicative ability and cross-cultural communicative ability. Students' cross-cultural communicative competence means that students can communicate with international friends smoothly and freely, and have a certain understanding of their language usage habits and cultural background. However, in the current college education, teachers often pay attention to the cultivation of theoretical knowledge and ignore the cultivation of students' cross-cultural communicative competence, which makes the teaching effect not ideal. For language learning, if it is limited to the learning of words and grammar and ignores the understanding of the internal cultural connotation, the learning effect will only stay on the surface, resulting in the imbalance between language input and output, resulting in students' lack of humanistic understanding and recognition in the learning process, and then produce communication and adaptation obstacles.

Communication adaptation barriers are the difficulties in opinion exchange and information transmission between people and teams, often including language barriers, conceptual barriers and temperament barriers, and different types of barriers are caused by different information senders, information receivers and information transmission channels. In the adaptive state of language communication, the emotional tendency, expression ability and judgment of the sender of information will affect the integrity of information transmission. The screening and tolerance of information by the receiver of information, psychological obstacles and the perfection of communication channel media and mechanism will also affect the communication, expression and exchange of information. Differences in thinking and cultural background make students have differences in the expression and understanding of the same language in the process of English learning, which leads to problems in the communication process, the decline of expression ability, communication anxiety and even the emergence of "Aphasia", which affect their learning and life.

Objective: To study and analyze its impact on English cross-cultural communication teaching from the perspective of communication adaptation barriers. Based on the understanding of the current situation of English teaching and students' communication adaptation barriers, through the innovation of teaching mode and the improvement of teaching scheme, we can alleviate their communication barriers, improve students' English comprehensive ability and cross-cultural communication ability, and enhance their professional confidence.

Research objects and methods: The study first collected information on the level and current situation

of English use among 600 English majors of different grades in a university, and then selected the students with communication adaptation barriers as the research object, and developed the English cross-cultural communication scale based on the Chinese Communication Development Inventory (CCDI). The content includes grammatical problems, language habits, semantic ambiguity and other aspects to test the subjects' English communication. With the help of the association rule mining algorithm, the innovation of the English teaching mode is realized, so as to improve the cross-cultural communication ability and professional quality of students with communication adaptation disabilities.

Method design: Firstly, the basic information of English communication level and communication difficulty of English majors with communication adaptation disorder is collected and graded. With the help of the association rule mining algorithm, the correlation between communication adaptation disorder and the effect of college English cross-cultural communication teaching is explored, and on this basis, the content, resources means and other aspects of innovation and optimization. The new teaching model is applied to classroom teaching. The experimental time is three months. The scores of students' communication adaptation barriers and cross-cultural communication ability before and after the experiment are processed and analyzed.

Methods: Based on the correlation analysis between communication adaptation barriers and the effect of college English cross-cultural communication teaching, the association rule mining algorithm was used to realize the innovation of teaching mode, and the experimental data were collected and processed with the help of statistical analysis tools to obtain the experimental results.

Results: There are differences in teaching effect and teaching quality caused by the design of different teaching methods and schemes. The degree of emphasis on students' cross-cultural communicative competence in the English teaching classroom will affect students' learning enthusiasm and professional ability. From the perspective of communication adaptation barriers, exploring the development path of cross-cultural communication teaching in college English education can effectively improve students' communication barriers and teaching quality. Figure 1 shows the correlation results between the degree of students' communication adaptation barriers and the quality of teaching effect. The more serious the horizontal coordinate in the figure shows that the more serious the students' communication barriers increase.
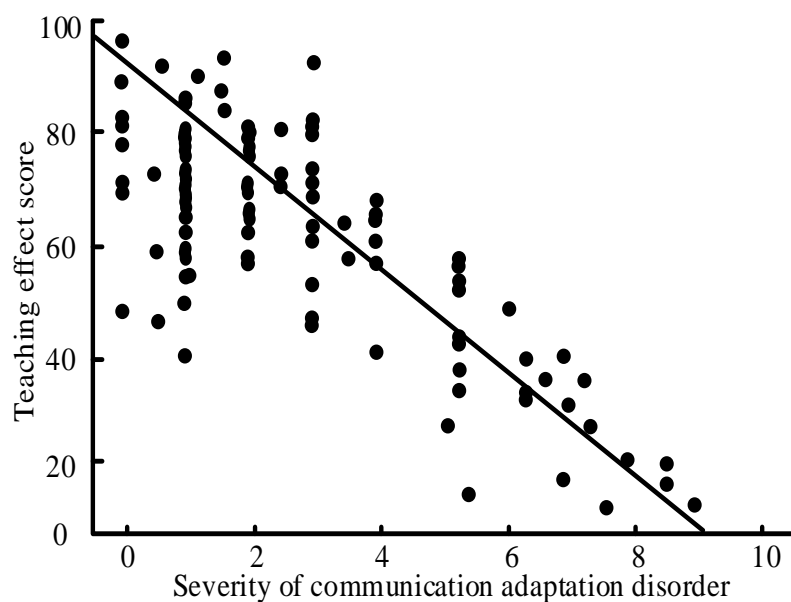
Figure 1. The correlation between students' communication adaptation disorder and teaching effect

Conclusions: The differences in cultural background and language use habits often lead to the phenomena of "language inferiority complex" or "language embarrassment" in the process of English learning, resulting in communication and adaptation obstacles, which further affect the learning quality and teaching effect. From the perspective of the communication adaptation barrier, exploring its causes and its impact mechanism on cross-cultural communication ability in English learning can effectively improve students' understanding and cognition of western culture, promote the adjustment of their way of thinking, further improve students' cross-cultural communication ability and the smoothness of English communication, and then improve the quality of teaching.

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ANALYSIS OF THE RELIEVING EFFECT OF THE MAIN MELODY ON THE AUDIENCE'S MENTAL ANXIETY IN VOCAL MUSIC SINGING

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Background: With the development of social economy and the improvement of people's living standards, people pay more attention to the quality of life and spiritual and cultural consumption. Rich and diverse cultural activities can effectively improve people's cultivation and moral concepts, and give them emotional feedback and experience. In recent years, vocal music has been loved and sought after by the public because of its wide universality and popular form. Vocal singing is a sound art based on people's own voice. Its manifestations include duet, chorus and chorus, which can trigger its emotional and spiritual resonance on the premise of meeting people's visual enjoyment to the greatest extent. Because of its high degree of freedom and strong dissemination, the scope and scale of its application are also gradually expanded. The main theme of vocal singing is the soul and essence of vocal music, which lays the emotional keynote of singing, and can directly reflect the thoughts and emotions of the work, thus creating an emotional atmosphere and giving audiences different emotional experience. Different main melody tones in vocal music singing will bring different emotional experiences to the audience. The relaxed and cheerful main melody can convey a positive and optimistic emotional experience, and the low and depressed main melody can convey a low and sad emotional experience. Vocal singing can give the audience different impressions through the style of lyrics and singing form, and adjust their emotions and psychological feelings in a sympathetic way, so as to reduce the negative emotions of the audience.

With the increase of social pressure and the limitation of individual tolerance, more and more people suffer from mental anxiety and difficulty in emotional regulation, which affect their physical and mental development. The essence of mental anxiety is anxiety disorder, which is a very complex psychological and emotional disorder. Its clinical manifestations are often motor agitation and sympathetic hyperactivity, accompanied by negative emotions such as anxiety, shame, disappointment, anxiety and fear. Appropriate mental emotion can make people in a more nervous mental state and improve the accuracy and sensitivity of judgment and handling of things. Excessive mental anxiety will make people's mental state fluctuate greatly, affect the objectivity of judgment, and cause adverse effects and losses on life and work. People who fall into mental anxiety are difficult to overcome their adverse symptoms by relying on their own strength, and their mental state and willpower are poor, so their contact with the outside world is relatively weak, which is not conducive to the recovery of their mental transformation. The intervention of mental anxiety patients in the form of vocal music singing, with the help of the power of music to strengthen its close contact with the outside world, the emotional experience and intervention mechanism brought to the audience by different types and styles of vocal music works are different. Therefore, it is of great practical significance and value to explore the influence mechanism of the main melody in vocal music singing on the audience's mental anxiety.

Objective: In order to alleviate the anxiety and discomfort of patients with mental disorders and help them better regulate their emotional and psychological problems, this paper studies the mechanism of relieving and improving the audience's mental anxiety in the form of vocal singing, so as to improve their mental health level and music appreciation ability.

Research objects and methods: 600 patients with mental anxiety were randomly selected as the research objects to collect their psychological status and anxiety level information, and through vocal performance, singing interaction by means of appreciation of music works, the Psychosomatic Tension Relaxation Inventory (PSTRI) and Symptom Checklist 90 (SCL-90) were used to collect and sort out the data of psychological stress and mental health level of mental anxiety audience.

Method design: The study first analyzes the correlation between vocal music singing and mental anxiety with the help of principal component analysis, and then randomly groups and intervenes the research objects according to different vocal music singing styles, namely bel canto (group A), ethnic group (group B) and popular group (group C). It can also classify different rhythm and emotional works according to the differences of vocal music theme. The experiment lasted for three weeks. After the experiment, the anxiety improvement of the subjects was analyzed, and the experimental results were obtained.

Methods: The correlation between vocal music singing and mental anxiety was analyzed by principal component, and the alleviation of mental anxiety of audience by different vocal music themes was explored by means of comparative experiment.