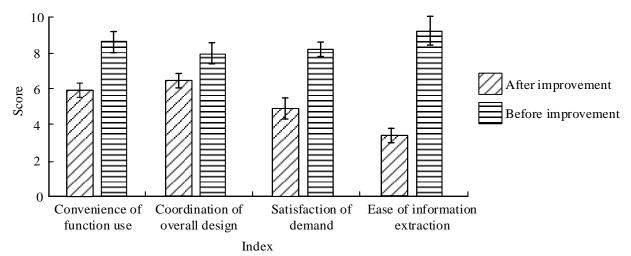
realizing the intelligent theme design and style representation of cruise atrium will help to speed up the independent design of cruise ships, practice products and improve the cognitive level and mental health level of patients with cognitive impairment. Figure 1 shows the score results of cognitive impairment personnel on the rationality of cruise ship atrium design before and after the experiment. The score value represents their satisfaction with the system.



**Figure 1.** Score of cognitive impairment personnel on the rationality of cruise ship atrium design before and after the experiment

Conclusions: The theme design of cruise ship atrium is to build an infectious place. Its theme positioning, design concept, decoration style, cruise ship brand and designer's different aesthetic preferences will affect the overall design style of cruise ship, and the consumption experience is also different. Incorporating the needs of groups with cognitive impairment into the design optimization helps to better interpret the significance of the cruise theme, improve the cognitive level and satisfaction of this group, and speed up the process of cruise independent optimization design.

\* \* \* \* \*

## THE INFLUENCE OF THINKING LOGIC ON THE CULTIVATION OF CROSS-CULTURAL COMMUNICATIVE COMPETENCE IN COLLEGE ENGLISH EDUCATION

## Hua Liu

School of Foreign Languages, Zhongyuan Institute of Science and Technology, Zhengzhou 450000, China

Background: Thinking logic refers to the ability of correct thinking and reasonable evaluation, that is, the ability to observe, compare, analyze, summarize, judge and reason things with scientific logical methods, and then accurately and orderly express our thinking process. It is an important tool for us to recognize and guide the objective world. Thinking cognition has the characteristics of abstraction and indirectness. Rational cognition is thinking. Different individuals have different thinking at different stages due to the influence of education level, age structure, reading experience and self-awareness level, which will lead to deviation in people's views and evaluation standards of things and lead to different behavior activities. As a cognitive process with mathematical characteristics, thinking logic emphasizes the logic between things. It is an important embodiment of the unity of external things and their own cognitive level. It has high requirements for people's language organization ability and thinking expression ability. When individuals carry out cognitive activities, they will be affected by the confusion of the starting point of thinking, the fuzziness of thinking image, the deviation of thinking direction, the confusion of thinking logic and so on, which makes it difficult for objective things to appear normally in the human brain, which can be manifested as the abnormality of thinking process and thinking content. English communication ability is a good embodiment of thinking logic. The quality of English communication ability can reflect the clarity of individual thinking logic and the strictness of language organization. "Cross-cultural communicative competence" is a comprehensive test of language application ability in language communication practice. It is an effective way to improve college students' cultural connotation and their professional ability. However, in the current college English education, teachers' pay too much attention to the study of theoretical knowledge in curriculum design and ignore the cultivation of students' language expression ability and communication ability, which makes students only pay attention to the study of surface knowledge and ignore the importance of cross-cultural communication ability. It is difficult to understand the logical connotation of English culture, resulting in "language bias", which fall into "misunderstanding of thinking logic". Therefore, exploring the cultivation and influence mechanism of thinking logic on students' cross-cultural communication ability in college English education will help to cultivate students' better organizational ability, adaptability and speculative ability, improve their confidence in English understanding logic and language communication, and then improve their cross-cultural communication ability and professional level, which has important practical significance and guiding value.

**Objective:** Based on the characteristics of students' thinking logic and existing problems, this paper innovates the college English education model and strengthens the cultivation of students' cross-cultural communication ability, so as to continuously improve the professional ability and comprehensive quality of English majors.

Research objects and methods: The study takes 900 English Majors in three universities as the research object, collects and evaluates the information of their thinking logic level, thinking misunderstanding and English professional level, and then explores the correlation between thinking logic ability and English cross-cultural communication ability with the help of principal component analysis. According to the problems and needs of the research object in English teaching, the teaching mode is improved. At the same time, take various forms to mobilize students' interest and enthusiasm in classroom and English dialogue and communication, such as oral knowledge competition, scene simulation, online English communication, language logic training, etc., so as to improve students' cross-cultural communication ability and comprehensive quality.

**Method design:** Firstly, collect the basic information and sort out the problems of the research object's thinking logic level and English communication level ability, then explore the correlation between thinking logic ability and English cross-cultural communication ability with the help of principal component analysis, and innovate the educational means of cross-cultural communication according to the students' learning characteristics and needs, so as to realize the reform of teaching mode. The experiment lasted for one month. After the experiment, the students' thinking logic improvement and English expression level were processed and analyzed.

**Methods:** The correlation between thinking logic and English cross-cultural communicative competence was explored by principal component analysis, and the experimental research was carried out with the improved teaching model. The experimental data were collected and processed by statistical analysis tools, and the experimental results were obtained.

**Results:** To improve cross-cultural communication ability is to respect and understand the culture of others, which can enable students to strengthen their understanding of foreign language cultural background and values in the process of communication, so as to help them understand the core of language communication, and enhance their own cultural self-confidence to a certain extent. The results show that the reform of teaching mode can effectively help students with poor thinking logic ability better understand the cultural connotation of language, and then improve their cross-cultural communication ability and thinking ability. Table 1 shows the statistical difference of students' thinking logic scores before and after the experiment.

Table 1. Statistics on the difference of students' thinking logic scores before and after the experiment

Logical expression of thinking	Before the experiment	After the experiment
Analysis and synthesis	14.76±2.59	25.14±2.23
Comparison and classification	15.18±2.53	29.12±2.67
Abstraction and generalization	17.45±3.81	27.43±2.05
Induction and deduction	13.91±2.24	22.79±2.24

Conclusions: The ultimate goal of language learning is the application of language, and the communicative ability of language and culture not only refers to the improvement of language expression ability, but also requires students to master the corresponding basic cultural knowledge and cultural background. Strengthening college English education to cultivate students' cross-cultural communication ability can effectively improve students' thinking and logic ability, improve English teaching effect and students' comprehensive quality ability, and further give play to the guiding value and practical value of English.

\* \* \* \* \*

## RESEARCH ON COLLEGE VOCAL MUSIC TEACHING ON COLLEGE STUDENTS' COGNITIVE IMPAIRMENT

Weiling Li<sup>1</sup> & Ye Liu<sup>2</sup>

<sup>1</sup>School of Music and Dance, Xuchang University, Xuchang 461000, China <sup>2</sup>School of Information Engineering, Xuchang University, Xuchang 461000, China

Background: Cognition refers to the process of intelligent processing when individuals know things and acquire relevant knowledge. This process involves learning, thinking and other psychological and social behaviors. Cognitive impairment indicates that there are some abnormalities in the process of intelligent processing, which leads to memory impairment, accompanied by symptoms such as agnosia and anorexia. Cognitive impairment is divided into three main types: perception impairment, memory impairment and thinking impairment. Perceptual impairment may cause some perceptual abnormalities, such as sensory retardation, hallucinations, etc. In the memory disorder, the related memory function will become too strong and wrong, while the thinking logic disorder is manifested in the abnormalities of thinking and abstract generalization, such as delusion and abstract generalization disorder. At present, the cognitive impairment of college students is manifested in interpersonal communication, job selection and entrepreneurship. They have certain cognitive deviations from themselves, others and society. The cognitive impairment in interpersonal communication is manifested in the cognitive disorder of self-evaluation, over self-centered and the cognitive disorder of evaluating others. Some college students will evaluate themselves too high or too low, resulting in two extreme psychologies of pride or inferiority. He is too proud and handles interpersonal relationships as a leader, making others feel uncomfortable, such as being strongly ordered and driven. Being self-centered, not considering the feelings of others, and everything according to your own mood, this behavior will lead to interpersonal problems. In terms of entrepreneurship and career selection, there are many college students who want to start a business, but few actually take action. Being too picky about careers leads to the loss of employment opportunities. The reasons for this situation are college students' unreliable prejudice against entrepreneurship, high vision and low hand, lack of correct understanding of entrepreneurship and lack of clear self-awareness. Due to the emergence of these cognitive barriers, college students are prone to some negative emotions. As an important means of regulating and soothing emotions, music can be used in the treatment of college students' negative emotions. Therefore, music teaching in colleges and universities can be reformed appropriately to help college students know themselves in music learning, reduce negative emotions and learn to get along with others.

**Objective:** Combined with the current situation of college students' cognitive impairment, to carry out targeted reform of music teaching in colleges and universities and gradually guide college students. Through soothing and relaxing music, the physical and mental health of college students can be relaxed, and the psychological burden of college students can be gradually reduced. Then slowly carry out the practice of music imagination from easy to difficult, so that college students can gradually eliminate and alleviate the negative emotions in their hearts in the gradual music imagination, and carefully feel the pleasure and positive guidance brought by music imagination. In addition, in rhythm practice and impromptu performance activities, further release emotions and re-recognize yourself, and learn to get along with others.

Research objects and methods: The research objects are college students with cognitive impairment. 46 college students in music public elective courses in a university were randomly selected. With the consent of the students, these students were gathered to have a unified class. The time of the experiment was 2 months. Before the experiment, understand the problems of these students and choose the musical instruments to play according to the students' hobbies. Establish a good trust relationship with students and choose appropriate music for different types of students. By playing soothing music, music imagination from easy to difficult, and other gradual music treatment schemes, students can slowly relax, experience positive music experience, and try to communicate and cooperate with others in performance and other activities. Relevant data were recorded during the experiment. Through fuzzy comprehensive evaluation, the influence of the reformed music teaching mode on college students with cognitive impairment was evaluated. The quantitative score of influencing factors was 1-5. The higher the score, the greater the impact. SPSS was used to process the relevant experimental data, and the results were averaged and rounded.

Results: The psychological growth of college students is not fully mature. There will be some deviations