A STUDY ON THE TRAINING MODEL OF NETWORKED AUTONOMOUS LEARNING ABILITY AIMING AT THE PSYCHOLOGICAL METACOGNITIVE DEFECTS OF ENGLISH STUDENTS

Zhenhui He¹,²* & Yaqing Wu¹

¹School of Humanities and Foreign Languages, Hunan Agricultural University, Hunan 410128, China
²School of Foreign Languages, Hunan University, Hunan 410082, China

Background: Autonomous learning mainly refers to individual learning, which is based on the exertion of the potential of autonomous learning. The purpose of learning is to move towards autonomy and self-realization. It advocates learner centered, emphasizing personalized and autonomous learning, making learners responsible for their own learning, and finally realizing learners’ “self-reliance”, “self-discipline” and “self-reliance”. Research shows that many scholars have introduced the concept of autonomous learning into foreign language teaching and believe that autonomous learning is that learners can be responsible for their own learning in the learning process. Learners’ autonomous learning ability is not innate, but needs to be obtained through natural ways or formal learning of special systems. Autonomous and meaningful learning progress with metacognition. Most scholars believe that metacognition refers to the subject’s cognition of their own activities, including the cognitive ability of self and the cognitive process currently taking place, as well as the cognition of their interaction. Metacognition is the cognition of cognitive process, which plans, supervises and regulates the cognitive process of all human activities based on cognition or with cognitive participation, so that the activities can be completed smoothly. Metacognition can make learners re-recognize their learning ability. Through behavior training matched with metacognition, it can provide help for students with special difficulties. The popularization of network technology has opened up a broad space for students’ autonomous learning. Learners begin to be able to choose learning time and space independently, control the rhythm of learning and arrange time regardless of the limitations of classroom teaching. You can also choose your own learning content and materials. Special language practice can be carried out in the autonomous learning center. Cognitive psychology theory holds that the process of human acquiring knowledge and skills is the input, storage, processing, extraction and application of information. Modern cognitive psychology regards man as an information processing system, expresses things running in the internal and external environment in the form of symbols, and systematically processes the internal and external running processes. It enhances the cognitive ability of human beings in the process of understanding and processing information. Different from primary and secondary schools, the training goal of colleges and universities is no longer to cultivate basic skills and strengthen basic knowledge, but to enable students to obtain the skills and practical ability required by professional groups and contribute to the development of society and industry. In order to better formulate the college English teaching model, scholars in the field of education began to reflect on the teaching form of English curriculum.

Objective: This study puts forward a Network-based autonomous learning ability training model for English students’ psychological metacognitive defects, constructs the English theory network teaching model based on the theory of cognitive psychology and combined with the Internet, and further judges the psychological status of college students in the learning process, in order to summarize a guiding teaching model for colleges and universities.

Subjects and methods: This study uses the theory of cognitive psychology to select 400 college students in a university to teach the training mode of Network-based autonomous learning ability for three months. Before and after teaching, students need to fill in the self-made self-assessment scale and SPSS20.0 and Excel statistical analysis of students’ psychological state. Combined with the current situation of college English teaching, this study uses the self-made classroom learning emotion scale to judge the psychological status of college students before and after the teaching of Network-based autonomous learning ability training mode. The content of the scale mainly includes four dimensions: classroom self-efficacy, test anxiety, fear of negative evaluation and communication anxiety, with a total of 35 questionnaire questions. It adopts a five-level scoring system, with a score between 1 and 5. The higher the score, the more consistent it is.

Results: As shown in Figure 1, after applying the network teaching mode of English theory based on cognitive psychology, the scores of all dimensions of English classroom emotion are significantly better than those before teaching (P < 0.01).

Conclusions: This study proposes a Network-based autonomous learning ability training model for English
students’ psychological metacognitive defects. Combined with the current situation of English teaching in colleges and universities, the self-made classroom learning emotion scale is used to evaluate the teaching. The results show that the scores of all dimensions of English classroom emotion after teaching are significantly better than those before teaching \((P < 0.01)\), which shows that teachers can timely understand students’ learning dynamics under this mode, and continuously optimize educational views and teaching methods according to students’ learning attitude, learning behavior and learning ability, so as to improve students’ emotion in English classroom.

![Graph showing emotional changes before and after English classroom learning](image)

**Figure 1.** Emotional changes before and after English classroom learning

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**ON THE REFORM OF COLLECTIVIZATION OF VOCATIONAL EDUCATION IN THE NEW ERA UNDER THE COGNITIVE BARRIER**

Lijuan Zhou

*Zibo Vocational Institute, Zibo 255300, China*

**Background:** Cognitive impairment is a disease with cognitive function problems. To clarify its definition, we need to understand and grasp what cognitive function is. Cognitive functions include memory, calculation, space-time location, structural ability, executive ability, language understanding, expression and application. Its behavioral characteristics are concentrated in four aspects: executive ability, attention, language ability and social cognition. For cognitive impairment, for social cognitive ability, it is mainly manifested in anxiety in social communication, weakening of emotional control ability, decline of resonance ability and reduction of recognition of social clues. For attention, it is mainly manifested in the reduction of information processing speed, selectivity and other types of attention changes. For the executive ability, it is mainly manifested in the decline of organization and decision-making ability and the inability to complete complex tasks. For language ability, it is mainly manifested in grammatical errors, ignoring social etiquette, the phenomenon of words failing to express their meaning in communication with people, and problems in abstract language expression and understanding. Clinically, cognitive impairment is a transitional state between normal people and early Alzheimer’s disease. Among them, cognitive impairment mainly includes