

## LETTER TO THE EDITOR

## Application of Cognitive Neurology in Ecology Teaching in Colleges and Universities

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At present, the research results selected by the relevant research are of poor significance, the rationality of the research results and the satisfaction of users are not very satisfactory, so a new research method is proposed. The elements of the teaching of the Sinicization of Marx doctrine in universities are divided into cognitive subjects, cognitive objects, cognitive media and cognitive environment, and the four are regarded as the first-level indicators in the application of cognitive neurology in the teaching process of the Sinicization of Marx doctrine. The main body of cognition is university students. To determine the three levels influence indicators of the teaching of the Sinicization of Marx doctrine in universities, the influence indicators are input into the cognitive neural network, to get the application of cognitive neurology in the teaching process of the Sinicization of Marx doctrine in universities. The results of the application of cognitive neurology in the teaching process of The Sinicization of Marx doctrine in universities are obtained by giving the weight values of the influential factors of the teaching and introducing the cognitive factors of university students and the influence matrix of the teaching. The experimental results show that the research indicator has strong significance, the rationality coefficient of the research result is large, and the user satisfaction is high.

Cognitive neurology; The Sinicization of Marx doctrine; teaching; application;

### 1 Introduction

As an important position for the training of socialist builders and successors, universities play an irreplaceable role in promoting the process of the Sinicization of Marx doctrine (Song et al. 2017). Universities are the important positions for cultivating high quality and innovative talents, and bear the responsibility of educating young talents and cultivating qualified builders and successors of socialism (Du 2017). It has become the inevitable position of the Sinicization of Marx doctrine (Li 2017). Therefore, to some extent, whether universities can effectively promote the Sinicization of Marx doctrine is related to the future and destiny of the country. Universities have been actively responding to the party's call to energetically promote the Sinicization of Marx doctrine in contemporary China, and have achieved remarkable results in this respect. However, the existing problems should not be overlooked, such as the lack of effective safeguards for universities to promote the mechanism of Sinicization of Marx doctrine in contemporary China. Some university students' understanding of Marx's theory needs to be improved (Lanzerstorfer 2018, Martinez et al. 2017). The innovation in the carrier of the Sinicization of Marx doctrine is not enough. These problems seriously restrict the advancement and development of the Sinicization of Marx doctrine in universities (Wang 2017). Promoting the Sinicization of

Marx doctrine in universities is a long way to go. Therefore, it is necessary to give full play to the role of the Chinese cognitive subject, to attach importance to the subjective initiative of the Chinese cognitive subject and to establish and improve the long-term working mechanism of the Sinicization of Marx doctrine in universities, which is the basic policy of promoting the Sinicization of Marx doctrine in universities (Aksoy 2017).

He (2019) published an article in the Journal of Ekoloji 2019 Issue 107 entitled “The Integration of Chinese Ecological Culture in College English Teaching-Analysis Based on College English Textbooks”, It is found that British and American culture are highlighted while Chinese ecological culture is rarely mentioned and also language knowledge or skill is focused while cultural output is neglected through the analysis of the existing four versions of college English textbooks. In addition, there is also a lack of cultural evaluation. Only by setting cultural goals in English teaching, strengthening Chinese cultural input and output, enhancing Chinese and Western culture comparison, and introducing cultural evaluation can better integrate Chinese ecological culture into college English textbooks. Although there is no clear use of the names of “Political course”, “Ideological and political education course” or “Ideological and political theory course” in the United States, both public and private colleges and universities have ideological and political theory courses with strong ideology, called character education. It is a research project that combines care, civic morality and citizen’s rights and obligations, fairness and justice, respect, responsibility and credibility. The course of ideological and political theory in British colleges and universities is set up according to the psychological development characteristics of the students, which pays attention to the students’ moral cognition and stimulation, step by step, from this to the other, and train the students’ moral ability. Colleges and universities generally offer ethics and religious education.

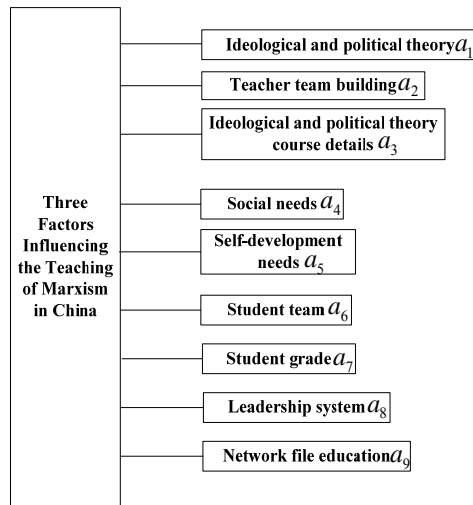
In this paper, the application of cognitive neurology in the teaching process of the Sinicization of Marx doctrine is presented and the detail structure is:

- (1) The teaching elements of the Sinicization of Marx doctrine in universities are divided into cognitive subjects, cognitive objects, cognitive media and cognitive environment, and to determine the second-level influence factors, so as to lay the foundation for the application of cognitive neurology in the process of the Sinicization of Marx doctrine in universities.
- (2) To determine the third-level influence factors of the Sinicization of Marx doctrine, and to get the weight of the influence factors of different levels in combination with the first level and second-level influence factors, the results of the application of cognitive neurology in the teaching process of the Sinicization of Marx doctrine can be calculated.
- (3) The results of the study are verified according to the way of experimentation and discussion.
- (4) The research process and results are summarized, and the next step is look forward.

## **2 Material and methods**

### **The application of cognitive neurology in the teaching of the Sinicization of Marx doctrine**

The Sinicization of Marx doctrine in universities is influenced not only by the two levels factors, but also by the third-level factors in Figure 1.



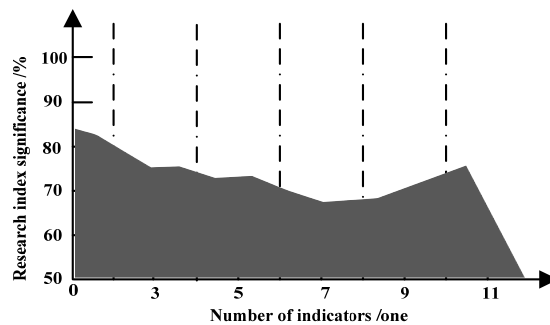
**Figure 1. The third-level factors influencing the teaching of the Sinicization of Marx doctrine**

Here, the analysis of the third-level influence factors in the teaching of the Sinicization of Marx doctrine in universities can enhance the comprehensiveness of the application of cognitive neurology, so as to improve the rationality of the research results and the satisfaction of users.

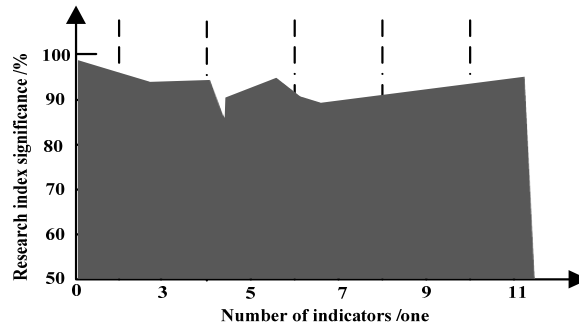
### 3 Results

The experimental results and discussions are completed in the form of questionnaires. In the whole process of preparing the questionnaire, the following basic guiding principles are adhered to: first, to fully embody the dual value of the class teaching in the ideological and political theory class and to highlight the characteristics of the ideological and political theory course. Second, some indicators in the questionnaire can reflect the common characteristics of general quality courses. According to the above guidelines, a questionnaire on the classroom teaching of ideological and political theory course in universities is drawn up by combining the survey data of the rolling investigation of university teachers and university students by the Education Department of a province in 2015, 2016 and 2017. Based on the survey results, the significance of the research indicators, the rationality of the research findings and the user satisfaction are statistically analyzed, and the experiments and discussions are carried out. The validation of the research results and the rationality of the research results are achieved through the combination of the survey results and expert verification. The results of user satisfaction are obtained through statistical calculation of effective questionnaires.

To sum up, the experimental results are as follows:



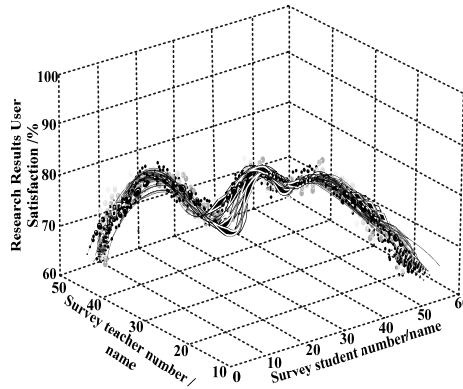
**(a) The significance of current research indicators**



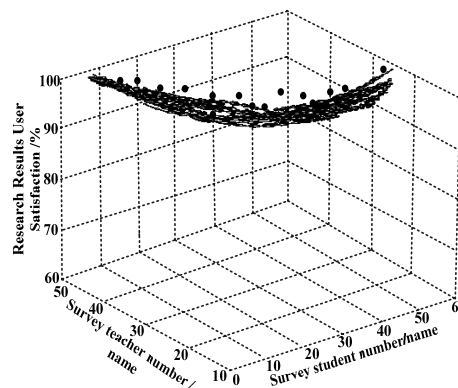
**(b) The significance of indicators for studying the application of cognitive neurology in the teaching of the Sinicization of Marx doctrine**

**Figure 2. Significant comparison of the indicators selected by different studies**

To analyze the results of Figure 2, the significance of the current research indicators is significantly lower than that of the application of cognitive neurology in the teaching of the Sinicization of Marx doctrine in universities. In order to improve the significance of the research indicators, the study selects the most representative cognitive subjects, the cognitive objects, the cognitive media and the cognitive environment in the course of teaching of the Sinicization of Marx doctrine.



**(a) The user satisfaction of the current research results**



**(b) The user satisfaction of the application of cognitive neurology in the teaching process of Sinicization of Marx doctrine**

**Figure 3. Comparison of user satisfaction of different research results**

From Figure 3, we can see that the application of cognitive neurology in the teaching process of the Sinicization

of Marx doctrine is closer to the research results demanded by the public. In the process of the application of cognitive neurology in the teaching process of Marx's Sinicization in universities, this paper analyzes the influencing factors of three levels in the teaching of the Sinicization of Marx doctrine in universities, and strengthens the comprehensiveness of the selection of the applied research indicators of cognitive neurology in the course of the teaching of Marx doctrine in universities. It improves the rationality and satisfaction of the research results.

#### 4 Discussion

Marx's teaching is the key teaching content of universities in China. In view of its important research significance, it analyzes the application of cognitive neurology in the teaching process of the Sinicization of Marx doctrine in universities. Setting up the influence indicators in the teaching of the Sinicization of Marx doctrine, and giving the corresponding weight of the indicators, combining the cognitive factors of university students and the influence matrix of the Sinicization of Marx doctrine teaching, the application of cognitive neurology in the teaching process of the Sinicization of Marx doctrine is completed. The experimental results show that the reliability of the research results is strong. The next step is to analyze the application of other methods or techniques in the teaching process of the Sinicization of Marx doctrine, and expand the scope of the research.

#### 5 Conclusions

The main contributions are:

- (1) Subdividing the influence factors of Marx's Sinicization in universities can provide a more reliable theoretical basis for the teaching of the Sinicization of Marx doctrine.
- (2) The application results of cognitive neurology in the Sinicization of Marx doctrine in universities are obtained, reflecting the practical significance of cognitive neuroscience.
- (3) Through the display of research results, the relevant researchers can pay more attention to the teaching of the Sinicization of Marx doctrine.

#### References

- Aksoy E (2017) Turkish student teachers' attitudes toward teaching in university-based and alternative certification programs in Turkey. *Asia Pacific Education Review*, 18(25):1-12.
- Du Y (2017) The development of ideological and political education information platform based on web technology. *C E Ca*, 42(4):1530-1536.
- He L (2019) The integration of chinese ecological culture in college english teaching-analysis based on college english textbooks. *Ekoloji 28(UNSP e107400107)*:3569-3577.
- Lanzerstorfer C (2018) Electric arc furnace (eaf) dust: application of air classification for improved zinc enrichment in in-plant recycling. *Journal of Cleaner Production* 174:1-6.
- Li R (2017) Research on path choice and model optimization of ideological and political propaganda based on new media perspective. *Revista De La Facultad De Ingenieria*, 32(9):371-376.
- Martinez O, Sanchez A, Font X, et al. (2017) Valorization of sugarcane bagasse and sugar beet molasses using *kluveromyces marxianus* for producing value-added aroma compounds via solid-state fermentation. *Journal of Cleaner Production* 158:8-17.
- Song Y, Ren J, Zhang K (2017) Study on the interactive education model of college students ideological and

political class and supervision of daily behavior in the era of big data. Boletin Tecnico/technical Bulletin, 55(20):650-655.

Wang K (2017) Research on multi-dimensional ideological and political education of college students based on computer platform. Revista De La Facultad De Ingenieria, 32(8):447-454.