THE INNOVATION OF IDEOLOGICAL AND POLITICAL EDUCATION IN A PERSPECTIVE OF SUBLIMINAL MESSAGE TECHNOLOGY

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ABSTRACT

Enhancement and innovation of ideological and political education are strategically significant to achieve the great revival of Chinese nation. As subliminal messages are hidden and can be used to influence people imperceptibly, we try to apply it to ideological and political education in higher education institutions, and evaluate its effectiveness by carrying out series of experiments. The experimental results demonstrate that, after three months, the degrees of approval of students in experimental group improve greatly. It can be concluded that subliminal message technology is effective in ideological and political education.

Keywords: subliminal message technology; ideological and political education; educational experiment; degrees of approval

INTRODUCTION

With the rapid development of modern science, especially information technology, many aspects of social life have been deeply influenced, and the environment of ideological and political education has been changed therewith. How to utilize the latest achievement in information technology and explore new methods that more effective, to make college students receive positive ideologies, is a new subject for the ideological and political educators.

In recent years, domestic scholars have been actively exploring the informatization of ideological and political education in higher education institutions, and many of their achievements focus on the application of network and multimedia technology. For instance, in the paper "Exploration of Teaching in Ideological and Political Theory Course base on Network Environment", Ruifeng Hua et al. pointed out that teachers of ideological and political theory in higher education institutions should attach importance to information technologies such as the multimedia and network, and the awareness of network resources for the course and the abilities in development and utilization of network resources must be enhanced in the network-based teaching environment, in order to further utilize such resources in network-based classroom teaching (Hua & Lv, 2011). Wei Shen proposed in his paper "Thoughts on Using the Modern Information Technology to Improve the Moral Education in Higher Schools" that the ideological and political course in higher education institutions with the information technology must be improved with the role transformation as the premise, effect integration as the center and enhancement of application ability as the goal [2]. In general, the informatization of ideological and political education in higher education institutions is still an emerging research topic. Many scholars have discussed it from the methodological perspective. However, there is still no in-depth research on specific

implementation plans and the information technology under consideration is limited to network and multimedia technology. In fact, many kinds of information technology with various features are available. Fully cognition and utilization of their advantages will have a huge impact on the effectiveness of ideological and political education. (Nosek & Banaji, 2001).

Since 2004, the College of Liberal Arts and Sciences of the National University of Defense Technology has been researching the subliminal message technology, which is applied to ideological and political education, and series of educational experiments has been carried out. Results show that the subliminal message technology is helpful to improve the effectiveness of ideological and political education. (Shen, 2003; Custers & Aarts2010).

Survey of Subliminal Message Technology

In the view of psychology, the "threshold" refers to the sensory threshold. Human beings only respond to the information stimuli within an appropriate range. That is, human beings can only feel the stimuli within this range. The ability to sense the information stimuli within this range is psychologically known as the sensory threshold. Messages can be divided into supraliminal and subliminal messages. The subliminal messages in a narrow sense refer to the messages within a certain range but beyond the sensory threshold of human beings. It cannot be sensed by human beings but affects our psychology and behaviors. (Shen, 2003). The generalized subliminal messages include not only the messages beyond the sensory threshold but also different kinds of hidden message, such as hidden patterns, hidden symbols leading to associations, and difficult-to-perceive background sounds. Compared with conventional messages, the subliminal messages are obviously characterized as follows: (1) subliminal messages are highly hidden; (2) subliminal messages are difficult to detect; and (3) subliminal messages influence people imperceptibly.

The existing research on the subliminal message mechanism lies in the unconscious (or subconscious) processing of subliminal messages by the human brain, focusing on the mutual transformation between unconsciousness and consciousness, and the potential brain mechanism related to such transformation, including the brain anatomy, neutral network connections of functional structures, and basis of synaptic activities. (Ke & Sui, 2001) Since the 1980s, a number of related researches have been published in internationally renowned journals such as Nature and Science (Custers & Aarts2010). These studies are carried out mainly at the following three levels: （1） cognition and unconscious processing; （2） unconsciousness and brain structure;（3）synapses and unconsciousness. It is complicated to study unconscious processing. Usually, people first need to identify the problem to be solved, and find the conditions and restrictions contributing to the solution. However, it is not easy to make an unconscious problem clear, as reasonable definitions, concepts and theories are gradually developed and improved with the deepening of researches and accumulation of experience and data. As of now, the research on the subliminal message mechanism is still preliminary, further investigation is needed.

The subliminal message technology is a kind of technology of designing, generating, disseminating, processing and controlling subliminal messages to influence the attitude inclination and behavioral choice of people. It is an interdiscipline of information science,

psychology and brain science, and mainly involves key techniques such as the subliminal message design, generation and transmission.

Although the subliminal message mechanism is still not entirely explicit, the extensive application of the subliminal message technology is not affected. The subliminal message technology was widely applied in the commercial field in the generation and development period from the 1950s to 1980s, and has been rapidly applied in the military field and political propaganda since the 1990s. The United States was the first country to study the subliminal message technology, followed by Russia. Up to now, researchers in the United States and Russia have applied for more than 100 patents in the subliminal message technology field, such as the "Apparatus for Superimposing Visual Subliminal Instructions on a Video Signal" (Patent No.: 5644363) invented by Talbert Mead, "Method and Apparatus for Producing Subliminal Images" (Patent No.: 5017143) invented by Alan Backus and Ronald Popeil, and "Subliminal Acoustic Manipulation of Nervous Systems" (Patent No.: 6017302) invented by Hendricus G. Loos.

Application of Subliminal Message Technology in Ideological and Political Course

The ideological and political course is a main channel and position for ideological and political education of students in higher education institutions. It plays the role of imparting knowledge and conducting ideological and political education. To improve the effectiveness of ideological and political education via the subliminal message technology, new teaching methods should be introduced and explored. Our research shows that the application of the subliminal message technology in the ideological and political course involves three processes, subliminal message design, subliminal message generation and subliminal message presentation. (Kerdpitak & Jermsittiparsert, 2019; Custers & Aarts2010).

The subliminal message design refers to the process of designing the type (text, image or audio), aptitude (positive, neutral and negative) and content of the subliminal message based on psychological experiments and according to the course purpose (knowledge imparting, ability training, etc.), demographic characteristics (e.g. gender, age, education background, occupation, marital status and personality) of the course object, teaching conditions (multimedia courseware, teaching video and audio, and the like), etc.

The subliminal message generation refers to a process of implanting the designed subliminal messages into teaching courseware, video or audios to produce synthetic courseware, video or audios. Depending on the background, subliminal message implanting can be divided into the teaching courseware-based implanting, teaching video-based implanting, teaching audio-based implanting, and hybrid background-based implanting. (Kerdpitak & Jermsittiparsert, 2019a; Custers & Aarts2010). The following two principles should be followed during the subliminal message implanting: (1) Masking theory: refer to the reduction of the intensity of one stimulus or change in perception of this stimulus as a result of simultaneous application of two or more stimuli. In general, visual information masking can be divided into five types, namely, brightness masking, texture masking, frequency masking, time masking and color masking, while auditory information masking can be divided into two types, i.e. time-domain masking and frequency-domain masking. (2) Attention resource allocation theory: attention resources are often deemed as a system of

limited capacity in the attention research field. If complex stimuli are applied, more resources will be needed, which may even lead to the exhaustion of resources. The additional stimuli applied will not be sensed in the case of resource exhaustion.

The subliminal message presentation refers to a process of presenting subliminal messages to the teaching objects at the appropriate time (when) and in the appropriate form (separate or simultaneous presentation of teaching courseware, video or audio) within the corresponding time (how long), in conjunction with the specific classroom teaching practice.

Experiments on Effectiveness of Subliminal Message Utilized in Ideological and Political Course

In the fall semester of 2011, we conducted experiments on effectiveness of subliminal message in two courses, i.e. *Basic Principles of Marxism* and *Introduction to the Mao Zedong Thought and Theoretical System of Socialism with Chinese Characteristics*. The students engaged in the above two courses, as experimental subjects, were divided into the experimental group and control group. Subliminal message teaching was adopted to the experimental group, but not to the control group. Finally, the teaching effects of such ideological and political courses were tested through explicit experiment (self-made questionnaires) and implicit experiments (GNAT, The Go/No-go Association Task) [6].

First of all, we designed the subliminal messages in the text and audio form based on the analysis of various factors, including: (1) terms of core values of contemporary revolutionary soldiers, focusing on “loyalty to the Party” (positive), “loving the people” (positive), “serving the country” (positive), “dedication to the mission” (positive), and “advocating the honor” (positive); and (2) terms in the “July 1” speech delivered by Hu Jintao, the former chairman of China, including “keeping pace with the times” (positive), “people foremost” (positive), “scientific development” (positive), “democratic politics” (positive), “one country, two systems” (neutral), “primary stage” (neutral), “market economy” (neutral), “seek truth from facts” (positive), “reform and open” (positive), and “flourishing the nation and strengthening the military” (positive).

Secondly, we implanted subliminal messages into the teaching courseware, audio and video via the private softwares. The following parameters were set in the implanting process: (1) implanting time position and implanting spatial position; (2) presentation frequency and duration; (3) font, size and color and the like of text messages; and (4) sound intensity, frequency, phase and others of audio messages.

Finally, we verified the effectiveness of subliminal messages in ideological and political courses via the following psychological experiments: (1) experiment before subliminal message implanting, aiming to ensure that there is no significant difference in explicit approval (i.e. people’s approval of something under the condition of conscious) of the experimental group and control group prior to subliminal message implanting, thereby preventing the impact of other factors on the experiment effects; (2) explicit effect experiment after one month, aiming to check whether the cognition of the students in the experimental group is affected in one month after subliminal message implanting, thereby checking the explicit approval of students for subliminal messages; (3) explicit and implicit effect experiment after three months, aiming to check whether the cognition of the students in

the experimental group is affected by subliminal messages in three months after subliminal messages implanting. We conducted the explicit effect experiment to check the explicit approval of students for subliminal messages. Meanwhile, we adopted the Go/No-go method to check the implicit approval (i.e. people's approval under the condition of unconscious) of students for subliminal messages. The experimental results show that the explicit approval of the students in the experimental group was superior to that in the control group after one month of teaching practice, but their differences were not significant. After three months of teaching practice, in the course of *Basic Principles of Marxism*, the degree of explicit approval of students in the experimental group was 10.63% greater than that in the control group, the degree of implicit approval was raised by 12.77%. In the course of *Introduction to the Mao Zedong Thought and Theoretical System of Socialism with Chinese Characteristics*, the degree of explicit approval of students in the experimental group was 10.43% greater than that in the control group, the degree of implicit approval was raised by 11.21%.

CONCLUSIONS

The following conclusions are drawn through the experiments on the effectiveness of subliminal messages: (1) subliminal messages do not have obvious short-term effects on subjects, but have effects after long-term application (more than three months) in teaching; (2) subliminal messages are difficult to perceive in the teaching process. The results of questionnaire survey show that less than 1.8% of subjects can perceive subliminal messages. In addition, it is found that people have different sensory thresholds, and the effects of subliminal messages vary from people.

This shows broad prospects of the subliminal message technology in ideological and political education. In the future, we will promote this technology in education platforms such as campus networks, radios, television stations and showcases, to enhance the political, value and affective approval of students for ideological and political theories in a subtle manner, and make contribution to the full implementation of the strategies of rejuvenating our country through science and education and strengthening our country with talents.

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