

healthy and sound personality. The study combined personality psychology and emotional psychology to analyze the rebellious psychology of rural left behind children, and put forward educational strategies to alleviate children's emptiness and anxiety and reduce children's rebellious psychology.

**Objective:** the long-term absence of parents will make the left behind children have negative emotions and think that their parents lack care for themselves, resulting in extreme behavior and thought. In the long run, the independence and self-efficacy of rural left behind children are prone to problems, produce anxiety, and then produce rebellious psychology, establish incorrect outlook on life and values, and affect the long-term development of children. The study combined personality psychology and emotional psychology to analyze the rebellious psychology of rural left behind children, and put forward educational strategies to alleviate children's emptiness and anxiety and reduce children's rebellious psychology.

**Subjects and methods:** In four rural areas, 40 families with left behind children were selected as the research objects. Symptom Checklist 90 (SCL-90), Self-rating Anxiety Scale (SAS), Self-rating Depression Scale (SDS) and Chinese Perceived Stress Scale (CPSS) were used to evaluate children's anxiety and rebellious psychology.

**Study design:** 40 families were randomly divided into study group and control group by random number table method. The family of the research group adopted the educational strategy of combining emotional psychology and personality psychology to carry out family education. The families in the control group used traditional education strategies for family education. After a period of time, the anxiety levels of the two groups of left behind children were compared.

**Methods:** The relevant data were processed and analyzed by software SPSS23.0.

**Results:** After the experiment, the total scores of tensions, loss of control and pressure perception in CPSS of children in the study group were significantly lower than those in the control group ( $P < 0.05$ ), as shown in Table 1.

**Table 1.** CPSS of two groups of subjects

Classification	Group		<i>t</i>	<i>P</i>
	Research	Control		
Thrill	16.11±5.88	19.34±4.21	7.432	0.000
Sense of loss of control	15.76±5.12	26.65±4.84	9.465	0.000
Total score of stress perception	31.87±10.53	45.99±7.42	9.415	0.000

**Conclusions:** With the continuous development of China's economic level and the accelerating process of urbanization, there are a large number of rural lefts behind children. In recent years, the intergenerational family education of rural left behind children has become the focus of people from all walks of life. The long-term absence of parents will make the left behind children have negative emotions, and then produce anxiety and rebellious psychology. The study combined personality psychology and emotional psychology to analyze the rebellious psychology of rural left behind children, and put forward educational strategies. The results showed that after the experiment, the total scores of tensions, loss of control and pressure perception in CPSS of children in the study group were significantly lower than those in the control group ( $P < 0.05$ ). To sum up, the educational strategy combining personality psychology and emotional psychology can effectively alleviate children's sense of emptiness and anxiety, and reduce children's rebellious psychology.

\* \* \* \* \*

## RESEARCH ON THE PREDICTION AND ANALYSIS OF CONSUMER PSYCHOLOGY CHANGES IN MACROECONOMIC OPERATION

Fei Jiang<sup>1</sup> & Yang Lou<sup>2</sup>

<sup>1</sup>*Economics & Management School, Nantong University, Nantong 226019, China*

<sup>2</sup>*State-owned Assets Management, Nantong University, Nantong 226019, China*

**Background:** It is the content of national economy and the development stage of national economy, including the content of national economy and the development stage of national economy. Microeconomics refers to the production, exchange and consumption activities based on individuals, families and enterprises. Microeconomics is the foundation of macroeconomics. They are interrelated and affect each other. Therefore, the consumption behavior of consumers can affect the operation of national macro-economy to

some extent. Therefore, the prediction and analysis of consumer psychological changes in macroeconomic operation can provide constructive suggestions for macroeconomic regulation and control. The traditional method of predicting and analyzing the changes of consumers' consumption psychology has a large workload and cumbersome steps. The staff are prone to negative emotions such as irritability and fear in the analysis process. The long-term backlog of negative emotions will lead to anxiety among staff. Serious anxiety will even cause patients to have emotional disorders, emotional disorders and other diseases, which is not conducive to social harmony and stability.

Consumer psychology is a branch of psychology that mainly studies the consumer behavior and psychological change law of consumers in consumer activities, including the process of consumers' psychological activities, consumers' personality psychological characteristics and so on. In the theory of consumer psychology, it is believed that consumers have a series of complex psychology in the process of making purchase decisions, such as seeking truth, beauty, convenience, comparison, preference, conformity, pride, possession, preservation, nostalgia, love to take advantage, fear of regret and so on. Based on consumer psychology, this paper analyzes the psychological change law of consumers in the process of consumption, and puts forward a fractal prediction method of consumer psychology based on the analysis results. Using this method can significantly reduce the workload of prediction and analysis of consumer psychological changes and improve work efficiency, so as to alleviate the anxiety of staff and promote the harmonious and stable development of society.

**Objective:** The traditional method of predicting and analyzing the changes of consumers' consumption psychology has a heavy workload and cumbersome steps. The staff are prone to produce negative emotions such as irritability and fear in the analysis process, and then suffer from anxiety symptoms. Based on consumer psychology, a fractal prediction method of consumer psychology is proposed to reduce the workload of prediction and analysis of consumer psychology changes, improve work efficiency, and alleviate the anxiety of staff.

**Subjects and methods:** 80 workers engaged in related industries were selected as the research objects. Self-rating Anxiety Scale (SAS), Self-rating Depression Scale (SDS) and Hospital Anxiety and Depression Scale (HADS) were used to evaluate the anxiety level of the subjects.

**Study design:** Using random number table method, 80 subjects were randomly divided into study group and control group, with 40 people in each group. Among them, the staff of the research group used the fractal prediction method based on consumer psychology to analyze and predict. The staff in the control group used traditional methods for analysis and work. After a period of time, the mental health status of the two groups was compared.

**Methods:** The relevant data were processed and analyzed by software SPSS23.0.

**Results:** Before the experiment, there was no significant difference in SAS scores between the two groups ( $P > 0.05$ ). After the experiment, the SAS scores of the staff in the study group decreased significantly ( $P < 0.05$ ), and were significantly lower than those in the control group ( $P < 0.05$ ). There was no significant change in SAS score in the control group ( $P > 0.05$ ). The SAS scores of the two groups of staff are shown in Table 1.

**Table 1.** SAS scores of two groups of subjects

Timing	SAS scores		<i>t</i>	<i>P</i>
	Research group	Control group		
Before experiment	68.3±9.6	67.9±8.4	0.127	0.854
After experiment	43.4±3.2	68.1±7.5	8.462	0.000
<i>t</i>	8.139	0.131	-	-
<i>P</i>	0.000	0.837	-	-

**Conclusions:** The prediction and analysis of consumer psychological changes in macroeconomic operation can provide constructive suggestions for macroeconomic regulation and control. The traditional method of predicting and analyzing the changes of consumers' consumption psychology has heavy workload and cumbersome steps, and the staff are prone to anxiety in the analysis process. Therefore, a fractal prediction method of consumer psychology is proposed. The results showed that there was no significant difference in SAS scores between the two groups before the beginning of the experiment ( $P > 0.05$ ). After the experiment, the SAS scores of the staff in the study group decreased significantly ( $P < 0.05$ ) and were significantly lower than those in the control group ( $P < 0.05$ ). There was no significant change in SAS score in the control group ( $P > 0.05$ ). The above results show that the fractal prediction method based on consumer psychology can effectively reduce the workload of consumer psychology change prediction and analysis, improve work efficiency, and alleviate the anxiety of staff.

\* \* \* \* \*

## THE VALUE OF ART TEACHING IN EDUCATIONAL PSYCHOLOGY FOR ALLEVIATING DEPRESSION PATIENTS

Huazhong Che

*Zaozhuang University, Zaozhuang 277160, China*

**Background:** Educational psychology mainly refers to the exploration of the basic psychological laws between education and learning in the context of education and teaching. In the application category of educational psychology, it includes the internal and external situations of teachers and students, mainly reflected in teaching psychology and teaching behavior, and students' psychology and learning behavior. Under the guidance of scientific teaching theory, the basic laws in the teaching process and the interaction between teachers and students are studied and discussed. Educational psychology is helpful to improve the teaching effect and promote the smooth development of teaching work. Educational psychology is by no means just a simple addition of pedagogy and psychology, but through various ways to make them organically combine and interact with each other to jointly serve the work of education and teaching. Educational psychology is a comprehensive subject that pays attention to the process of teaching and learning at the same time. It not only flexibly uses the relevant theories of psychology, but also has its own unique theoretical methods. In educational psychology, the process of interaction between teaching and learning is a complete system, which mainly includes five elements: students, teachers, teaching content, teaching media and teaching environment. The five elements can be connected through corresponding teaching activities, and finally achieve the purpose of teaching and learning. As the main information part, the structure and content of teaching content will have a certain impact on students' academic and psychological development, so its importance is self-evident. Educational psychology applies the theoretical content of psychology to the actual art education activities, which can promote the development of education, apply the influence of psychological factors to the improvement of curriculum design and teaching methods, and help students deal with the difficulties and challenges faced in the learning process. Art education in colleges and universities is a teaching activity with strong emotional factors, which needs the participation of psychological motivation. If students are in a passive position and the painting object and teaching process do not stimulate their positive emotional power, it is difficult to have a strong interest in learning. Naturally, they lack enthusiasm when learning, and it is inevitable to have a sense of weariness. If teachers cannot effectively stimulate students' psychological motivation in teaching, the efficiency of teaching will be greatly reduced. Depression is a common mental disease in modern society. Its main clinical feature is continuous and long-term depression. It is the most important type of mental disease in modern people. Patients may be depressed, depressed, low self-esteem, painful, pessimistic, world weary for a long time, and even have suicidal tendencies and behaviors. Patients may also suffer from somatization symptoms, such as chest tightness and shortness of breath. Some people with severe depression will even have schizophrenic symptoms such as auditory hallucination, victim delusion and multiple personality.

**Objective:** The physiological motivation of interest in art teaching is due to the existence of a directional reflex mechanism in human brain. When the visual cortex acts as one of the basic stimuli of visual perception and painting, it can continuously transmit the information of interest to the brain through the visual cortex. In the process of art learning, under the guidance of relevant theories of educational psychology, patients with depression can experience the artistic beauty of art through the mechanism of optic perceptual nerve and directional reflex, so as to alleviate depression.

**Subjects and methods:** 96 patients with depression were randomly selected as the research object and divided into control group and experimental group. They were given routine art teaching and art teaching under educational psychology respectively. Before and after the teaching intervention, the relief effects of depressive symptoms of the two groups of patients with depression were compared and analyzed.

**Research design:** In this study, patients with depression were evaluated by Beck Depression Inventory (BDI) before and after teaching. The BDI scale contains 21 categories, each of which is scored at 4 levels, with a full score of 63 points < 13 points are no depression, 14-19 points are mild depression, 20-28 points are moderate depression, and 29-63 points are severe depression. The internal consistency coefficient of the scale is very ideal and has high reliability and validity.

**Method:** For all research data, MATLAB software is used for analysis.

**Results:** Table 1 shows the changes of BDI scores of patients with depression in the two groups before and after teaching. According to Table 1, the BDI scores of patients in the two groups remained at the same level before teaching intervention. After the intervention, the BDI scores of patients in the experimental group