

IMPROVEMENT OF ENGLISH TEACHING FROM THE PERSPECTIVE OF EDUCATIONAL PSYCHOLOGY

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SUMMARY

Background: Educational psychology is the product of the theory integration of contemporary education and psychological science, aiming at handling contradictions between subjects engaged in teaching and learning activities. Currently, with the integration and development of multi-cultures, college students' bodies and minds are impacted by various viewpoints and factors, which makes college students face greater resistance to learning. Therefore, using innovative teaching methods in educational psychology is not only an inherent need to reform the educational model, but also an inevitable requirement to promote students' lifelong development.

Subjects and methods: This paper explores the influence of using educational psychology on English teaching from the perspective of cognitivism, behaviorism, and constructivism. The Foreign Language Classroom Anxiety Scale and the Academic Self-efficacy Scale are used as survey tools. A university in Shaanxi Province is selected as the experiment pilot with the use of educational psychology. The statistical tool SPSS27.0 is used to perform descriptive statistics and t-tests on the data.

Results: Before and after the experiment, the anxiety level of the foreign language classroom in the experimental group has a significant change ($t = 7.249, P < 0.001$), with the average score of anxiety decreasing from 104.690 to 81.448. The academic self-efficacy of the experimental group is significantly different ($t = -3.895, P < 0.01$), with the average score of academic self-efficacy increasing from 62.241 to 72.069. There is no significant change in the control group.

Conclusions: The English teaching model using educational psychology can significantly reduce foreign language anxiety of college students, increase their academic self-efficacy, and benefit their lifelong development.

Key words: educational psychology - English teaching - classroom anxiety - self-efficacy

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INTRODUCTION

Educational psychology is a branch of psychology, which studies the psychological activities of educators and the educated, as well as generation and change in psychological activities during the process of education. (Spinath et al. 2012). Educational psychology has a dual-task with two natures, both pedagogy, and psychology. Educational psychology researches and reveals the nature, characteristics, and types of learning in the educational system, as well as various learning processes and conditions, thereby psychology is developing both in scope and depth in the education field (Richter et al. 2020). The particularity of research objects in educational psychology determines that it is closely related to learning and teaching practice, so it has great significance in the application. Some people also think it is an applied discipline (Toland & Carrigan 2011). On the other hand, the theoretical research and construction of educational psychology are continuously developed during the process of education service and teaching practice. A relatively complete subject theoretical system comes into being with various learning and teaching theories, so educational psychology is also recognized as a highly theoretical discipline (Schad & Arnold 2019).

As an indispensable discipline in the modern education industry, educational psychology is an important way to study the relationships between

education and psychological education, ideological education and moral education, as well as behavior and habits in the context of education in the new era (Greig et al. 2019). To a certain extent, educational psychology can help teachers improve the quality and effect of teaching activities, as well as better understand students, teaching laws, and teaching purposes in universities. Then, teachers may constantly adjust the teaching methods to help students adjust their learning status. On this basis, students could improve learning efficiency and grow rapidly (Hilpert & Marchand 2018).

In the era of the knowledge economy and Internet economy, a second language is becoming more and more important. Meanwhile, there exist obvious problems in acquiring and teaching a second language. In China, anxiety is common among students who are learning English (Fydrich et al. 2019). Jakobofits points out that emotional factors account for 33% of all factors affecting language acquirement, and anxiety is regarded as one of the most critical psychological variables. Anxiety is one of the abnormal emotions, also known as psychological abnormalities. It generally refers to the emotional reflection generated by people when there appears serious deterioration in the value of characteristics of reality or future things. The emotional reflection may frustrate a person's self-esteem and self-confidence, or aggravate his or her sense of failure and guilt so that he or she becomes nervous and fearful. The anxiety for learning a foreign

language can be subdivided into three interrelated language-behavioral anxiety, namely communication fear, test anxiety, and negative evaluation fear. Communication fear is a kind of shyness, which mainly features that a person may feel fearful when communicating with others. Test anxiety is a kind of language-behavior anxiety expressed by a person when he or she is fear of failure. Negative evaluation fear refers to a kind of anxiety, including the fear of others' evaluation, the avoidance of evaluation situations, and the psychological expectation for possible negative evaluations. Foreign language anxiety is not a simple combination of the above kinds of fears. Rather, it is a combination of a person's self-feeling, concept, emotion, and behavior related to the foreign language classroom, caused by the uniqueness of foreign language learning. (Zhao 2012). This study attempts to explore the specific application of educational psychology in teaching and to evaluate its role in English teaching through comparative experiments.

SUBJECTS AND METHODS

Educational psychology applications

In the development of educational psychology, three paradigms have a great influence on it, namely cognitivism, behaviorism, and constructivism.

Cognitivism theory of learning, derived from the cognitivist learning theory of the Gestalt school, reckons that learning lies in the change of internal cognition, and learning is a much more complex process than the S-R connection. The theory focuses on explaining the intermediate process of learning behavior, like purpose and meaning, and advocating the creation of human learning and an inquiry-based approach. It requires students to observe, explore and experiment by themselves, to develop their creative spirit. Students need to think independently, reorganize materials, discover knowledge, and master principles by themselves. Cognitivism theory of learning emphasizes developing students' intellectual potential, regulating and strengthening their learning motivations, firmly grasping knowledge, and forming innovative skills through discovery learning (Alexander 2018).

Behaviorist learning theory, also known as stimulus-response theory, means that human thinking is the result of interacting with the external environment, namely stimulus-response, and the direct connection between stimulus and response is called reinforcement (Gonzalez et al. 2019). The essence of learning is to establish a direct connection between stimulus and response through reinforcement. In behaviorist teaching programs, the program must be behaviorist-oriented (Tomic 1993). Throughout his work, Skinner has identified some general guidelines for improving teaching based on behavioral principles. First, know what to teach. Second, start from the easiest. Third, encourage students to progress at their

own pace. Fourth, identify the project theme. Fifth, construct the content appropriately during the learning process, depending on the presentation (stimulus-response-result) instead of only on its complexity or abstraction. Sixth, provide reinforcements for students when answering questions. Seventh, set realistic goals together with students, as big goals may discourage them and small goals may bore them.

Specifically, English teachers should set up achievable and progressive goals one after another in each class according to the learning progress of students. Positive stimulation should be given in due course to help students achieve the most ideal learning effect. In addition, behaviorism holds that people are good at observational learning and learning by imitation. The role model may be a teacher or any peer the student expects to learn from. Imitation learning may have good effects whether the imitation subject is the skills or attitudes of the role model. Meanwhile, English teachers should encourage teamwork to make sure that each student can meet their expectations and students can obtain support from peers around them. Teachers should also ensure that students will engage in active learning when they see positive behavior from role models, which in turn can actively internalize learning outcomes and seek cooperation among peers. By doing so, teachers can reach a higher teaching efficiency and achieve sustainable progress (Imenda 2018).

From the perspective of constructivism, instead of depending on the teacher's classes, learners may obtain knowledge with the help of necessary learning materials and others, including teachers and learning partners. They may acquire new knowledge through meaning construction within a certain context, namely social and cultural background (Schweitzer & Stephenson 2008). Learning is a process of meaning construction achieved with the help of others, namely interpersonal collaborative activities, under a certain situation, namely a social and cultural background. Therefore, the cognitivism theory of learning believes that there are four major elements or attributes in the learning environment, namely situation, collaboration, conversation, and meaning construction (Brcic et al. 2015). Constructivism advocates learner-centered learning under the guidance of teachers, that is, it not only emphasizes the cognitive subject role of learners but also attaches importance to the guiding role of teachers. Teachers are helpers and facilitators of meaning construction, instead of imparters and installers of knowledge. Students are the main subject of information processing and the active builder of meaning, rather than passive recipients and indoctrinated objects of external stimuli. Students need to become active meaning constructors (Kosnik et al. 2018).

Specifically, English teachers should pay attention to helping students construct meaning, stimulating

students' interest in English learning, and cultivating students' learning motivation in English. They could help students construct the meaning of English knowledge through certain situations that meet the requirements of teaching content and through clues that indicate the connection between new and old knowledge. To make sense construction more effective, teachers should organize collaborative learning, such as discussion and communication, under possible conditions. They could also guide the collaborative learning process to make it develop in a direction conducive to meaning construction. The guidance methods include three aspects. First, provide appropriate questions to arouse students' thinking and discussion. Second, gradually deepen the discussion of the problem to strengthen students' understanding of what they have learned. Third, inspire and guide students to discover laws, correct and supplement mistakes or one-sided understanding by themselves. (Kosnik et al. 2018).

Cognitivism, behaviorism, and constructivism have their emphases and can be used as guiding theories in English teaching. This study comprehensively uses the above three paradigms.

Scale selection

Foreign Language Classroom Anxiety Scale (FLCAS)

Reasons for selection: A large number of anxiety experiences will interfere with the input, output, and learning process of foreign language learning, which may affect foreign language learning and further disintegrate learners' self-confidence. Unscientific education models will contribute to the severity of foreign language anxiety. Therefore, this study selects this scale as one of the evaluation indicators (Bjalkebring 2019).

The FLCAS scale is compiled by Horwitz. The scale has 38 items, and the answer to each item is divided into 5 levels, including 1 Completely Disagree, 2 Seldom Agree, 3 Part agree, 4 Basically Agree, and 5 Completely Agree. The five levels are scored from 1 to 5 points respectively. This study adopts the questionnaire survey method, inputs the data into the computer, and uses the SPSS27.0 software for processing.

Academic Self-efficacy Scale

Reasons for selection: The concept of self-efficacy is proposed by the famous American psychologist Bandura in 1977, which refers to an individual's perception or belief of the ability to effectively control all aspects of his life (Schutte & Malouff 2016). It is the central mechanism of human motivation and an important basis of human actions. People accept and integrate efficacy information from the mastery experience of practice, vicarious experience, verbal persuasion, and physiological and emotional states during activities to form the self-efficacy sense.

Self-efficacy modulates human activity by affecting individual cognitive, motivational, emotional, and choice processes (Nel & Boshoff 2016). Learning self-efficacy refers to an individual's belief in academic ability, a subjective judgment of an individual's ability to control his learning behavior and academic performance, and the performance of self-efficacy in the learning field. There are very close relationships among learning self-efficacy and attribution, goal setting, learning interest, learning and test anxiety, self-regulation, and other important learning variables. Researches show that appropriate education methods can significantly improve students' academic self-efficacy. Therefore, this study adopts this scale as one of the evaluation indicators (Stojanovic et al. 2021).

The Academic Self-Efficacy Scale is compiled by Liang Yusong and Zhou Zongkui from Central China Normal University, concerning the relevant dimensions of the Academic Self-efficacy Questionnaire compiled by Pintrich and De Groot. The overall Cronbach's alpha coefficient of the questionnaire is 0.88, among which the Cronbach's alpha coefficient of the learning ability self-efficacy subscale is 0.82, the Cronbach's alpha coefficient of the learning behavior self-efficacy subscale is 0.75. The Academic Self-Efficacy Scale has five-level points and 11 items for each of the two factors, a total of 22 items. Among them, reverse score questions are 7, 11, 14, 20, and 22. The higher the total score or the two-factor score, the stronger the corresponding academic self-efficacy, and vice versa.

Research proposal

Two liberal arts classes in the second year of a university in Shaanxi are selected as the research subject. One class, as the experimental group, adopts the teaching method of educational psychology, and the other class, as the control group, adopts the normal teaching methods. The number of the experimental group is 29, including 12 males and 17 females. The number of the control group is 29, including 14 males and 15 females.

This research project conducts the test at the beginning (September 2021) and the end (January 2022) of the semester respectively to evaluate the teaching results under different education modes.

RESULTS

SPSS27.0 is used for the experimental data. The descriptive statistics of foreign language classroom anxiety are shown in Table 1, and the descriptive statistics of academic self-efficacy are shown in Table 2. The data on foreign language classroom anxiety before and after the experiment is tested by the *t*-test, and the results are shown in Table 3. The data on academic self-efficacy before and after the experiment is tested by the *t*-test, and the results are shown in

Table 4.

Table 1. Descriptive statistics of foreign language classroom anxiety

	1st test		2nd test	
	The control group	The experimental group	The control group	The experimental group
Range	46	48	50	38
Mean	104.276	104.690	103.862	81.448
Std. Deviation	13.926	14.619	13.781	11.005
Variance	193.921	213.722	189.909	121.113

Table 2. Descriptive statistics of academic self-efficacy

	1st test		2nd test	
	The control group	The experimental group	The control group	The experimental group
Range	37	39	37	27
Mean	64.138	62.241	59.103	72.069
Std. Deviation	11.889	11.122	11.226	7.755
Variance	141.337	123.690	126.025	60.138

Table 3. *t*-test on foreign language classroom anxiety

	M	S	<i>t</i>	<i>df</i>	<i>P</i>
The control group	0.414	22.011	0.101	28	0.920
The experimental group	23.241	17.266	7.249	28	0.000

Table 4. *t*-test on academic self-efficacy

	M	S	<i>t</i>	<i>df</i>	<i>P</i>
The control group	5.034	16.037	1.691	28	0.102
The experimental group	-9.828	13.586	-3.895	28	0.001

According to Tables 1-4, there is no statistical difference in the foreign language classroom anxiety of the control group ($t = 0.101$, $P = 0.92 > 0.05$), but significant difference in language classroom anxiety of the experimental group ($t = 7.249$, $P < 0.001$). The average anxiety score decreased from 104.690 to 81.448, which is significantly different from the average score of 103.862 in the control group.

Before and after the experiment, there is no statistical difference in the academic self-efficacy of the control group ($t = 1.691$, $P = 0.102 > 0.05$), but a significant difference in the academic self-efficacy of the experimental group ($t = -3.895$, $P < 0.01$). The average score of sense increased from 62.241 to 72.069, which is significantly different from the average score of 59.103 in the control group.

CONCLUSION

The experimental results of this study show that the English teaching mode using educational psychology can significantly alleviate students' foreign language anxiety and increase their academic self-efficacy, which is of great benefit to their life-long development. There are also some shortcomings in this experiment. According to Kleinmann's research, anxiety is not all

harmful to learning. He proposes that anxiety can be divided into two types, facilitating anxiety and debilitating anxiety. The former is conducive to learning, and the latter may hinder learning. However, the relationship between anxiety and learning is not sufficiently explored in the foreign language classroom anxiety scale in this study, which needs to be further supplemented in future research (Andreatta & Pauli 2017).

In the 21st century, educational psychology has achieved fruitful results, and the breadth and depth of research in this field are also increasing. The current research trends in educational psychology involve different aspects, including studying the subjectivity and initiative of learners, the influence of social environment, the actual influence of context, the influence of cultural background, the study of learning environment design and effective teaching model, and the study of the use of information technology and so on. Educators should establish the concept of lifelong learning, constantly explore the most cutting-edge academic areas to improve education methods. In addition, teachers should combine educational psychology theory with classroom practice, so that the education model in the new era will keep pace with the times, and then cultivate innovative talents for society.

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