

ANALYSIS ON THE INFLUENCE OF INTERIOR ENVIRONMENT DESIGN ON THE ANXIETY PSYCHOLOGY OF COLLEGE TEACHERS AND STUDENTS

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SUMMARY

Background: With the promotion of grades, college students face more and more things, more and more pressure, and more and more serious psychological anxiety. The anxiety psychology of college students can be divided into five types, namely, learning anxiety, social anxiety, physical anxiety, postgraduate entrance examination anxiety, textual research anxiety and employment anxiety. Excessive anxiety will affect students' hormone secretion and the normal operation of organ functions, and even seriously damage students' cerebral cortex, leading to cognitive impairment of students, suffering from cognitive disorders, affective disorders, mental disorders and other mental diseases. The research analyzes the psychological needs of college students based on design psychology, and then improves the indoor environment design of colleges and universities, changes the environment where students live, and then changes the mood of students, which plays a positive role in the anxiety psychology of students and teachers.

Subjects and methods: Based on the principle of voluntariness, 100 students who volunteered to participate in the experiment were selected from the two colleges and universities in C city to conduct a comparative experiment. 100 volunteers were randomly divided into two groups: the study group and the control group. For the volunteer students in the research group, the study arranged them to study in the classroom environment of indoor environment design based on design psychology. For the control group of volunteer students, the study will arrange them to study in a general classroom environment.

Results: The self-test and Assessment Scale (CAS) of college students' employment anxiety was used to test the degree of employment anxiety of the subjects before and after the experiment. The results showed that before the experiment, the CAS scores of the students in the study group were very close to those of the control group; After the experiment, the CAS score of the research group has changed significantly, and its CAS score is far lower than that of the control group.

Conclusions: In colleges and universities, with the promotion of grades, students face more and more things, greater and greater pressure, and more and more serious psychological anxiety. Psychology believes that individual behavior patterns and psychological patterns will be affected by the surrounding environment. The research analyzes the psychological needs of college students based on design psychology, and then improves the indoor environment design of colleges and universities, changes the environment where students live, and then changes the mood of students, which plays a positive role in the anxiety psychology of students and teachers. The results showed that before the experiment, the CAS scores of the students in the study group were very close to those of the control group. After the experiment, the CAS score of the research group has changed significantly, and its CAS score is far lower than that of the control group. The above results show that environmental factors are one of the important factors that affect students' anxiety psychology. Therefore, improving the indoor environment design of the classroom can alleviate students' negative emotions and anxiety psychology, which is of positive significance to students' long-term development.

Key words: design psychology - interior design - anxiety - mental health

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INTRODUCTION

Anxiety refers to a kind of negative emotion that includes irritability, anxiety, sadness, worry, tension, panic and anxiety due to excessive worry about the life, safety and future of oneself or the people they care about. After entering the university and starting college life, with the promotion of grade, students face more and more things, greater and greater pressure, and more and more serious psychological anxiety (Chang et al. 2020). The anxiety psychology of college students is mainly divided into five types, namely, learning anxiety, social anxiety, physical anxiety, postgraduate entrance examination, textual research anxiety and Employment anxiety (Lu et al. 2020). Learning anxiety mainly focuses on make-up exam, failing to pass the exam, evaluating the excellent and awarding the prizes, etc. Social anxiety focused on the relationship between roommates and classmates. Physical anxiety is mainly

caused by the fact that contemporary college students stay up late for a long time, resulting in poor physical quality. Employment anxiety refers to students' anxiety about job selection and employment (Alsamghan 2020). Anxiety is an emotional symptom syndrome. According to the patient's performance, anxiety is divided into three types, namely, mental anxiety, sports anxiety and somatic anxiety (Vlad 2020). Anxiety is divided into two types, namely, pathological anxiety and realistic anxiety (Mosolova et al. 2020). Among them, pathological anxiety generally includes panic disorder and generalized anxiety disorder, which usually makes patients feel nervous for no reason, and further causes patients to feel pain and damage their social function; Realistic anxiety refers to feeling nervous about the actual threat in reality, and its anxiety degree is often positively correlated with the actual threat intensity. It is an instinctive emotional response and behavioral response for human beings to cope with and adapt to the

environment (Steinacher et al. 2020). In the panic disorder of pathological anxiety, patients will have a sense of near death and loss of control due to physiological and psychological reasons. At the same time, they will have the feeling of mental collapse and sympathetic hyperexcitation (Gökçek-saraç 2020). In the generalized anxiety disorder of pathological anxiety, according to the patient's performance, it can be divided into mental anxiety, somatic anxiety and nervous, muscle and motor anxiety symptoms (Gál et al. 2020). Mental anxiety refers to patients' excessive and persistent anxiety and worry about daily chores. Mental anxiety can lead to insomnia, dreaminess, irritability and unexplained restlessness (Tang et al. 2020). The main clinical manifestation of somatic anxiety is the dysfunction of autonomic nervous system. Abnormal autonomic nerve function will lead to palmar sweating, nausea, palpitation, rapid heart rate, dry mouth, pharyngeal discomfort, foreign body sensation, diarrhea, hyperhidrosis, etc. The symptoms of genitourinary system include frequent urination, urgency of urination, inability to erect and frigidity of sexual desire; Nervous system symptoms include tinnitus, blurred vision, general discomfort, tingling, dizziness and "syncope" feeling. The symptoms of nervous, muscular and motor restlessness include muscle tremor, trembling, restlessness and out of control behavior. In addition, they are often accompanied by sleep disorders. After going to bed, they are worried and tossed, unable to sleep, and may have nightmares, sweating and fear (Gelaye et al. 2020). After getting up the next day, my mind was heavy. Excessive anxiety will affect students' body hormone secretion and normal operation of organ functions, and even seriously damage students' cerebral cortex, resulting in cognitive impairment of students and mental diseases such as cognitive disorder, affective disorder and mental disorder (Duffy et al. 2020).

Psychology believes that individual behavior patterns and psychological patterns will be affected by the surrounding environment. Therefore, the design of indoor environment in colleges and universities can effectively alleviate the anxiety of college students. Therefore, the research analyzes the psychological needs of college students based on design psychology, and then designs the indoor environment of colleges and universities, so as to change the environment where students live, and then change their mood, which has a positive impact on the anxiety psychology of students and teachers. The first is the design of indoor color matching. The reason why color can affect people's psychology and emotion is that color comes from natural congenital factors. Color can express people's emotions and associations through hue, purity, hue and contrast, and affect people's emotions. The function of color in space is to satisfy visual enjoyment, adjust people's psychological emotion and the intensity of indoor light. Therefore, in the interior soft decoration design, it is very important to study the common color psychology. Designers should consider the color matching and the psychological feelings of the owners, which will make

the design works more popular. The contrast and collocation of different colors and different intensities of the same color can give people different spatial feelings and different aesthetic experiences. In color psychology, for modern interior soft decoration design, it is believed that bright and strong colors used for personal decoration will increase the overall vitality and interest. In addition, the superposition of colors of the same color but different hues can increase the level of the overall sense of space and make it look more spacious but not monotonous. If the indoor space is large, warm colors and dark colors can make the large space appear warm and comfortable. Strong and bright decorative colors are suitable for decorating walls in large spaces to create visual focus, such as unique wallpaper or hand-painted. It should be noted that in the design of large space interior soft decoration, the decoration of the same color should be avoided to be scattered in every corner of the room, so as to avoid the lack of center in the room and the dispersion of color decoration nearby, and then focus on the room. The second is to apply advanced technologies such as the Internet of things, the Internet and computers to the teaching of health education in colleges and universities, so as to build a smart classroom. The application of smart classroom can effectively improve the informatization level of college classroom, and then more effectively alleviate the anxiety of college students in learning and life. Analyzing the psychological needs of college students based on design psychology, and then improving the design of indoor environment in colleges and universities, can change the environment where students live, and then change their mood, and play a positive role in the anxiety of students and teachers.

SUBJECTS AND METHODS

Design

Psychology believes that individual behavior patterns and psychological patterns will be affected by the surrounding environment, and its influence mechanism is shown in formula (1).

$$B = f(P, E) \quad (1)$$

In formula (1), B is the individual behavior pattern; f is a function; P stands for individual. E is the environment of the individual. From formula (1), it can be seen that the behavior pattern of an individual is the result of the dual action of the individual and the environment in which the individual is located. Therefore, changing students' environment can change students' mood. The research analyzes the psychological needs of college students based on design psychology, and then improves the indoor environment design of colleges and universities, changes the environment where students live, and then changes the mood of students, which plays a positive role in the anxiety psychology of students and teachers. In colleges and

universities, with the promotion of grades, students face more and more things, greater and greater pressure, and more and more serious psychological anxiety. Psychology believes that individual behavior patterns and psychological patterns will be affected by the surrounding environment. Therefore, based on the analysis of the psychological needs of college students based on design psychology, we can improve the design of the indoor environment of colleges and universities, change the environment of students, and then change the mood of students, which has a positive impact on the anxiety psychology of students and teachers. Based on the above contents, the research proposes strategies to improve the indoor environment design of a classroom in a university in C city. In order to verify the influence of indoor environment on students' anxiety psychology, a control experiment was designed. Based on the principle of voluntariness, 100 students who volunteered to participate in the experiment were selected from the two colleges and universities in C city to conduct a comparative experiment. 100 volunteers were randomly divided into two groups: the study group and the control group. For the volunteer students in the research group, the study arranged them to study in the classroom environment of indoor environment design based on design psychology. For the control group of volunteer students, the study will arrange them to study in a general classroom environment. After a certain time of learning activities in different teachers' indoor environments, the students' psychological stress, psychological anxiety and academic performance were compared. Self-rating Anxiety Scale (SAS), Self-rating Depression Scale (SDS), self-made College students' employment anxiety self-test and Assessment Scale (CAS) and Symptom Checklist 90 (SCL-90) were used to assess the degree of students' anxiety, and Chinese Perceived Stress Scale (CPSS) was used to assess the degree of students' psychological stress.

RESULTS

In order to verify the effect of interior design based on design psychology, a control experiment was designed. Based on the principle of voluntariness, 100 students who volunteered to participate in the experiment were selected from the two colleges and universities in C city to conduct a comparative experiment. 100 volunteers were randomly divided into two groups: the study group and the control group. For the volunteer students in the research group, the study arranged them to study in the classroom environment of indoor environment design based on design psychology; For the control group of volunteer students, the study will arrange them to study in a general classroom environment. After a certain time of learning activities in different teachers' indoor environments, the students' psychological stress, psychological anxiety and academic performance were compared. Students' anxiety and depression can be detected by SAS and SDS, as shown in Table 1.

In Table 1, before the control experiment, Table 1 shows that the SAS of the students in the research group is 63.8 ± 4.3 , and the SDS score is 70.9 ± 2.61 . The SAS of the students in the study group was 65.2 ± 3.8 , and the SDS score was 69.5 ± 2.73 . It can be seen that before the experiment, the SAS scores and SDS scores of the students in the research group were relatively high, and they were very close to those of the control group. After learning the same time period in different teaching environments, the SAS and SDS scores of the students in the research group decreased significantly. There was no significant change in SAS and SDS scores of the control group. After learning the same period of time in different teaching environments, the scores of anxieties and depression in the study group were much lower than those in the control group. The self-test and assessment scale for employment anxiety of college students (CAS) was developed to test the degree of employment anxiety of the subjects before and after the experiment, as shown in Table 2.

In Table 2, before the start of the control experiment, the scores of emotions, physiology and psychology of the students in the study group were relatively high and very close to those of the students in the control group. After learning the same time period in different teaching environments, the scores of emotions, physiology and psychology of the students in the research group decreased significantly, while the scores of emotions, physiology and psychology of the students in the control group did not change significantly. After learning the same period of time in different teaching environments, the scores of emotions, physiology and psychology of the students in the research group are far lower than those of the students in the control group. The test results of SCL-90 on students before and after the experiment are shown in Table 3.

In Table 3, before the control experiment, the scores of SCL-90 of the students in the research group were relatively high and very close to those of the students in the control group. After learning the same period of time in different teaching environments, the scores of SCL-90 of the students in the research group decreased significantly, while the scores of SCL-90 of the students in the control group did not change significantly. After learning the same period of time in different teaching environments, the SCL-90 scores of the students in the research group are far less than those of the control group. Students' psychological stress was assessed with the Chinese Perceived Stress Scale (CPSS), as shown in Table 4.

In Table 4, before the control experiment, the CPSS of students in the study group. The scores of each item are relatively high, and are very close to those of the control group. After learning the same time period in different teaching environments, the CPSS scores of the students in the research group decreased significantly, while the CPSS scores of the students in the control group did not change significantly. After learning the same period of time in different teaching environments, the CPSS scores of the students in the research group are

far less than those of the control group.

Table 1. SAS and SDS

Grouping	SAS score		SDS score	
	Before teaching	After teaching	Before teaching	After teaching
Research group	63.8±4.3	45.5±4.2*	70.9±2.61	46.1±3.5*
Control group	65.2±3.8	63.33±6.4	69.5±2.73	66.6±4.4
<i>t</i>	7.563	8.963	0.369	7.030
<i>P</i>	0.875	0.005	0.796	0.001

Note: * $P < 0.05$ compared with that before teaching.

Table 2. CAS scores of two groups of students

Subscale	Timing	CAS score		<i>t</i>	<i>P</i>
		Research group	Control group		
Emotion	Before teaching	31.76±2.11	32.01±2.05	0.233	0.752
	After teaching	18.21±1.62*	31.48±1.87	6.534	0.001
Physiology	Before teaching	40.38±2.41	41.06±3.72	0.453	0.767
	After teaching	31.96±2.35*	40.05±4.01	7.432	0.001
Psychology	Before teaching	17.42±0.81	17.30±0.73	0.904	0.710
	After teaching	11.41±0.12*	16.97±0.69	8.104	0.001

Note: * $P < 0.05$.

Table 3. SCL-90 scores

Project	Group		<i>t</i>	<i>P</i>
	Research group	Control group		
Somatization	24.64±8.32	35.49±10.76	6.425	0.000
Obsessive compulsive symptoms	22.42±7.31	28.54±7.36	7.642	0.000
Interpersonal sensitivity	19.80±3.12	29.54±6.35	8.179	0.000
Depression	28.20±4.51	40.12±9.73	6.130	0.000
Anxiety	24.95±6.21	33.43±8.14	7.528	0.000
Hostile	8.20±1.87	17.23±6.13	6.319	0.000
Terror	14.36±3.29	22.54±4.57	8.147	0.000
Paranoid	10.31±6.40	16.8±6.57	8.826	0.000
Psychotic	19.23±4.85	28.64±5.35	6.513	0.000

Table 4. CPSS score

Classification	Group	Timing		<i>t</i>	<i>P</i>
		Before teaching	After teaching		
Thrill	Research group	19.4±4.1	16.1±5.8	4.654	0.021
	Control group	18.6±5.2	19.0±4.3*	0.135	0.763
Sense of loss of control	Research group	26.6±4.4	15.6±5.2*	7.496	0.000
	Control group	25.8±3.7	24.7±4.1	0.253	0.644
Total score of stress perception	Research group	45.9±7.2	31.7±10.3*	8.103	0.000
	Control group	46.0±7.4	45.4±8.2	0.106	0.825

Note: * $P < 0.05$.

DISCUSSION

Educational psychology holds that students' cognition and emotion are related, restricted and penetrated each other. Based on psychological theory, it can be known that in the process of knowledge learning

and experience accumulation, students' emotion and cognitive ability play an equally important role, and both are indispensable (Zheng et al. 2020). There are two kinds of anxiety factors for college students. The first is the internal factors, including students' personality factors and students' lack of self-confidence (Wernick o

et al. 2020). Personality factor refers to the relatively stable and unique psychological behavior pattern formed in the acquired environment on the basis of students' innate biological genetic quality. In the process of teaching, many teachers found that outgoing students are better at social activities and are less likely to suffer from psychological diseases. The timid and nervous students generally lack self-confidence and are more likely to have psychological problems. In universities, students are exposed to more and more new things and face more and more contradictions and problems. However, the high expectation and pressure from society, family, school and students themselves can easily lead to various psychological problems and psychological anxiety. Anxiety refers to a negative emotional state that occurs when human beings encounter difficulties, setbacks or blows, including tension, anxiety, fear and anxiety caused by impaired self-esteem, loss of self-confidence, frustration and guilt. Anxiety as a normal emotional expression is often ignored. If you are in a state of anxiety for a long time, you will have the risk of developing anxiety disorder. According to the difference of persistence and stability, anxiety is divided into state anxiety and trait anxiety. State anxiety is a transient and passive emotional state in a specific situation. Trait anxiety is a relatively stable anxiety tendency with implicit and individual differences. It is a stable personality trait. Psychology believes that individual behavior patterns and psychological patterns will be affected by the surrounding environment. This paper studies and analyzes the psychological needs of college students, improves the design of indoor environment in colleges and universities, changes the environment where students live, and then changes the mood of students, which plays a positive role in the anxiety of students and teachers. Indoor environment design is essentially a kind of visual therapy, which can relieve the emotion and anxiety of teachers and students through visual stimulation to students and teachers. Visual art therapy is to stimulate patients' aesthetic experience and interactive art practice through art design works, so as to vent patients' emotions, provide cognitive stimulation for patients, and then meet patients' emotional and social needs, alleviate patients' anxiety, depression and other negative emotions, and finally treat patients' psychological diseases. To sum up, the improvement of indoor environment design in university classrooms can significantly improve the psychology of teachers and students, and play a positive role in the anxiety of students and teachers.

CONCLUSIONS

The design of indoor environment in colleges and universities can effectively alleviate the anxiety of college students. Therefore, under the guidance of design psychology, the research puts forward improvement strategies for the design and layout of the indoor environment of university classrooms, including software design, color matching, hardware facilities, etc.

The results showed that before the experiment, the CAS scores of the students in the study group were very close to those of the control group. After the experiment, the CAS score of the research group has changed significantly, and its CAS score is far lower than that of the control group. The above results show that improving the indoor environment design in colleges and universities, changing the environment where students live, and then changing the mood of students, has a positive impact on the anxiety of students and teachers.

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