

Table 1. Questionnaire survey results of two groups after vocal music experiment

Statistical item	Experience group	Control group	t value	P value
Degree of patriotism	1.524±0.318	0.557±0.648	1.587	<0.05
Dedication psychology	1.429±0.418	0.471±0.772	2.043	<0.05
Empathy	1.631±0.560	0.482±0.767	0.873	<0.05
Responsibility	1.685±0.319	0.528±0.527	1.240	<0.05

It can be seen from table 1 that after vocal music singing, the average quantitative scores of members in the experimental group and the control group in patriotism, dedication, empathy and sense of responsibility are higher than those in the control group, and the P values obtained from the t-test of four types of scoring data between the two groups are less than the significant level, so it is considered that the data difference is statistically significant.

Conclusions: People like vocal music singing, not only because people need it or because its appreciation threshold is relatively low, but also because vocal music singing can bring some positive effects or functions. As an art form, vocal singing can arouse people's resonance during performance, make people feel more comfortable and comfortable, and the pressure accumulated in social life and work can also be quietly released, making the body and mind relaxed. Some main melody songs can play a leading role, stimulate people's positive mood and guide people to face the difficulties in life positively and optimistically. For example, the Military Anthem and the national anthem will make those who hear these high melodies excited and emotional. This is one of the functions of main melody vocal singing. At the same time, when it comes to mass culture, we always ignore one subject, that is, the singer himself. Every vocal performer is a member of the people. They are produced from the masses, and their excellent singing works have great artistic and emotional appeal to the masses. They are devotees who closely associate vocal singing with the lives of the masses. Simultaneous interpreting, vocal music will be carried forward by them and the masses, so that the role of vocal music in the mass culture will become more prominent. It will play a more important role in social development. When building a socialist spiritual civilization home, mass culture has been paid more attention, and vocal singing, as an art form used to express people's thoughts and life, has also received more attention and attention. The role of vocal music singing in mass culture is very huge. We should actively innovate vocal music culture and promote the combination of vocal music singing and mass culture, so as to promote the development of socialist spiritual civilization and improve the comprehensive artistic and cultural quality of the whole people.

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RESEARCH ON SOCIAL FACTORS AFFECTING WOMEN'S GENDER ROLE PSYCHOLOGY BASED ON COGNITIVE PSYCHOLOGY

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Background: Gender role refers to the social status of men and women recognized by the society. It is the general term of social expectations for men and women in behavior and attitude. In society, the environment always requires men and women to play different roles respectively. These solidified roles are formulated according to the different characteristics of men and women in posture, expression, tone of voice, behavior and so on. At birth, people are divided into "male" and "female" according to their physiological structure and reproductive system. In the process of human growth, the social and cultural imprint in the gender with biological significance is becoming deeper and deeper, and has become a gender role of "male" or "female" in the social sense. There are great differences between male culture and female culture in society. Although this ancient gender difference has its reasonable side, it also forms the differences between men and women in many aspects. From the perspective of social recognition, this gender culture is relatively unfavorable to women.

Cognitive psychology is a subject that processes ideas through information and studies human cognitive processes. It is mainly used to study human advanced psychological processes, including memory, thinking, speech, perception and so on. Cognitive psychologists often decompose the information processing process into multiple interrelated stages. They often use the reaction time method. That is to determine the nature of a process and its relationship with other processes by measuring the time required for a process. In conclusion, due to the advantages of cognitive psychology in the study of human psychological activities, this study uses it to study the social factors affecting women's gender role psychology.

Objective: To design a questionnaire to explore the social factors affecting women’s gender role psychology by collecting and analyzing the literature related to cognitive psychology and women’s gender role. It provides a certain reference value for putting forward targeted countermeasures in the future.

Participants and methods: 100 women with bachelor’s degree or above were randomly selected from China. Collect and sort out the literature related to cognitive psychology and gender roles, and design a questionnaire to investigate the social factors affecting women’s gender role psychology. A questionnaire survey was conducted among the above 100 women, and the social factors affecting them were analyzed later

Results: After the questionnaire survey, all valid questionnaires were sorted out and Table 1 was obtained. Note that for the influencing factors listed in Table 1, five grade evaluation indexes of no impact, slight impact, general impact, obvious impact and full impact were used to evaluate their impact on women’s gender role psychology.

Table 1. Statistical results of questionnaire survey

Influence factor	Proportion of people selected for each impact level (%)				
	No effect	Slight impact	General impact	Obvious influence	Full impact
Gender stereotypes	1	15	23	56	5
Parental education mode	13	22	28	34	3
Content of compulsory education	4	18	42	33	3
Mass media	0	3	15	48	34

It can be seen from the analysis of Table 1 that the surveyed highly educated women generally believe that gender stereotypes and mass media are the most important factors affecting women’s psychology of different roles. The proportion of people who choose the two influence levels as “general influence”, “obvious influence” and “full influence” are 23%, 56%, 5% and 15%, 48% and 34% respectively. The respondents believe that the parental education methods and the content of compulsory education have a weak impact on the psychology of women’s different roles. The proportion of people who choose the two impact levels as “no impact”, “slight impact” and “general impact” are 13%, 22%, 28% and 4%, 18% and 42% respectively.

Conclusions: This study collects and arranges the literature related to cognitive psychology and gender roles, and designs a questionnaire to investigate the social factors affecting women’s gender role psychology. Through the analysis of the questionnaire results, it is found that the surveyed highly educated women generally believe that gender stereotypes and mass media are the main factors affecting women’s gender role psychology, followed by the content of compulsory education and the way of parental education. The study also found that women can adjust the negative psychology caused by women’s gender role psychology through the following methods. First, improve the level of self-awareness and strive to overcome the sense of inferiority. Some negative psychology of women is not innate, but caused by the acquired social and cultural influence. Therefore, we should learn to accept ourselves and scientifically understand the differences of gender roles. In fact, gender roles are different between the sexes, but there is no difference between high and low. Only self-confidence can fully display women’s unique style. Secondly, we should weaken the stereotype of gender roles and highlight individual characteristics. In fact, both male and female self-actualizers have transcended gender and reached a state of both “paternity” and “Motherhood”. This does not mean that we should eliminate gender differences in the process of socialization of children’s gender roles, but before doing so, let children first have an understanding of self-gender identity, that is, first of all, they can correctly understand and identify with their own gender, but do not stick to their own gender stereotype, and accept the beneficial characteristics of another gender, so that they can fully publicize their personality in the process of development.

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THE INFLUENCE OF BIM TECHNOLOGY ON ENGINEERING MANAGEMENT