

## The Exploration and Practice of Functional Experiment into Ideological and Political Education

Xiulan Yang

Department of medicine, Yangtze university, Jingzhou 434023, China.

### Abstract

Course education is an important channel for the work of ideological and political education of college students, this study analyzed the necessity of medical students to carry out ideological and political education, combining with the characteristics of function to experimental courses, from the revision of the experimental teaching goal, optimizing experiment teaching contents, innovating experiment teaching methods, improving the evaluation mechanism and so on into the ideological education, aims to realize the value of knowledge, skills, and lead the harmonious and unified, to guide medical students to establish correct outlook on life, values, develop respect for life, heal the wounded and rescue the dying, dedicated, plowed the professional spirit.

### Keywords

**Functional Experiment; Course Education; The Teaching Reform.**

### 1. Introduction

On May 28, 2020, general secretary xi stressed at the national conference on ideological and political work of colleges and universities that curriculum ideological and political work should make good use of the main channel of classroom teaching, integrate all kinds of professional curriculum resources, excavate ideological and political elements, and form a synergistic effect with ideological and political theory courses [1,2]. As for medical education, curriculum ideology should integrate medical ethics education into classroom teaching and strengthen the infiltration and integration of medical ethics education and professional curriculum. Functional experiment is an important part of basic education in medical colleges, which organically integrates theoretical knowledge and experimental skills of physiology, pharmacology and pathophysiology, and is also one of the effective ways to cultivate medical students' operational skills, scientific research ability and innovative thinking [3]. According to the characteristics of the function to experiment course, The study revised experimental teaching target, optimized experiment teaching contents, innovated experiment teaching methods, improved the evaluation mechanism and so on, aims to realize the value of knowledge, skills, and lead the harmonious and unified, to guide medical students to establish correct outlook on life, values, develop respect for life, heal the wounded and rescue the dying, dedicated, plowed the professional spirit.

### 2. Necessity of carrying out ideological and political education in functional experiments

Medicine is a subject that is closely related to everyone. Medicine is also a subject with strong practicality. Medical experiment teaching plays an important role in cultivating students' quality and ability. Function experiment is an early contact with medical students medical basic experiment courses, and the function experiment teaching contains a patriotism education, medical ethics education, life education, legal education, team spirit, such as ideological elements, to sum up, It is of great significance to integrate ideological and political education into functional experimental teaching and guide medical students to establish correct outlook on life and values. However, at present, the ideological and political teaching in most medical colleges is relatively separated from the teaching of professional courses, which has not achieved the expected effect [4]. In the experimental teaching process, teachers pay more attention to the mastery and application of

professional knowledge and skills and pursue "good at work", but ignore the "mind and quality" and the educational function of the course itself [5], resulting in some medical students' ambiguous positioning of life goals, unclear learning goals and lack of professional responsibility. Therefore, this study integrates ideological and political education into functional experimental courses, in order to give full play to the role of college teachers in teaching and educating people, and help medical students to establish a correct outlook on life and values.

### **3. Ideological and political education is integrated into functional experimental teaching**

Combining with the characteristics of the functional experimental course, the ideological and political education system of the functional experimental course is constructed from the aspects of the experimental teaching objectives, the design and implementation of the experimental teaching contents, the innovation of teaching methods and means, and the assessment and evaluation, so as to expand the teaching space of medical specialty and improve the quality of experimental teaching.

#### **3.1 Revise the experimental teaching objectives**

Combined with medical personnel training programs to ideological education as the guidance, comprehensive carding function experiment teaching outline, on the basis of the knowledge and ability to target and determine each class to undertake the task of teaching, forming quality goals and emotional goals, revised in teaching goals is to cultivate students rigorous and meticulous scientific attitude and teamwork spirit, good professional ethics and dedicated spirit of medical humanities.

#### **3.2 Optimize the experimental teaching content**

##### **2.2.1 Integrate life education and law education**

Functional experiments mainly focus on live animal experiments. In the teaching process, relevant knowledge such as medical ethics and biosafety should be passed through to cultivate students' kindness to animals. During the operation of animal experiments, the experimental steps should be optimized to minimize the operation of harming animals. In the whole experimental operation process, life education and legal education should be strengthened to guide students to fear life and pave the way for the formation of a good doctor-patient relationship in the future.

##### **2.2.2 Integrate medical ethics education**

General Secretary Xi stressed that higher medical education should respond to the situation, act in response to the situation and follow the trend. Traditional medical education should not be consolidated, nor should it stop at the normalization of medical ethics and humanistic quality education. The new mode of medical ethics education should be based on the whole process of students' growth, emphasizing educating people first and moral education first, and reflecting the whole process of medical ethics education with "three new". Function to experimental operation object is experimental animals, teaching based on virtual simulation platform, let the students mix, strictly follow the operation steps, improving students' experimental operation success rate, reduce the waste of experimental animals, and teach students how to from animals to human health career dedicated to obtain as much information as possible.

##### **2.2.3 Integrate patriotism education**

Through medical current affairs and deeds around them, medical students are inspired to pay attention to people's livelihood and diseases, enhance their professional interest, and strengthen their professional identity. In the fight against COVID-19 this year, medical workers are leading the way, while countless young medical students are also working behind the scenes. In the experimental teaching, the retrograde deeds of COVID-19 epidemic prevention medical workers and volunteers can be told, so as to strengthen the medical students' sense of social responsibility and patriotism.

##### **2.2.4 Integrate scientific research elements**

After each experiment class, one or two papers related to the forefront or hot topics of medical research are selected for students to study, discuss and share. Students are required to understand the

literature, ask questions, summarize the advantages and disadvantages of the experimental method, broaden their horizon, and cultivate their scientific thinking, critical thinking and innovation ability.

### **3.3 Innovate experimental teaching methods**

#### **2.3.1 Question teaching method**

The teacher sets the problem scene, guides the students to review the content, discuss and ask questions in groups, and teachers and students clarify the problem together in class. For example, when teaching organophosphorus pesticide poisoning and rescue, students should be guided to ask questions by themselves, why organophosphorus pesticide poisoning can cause poisoning and what is the mechanism of organophosphorus pesticide poisoning? After organophosphorus poisoning, why do we need to use atropine and dephosphorization to rescue? Promote students' independent study, cultivate students' ability to ask and solve problems, and cultivate students' spirit of unity and cooperation.

#### **2.3.2 Case teaching method**

Integrate ideological and political education into case teaching. Teaching, for example, efferent nerve system drugs, the function of in vitro rabbit intestinal smooth muscle excited transfer characteristics is a cause a contraction, at the same time, the generation of action potentials also has the characteristics of the "all or nothing", education of students in scientific research and clinical operation also need to follow the "one, pull" rigorous scientific attitude.

#### **2.3.3 Flipped classroom teaching method**

Flipped classroom teaching mode is appropriately adopted in teaching. Before class, the experimental guidance will be distributed to students. After students study independently, the experimental principles and operating steps will be explained in groups in class. Part of the operation process of animal experiments will be demonstrated by students, and the teacher will give guidance, so as to cultivate the students' teamwork ability, realize the recognition of understanding, sincerity, sincerity and action, and improve the practical effect of curriculum thinking and politics.

### **3.4 Reform teaching methods**

Make full use of the advantages of virtual simulation platform, can be real, virtual and real combination. Since the virtual simulation experiment platform includes multimedia courseware and teaching video modules, students can understand the whole process of the experiment and master the operation skills in advance through preview. It not only saves class time, but also provides students with standard operating instructions. During the experimental operation, students can first practice on the virtual experimental platform and then carry out actual operation. When encountering problems, they can also refer to the experimental video to solve them at any time, so as to achieve the purpose of cultivating and improving students' practical ability. After the completion of the experiment, the teacher can guide the students to compare and analyze the actual experimental results with the standard results in the virtual experimental system, so as to motivate the students to think positively and improve their ability to analyze and solve problems.

### **3.5 Improve the evaluation mechanism**

The traditional summative evaluation method is reformed, that is, the final total evaluation score takes the final examination score (80%) and the usual score (20%) as the standard. New function to experimental evaluation mechanism using formative assessment system, including the experiment attendance, participation, attitude, evaluation of experiment operation, experiment evaluation report, experimental oral evaluation, operation and final written examination, evaluation category will be proportional to the above results have been counted in the final score judgement, achieve comprehensive, just and objective of student assessment.

## **4. Outlook**

Medical colleges and universities are the holy place for medical students to seek knowledge and become talents, the hall for teachers to impart knowledge and create knowledge, and the important

place for value education. Medical education to professional knowledge and the integration of education, can make the student education in professional course learning content in heart, externalized in line, real to do [6], and then help the students improve medical humanities accomplishment, the medical humanism quality education throughout the whole process of talent training, to adapt to the biological - psychology - social medical model, promoting healthy humanistic quality education, pay attention to the cultivation of professional ethics, professional spirit and professional quality, improve medical students' competence, truly achieve xi general meeting instruction spirit, professional courses and education to a higher total course!

## References

- [1] Li Xiaojing, Yu Xiao, Sun Zheng. Practice and Exploration of science and Engineering Teachers' Implementation of "Curriculum Thought and Policy" [J]. Teaching and Educating (Higher Education Forum), 2020(21):64-65.
- [2] Yu Jingran. Exploration of ideological and political Connotation and Implementation Path of College Curriculum in the New Era [J]. Education and teaching forum, 2020,12 (52): 75-76.
- [3] He Yuchen, Xie Xiangping, Luo Xiong, et al. Application of Virtual Simulation Experiment Teaching in clinical thinking Training [J]. University Medical Teaching Research (Electronic Edition), 2019, 9 (3) : 3-6.
- [4] Gao Deyi, Zong Aidong. From ideological and Political courses to Ideological and Political Courses: Constructing ideological and political education curriculum system in colleges and universities from a strategic perspective [J]. Higher Education in China, 2017(1): 43-46.
- [5] He Yuchen, Xie Xiangping, Luo Xiong, et al. Application of Virtual Simulation Experiment Teaching in clinical thinking Training [J]. University Medical Teaching Research (Electronic Edition), 2019, 9 (3) : 3-6.
- [6] Ying Jun, Zhang Xiaojing, Zhang Yiqi. Exploration and Practice of "Curriculum Thinking and Politics" Teaching for Landscape Architecture Major [J]. Modern horticulture, 2020,23:189-191.