

## Reflections on Experimental Teaching of Human Anatomy

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### Abstract

**Human anatomy is a morphological science. Experimental teaching occupies a very important position. In many years of teaching practice the author think about the school's teaching environment, classroom organization, experimental examination, in order to achieve better teaching results.**

### Keywords

**Human Anatomy; Experimental teaching; Teaching environment; Teaching organization; Experimental examination.**

## 1. INTRODUCTION

Human anatomy is an important basic medical course, which belongs to the category of morphology. Experimental teaching plays an important role in anatomy teaching. In the anatomy experiment class, students establish the concept of body and form the image memory by observing, recognizing and recognizing the object and touching the living body. On the other hand, it is necessary to cultivate humanistic spirit, practical ability and observation and analysis ability through actual anatomy operation. Therefore, it is of great practical significance to study how to carry out anatomy experiment teaching better and make it adapt to the reform and development of medical education. Combined with the teaching practice and advanced learning experience of our college, I will talk about the following experience.

## 2. IMPROVE THE EXPERIMENTAL ENVIRONMENT AND CONDITIONS

### 2.1. Construction of Laboratory Environment

When it comes to autopsy in the construction of laboratory environment, people are naturally associated with the "disgusting" taste of formalin, which will affect students' enthusiasm for learning to a certain extent. There are 14 anatomic laboratories in our university. Each laboratory is equipped with 6 multi-functional anatomical experimental platforms and equipped with advanced air-conditioning and exhaust system. It is different from the previous conditions, and there is basically no smell of formalin. And regularly clean the laboratory, always keep it clean, spacious, bright, students can actively stay in the laboratory.

### 2.2. Construction of Laboratory Specimens

Our school pays attention to the "classification and comprehensive utilization" of anatomical specimens according to the requirements of anatomy syllabus and the different characteristics of various specialties. In each class, we fully guarantee the quality and quantity of experimental

specimens, and pay attention to the horizontal and vertical connection of knowledge. After each experimental class, the experimenters should check the quantity and quality of the specimens, and repair, make and supplement the damaged specimens in a planned way. In addition, animal anatomy can effectively make up for the deficiency of cadaver specimens. For example, when learning eyeballs, the fixed cadaver specimens can not observe the true shape of colorless and transparent cornea and lens. Students can dissect fresh cattle by themselves. In our school, some cadaver specimens have been replaced by models and bioplasticizer to achieve a more intuitive effect, especially the quality of the model has been significantly improved recently.

### **2.3. Use of Multimedia**

Our teaching and research office is equipped with 14 digital interactive laboratories. The application of multimedia technology provides strong support and ideal technical means for experimental teaching. With the help of multimedia, not only can the specimen be more intuitive and shared, but also dynamic demonstration can be made. By using Photoshop, flash and other tools for secondary processing, the imaginary things can be visualized and the abstract problems can be specified. Combined with the traditional teaching methods, the relevant structures can be identified by comparing the specimens or models. It is not only visible (dynamic) but also tangible (static), which is conducive to students' sense of compliance. The cognition of sex and part changes to rational and whole cognition. The multimedia teaching website of anatomy is set up, which is not only convenient for students' self-study, but also can solve the problem of insufficient teaching hours. In addition, the school has introduced digital human software system [1], which can be used on mobile phones, and students reflect better.

### **2.4. The Opening System of Laboratory and Specimen Exhibition Room**

The opening system of laboratory and specimen exhibition room is implemented in the form of regular opening and appointment opening, and teachers are arranged for counseling and answering questions. Students observe specimens and models in the laboratory by themselves, which increases the opportunity for students to observe by themselves. On the premise of voluntariness, students can also make specimens in person under the guidance of teachers to exercise practical operation skills, which not only makes full use of teaching resources, but also promotes the construction of laboratory. This aspect should always be adhered to.

## **3. REFORM THE EXPERIMENTAL TEACHING METHODS**

With the rapid development of science and technology, the most important thing for students in school is not how much knowledge and skills to learn, but to learn how to learn. Therefore, anatomy experiment teaching should focus on cultivating students' independent thinking ability, so as to reduce students' dependence on teachers.

### **3.1. Reform of the Teaching Mode**

The traditional teaching mode of "teachers' requirements, demonstration, students' observation and teachers' summary" is rigid, which makes students in a passive position and the teaching effect is not ideal. We introduce the "learning guidance" teaching method into the experimental teaching. Through "the teacher puts forward the goal request one student preview, looks up the data one group observation and discusses one student explanation one teacher summary, the appraisal", the teacher transforms from the narrator to the guide person, fully mobilizes the student's main body role, raises the question, the analysis question, the solution question ability obtains the promotion and the enhancement, has greatly enhanced the experimental class teaching effect. In particular, the introduction of flipped classroom and case teaching has enhanced students' strong interest in learning and enhanced the spirit of teamwork.

### 3.2. Pay Attention to the Design Experiment and Comprehensive Experiment

We open the laboratory and increase the experimental teaching hours in the spare time and weekend time. Teachers design some parts of the human body into comprehensive experiments or combine with clinical application to select appropriate subjects to design design experiments. Students can actively enter the laboratory to operate, observe, research and write papers on cadaver specimens, so as to continuously improve students' comprehensive quality and innovation ability.

## 4. ATTACH IMPORTANCE TO EXPERIMENTAL EXAMINATION

Experimental assessment is a test for students to master the experimental content in experimental teaching, which should not be weakened but should be strengthened. Our school adopts the system of separate grades of experimental courses, and the scores of experimental courses and this course are not qualified. Experimental results include usual learning attitude, experimental skills, experimental report and sample examination after class. According to the objective conditions of the laboratory of our university, we have explored a set of examination forms and methods of anatomy experiment - "drawing" specimen examination. The teaching and research group focused on the discussion. All the assessment contents will be decomposed and matched to form a test card with different contents and equal difficulty. Set up a complete set of specimen test card electronic question bank. In the examination, students randomly draw cards and conduct on-site assessment in the laboratory. According to the questions on the card, let students identify and find 10 designated organs or structures for 10 minutes. Students are required to work alone to find the exact structure and identify the correct position and shape. After being confirmed by the invigilator, they will score on the spot and strive to be objective, fair, fair and effective.

## 5. SUMMARY

A good laboratory exhaust system can reduce the stimulation of odor and enhance students' interest in learning. High quality specimen model is the precondition of experimental teaching. The application of multimedia, digital human and other scientific and technological equipment and the teaching method reform of flipped classroom and case teaching enhance the effect of experimental teaching, while effective and fair assessment mode enhances students' learning Atmosphere and motivation.

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