Analysis of Common Human Anatomy Teaching Methods

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Abstract. The ultimate goal of college is to cultivate talents and the central job of school is teaching. With time developing, the teaching methods, teaching skills and teaching style of college should be advanced accordingly to satisfy the requirement of teaching and learning. But different teaching methods and teaching means both have their advantages and disadvantages and they are fit for different courses. How to produce the advantage of different teaching method and means on the purpose of optimizing teaching effect is the question every college teacher should be thinking about all the time. This article deals with how to apply multiple teaching methods and means synthetically in class to receive better result of teaching with the example of human anatomy, the basic discipline in medical school.

Introduction

Human anatomy is the science of studying human normal morphological structure aiming to explain each organ and structure of normal human body and their interrelation which falls within the ambit of morphology of life science. Human anatomy is an important basic medicine subject since over one third of the medical nouns are derived from anatomy. Hence human anatomy is a very important basic medicine subject and it’s an essential course for learning other basic medical courses and clinical medical courses. The difficulty of learning human anatomy lies in its considerable and abstract knowledge points and the numerous nouns to be memorized. Hard to learn, hard to memorize and hard to understand are the general problems that students reflect thus the solution to this problem is the key to master this course. This article compares and summarizes relative common teaching methods used in colleges at present and analyzes their positive and negative side to apply synthetically in our classes to reach the optimization of teaching effect.

PBL Learning

Problem-based learning method, shorted as PBL learning, is one of the frequently-used teaching methods in Chinese colleges in recent years. Using this teaching method, teachers are required to inform students questions before class whereas students are required to search for relative materials and books after class and present professional analysis and explanation of these questions in terms of anatomy in class. It contributes to the development of students’ ability of independent learning and expression as well as cooperation in a team. This teaching method is based on students’ autonomous learning and aided by teachers’ guidance. It fully shows the students’ activeness and changes the traditional teaching method. Although anatomy teaching mainly relies on teachers’ lectures, PBL mode can be applied in some chapters circumstantially. Oriented to problems in clinic or everyday life practice, students are asked to do research for information after class followed by summing up and demonstration in class. Due to the limitation of class timing, teachers must play the role of guide in handling the spectrum of problems and leading students to analyze the problem so that the limited period could be fully utilized and the teaching method would be optimized [1, 2, 3, 4].
Case Method

Case method refers to “Socrates method”, a kind of new teaching method with strong openness and interactivity. During specific teaching process, this method recites various real cases in teaching activities and puts forward relative questions to students, centering on which students seek for resolution by the help of various knowledge they have gained and relative materials they have searched for.

In case method, the need of teaching reality should be taken into full consideration when it comes to example selection. Under regular circumstances, the cases should be closely related to the content of class. Specially, the cases chosen have to be equipped with reality, comprehensiveness and typicality to inspire students to some extent and to cultivate students’ thinking ability and problem-solving ability. Anatomy is closely linked to each discipline of clinical medicine. Cases of these disciplines provide actual material for anatomy case teaching to find the breakthrough point of the close linkage between anatomy and clinical medicine. The cases used in class are meticulously selected by teacher and are equipped with strong typicality and practical significance so that the students’ learning enthusiasm and initiative would be fully motivated. To apply case method in anatomy teaching, teachers are supposed to work as a guide and their first job is to lead students to do the collection of material and give out the material of cases in advance to allow students to collect information in multiple ways basing on the preview of teaching context.

The use of case method helps to arouse students’ interest to learn anatomy, helps to activate students’ learning initiative, helps to cultivate students’ comprehensive ability and clinical thinking ability. This method also contributes to the development of students’ ability of various aspects. Students are able to improve their ability of linking theory with practice further by the deep thinking of cases and the combination of knowledge gained and clinical practice carried out. What’s more, students’ ability to analyze and solve problems would also be strengthened. In this way the roles of teacher and student are exchanged and the subject position of student is guaranteed [5, 6].

“Three Phases and Five Self-doings” Teaching Method

“Three phases and five self-doing” teaching method in human anatomy refers to the teaching of three phases of theory teaching, corpse anatomy and presentation and five student-centered self-doings of “self-reading (text book), self-dissecting(corpses), self-examining (sample), self-concluding (summary) and self-speaking(presentation). This method conduces to the cultivation of students’ reading ability, practical ability, observation ability, comprehension ability and expression ability as well as the utilization of students’ learning enthusiasm and initiative. “Self-reading” in “five phases and three self-doings” teaching method runs through the whole teaching process while “self-dissecting, self-examining, self-concluding and self-speaking” are mainly used in regional anatomy teaching. In the practice of “Five phases and three self-doings” teaching method, sufficient corpses are firstly needed for operation to assure the implement of the second phase. Secondly, the laboratory should be equipped with complete hardware facilities and each lab has to be equipped with multimedia devices and be open to internet connection to allow the teaching of third phase to be complete successfully. However, there are certain problems in this teaching method such as the mal-adaptation of some students at the beginning for its total difference with the learning method in middle school. Therefor teachers have to be adept at guiding and working out appropriate teaching project at the first phase. In fact, this teaching method is more demanding for teachers to master [7].

Seminar Teaching Method

Seminar teaching method, namely “discussion teaching”, is one of the popular teaching methods in western college classes. It’s the interactive teaching method characterized by participation, interactivity, inspiration and incentive and so on where teachers and students jointly discuss about some question with stress being laid on the participation of students.
Seminar teaching method requires teachers to assign a question to students before class and students to seek for relative materials about that question and combine all the knowledge of various disciplines into practice of anatomy. The resistance of students against anatomy learning is mitigated to a certain degree and the students’ familiarity and mastery of relevant knowledge is enhanced by it. Seminar teaching method provides every student the opportunity to perform and practice and arouses the students’ enthusiasm of study and desire of anatomy knowledge. Besides, during the practice in class, students of each groups are able to trust and respect each other to achieve the goal of complementing skills, sharing knowledge and gradually raising awareness of teamwork. Students’ learning initiative and active participation play a key role in seminar teaching. Some students are too used to traditional teaching method to do initial learning and active participation. Teachers should be able to realize it as soon as possible and give appropriate guidance in time. Excellence of expression, organization and communication is also demanded of teachers by Seminar teaching method so that higher standards are set for teachers to meet at a certain level [8].

Heuristic Teaching

The so-called Heuristic teaching is a positive teaching method adopted on the basis of the specific situation of students’ mental characteristic, age, recognition structure and knowledge basis. Students are guided to think actively in various ways in accordance with the teaching objective and content and to acquire knowledge initially. Heuristic teaching is the opposite of the traditional “expository teaching” the principle of which is to prioritize the mobilization of students’ enthusiasm of study, initiative and creativity and to emphasize the subject role of students in learning process. Students are taught to learn, to master more efficient learning methods and to transit to active learning from passive learning by it as well as the combination of the guiding function of teacher and the subject position of students, the unification of imparting knowledge and fostering ability and the combination and transition of teaching and learning. As for teachers, their major jobs are leading students to think and explore actively and developing students’ intelligent and non-intelligent factors. The specific ways to carry out Heuristic teaching are of wide variety. Teachers are supposed to practice with the methods of asking question, comparison and discussion flexibly in accord with the specific teaching content and subject [5,8].

Summary

Each teaching method has its own advantages and disadvantages, we should use flexibly in the actual teaching process. Different teaching methods are used for different courses or even different chapters of the same course, foster its strengths and circumvent its weaknesses, to achieve the best teaching effect.

References


