

The Application of Presentation-Assimilation-Discussion Classroom Didactic in Medical Education

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Abstract: In order to modify the traditional teaching methods and enhance the core competence of students, a Presentation-Assimilation-Discussion (PAD) classroom system which takes the teachers and students as the main subjects was proposed. The didactic of PAD classroom not only improves the examination results, cultivating the core competence of students, but also ameliorates the teaching effect. A satisfactory class could be established for both teachers and students, thus it is worthy of wide application in medical college teaching.

1. Introduction

Lecturing teaching method with traditional feature of indoctrination was generally adopted by medical colleges and universities in the past, which was mainly to teachers in the teaching, students in a passive absorption status. Hence, the abilities of critical thinking, communication, expression, collaboration and creativity of students could not be well cultivated. There are numerous important and difficult contents of medical knowledge in school, which are sterile and hard to understand. It leads to the inactive enthusiasm in learning, and fails to promote the capabilities of students. Therefore, for the sake of improving the enthusiasm of students and changing passive learning into active learning, teachers of our school decide to reform the teaching methods.

At present, the education goal of the new era is to cultivate “talents of 4C core competence”. Talents of 4C core competence refer to persons with critical thinking, creativity, collaboration and communication [1]. According to the growth law of students and the social demand for talents, basing on the national conditions, and combining with the characteristics of the eras, the China Education Innovation Institute of Beijing Normal University proposed that talents in the new era of our country should have five qualities, namely cultural understanding, communication, collaboration, criticism and creativity [2]. Traditional teaching methods are no longer suitable for the new talent training objectives. Under this circumstance, the PAD didactic was proposed by Professor Zhang Xuexin of Department of Psychology in Fudan University in 2014 [3-4].

2. Concept of Pad Classroom

Combining the respective advantages of the traditional lecturing teaching method and the modern discussion learning method, the class time is divided into two parts, half of the class time is allocated to teachers for class teaching, the other part is allocated to students for class discussion, and the teaching and discussion are conducted every other week, thus a link of assimilation is added after class. The “PAD classroom” is a kind of didactics that is in line with the actual situation of colleges and universities of our country and is a transition from traditional teaching method to modern discussion teaching method.

3. The Constitution of Pad Classroom Teaching System

The teaching systems include teaching models, teaching means, examination and evaluation.

The teaching models contain presentation, assimilation and discussion. Teaching means comprise innovative experiments and the APP of Duifene. Examination and evaluation include attendance rate, homework, self-assessment, intra-group assessment, teacher assessment and final examination.

4. The Application of Pad Classroom in Medical Education

The order of these three parts is unchangeable. Presentation: on the premise that the teaching time is halved and the teaching objectives remain unchanged, the key and difficult points would be highlighted by teachers, while the rest parts are only guided and framed. After-class assimilation: after class, these contents taught by teachers would be refined by students with teaching materials, courseware and network through memorizing and understanding, to enrich their knowledge reserve. The process of assimilation: students are required to sum up and sort out the key and difficult contents in the form of homework, which includes the parts of “pronunciation, being my student and SOS”, questions of case analysis which aim to promote analysis ability of students, and drawing disease mechanism by utilizing the mind map. “Pronunciation” refers to the key and difficult points that you have mastered, and the knowledge which impressed and benefited you most; “be my student” means that the contents you already acquired but might confuse others could be utilized to challenge them during the group discussion. The “PAD classroom” didactic consists of three parts: presentation, assimilation and discussion. “SOS” implies the contents need to be consulted about to others in group discussion. Discussion: guide and urge the students to complete the discussion. It will be developed by students according to the process of “pronunciation, being my student and SOS” in the homework. At first, each student will take turns to present the “pronunciation”. Then, it is the “being my student”. Students are required alternately to ask questions to others in the group; finally, they will proceed with “SOS”.

Innovative experiments in medicine mobilize the enthusiasm of students and cultivate innovative thinking, such as the effect of exogenous BDNF on improving cognitive function of Alzheimer disease. The APP of Duifene includes learning materials such as courseware and videos, assigning and collecting homework, correcting homework, sharing homework, online testing and questionnaire survey.

The final grade of the students is 100 points in total, with 30 points for the PAD classroom and 70 points for the examination. The 30 points of the PAD classroom consist of 5 points for attendance, 5 points for homework, 5 points for self-assessment, 5 points for assessment of group and 10 points for assessment of teachers. Eventually, questionnaires will be distributed to students to investigate their recognition and suggestions for PAD classroom.

5. The Evaluation of Teachers and Students on Pad Classroom

Students who accept the didactic of PAD classroom consider that the PAD classroom didactic can better define the learning direction, contributing to the comprehension of the learning content and enhance learning interest and enthusiasm of the class. Moreover, the interaction and friendship between teachers and students will be greatly increased, as well as these among students. The PAD classroom has promoted the ability of core competence, including the abilities of critical thinking, communication, expression, collaboration and creativity, and the difference is highly statistically significant. The students hold a positive attitude towards the new teaching method and expect to continue using it in the future. A majority of teachers “regret not to know it earlier and regard it as treasure”, after practicing the PAD classroom didactic. They consider that it is a simple, easy and efficient teaching method without intensifying the workload. In that case, teachers will be willing to implement the PAD classroom into practical teaching.

6. The Defects of Pad Classroom

Students are supposed to learn easy chapters first and then difficult ones when they first come into contact with the PAD classroom, for the reason that they need to adapt and accept it gradually.

The time of teaching and discussion is suggested to be divided equally for the easy chapters, while the time of teacher is proposed to be longer depending on circumstance of the difficult chapters. Some students consider that the academic burden will be increased by more homework. In order to reduce it, we limit the number of discussion classes to 6 per semester, which is acceptable to students. The assessments of some students are not objective and fair during the assessment of group. We guide the students and explain to them that the assessment of group is to compare themselves in the discussion and to recognize the advantages and disadvantages among classmates, which can stimulate competition awareness, learning from others' strong points and make common progress.

7. Conclusion

The PAD classroom didactic is a transition from the traditional teaching method focused on the teaching of teachers to the modern teaching method based on the self-study of students. It can promote the development of medical education, establishing a satisfactory class for both teachers and students, improving the core competence of medical students, and meet the requirements of social development.

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