The application of CBL teaching method in the teacher education curriculum
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Abstract
The teacher education curriculum should guide future teachers to master the necessary educational knowledge and ability. The reform of teaching method is the core link of teacher education curriculum reform. The CBL teaching method is case-guided, problem-based, student-centered and teacher-led. This helps us to find and solve practical problems in the learning of the teacher education curriculum, improving the educational and teaching capabilities.

Keywords
The CBL teaching method; the teacher education curriculum; application.

1. Introduction
The ministry of education on vigorously promoting the reform of teacher education curriculum mentioned to optimize the structure of teacher education curriculum, the scientific establishment of teacher education professional public basic courses, subject theory and education practice close integration. It also provided measures to improve teaching methods and means, making teaching reform the core of teacher education curriculum reform and making full use of diversified teaching methods such as simulated class. This focus on improving the learning ability, practical ability and innovative ability.[1] Different from the traditional subject-based teaching method, the application of CBL teaching method in the teacher education curriculum encourages students to think independently and pay attention to the transformation of knowledge into ability and the communication between teachers and students. More attention should be paid to the cultivation of students’ practical ability and reflective ability in education and teaching.

2. The teacher education curriculum and the CBL teaching method

2.1. The teacher education curriculum
The curriculum construction of teacher education requires the deep integration of general education, professional education and teacher education. The curriculum standards for teacher education mentioned that the teacher education curriculum includes teacher education institutions for the training of kindergarten, primary and secondary school teachers of the public basic courses, subject professional courses and educational courses. This course standard refers to the educational courses.[2]

The curriculum of teacher education should guide the future teachers to master the necessary educational knowledge and the ability of participate in educational practice. The teaching reform is the core of the curriculum reform of teacher education. The spirit of the curriculum reform of basic education should be carried out in the process of training normal students to improve the ability of new teachers to implement the new curriculum.
2.2. The CBL teaching method

CBL (Case-Based Learning) is a kind of group discussion teaching method, which is based on the case, designing the related problems, guiding and inspiring the students to discuss the problems. In the report of “A Nation Prepared: Teachers for the 21st Century”, the Carnegie Task Force particularly recommends the value of the CBL approach in teacher development programs and regard it as a kind of quite effective teaching mode.

The core of CBL teaching method is case-based, problem-based, student-centered and teacher-led. Its goal is to improve students’ initiative in learning and their ability to use knowledge effectively to solve problems. The teacher is the guide of teaching. The teaching should make the study taken place in the situation similar to the real situation, aiming at solving the problems that the students meet in their own study and teaching practice. Eventually, the students will reach the level of independent study.

In a word, the CBL teaching method is used to inspire students to solve problems through self-exploration and group cooperation in the process of learning new knowledge through case-based real problems. This will improve students’ ability to find, analyze and solve problems. It fits the requirements of teacher education curriculum to improve teachers’ education and teaching ability.

3. The application of CBL teaching method in the teacher education curriculum

Teacher education is the power source of improving the quality of education. In the plan for the revitalization of teacher education, it is proposed to improve the comprehensive quality and ability of normal school students, innovate the model of teacher education and cultivate outstanding teachers in the future.[3] The teacher education curriculum is a curriculum that guides and trains future teachers to master the necessary educational knowledge and ability. The application of CBL teaching method in the teacher education curriculum is helpful to guide normal students from passive learning to active learning and to cultivate their comprehensive practical ability to find problems and solve practical problems in teaching. The application of CBL teaching method in the teacher education curriculum includes five aspects: setting objectives of the curriculum, designing problems based on cases, setting up cooperative learning groups, exploring communication, evaluating and reflecting.

3.1. Setting objectives of the curriculum

The curriculum objectives of teacher education include educational belief and responsibility, educational knowledge and ability, educational practice and experience. According to the curriculum goal and curriculum setting of teacher education, the learning goal of teacher education curriculum based on the CBL teaching method includes knowledge goal, skill goal and quality goal.

The learning goal uses the behavior goal statement technology. Behavioral goals come from the behaviorism. The statement of behavior goal satisfies at least two conditions: the behavior expression after teaching and the condition that the behavior produces. The behavior after teaching is what students can do after learning the teacher education curriculum based on the CBL teaching method and the condition of the behavior which provides the question situation based on the teacher education curriculum content. The ultimate goal is for students to apply what they have learned after learning a teacher education curriculum based on the CBL methodology. According to the curriculum goal, the teacher education curriculum teaching content is divided into the topic, based on the case design question. According to the students from the original level to reach the teaching objectives between the need for subordinate knowledge and skills, teacher set teaching objectives and teaching plan.
3.2. Design problems based on cases

The second part of the application of the CBL teaching method in the teaching of teacher education course is to design problems based on cases, in order to arouse students’ interest and thinking. Based on the curriculum goal of teacher education and the goal of cultivating applied talents, the teachers should improve the effectiveness of the CBL teaching method in teacher education curriculum. The curriculum design of teacher education should be based on the curriculum content and take full account of the actual needs of education and teaching.

The teaching content of teacher education curriculum is divided into special topics, around which cases are selected. The problem of case-based design in teacher education curriculum is designed by teachers according to the practical problems in education and teaching, the cognitive level of students and the content of teacher education curriculum. The selected cases should be objective, real and enlightening. The problems of case-based design include the problems related to the content of teacher education curriculum, the practical problems to be solved in education probation, education practice problems found by students in their own learning practice and problems found by teachers at any time in the teaching of educational courses. In short, case-based design should consider the authenticity of the problem and the relevance of teacher education curriculum.

3.3. Set up cooperative learning groups

The teachers can help the students set up cooperative learning groups according to the gender ratio, interests, learning ability, communication skills and so on. The group leader may be recommended by the teachers or the students themselves. It is elected by a democratic vote within the group.

After the group leader is confirmed, the group communication group can be established and the communication platform within the group is set up. The teachers should consider the following three factors carefully when forming groups. Firstly, the students establish membership according to the special interests and skills. Secondly, it can be re-grouped for specific content. Thirdly, there will be harmonious interpersonal relationship within the group.

3.4. Explore Communication

Exploring communication is the core aspect of the application of the CBL teaching method in teacher education curriculum. At this stage, based on the content of the teacher's education curriculum and the case of the actual demand for education and teaching, each group provides literature and various resources through the teacher, searching for information, discussing cases, and exploring solutions according to the tasks. Finally, the various groups to integrate the results of research and exchange reports. At the same time, the format and requirements for record-keeping are discussed in a standardized group. There are various forms of group discussion. The results can be visualized in the form of PPT.

In the process of inquiry and communication, the teachers should guide students to summarize the gains in the process of solving problems. On the one hand, they should make comments and summaries on the contents of teaching activities and guide students to reflect on the problems in the process of problem-solving.

3.5. Evaluation and reflection

The teaching content of teacher education course based on the CBL teaching method is divided into special topics, which are designed around special topics and selected cases. After each project, the teacher and the student communicate the teaching effect, carries on the appraisal and the reflection, adjusts in time. According to the different functions of evaluation in teaching activities, teaching evaluation can be divided into three types: diagnostic evaluation, formative evaluation and summative evaluation. The evaluation method based on CBL teaching method
combines self-evaluation, mutual evaluation and teacher evaluation. The teaching evaluation is mainly formative evaluation, supplemented by summative evaluation.

4. Conclusion

The CBL teaching model can be used to design courses, as well as improving teaching methods, stimulating learning motivation and helping students face the difficulties and challenges in the process of education and teaching. The CBL teaching method is valuable to the innovation of teacher training, especially in the pre-service stage of teacher training. It can help pre-service teachers to build up their practical knowledge of teaching. Because of this kind of case teaching needs to prepare case teaching materials in advance, as well as to spend more time, the CBL teaching method is subject to some restrictions on application. However, in a world where teacher development is increasingly focused on improving teaching methods, there is a lot of room for it.

References