

The Construction of Training Model of Prospective Teachers' Teaching Competence Based on Learning Study

Ligang Jiang^{1, a}, Jialong Liu^{1, b}

¹School of Teacher Education, Leshan Normal University, Leshan, 614000, China

^awynjlg1704@163.com, ^btianningmeng@126.com

Abstract

Teaching Competence is the basic professional competence of prospective teachers. In the 1970s, Phenomenology was proposed based on human experience. In the mid of 1990s, the variation theory was applied to classroom analysis in Hong Kong of China. After years of practice, the theory of learning study plays an important role in promoting teachers' professional development. In normal universities, the theory of learning study can be applied to promote prospective teachers' teaching competence. Specifically, the process of training can be implemented according to the following steps: first, select the topics of teaching and plan the object of learning; secondly, confirm the critical features and clarify the object of learning; thirdly, draw up learning objectives and design teaching plans; fourthly, implement the teaching design and reflect on the teaching effect; last, share the learning experience and show the development of competence.

Keywords

Learning Study; Variation Theory; Teacher Education; Teaching Competence.

1. Introduction

Teaching Competence is the basic professional competence of prospective teachers. It not only has a direct impact on the professional development of prospective teachers, but also has an important impact on the high-quality development of basic education in the future. Normal colleges and universities have an important responsibility for the education of primary and secondary school teachers. How to improve the teaching competence of prospective teachers is an important issue to be considered in the reform and practice of teacher education. In the 1970s, Professor Ference Marton and his research team proposed Phenomenology based on human experience [1]. They believe that people's understanding of the world is due to the relationship between people and the world. The Variation Theory was derived. By the mid-1990s, Professor Lu MINLING of the Hong Kong University of education and her research team applied Variation Theory to classroom analysis [2]. The theory of Learning Study was proposed based on the idea of Variation Theory, Lesson study of Japan and teaching Study of China. After more than 20 years of development, Learning Study has gradually expanded from Hong Kong to the whole world, which plays an important role in the innovation and development of teacher education.

2. Theoretical Perspective

The theory of Learning Study is based on three core concepts of Learning, object of learning and variation, see Figure 1. Human beings have been in constant contact with the outside world since they were born. Therefore, people must have corresponding experience before learning. These experiences constitute a preconceived view of the object of learning. So, Learning is to change the ways of seeing. Only when people have a wise view can they have a wise action. [3] The object of learning is the core of Learning Study. It is the bridge between teachers and

students in classroom. Learning must point to something, and this thing is the object of learning. The definition of object of learning focuses on the critical features or critical aspects of this object. This focusing process is discernment. People must experience variation in order to identify the critical features [4], then people can establish an understanding of this object of learning. In the process of variation, teacher can create pattern of variation to focus on the critical features. There are three different levels of variation (V1, V2, V3) [5] in the process of classroom teaching.

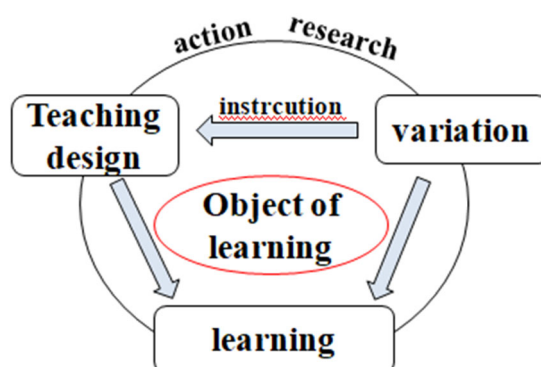


Figure 1. Relationship between the Three Core Concepts of Learning Study

V1: Students' different understanding of object of learning

Students' learning needs are very important for the achievement of classroom teaching and learning objectives. Teachers must consider this problem before teaching implementation. Each student's life experience and cognitive development are different. For the same object of learning, different students have different understanding or views. Teacher must try to master the students' existing understanding or views before teaching and must examine whether students' views have changed after teaching. The changes of students before and after learning will be the resources to improve the next round of teaching practice.

V2: Teachers' different views on how to deal with the object of learning

Every teacher has different knowledge, experience and competence. They also have their own advantages and disadvantages. For the same object of learning, they will have different understanding and different processing methods. Before teaching implementation, teachers can share their own experiences and exchange ideas of the same object of learning. They can also carry out teaching design, teaching observation and teaching reflection together to improve teaching efficiency.

V3: Using variation to guide instructional design

Everything has many characteristics. When one or some of the features change and the other features remain unchanged, the changed feature will be discernment. In order for this process of discernment to occur, people must feel that things are changing. This requires teachers to deeply deal with the object of learning, flexibly use variation, and guide students to focus on the critical features of the object of learning before teaching implementation.

In short, Learning Study is an action research around the object of learning. The three variations (V1, V2, V3) are at different levels, but they always focus on the object of learning and point to the students' learning.

3. Model Construction

Teaching Competence is not only the main object of learning in college classroom, but also the goal of prospective teachers of learning. Prospective teachers mainly present two identity roles

of current learner and future teacher in classroom learning. Based on Learning Study, the training of prospective teachers' teaching competence focuses on the interaction between these two identity roles. In the process of learning study, prospective teachers must regard every training opportunity as real classroom teaching, and then do the teaching reflection as teachers. In this way, prospective teachers' teaching competence should be developed. The essence of Learning Study is a kind of action research. It includes several steps such as plan, action and reflection. The process of training of prospective teachers' teaching competence generally follows the basic steps of action research. In practice, some steps will be changed or adjusted according to the actual situation of teaching in the college, see Figure 2.

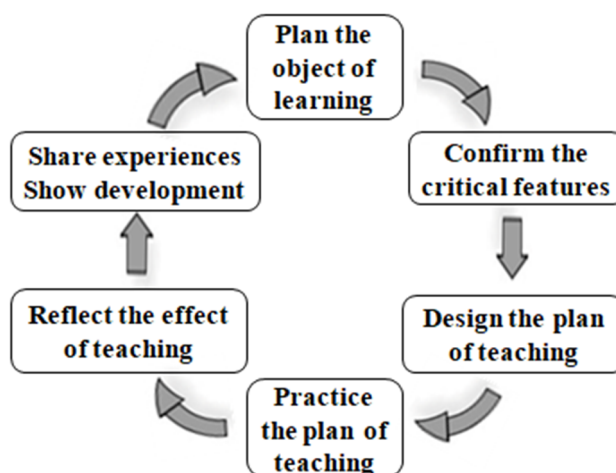


Figure 2. Training Model of Prospective Teachers' Teaching Competence

Step 1: Select the topics of teaching and plan the object of learning.

The selection of teaching topics is the starting point of classroom teaching practice. At the beginning of learning study, prospective teachers should take textbooks as the main accordance and choose a topic of teaching. When they select, they must consider their knowledge, experience and competence. In this process, prospective teachers will alternately transform the two identity roles of learner and teacher, and preliminarily plan the object of learning content with V1 and V2. First, prospective teachers should answer some questions to understand students' specific understanding of the object of learning based on their own learning experiences during elementary and secondary school.

1. What is the relationship between the object of learning and students' existing learning experience or life experience?
2. What difficulties will students encounter in the process of learning?
3. What help do students want teachers to provide in the learning process?

Secondly, prospective teachers should analyze the object of learning from the perspective of teachers. They need to focus on these issues:

1. What knowledge and competence does this object of learning mainly require students to develop?
2. What knowledge and competence are more important in this process of learning study?
3. Where should teachers start teaching design?

Step 2: Confirm the critical features and clarify the object of learning.

The critical features are very important for students' classroom learning. Students' mistakes or deviations in understanding of the object of learning are often because they do not understand the critical features[6]. So teachers should emphasize the critical features in the practice of teaching to ensure the implementation of classroom teaching and the effective achievement of

learning objectives. In this step, V1 plays a very important role. Prospective teachers should go to primary and secondary schools as far as possible to investigate the students' learning experience and life experience. Prospective teachers can clarify the object of learning by the investigation of students' existing experience and understanding of learning difficulties.

Step 3: Draw up learning objectives and design teaching plans.

Learning must point to the object of learning. The object of learning is not the goal of teaching.[7] Teaching goal is an expectation of students' future learning results. It is a result of students' learning. The object of learning refers to what students need to learn to achieve their expected goals. It is the starting point, but not is the finishing point. The object of learning has two qualities: the special quality refers to knowledge of subject and the general quality refers to competence development. Before the implementation of teaching, prospective teachers should draw up the learning objectives according to the qualities of the object of learning. In the practice, prospective teachers create the pattern of variation(V3) to design the teaching strategies, teaching tools and teaching activities. Finally, a complete teaching design plan is formed, which lays a foundation for the follow-up classroom teaching practice.

Step 4: Implement the teaching design and reflect on the teaching effect.

The formation of teaching design scheme needs to be rooted in the accurate identification of the object of learning and the reasonable creation of pattern of variation. The effect of teaching design can only be defined through the practice of classroom teaching. The training of prospective teachers' teaching competence is often organized in the form of groups. In the process of training, one group member simulates teaching practice, while other members observe and reflect the teaching practice at the same time. After the simulation teaching, all team members discuss and reflect on the classroom teaching. Combined with the discussion and reflection opinions, the group will jointly complete the revision of the teaching design scheme. Based on the revised teaching design scheme, the teaching is implemented again. Following the basic paradigm of action research, teaching practice will experience 3-5 cycles. Based on such repeated training, we can improve the prospective teachers' teaching competences, such as the competence of teaching design, teaching implement, teaching evaluation and teaching reflection.

Step 5: Share the learning experience and show the development of competence.

After completing the teaching practice cycle of the same object of learning, each prospective teachers learning group can sort out and analyze all the materials in the process of learning study. They can share experience within the group, within the class or grade, and share across classes and grades. Some excellent learning examples can record classroom teaching videos, which can not only provide resources for professional curriculum construction and professional practice teaching, but also provide reference for other prospective teachers to develop their teaching practice competences, but also obtain improvement suggestions in the form of participating in competitions or teaching and research meetings, so as to lay the foundation for the next cycle of teaching competence training. Significantly, the end of this step does not mean the end of the training of prospective teachers' teaching competence, but the beginning of a new round of teaching competence training action.

4. Practical Exploration

Leshan Normal University is a provincial public university in China. The goal of this university is to train primary and secondary school teachers in all parts of China. The primary education major aims to train primary school teachers. Take Leshan Normal University as an example, the primary education major has adhered to training the prospective teachers' teaching competences based on the theory of learning study. In the practice of the training of prospective teachers' teaching competence, the autonomy and independence of prospective teachers are

particularly emphasized. The prospective teachers must learn to develop their teaching competences with the help of teamwork and active learning. Teaching competences mainly includes the competence to prepare, present, implement, evaluate and discuss the classroom teaching. The training of prospective teachers' teaching competences is designed according to the actual development process of teachers from getting teaching materials to going to the podium to complete classroom teaching and then to after-school reflection. This process can be subdivided into seven sequences, see Figure 3.

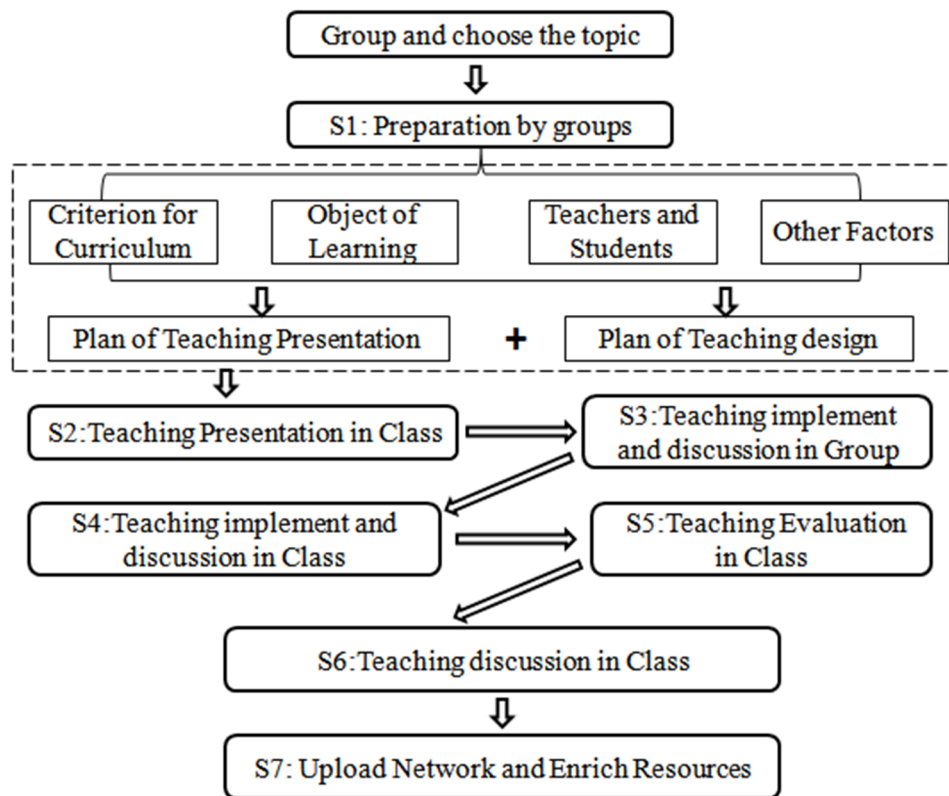


Figure 3. Seven Sequences of Teaching Competence Training

Through the above seven sequences, prospective teachers should not only integrate all kinds of knowledge learned, but also develop their teaching competences well. At the same time, we also need to coordinate multiple subjects in this training process. Specifically, these subjects mainly include prospective teachers, professoriats in noraml university, trainee and internship instructors, counselors and head teachers, college leaders, etc. These subjects are interrelated and cooperate with each other to jointly promote the development of prospective teachers' teaching competences.

After four years of exploration, Leshan Normal University has made great progress in training the teaching competence of prospective teachers majoring in primary education. Prospective teachers not only successfully passed the teacher qualification examination in China, but also won the first prize in the teaching competition for many times. Their performance after work is also very outstanding, and many of them have won awards for excellent young teachers. In short, the theory of learning study has very important value in developing normal prospective teachers' teaching competences.

5. Conclusion

The training of prospective teachers' teaching competence is a long-term process. In this process, prospective teachers need to plan, practice and reflect constantly. Only through such continuous practice can prospective teachers improve their teaching competence. In the past 20 years, Learning Study can promote the professional development of primary and secondary school teachers in Hong Kong of China. Therefore, teacher education can also promote the professional development of prospective teachers with the help of the theory of learning study.

Acknowledgments

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