

# Cultivating and Improving Young Teachers' Teaching Ability in Colleges and Universities

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**Abstract:** Young teachers are the backbone of colleges and universities. Training of young teachers to enhance their teaching ability is essential to ensure the sustainable development of the higher education. Educating students through teaching is the mandate of schools. Teaching staff, especially the young teachers, have been playing an important role in fulfilling the mandate. The quality of young teachers and their professional teaching skills have a direct impact on the quality of education, which, in turn, contribute to shaping the future of colleges and universities. This article identified that curriculum design, classroom teaching skills, pre-class preparation and post-class summary are essential for teachers to deliver an effective lesson to students. The article also explored the ways to foster and improve young teachers' teaching ability.

## 1. Introduction

Young teachers are the foundation and future for the development of colleges and universities. Training of young teachers to enhance their professional abilities is essential to ensure the sustainable development of the higher education. In 2011, the Second Phase of the Higher Education Teaching Reform and Teaching Quality Program highlighted the importance of improving young teachers' teaching skills and included it in the program. Teaching and research are the two essential functions of universities. However, the teaching function has been neglected under the current faculty performance evaluation system. Educating students through teaching is the mandate of schools. Teaching staff, especially the young teachers, have been playing an important role in fulfilling the mandate. The quality of young teachers and their professional teaching skills have a direct impact on the quality of education, which, in turn, contribute to shaping the future of colleges and universities. Building first-class universities and training first-class students require first-class teachers. First-class teachers shall have first-class teaching abilities. In this context, it worth studying the ways to foster and improve the teaching ability of young teachers.

Teaching ability refers to the ability of a teacher, whom with certain teaching knowledge and skills, to effectively achieve the educational targets and at the same time treat students as individuals to promote their personal development. It is a unity of science and arts [1]. In the context of a curriculum, teaching ability refers to the ability to impart knowledge, facilitate learning and pay attention to the development of student's mind and personality while teaching. In the context of a specific class, teaching ability refers to the ability of curriculum design, classroom teaching skills, and the ability of pre-class preparation and post-class summary.

Currently, most of the young teachers entered college to teach right after their graduation from BS to PhD direct-path programs. These young teachers are good at research but lack of teaching skills. It is important to train the young teachers to enhance their teaching skills, especially the skills of curriculum design, classroom management, teaching method and teaching procedures [2-5]. The article explored the ways to foster and improve young teachers' teaching ability from the perspective of delivering an effective lesson to students.

## 2. Lesson Planning

Lesson planning ability reflects a teacher's curriculum design ability. It refers to the ability of teachers to prepare and customize the teaching contents and adopt the appropriate teaching mode by

taking into account the characteristics of students so as to maximize the teaching effectiveness. A successful lesson plan address and integrates three key components: identifying the learning objectives, preparing content knowledge, and planning teaching activities.

According to constructivism learning is learning is an active process where learners should learn to discover principles, concepts and facts for themselves; and knowledge develops from individuals' interactions with their culture and society. Students therefore play an active role in the learning process by “constructing” knowledge out of their experiences. Meanwhile, a teacher’s main roles are as a designer, organizer, participant, facilitator and reviewer – there to guide students to identify and solve problems, offer advice on knowledge construction, encourage independent thinking, and foster creativity among students. A successful lesson planning is conducive to create a positive learning environment that enables students to become self-motivated learners, stimulate their interest in learning and build their own knowledge structure. Lesson planning ability is an important skill that university teachers must have. A successful lesson planning constitutes 50% of the successful class results.

## **2.1 Teaching Objectives**

Each course shall have well-defined teaching objectives. Teaching objectives are the bases for teachers to prepare the content knowledge and plan their teaching activities. They are outlined in the syllabus and explained to students during the first lesson. Teaching objectives typically include three components: (i) curriculum content, structure, relationship of different contents and their applications and impacts; (ii) the essential knowledge, theory and basic analytical methods which a student must understand and master in the course; and (iii) the ability that a student will gain and the corresponding teaching methods. Teachers should also identify lesson-wise teaching objectives which describe what students will know and be able to do after the lesson.

## **2.2 Teaching Contents**

Teaching Contents is the body of knowledge that teachers teach students in a given subject. While teachers have textbooks, they should not simply copy the materials from a textbook to their PowerPoint presentations. A qualified teacher should thoroughly understand the teaching contents and be able to summarize and explain the essence that a student must learn from the lesson in the PowerPoint presentations. There is a popular Chinese saying “to give students a glass of water, the teacher should have a bucket of water”. This can be translated into that teachers should possess deep understanding of the contents that he or she teaches students. To gain a deep understanding of the content and be able to teach students, one must read classic textbooks and understand the structures of the discipline that he or she teaches. It is also critical for young teachers to attend the class of experienced teacher to learn their ways of effectively imparting knowledge to students.

PowerPoint has been a useful teaching tool which is now being used in many classrooms. It not only allows teachers to effectively present the knowledge contents but also help teachers to draw students’ attention to the class. Its applications in teaching and learning settings provide better means of data storage and information communication. Well-prepared and used thoughtfully, PowerPoint can help teachers enhance the teaching sessions and invigorate students’ enthusiasm for learning by using multimedia to present knowledge contents, case studies, clarify understanding, inject visual interest, etc. There are some tips for making effective PowerPoint presentation for teaching: (i) headings and sub-headings shall be properly formatted and the contents shall be clearly structured; (ii) use different colors to distinguish different contents and highlight the key contents; (iii) Limit the number of colors on a single screen; (iv) use contrasting colors for text and background. Dark text on a light background is best; (v) appropriately inject visual interests such as graphics, images, animation, sound effects, and videos to present information to create a lively classroom environment.

## **2.3 Teaching Activities**

Teaching activities shall be prepared before class and noted down in the lesson plan. A lesson plan is a teacher’s detailed description of course instruction or a guide for running a lesson. It is

critical important as it details the order of teaching contents and the teaching methods. Young teachers should spend time and efforts to develop a good lesson plan prior to class. The lesson plan also reflects the teacher's philosophy of education. Typically, it covers the method, the procedure, the application of multimedia, and the ways to present supplementary learning materials to achieve the learning objectives of a lesson. Proper teaching methods and approaches stimulate students' interest to learn and improve the learning effectiveness.

### **3. Classroom Teaching Skill**

Classroom teaching skill refers to the ability that enables students to gain a considerable amount of knowledge by providing systematic explanation of the knowledge. It is a combination of language skill, organization skill, black-board and PowerPoint application skill, and the skills to create a warm and active classroom environment, etc.

Classroom teaching skill has a great impact on the teaching quality. It is also the most difficult skill for young teachers to master because it not only requires years of study and practice, it only depends on individual's language skills. For teaching methods and approaches, one need to keep up with the latest trend and apply while taking into account the students' level of knowledge and skills.

#### **3.1 Teaching Objectives**

The teaching quality and effects of a teacher largely depends on his or her language skill. The language skill is the ability that a teacher expresses the ideas, knowledge, technology, beliefs and emotion through verbal communication together with facial expressions. Teachers needs to have good language skills to help students understand the knowledge by accurately transforming the concepts written in the textbooks to spoken language that are easy for students to understand, bear in mind and apply in the future. Teachers' language skill has a direct impact on students' learning psychology. A teacher with good language skill acts as a magnet that can draw students' attention to the class, enable students to gain better understanding of the contents, enhance their memory of knowledge, and constantly stimulate students' interest in learning while keeping them in good moods. In contrast, lack of language skills may reduce students' learning interests, distract them from class, and even put students' in anxious moods. Foreign psychologists have demonstrated with a number of experiments that once a student lose his or her interest in learning, the student's ability to think, understand, memorize and other cognitive capacities will be negatively affected which may lead to a poor academic performance.

While many believe that language skill is congenital, people can improve their language skill by practicing. This will require an enabling environment and sometimes is affected by one's psychological activities. To deliver an effective lesson, young teachers need to feel responsible for students learning process and be passionate about teaching. Besides, they need to learn from senior teachers by asking questions and attending their classes with an open mind. Many universities allow experienced teachers and school management to attend the lectures given by young teachers. In fact, universities should also set up a system which allows young teachers to learn teaching skills by attending the classes given by effective teachers. Additionally, young teachers need to spend more time and efforts in pre-class preparation. Specifically, they should try give living examples to help students intuitively and vividly understand abstract knowledge.

#### **3.2 Teaching Methods and Approaches**

In addition to the traditional teaching methods such as lecturing, inquiry-based learning, classroom discussion, debriefing, and case studies, universities should explore innovative teaching methods that incorporate internet, multi-media and other modern devices that came into existence along with the information technology development, especially the development of massive open online course (MOOC) system [6-7]. The following teaching methods may be explored.

### **3.2.1 Blended Learning**

Firstly, this educational approach that combines online educational materials and opportunities for interaction online with traditional place-based classroom methods should be promoted in universities. The interaction between teachers and students in universities traditional takes place in classrooms. With the development of information technology, teachers and students are able to interact via internet. For example, the online Q&A session not only allows a teacher to answer a student's question but also enables students with similar question to efficiently find the answer. Secondly, the blended learning method provides teachers and students with a variety of means to interact. In addition to asking questions during the class or during a class break, modernized communication technologies such as QQ, Wechat, and the forum of online-class platform could be widely used so that the communications between teachers and students are no longer confined to physical classroom. These technologies can help improve teaching and learning efficiency by providing both teachers and students with more space and flexibilities to exchange ideas.

### **3.2.2 Flipped Classroom**

The first step to set up a flipped classroom is to create an official website for the course so that students can obtain the course syllabus and learn relevant course requirements from the website before class. Next, students are required to take the lessons using the online instructional videos and complete homework before class. Then in the class, students' learning outcomes including their homework will be reviewed by teachers. Flipped classroom will enhance students' critical thinking skills by offering them with the opportunity to raise and answer questions from each other. Students can also seek help from teachers during class or after class via the class website. With a student-centered teaching model, the flipped classroom not only improves the classroom teaching efficiency but also promote students' learning interest and self-learning ability.

### **3.2.3 Rain Classroom**

Rain Classroom has been an effective tool to facilitate classroom interaction and engagement of large classes. Teachers prepare quizzes based on the course contents before class and ask students to take quizzes in class. Test results are reviewed subsequently by teachers in class through Rain Classroom. Teachers thus are able to assess students' understanding of the materials and adjust the course content and time allocation in a timely manner. The use of Rain Classroom also enables students to closely follow the teachers' lecture and compare his/her performance with others, thus motivating students' enthusiasm for learning.

### **3.3 Blackboard and PPT Combination**

With the popularization of educational technology, PPT courseware has become a common method for lecture. However, students are tired of teacher reading PPT, and not every courses are suitable to use PPT for teaching. So how to properly use the blackboard and PPT is a challenge for young teachers. The obvious advantage of blackboard teaching is slower than PPT teaching, so it can make students easily keep up with the teacher's lecture. Compared to blackboard teaching, the obvious advantage of PPT teaching is good visibility, which can attract students' attention through animation and color and increase the students' learning interest. So the blackboard and the PPT can be combined in lecture. In order to students to understand and remember, and teacher's teaching, the knowledge hard to understand is displayed with PPT graphically, and some contents can blackboard, such as derivation, key elements, memorized and be used later. Of course, it is not absolute. If PPT can be designed well, such as the contents gradually appear, the need knowledge and formulas are displayed real time, then the blackboard is not necessary.

### **3.4 Classroom Atmosphere Mobilization**

Classroom atmosphere is also a criterion measuring a teacher's teaching quality. A good classroom atmosphere directly or indirectly affects the teaching quality. To have a good classroom

atmosphere, teachers should be able to have the following ability: (i) the teachers should have enthusiasm and smile when teaching. No matter what happened and experienced before class, as long as standing platform, it is necessary to make the teacher's responsibility and live one's part. (ii) a lot of interaction should be done between teachers and students, so that each thought collisions in the exchange, because the students' thinking and learning enthusiasm need to be inspired. The student's viewpoint may not be the correct answer to the question, but it may provide another idea for solving other problems, even the teacher did not think of this idea. (iii) Teachers should learn to encourage students more. In fact, all of us need encouragement, especially students. For example, if a student can't answer one question, the teacher should not criticize him immediately. The teacher should guide him to get the answer. (iv) Active classroom atmosphere also requires teachers to pay more attention. For example, illustrating the practical application of theoretical knowledge, especially close to the daily life, which is very interested for students. Also in the teaching to insert a buzzwords or current events. The teacher should pay attention to students' listening mode. If discovering some students tired, the teacher should take appropriate means to mobilized the students. In short, try to keep the student's brain active and follow the teacher's lecture.

## **4. Pre-Class Preparation and Post-Class Summary**

### **4.1 Pre-Class Preparation**

Pre-class preparation involves reviewing the contents taught in the previous lesson to lay the foundation and better prepare for the new lesson. Reviewing and reinforcing the knowledge learned in the previous lesson are two key elements of pre-class preparation. It is also vital for teachers to understand the level of students' learning and be very familiar with the contents to be taught to make an effective lecture.

Teachers should also identify the common mistakes made by students in the homework and then analyze the reasons of mistakes and explain to students how to correct the mistakes. It is very important, especially for young teachers, to review students' homework because it allows teachers to summarize the mistakes of students, identify their areas of weakness to be further strengthened, and improve the teaching method to help students acquire knowledge in the future classes.

In terms of teaching effectiveness, pre-class preparation is more important than post-class summary.

### **4.2 Post-Class Summary**

Post-Class summary involves two elements: one is to summarize the course contents taught during class; the other is to summarize the teacher's own teaching performance.

Course contents summary is to refine the information disseminated to students. A good summary can play a finishing touch. And to make a good summary, teachers need to have a deep understanding of course contents and be able to capture the essence. Additionally, to enhance students' self-learning ability, teachers could encourage students to do post-class summary themselves while providing students with necessary guidance. This will offer students opportunities to reflect on what they have learned and be prepared to learn new knowledge. And this is why it was mentioned in 4.1 that 'pre-class preparation is more important than post-class summary'.

Teaching performance summary is that teachers evaluate and summarize their teaching methods, procedures, and effects. It is a teacher's self-review on whether the lesson plan has been implemented as designed and whether the lesson objectives have been achieved. This will allow a teacher to find his/her own shortcomings and keep improve the teaching skills. In short, the purpose of post-class summary is to find the good teaching methods, identify deficiencies, and strive to overcome the deficiencies.

## **5. Others**

In addition to lesson planning, classroom teaching skills, pre-class preparation and post-class summary, teachers may do a survey at the end of class to collect students' feedback on their

understanding of the course contents and the evaluation of teachers' teaching performance. For example, the survey may include such questions as "which part of the course contents are you most interested in", "which part of the course contents is easy to understand and which part is difficult", "which part of the lecture is taught well and which part is not", "what improvements should the teacher make", etc. By reviewing students' feedback, teachers will be able to improve the teaching approach so as to make the teaching more effective in the classroom.

Participating in education conferences and teacher competitions will also help teachers to enhance their professional skills. Education conference provides teachers with opportunities to discuss and exchange ideas, keep up-to-date with latest development and trends in education, and learn and get advice from experienced senior teachers. Meanwhile, teachers could strengthen teaching skills through the training of teacher competitions.

Individual knowledge structure also plays an important role for teachers in delivering an effective lesson. It is insufficient that a teacher is only knowledgeable for the course that he or she teaches. Teachers should also be familiar with the contents of related courses, especially those students will take in the subsequent semesters for the major. In this way, teachers would be able to give an informative and fruitful lecture.

As mentioned above, teachers who are in Colleges and Universities have two main tasks: teaching and research. So Teachers also should put their scientific research into teaching, which will make the class more vivid, specific and attractive. That is we want to make teaching and research mutual promotion.

## **6. Conclusion**

Teaching ability fostering is a long-term system engineering. The teachers need to practice many times and combined with their own thinking and hard work, so as to reach a higher level. The teachers must understand the training system of the subject they teaching, know the role of the course they teaching in the training system, so as to make the teaching targeted and objective. In order to teaching a course better, the teachers must have responsibility and enthusiasm for teaching, put energy in teaching. The teaching ability can be improved by persistent study, post-class thinking, research and teaching combination, participating training and communication activities.

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