

# Research on Promoting Young Teachers' Collaborative Development Based on Center of Teaching Development

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**Abstract**—Centers of Teaching Development (CTD) in university have an important mission to cultivate teaching quality of teachers. CTD in Beijing University of Technology (BJUT) has been established in 2011. The effective pattern to promoting development of young teachers' teaching ability is established in order to solve the dilemma between the lack of teaching ability and the rapid growth of young teachers' amount based on CTD in research-oriented university. The problem how to make the individual young teacher who is in the independent academic organization, isolated and has not learned and practiced systemic education theory to become learning community in order to accomplish collaborative development of teachers' teaching ability is solved in this paper. Series of measures, such as motivate mechanism-oriented, pass on experiences of outstanding teachers and team-link, peer communication-supplement, training and high quality good resources as demonstration have been explored to accomplished collaborative development of young teachers. The approach to advance teaching ability of young teachers is also explored in this research.

**Index Terms**—center of teaching development, collaborative development, new young teacher, teaching quality

## I. INTRODUCTION

University is a major part of enhancing teacher's teaching ability and promoting teacher's development [1]. Derek Bok Center for Teaching and Learning in Harvard University is one of the earliest centers for teaching and learning in the United States. It is devoted to improving teachers' teaching level and promoting teaching quality of undergraduate furthermore by providing supports to teachers. The aim of this center is to help teachers to become good researchers and good educators [2]. Similar institutions were set up in American colleges and universities generally in 1990s [3].

At present, the technicality, independence, specialty and influence of teaching and development center in our university are obviously insufficient. The concrete manifestation is that the nature of the center has not been displayed fully, the organizational system of the center is not complete, the role of center is not enough, and the coverage is not wide enough [4]-[6]. In a narrow sense, the development of teachers in colleges and universities

refers to the development and improvement of teachers acting as an instructor, that is, the improvement of teaching ability [7], [8]. Center of teaching development (CTD) in Beijing University of Technology (BJUT) was established in 10th Dec 2011. It is presented that the distinctive CTD for teachers need to be established in university to promote teaching abilities of young teachers in particularly in *The Suggestion about Strength the Construction of Teacher Ship by the State Council of the Peoples' Republic of CHINA* (No. 41 [2012]) [9]. The progress construction of research-oriented university in BJUT has a rapid growth during the 12th Five-Year Plan period. There is the dilemma between the lack of teaching ability and the rapid growth of young teachers' amount in university. The problem how to promote the teaching ability of young teachers in research-oriented university should be solved so as to maintain the high-teaching quality of BJUT.

To solve the problems mentioned above, an effective pattern in promoting development of young teachers' teaching ability was established in BJUT, a research-oriented university. The problem how to make the individual young teacher who is in the independent academic organization, isolated and has not learned and practiced systemic education theory to become learning community in order to accomplish collaborative development of teachers' teaching ability is solved effectively. The aim of BJUT is construction of international, characteristic and high level research-oriented university during the 13th Five-Year Plan period, so the international and high level teacher ship should be established to accomplish this aim. The rapid growth of the amount of young teachers in BJUT will be accomplished too. So there is an important mission that training and cultivating system and pattern of young teachers is improved and intension-type development of young teachers' team is deepened based on CTD.

## II. RESEARCH METHODS

Several important academic problems, such as formation law of teachers' teaching quality and obstructive factors of young teachers' teaching development, have been clarified according to the high education research subject of Beijing Education Commission. Collaborative development of young

teachers' teaching ability based on CTD in BJUT is presented. Series of measures, such as motivate mechanism-oriented, pass on experiences of outstanding teachers and team-link, peer communication-supplement, training and high quality good resources as demonstration have been explored to the accomplishment of

collaborative development. The normalizing, institutionalized and ordering operating mechanism have been established in CTD of BJUT. The pattern to promoting collaborative development of young teachers and innovate developed philosophy of young teachers is explored (as shown in Fig. 1).

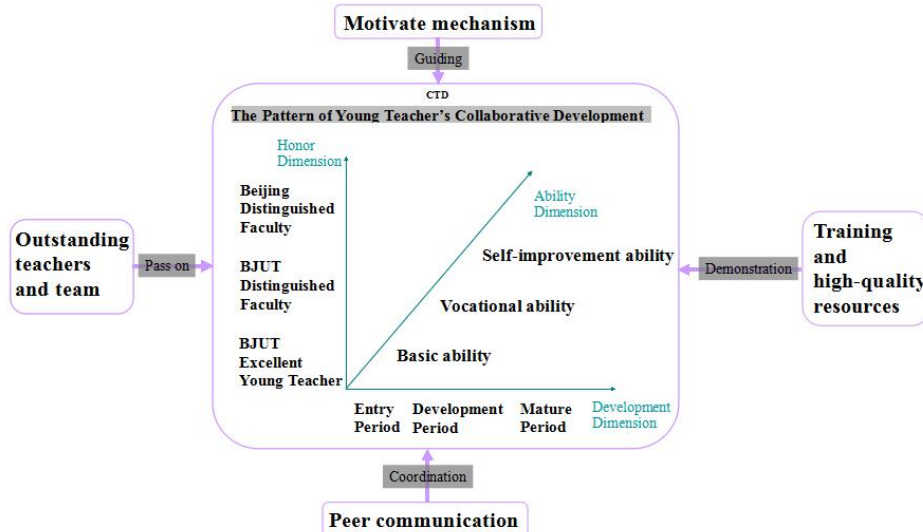


Figure 1. The pattern of young teachers' collaborative development based on CTD.

### III. RESULTS AND DISCUSSIONS

#### A. Professional Development of Teacher Through Honor System and Institution

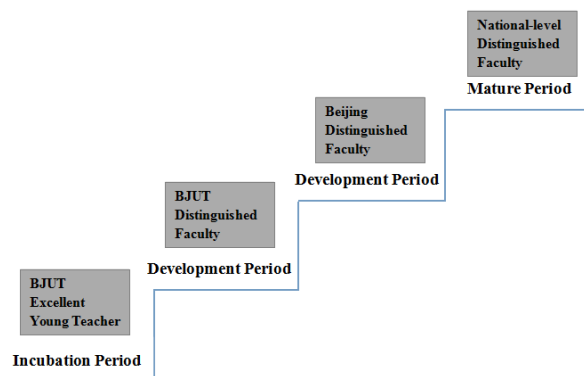


Figure 2. Hierarchical multilevel honor system of teacher in BJUT.

Hierarchical multilevel honor system of teacher has been established in CTD in order to guide young teachers to become good teachers who have ideal, belief, moral sentiment, solid knowledge, benevolence and can be satisfied by the party and people (Fig. 2). Honor system of teachers in BJUT includes: excellent young teacher award of BJUT, rewarding young teachers under the age of 40; distinguished teacher award of BJUT, rewarding young and middle-aged teacher with certain teaching experience and scientific research achievements over the age of 40; distinguished teacher award in Beijing and national teaching master award, rewarding high level teachers with abundant teaching experience and scientific research achievement. Selecting methods and reward

system of the above awards should be improved to strengthening core teaching position. Besides, the program of ability promotion for basic teaching teachers in BJUT is formulated to support front-line teachers. This program includes: training plan of excellent lecture, supporting plan of senior lecture, and supporting plan of special lecture.

#### B. Coordination between Team Developed and Personal Growth through Learning, Helping and Guiding of Teaching Team and Distinguished Teacher Team

##### 1) Young teacher join in team of distinguished teacher to fulfill personal growth by guidance of team

The important pattern that young teachers are instructed by supervisor and join in the distinguished teacher teams is professional development of young teachers in university. BJUT have six National-level teaching teams, ten Beijing Municipal-level teaching teams, three National-level award distinguished faculty, and twenty-seven Beijing Municipal-level award distinguished faculty. Furthermore, two teaching teams are built up through two National-level award distinguished faculty, Professor Xinyi Chen and Professor Qinshan Fan who are employed from Tsinghua University.

##### 2) Teaching, helping and guidance of older teacher through assistant-teaching training of young teachers

New young teachers who have passed pre-job training (induction training) and assistant-teaching training have qualification to teach undergrad students due to BJUTs' policy. The assistant-training of new young teachers obey the rules which are combination of centralization and decentralization, combination of theory and practice. The specific training plan of new young teachers is

formulated by college. The academic affair office is in charge of centralized training and the college is in charge of processing management. Final assess is accomplished by academic affair office and college.

New young teachers are guided by supervisors who have abundant teaching experience in the college. New teachers must accomplished assistant-teaching of one course. The contents of one course's assistant-teaching should include: knowing every teaching procedures of this course, answering questions for students, homework correcting, teaching exercise class, participating proposition and revising the examination paper, guiding students to do experiments and so on. During assistant-teaching of one course, new young teacher can trial lecture section of this course by guidance of supervisor. Trial lecture of new young teacher should be evaluated by

experts in college after competition of one course's assistant-teaching. New young teachers should submit to the records and summary of assistant-teaching training and provide 16-class hours teaching plan of one course in order to be evaluated by academic affair office. One-class hour teaching section choosing by supervisors used to trail lecture and be evaluated. After evaluation, certification for young teachers' assistant-teaching training of BJUT is issued to new young teachers by academic affair office and personal department. This certification means that new young teachers have qualification to teach undergrad students and is necessary prerequisite for assessment of professional titles. The opening and graduating ceremony of young teaches' training in BJUT are shown in Fig. 3.



Figure 3. The opening and graduating ceremony of young teaches' training in BJUT.



Figure 4. Lunch seminars of young teachers' communication in CTD of BJUT.

### 3) Pairing and helping between new young teachers and older teachers in teacher echelon construction

After assistant-teaching training, new young teachers will be guided by supervisors in the college furthermore. New young teacher will pair with supervisor who have abundant teaching experience, and carry out 'pairing and cultivating between new young teacher and older teacher' teaching research program. The guiding contents and aim

will be demanded by supervisor and college. New young teachers will formulate their own professional development plan through teaching research program.

### C. Collaborative Development among New Young Teachers Through Various Peer Communication and Deliberating Activities

The aim of CTD is to form a teaching culture in the university, cultivate teaching innovation ability and

critical thinking of teachers by discussion, expression and group work, and achieve collaborative development among new young teachers. The communication among new young teachers is promoted through distinguished engineer forum, special skill exchange, and spontaneous discussion in CTD of BJUT.

#### 1) *Communion among new young teachers through Lunch Seminar*

Lunch Seminars are organized to gather teachers and discuss teaching problems in CTD of BJUT. The contents of Lunch Seminar include: teaching research, teaching method, teaching technology, teaching rambling, teaching achievement and so on. Not only will be the advanced teaching ideas passed on to other teachers, but also the young men's teaching ability will be enhanced through the discussion of some 'small' problems on classroom teaching practice, such as 'how to organizing teaching in one course?', 'how to teaching a course excellently?', 'face-to-face communicate with distinguished teachers'. Several lunch Seminars of young teachers' communication in CTD of BJUT are shown in Fig. 4.

#### 2) *Collaborative development among new young teachers through distinguished engineer forum*

In recent years, doctor and master who graduate from university are cultivated by guidance of research-oriented engineering and scientific outlook. They have high ability to do scientific research and experiments, but lack of engineering background. When they entry to university being a teacher, they could not strengthen engineering practical ability or engineering quality of undergrad students effectively. Based on demand of reform in education and development of engineering education, engineering master forum is chosen to enhance engineering quality of undergrad students and make up the lack of young teachers' engineering background.

#### 3) *Match among new young teachers through classified training system*

Classified training system is established and practiced in order to satisfy young teachers' professional development in CTD. Good political and resources environment were provided to serve development of young teachers and make them become distinguished teachers. Teaching special skills of young teachers are enhanced by practical skill training and skill training of multimedia courseware design. Teaching comprehensive ability of young teachers is developed through participating teaching basic skills competition and multimedia courseware contest. The effective mechanism of young teachers' professional development is established.

#### D. *Demonstration and Guiding Professional Development of Young Teachers through Spreading High Quality Good Teaching Resources*

The website of CTD in BJUT (<http://ctd.bjut.edu.cn>) is built to breakthrough bottleneck of teaching resources and information sharing, expand teaching developed space of teachers, promote transmission and radiation of high quality good teaching resources. High quality resources are deposited in the CTD server to achieve

sharing of inner high quality teaching recourses by network techniques. High quality teaching recourses are made and pushed by WeChat public number (BJUT-CTD). Recently, high quality teaching recourses in CTD of BJUT include: seven National-level excellent courses, thirty-eight Beijing Municipal-level excellent courses, forty-seven BJUT excellent courses, eighteen audio-visual courses and thirteen online forums on Education. The deeply integration of education and information technology is promoted to realize comprehensive innovation of educational thought, educational ideas, educational methods and means [10].

## IV. CONCLUSIONS

The effective pattern to promoting development of young teachers' teaching ability is established based on CTD in research-oriented university. Series of measures, such as impeccable honor system and institution, learning, helping and guiding of teaching team and distinguished teacher team, various peer communication and deliberating activities, spreading high quality good teaching resources have been explored to accomplish the collaborative development of young teachers. The approach to advancing teaching ability of young teachers is also explored in this research.

## ACKNOWLEDGMENT

This work was partially supported by the 'Day New Talent' training program (management) in Beijing University of Technology.

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