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# Open Class—an Important Component of Teachers' in-Service Training in China

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**Abstract** Researches on teachers' training and practice have reached an agreement that incorporating teacher collaboration with teaching practice helps teachers learn and as a result produces effective teaching. However, nationwide in the US, most of teachers still work alone and have no opportunities to work collaboratively with other teachers. This norm of teaching practice needs to be changed in order to improve quality of teaching. As an in-service training tool, open class is introduced to provide a vision of possible change in teacher training in the US. What is open class? How is open class structured to improve teachers' teaching? What are the effects of open classes on teachers' professional development? Based on the data of twenty interviews with the teachers in China, this article provides a picture how open class as an important component of teachers' in-service training works effectively on improving teachers' teaching in China. This model of open class is worth to be considered and tried on in the U.S. teachers' in-service training.

**Keywords** Open Class, Teaching Research, Teacher Collaboration, Teaching Competition, In-Service Training

# 1. Introduction

In the past two decades, research on teachers' training and practice has reached a clear consensus that long-term professional development activities produce effective teaching (Darling-Hammond, 1995; Garet et al., 2001; Hiebert Gallimore, & Stigler, 2002; Hord, 2004; Joyce, Wolf, & Calhoun, 1993; McLaughlin & Talbert, 1993; Rosenholtz, 1989; Senge, 1990; Stigler & Hiebert, 1999; Goddard, Goddard, & Tschannen-Moran, 2007), and teacher collaboration plays a major role in professional development. Since the 1990s, teacher collaboration became a noticeable and effective in-service activity for improving teachers' teaching and students' achievement. Lee, Smith, and Croninger (1995) examined 11,000 students in 820 secondary schools all over the United States, and found that students, at the schools which engaged their staff in working collaboratively to improve their teaching, had higher performance in math, science, history, and reading, than students in the schools where teachers did not collaborate. Another study by Darling-Hammond's (1995) found evidence that schools in which teachers worked collectively to study teaching and learning and discussed effective teaching practices, showed quicker academic gains for students than schools that did not. Stigler and Hiebert's (1999) study suggested that teacher collaboration through lesson study in Japan played a significant role in their students' high achievement in mathematics.

In recent years, research revealed that mathematics teachers can learn content knowledge through collaborative work on teaching practices (Bell, Wilson, Higgins, & McCoach, 2008; Lenges, 2010). Even though teacher collaboration has been taking place at some schools, working collaboratively among teachers is still a local phenomenon. Most of teachers in the US are working alone at their own classrooms. They have no opportunities to observe other teachers' teaching and learn from each other. Researches have indicated that on-going learning opportunities are very important for teachers to learn and grow professionally (Ma, 1999; Ball & Cohen, 1999; Grossman, et al., 2009). We can't expect teachers to improve their teaching if we don't provide teachers opportunities to learn. In this paper, I would like to introduce a model of open class which is a tool used for teachers' in-service training in China. Hopefully it can open a window for teacher educators to view a possible change of our practice of teacher's in-service training in the US.

What is "open class"? In America, we never heard about it. However, open class is a very familiar word for every teacher at every school across the nation in China, because every teacher gives and observes numerous open classes in their professional teaching life. An open class is taught by one teacher and open for observation to a group of teachers and administrators from inside a school or outside a school. It could be used to evaluate teachers' teaching, but the most important purpose of open class is helping teachers improve their teaching. Open class indeed is one important compo

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-nent of in-service training in China. Various forms of open classes are developed to serve as training for teachers.

I had become to know open class through my research of mathematics teachers' preparation in China. I had interviewed 20 teachers to conduct that research. Open class was one of the most frequently mentioned words by the teachers I interviewed. This finding led me to investigate further on open class by analyzing the interview transcripts. This paper intends to introduce open class to the mathematics education community in the U.S. It may offer another useful tool for mathematics teachers' in-service training.

# 2. Types of Open Class

Basically there are four types of open classes: open classes given by all the teachers as requested by the schools for evaluation purposes; new teachers' evaluative classes that are given by new teachers; teaching competition classes held for young teachers (under 30 years old) at school, district, city, province, and national levels; model classes demonstrating good teaching given by veteran teachers or new teachers at school, district, or city levels, or at countryside schools. Descriptions of the four types of open class are provided in the following.

#### 2.1. Open Class Presented by Every Teacher

Schools require all the teachers to give open classes at least once each semester to evaluate teachers. For example, one of the teachers I interviewed described:

In our school, every teacher is evaluated through giving an open class for all teachers to observe each semester. After each open class, every teacher in the same teaching research group has to give an evaluation (Grade A, B, or C). The teachers who received A's form a team of excellence. This team gave evaluations to other teachers. We have forty teachers in our grade level. From the forty teachers, we select the best one as the excellent teacher who has to present a model class to all the teachers.

This kind of open class motivates teachers to make every effort to prepare their lesson, studying the textbook in depth, searching the references, and talking to other teachers for suggestions. Preparing open class is a learning process for a teacher. One teacher stated: "I gave many open classes; every time I taught an open class, I learned a lot".

#### 2.2. New Teacher's Evaluative Class

An evaluative class is an open class presented by a novice teacher and observed by all the teachers and school leaders. It is arranged to evaluate new teachers. On the other hand, it also gives new teachers opportunity to show their progress after teaching for a while. Before open class, a new teacher works closely with his/her mentoring teacher to prepare the open class from the scratch, from designing a lesson plan to deciding what questions to ask, what examples to use, the ways to present the lesson. During the process, a lesson plan could be modified countless times and a new teacher would

conduct trial teaching many times. A new teacher learns how to teach effectively through the ongoing preparation.

The evaluation of the class is recorded in the new teacher's file as one of the indicators for future promotion. There are three professional ranks for K-12 teachers, from low to high: the second level, the first level, and the highest level. Schools have the criteria to promote a teacher from one level to another. Since professional rank is not the topic in this paper, I don't discuss it in detail here.

After an evaluative class, the new teacher's teaching was graded and reported to the school teaching administration office for record keeping. If the marks of the evaluative class are not good, and the class has low performance in the end of semester, the teacher may not be able to follow through his/her class to the higher grade level. This is an indicator of teaching performance that affects the promotion to a higher professional rank.

#### 2.3. Teaching Competition Classes

Teaching competition is a big event held at school, district, city, province, and national levels. Teachers who are under 30 years old are encouraged to participate in teaching competitions. The winners of school level of teaching competitions are selected to participated in the district level of competition; the winners of district level of competitions move up to the city level competition; the winners of city level of competitions go to the province level of competitions go to compete in the national level of competition. If a teacher wins the national level of competition, it means s/he has won over thousands of teachers to reach the honor. The higher level of competition a teacher wins, the higher s/he is honored.

Some teachers regard teaching competition as "our Chinese way of training novice teachers". Even though only one teacher participates in the teaching competition, other teachers in the same teaching-research group (teaching the same grade) help prepare for it. From designing a lesson plan to actually teaching, all the teachers contribute their ideas. There are many discussions, trial teaching, and observations going on before the competition. The process of preparation for teaching competition is part of a teacher's teaching-research activities that required by schools. One teacher described:

The lesson presented in teaching competition is not prepared only by the teacher who attends the competition. It is a joint work and the outcome of collective intelligence...The process of preparing a teaching competition improves all teachers' teaching. If I prepare for a regular class by myself, I may not think so much and not be able to cover every detail. When a lesson is studied by all the teachers, everyone contributes their good ideas to a high quality lesson. Even though only one teacher won the prize, all of the teachers who participated in the preparation benefit from the process.

The topic of each teaching competition is different. The participants are given several topics to prepare, and the day before the competition, the topic is drawn by the participant.

Except at the school level teaching competition, students are assigned to the teachers. The competition participants don't know the students assigned to the class before entering the classroom.

Winning the competition is recognized as an important accomplishment. One teacher explained, "When a teacher won, he would be very happy because the competitions were among so many teachers. That means that his achievement is recognized."

#### 2.4. Model Class

A model Class is an open class taught by selected teachers who are recognized as the most effective teachers in a school, a district, a province or in the nation. Its purpose is to show teachers effective models of teaching. There are several ways of selecting teachers to give a model class: 1. The teachers whose open class was evaluated as the best were selected to teach a model class. 2. The teachers who won a teaching competition would be chosen by their school, district, or the city to teach another open class (model class) to demonstrate model teaching. As a in-service training tool, model classes are presented to the young teachers to show them what effective teaching is; cities also assign teachers to the rural schools where education is weak, to teach model class, in order to provide the teachers there opportunities to learn how to teach effectively and enhance their teaching skills; Schools takes turns to present model classes to teachers from other schools in the city. Every semester a teacher from a certain school is assigned to give the model class in their city at a teaching research conference organized by the city's teaching research office.

Model classes are arranged weekly or monthly for teachers to observe. These model classes may be held inside a school, outside a school, or in the other cities.

# 3. Significance of Open Class in in-service Training

The Teachers I interviewed identified open class as "more like the process of conducting research" and reasoned that "it has gone through the procedure of repeated modification before it is presented to people." They recognized that an open class was "a learning process" and "benefited teaching." All the teachers interviewed had taught numerous open classes and realized that they had been learning through both teaching and observing open classes. For example, Yun described how open classes helped her:

At first, other people help me by making comments on my teaching when observing my class. Their comments helped me design a lesson or raise a question to ensure students understand better. By giving an open class, you can improve your teaching and lesson planning. Similarly, when you observe other teachers' classes, you will provide comments based on your own teaching experience. Other people's ideas inspire your own thoughts.

Di shared his experience of teaching an open class:

When I am assigned to give an open class, I have to prepare for it, because I am presenting a model class, I don't want to mess it up. It pushes me to prepare for the lesson very carefully. More time and energy are spent on preparing the lesson compared to a regular class. Every step of the teaching procedure is prepared very well. To me, giving an open class motivates me to improve my teaching.

Gang described the benefits of the open class:

Open classes can motivate me, inspire me, and force me to best use the textbook, to design the best examples, and to stimulate students' learning interests. Through reflecting on the problems exposed in the open classes and the comments from other teachers, I can keep improving myself and move forward.

These teachers also confirmed the effectiveness of the teaching competition as an in-service training tool. Hua stated that:

A teaching competition has a huge impact on teachers' teaching, and makes teachers pay attention to details and conduct excellent lessons. Often observing other teachers' competition [open class] can ultimately improve one's teaching quickly, can help to avoid going through some unnecessary detours, and shorten the cycle of a teacher's development.

On the impact of the teaching competition, Di commented in this way:

Teaching competitions granted me honors and impacted on my profession a lot. For example, I am valued and recognized by our school leaders. On the other hand, I have mentioned that I had carefully prepared many lessons. For each competition, I had spent a lot of time and energy in preparation. Indeed, the process of preparing a lesson is the process of improving [teaching]. Therefore, I feel that I gained a lot.

According to Long, he learned a lot from the teaching competition by conducting research on the topic and continuously reflecting on the lesson plan. The significant impact was summarized by Long:

Teaching competition builds up teachers' confidence and motivates teachers to want to be better.... Once you've gained a good reputation, you want to maintain it by improving your teaching even more. This is really a healthy cycle.

All the open classes have similar characteristic - going through a careful preparation process, which involved repeated modifications and collaboration with other teachers. Open classes utilize teachers' collective intelligence to create lessons of the highest quality. An open class involves activities, such as lesson preparation, classroom observation, and after-class discussion. These activities provide teachers with opportunities to share their ideas, to constantly conduct reflective thinking on teaching, and to learn actively from each other. In addition, an open class motivates teachers to make an effort to improve their teaching. Teaching an open class stimulates a teacher to prepare the best teaching presentation possible by reading reference books, searching for helpful resources, and talking to other teachers. Furthermore,

a teacher's performance in presenting an open class is associated with his/her professional development such as promotion, honors, and better professional opportunities. The connection between open class and career advancement motivates teachers to constantly improve their teaching.

# 4. Discussion

Open class functions as an effective in-service training tool at schools in China. It is structured to help teachers improve teaching. For new teachers' evaluative class, an experienced mentoring teacher helps a new teacher to prepare for it including designing the lesson, revising the teaching plan, and trial teaching. This process could be repeated several times so that a new teacher can learn how to teach through the process and present the best lesson possible. Actually new teachers' evaluative class also provides new teachers opportunities to stand out and advance their teaching career. For teaching competition class and model class, all teachers in the same teaching research group are actively involved in the process of preparation. Teaching competition class and model class are the products of teachers' collaboration in the teaching research group. In China, teachers who teach the same grade form a teaching research group and meet once a week to conduct teaching research. Preparing a competition class or a model class is a part of the activities of a teaching research group. Teachers in the group design the lesson plan together, going through every detail of the lesson such as what pedagogical approach to be applied, what examples to be used, what questions in what order should be asked, and what in-class activities would be employed. A lot of discussions and idea-sharing are involved during lesson planning. After lesson designing, the teacher, who will give the open class, conducts a trial teaching, this is observed by other teachers in the teaching research group. After the trial teaching, all the teachers sit together to reflect and analyze the trial lesson and discuss which part of the lesson went well and which part needs to be improved and how to improve. Based on the result of the trial teaching, the teaching research group revises the lesson plan again. The teacher will conduct another trial teaching. The process is repeated. Lesson plan could be modified many times and trial teaching is conducted repeatedly too. As a result, the open class is a final product of repeated modification carrying on ideas contributed by all the teachers in the teaching research group. All the participating teachers learn from this process.

After careful preparation, the open class finally is given. There may be many observers in an open class. The number of observers could be hundreds of people. Teachers come to an open class to observe and learn how other teachers, at the same school, or from other schools, other cities, or even other province, teach effectively. All the teachers I interviewed have the comment again and again that they learned significantly when observing other teachers' teaching in an open class and observing an open class helped them im-

proving their own teaching; their visions of good classroom teaching were broaden too.

Walking out of an open class, an observing teacher learn some new teaching approaches or new technology applications in classroom, and at the same time thinking how to apply what s/he learned into his/her own classroom teaching. Sometimes for some teachers, an open class is an eye-opening experience and has a good deal of powerful effects on their educational ideas, their pedagogical approaches, and their teaching strategies to some specific content or concept. By an open class, good teaching practices and wisdoms are passed on to other teachers and the ways of effective teaching are not only shared currently in the community of teaching professions but also kept for the next generation of teachers. The legacy of teaching has built up from generation to generation. When teachers share, collaborate, and ultimately utilize collective intelligence, they would be able to improve their teaching faster and more effectively than they work alone.

In America, one of the big issues in teaching is that teachers are separated and individualized behind classroom walls and work in an atmosphere with little professional sharing among colleagues (Goodlad, 1984; Leonard & Leonard, 2003; Lortie, 1975; Rosenholtz, 1989). According to Stigler & Hiebert, "teaching is a cultural activity" (1999, p. 85). Teachers' behavior is defined by the social culture in which teaching takes place. Banks (2003) noted that "individualism as an ideal is extreme in the U.S. core culture" (p. 9). Collaboration characterized by sharing does not match the expectation of individualism embedded in the school culture. The American norms of teaching have been individual and private. Teachers, in general, work alone and are isolated from each other. They develop their own knowledge individually, not sharing or accumulating wisdoms of good teaching. As early as one century ago, John Dewey had realized one of the saddest things about American education:

The successes of [excellent teachers] tend to be born and die with them: beneficial consequence extend only to those pupils who have personal contact with the gifted teachers. No one can measure the waste and loss that have come from the fact that contributions of such men and women in the past have been thus confined. (Cited as in Hiebert, Gallimore & Stigler, 2002, p. 11-12)

These barriers are continually encountered all over the country. The sadness perceived by John Dewey about one century ago remains the same at most of the schools in the U.S. today. I had been observing some elementary classrooms in the west of US for half a year in 2010. The teachers have taught more than 12 years, but they never have a chance to observe other teachers' teaching during their years of teaching career. If teachers don't see other teachers' teaching, specifically good teachers' teaching, how do they know what are good teaching practices? If their sense of good teaching is limited, how can they know what to improve for better teaching?

Open class helps teachers grow through continuously learning from their peers, sharing good teaching ideas, and working collaboratively over the years of their teaching career. Open class also provides teachers opportunities to stand out showing their good teaching practices in class-rooms and the recognition of being effective teachers would in turn motivate teachers to keep moving forward for better teaching.

If the norm of teaching in the U.S. doesn't change, teachers continue working alone, teaching separately behind classroom wall, change for the better teaching among teachers will never happen. The mode of open class is worth to be considered and tried on in the US.

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