

# **Teacher Evaluation Based on E-Teaching Portfolio—Developing Trend of Teacher Evaluation in China**

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**Abstract:** Arising in recent years, e-teaching portfolio assessment is a new mode of teacher evaluation based on computer technology and new media technology. This paper attempts to provide reference for development of Chinese teacher evaluation by analyzing global teacher evaluation practices and connotation of e-teaching portfolio assessment.

## **1. Introduction**

As representation of human consciousness activities, evaluation embodies consciousness and reflection, perfecting human work and learning. Similarly, teacher evaluation also aims to promote the professional development of teachers. The United States and the United Kingdom are the first countries to carry out teacher evaluation, accumulating substantial experiences in theoretical research and practices of teacher evaluation. China started teacher evaluation in the 1960s, though relatively late, it develops rapidly and deeply. It will be of great help to summarize foreign teacher evaluation experience and Chinese teacher evaluation practices for future development of teacher evaluation.

## **2. Development of Teacher Evaluation in Foreign Countries**

### **2.1 American teacher evaluation system**

Teacher evaluation in American colleges and universities has experienced a long process from its initial establishment to institutionalization and standardization. Before the late 19th century, evaluation of university teachers was usually performed by the board of directors and the dean. At the beginning of the 20th century, student evaluation form was adopted by multiple universities to evaluate teachers, instead of students' informal opinions. However, until the establishment of tenure system in 1940, teacher evaluation was still unsystematic. Moreover, in the 1960s when large-scale expansion of higher education emerged, teacher evaluation became a formalized routine due to the mounting demand for teachers. During the financial crisis in the 1970s, colleges and universities attempted to get rid of the economic predicament by dismissing teachers, thus teacher evaluation was gradually prioritized. The widespread concern about higher education quality from all walks of life in the 1980s has revitalized teacher evaluation as people hoped to improve the efficiency and quality of teachers by teacher evaluation. Therefore, after the 1980s, with the joint efforts of educators, and on the basis of reflection and criticism of traditional curriculum evaluation methods, multiple new qualitative evaluation methods emerged in North America, and formed what Bill Johnson, an American scholar, called "assessment reforms movement". In this wave of reform, many colleges and universities in the United States have established a sound evaluation system, clear evaluation policies, and abundant means of evaluation, to which performance-based assessment was an important one. Reflecting teaching complexity and providing comprehensive teaching information and teaching effect records, teaching portfolio evaluation has become the most famous form and the most commonly used method of performance-based evaluation. In the 1990s when electronic technology proceeded, people tried to apply electronic technology to the practice of portfolio evaluation. Today, electronic

portfolio evaluation is widely used at various levels such as countries, states, and schools. For example, the National Board of Professional Teaching Standards has regarded electronic portfolios as a basis for reissue of teacher licenses. Many school districts are also using electronic portfolios to identify outstanding teachers. At present, more than 1,000 institutions have adopted the electronic portfolio method for comprehensive evaluation of teaching for personnel decision-making.

## **2.2 British teacher evaluation system**

In the early 1980s, the British government employed the reward and punishment teacher evaluation system for the first time, regarding the system as a means to manage and control teachers, instead of promoting teacher professional development. In 1983, the British Ministry of Education and Science and the Department of Welsh Affairs jointly issued a white paper called “Quality of Teaching” in response to the decline in the quality of British teachers at the time, emphasizing the effect of class attendance on teacher evaluation rather than teacher quality promotion, thereby arousing dissatisfaction of teacher associations.

In the late 1980s, British educators realized that teacher evaluation system should be separated from reward and punishment system for teachers’ development. They gradually abandoned the traditional teacher evaluation system that caused more harm than good, and began to implement a new type of developmental teacher evaluation system, that is, a formative evaluation system aimed at promoting teachers’ future development. In 1985, the Royal College of Superintendents published a report named “School Quality: Evaluation and Assessment”, clearly stating that teacher evaluation system should be separated from reward and punishment system, thereby playing a decisive role in implementing the new developmental teacher evaluation system. In 1986, a report jointly published by the Ministry of Education and Science, teachers’ associations, local education authorities and other organizations pointed out that “teacher evaluation should be regarded as a continuous and systematic process, promoting teachers’ professional development, plan of teacher career, and arrangement of appropriate training and post setting. Meanwhile, teacher evaluation should also be taken as a positive process in which practical decision-making was performed and job satisfaction improved. In 1989, Britain put forward the report of teacher evaluation reform, and carried out developmental teacher evaluation in accordance with the Education Reform Act in 1988. This new teacher evaluation system was applauded by teachers.

At present, formative teacher evaluation has become a common method to improve teachers’ professional knowledge and skills in Britain. Combination of self-evaluation and evaluation talks and adoption of qualitative evaluation, have generated considerable response among teachers.

## **3. Development of Teacher Evaluation in China**

Compared with European and American countries, China’s research on teaching evaluation started late: began in the 1960s, but stagnated during the “Cultural Revolution” and resumed after the “Cultural Revolution”. By 1977-1984, outstanding teachers were selected through assessment based on the college entrance examination rate, and most of the evaluations were conducted for private teachers in primary and secondary schools. In 1984, while calculating the workload of teachers, Beijing Normal University conducted a simple evaluation of teaching quality as a reference for measuring teachers’ teaching performance, constituting the earliest teaching evaluation in Chinese universities. The research and practice of teaching evaluation of college teachers in China have really started since 1985.

1985-1990 is the initial stage of Chinese teaching evaluation. The Decision of the CPC Central Committee on Reform of Education System promulgated in May 1985 and a symposium on evaluation of Higher Engineering Education in Heilongjiang Province held by the former State Education Commission in June have spurred extensive and in-depth research on the theory and practice of teacher evaluation in colleges and universities by theoretical and

practical workers of higher education in China, and scored considerable achievements, accelerating China's teacher evaluation. The teaching evaluation in this period was mainly characterized by "Taking curriculum evaluation as the core, and supplemented by teaching quality evaluation, the evaluation contents are determined based on teachers' teaching and management experiences."<sup>[1]</sup> The evaluation indexes were determined based on curriculum evaluation, mainly including teaching attitude, teaching content, teaching method, and teaching effect.

1991-1995 constitutes the normalization stage of teaching evaluation in colleges and universities. In October 1990, the former State Education Commission formally promulgated the Interim Provisions on Education Evaluation of Ordinary Colleges and Universities. In June 1991, the "Higher Education Evaluation Cooperation Group" was established. In January 1994, the establishment of "Higher Education Evaluation Research Association of China Higher Education Association" has provided system and organization guarantee for development of teaching evaluation. Professional journals, organizations and talents of teaching evaluation also mushroomed. In addition, publication of a series of systems and regulations, such as Education Act and Teacher Law, has provided standards and legal basis for teaching evaluation. The teaching evaluation in this period was mainly characterized by "Combining theories and practices, colleges and universities take the effective behavior characteristics of teachers' teaching as the evaluation index for standardized teaching evaluation"<sup>[2]</sup>

From 1996 to the present, the teaching evaluation of college teachers in China has developed in depth. The "Undergraduate Teaching Evaluation Program of Comprehensive Universities" formulated and promulgated by the Ministry of Education in 1995, the education quality assessment system revised by the Ministry of Education in 2001, the five-year round of college education assessment system established by the Ministry of Education in 2004, and implementation of education quality evaluation works have played a positive role in promoting teacher evaluation in colleges and universities. Currently, most colleges and universities can determine the evaluation content and method according to their characteristics. The teaching evaluation of college teachers has gradually moved to "serialization, standardization, and openness"<sup>[3]</sup>.

Although some progress has been made in the teaching evaluation of college teachers in China, problems still exist. Teaching evaluation fundamentally aims to offer channel for teachers' improvements in self-evaluation, deficiency, teaching quality and professional development, while the teaching evaluation in Chinese universities is generally carried out before the end of a semester, emphasizing summative and diagnostic functions. The evaluation results are often used directly for personnel management such as appraisal titles, promotion and salary increase, exerting substantial psychological pressures on teachers. Some schools even adopt a sheet of paper to evaluate teachers of varying majors for easy implementation and wide application, ignoring discipline differences. This unified evaluation table concentrates on the common characteristics of teachers' teaching behaviors, while neglecting teaching differences between teachers of differing majors, limiting exertion of teachers' teaching autonomy and formation of various teaching styles.

## **4. Teaching Portfolio Evaluation**

### **4.1 Teaching portfolio evaluation**

The developmental teacher evaluation systems include: teaching portfolio evaluation, class attendance evaluation, microteaching evaluation, principal-colleague evaluation, target contract evaluation, self-evaluation, and the forth. These models accord with the basic concept of developmental teacher evaluation system while showing their own characteristics in specific practices.

Belonging to developmental assessment, portfolio assessment is also called growth

portfolio assessment, file assessment, or dossier assessment. Historically, portfolio assessment was first applied to student evaluation, reflecting the idea that "learning is a process, and learning evaluation should be formative". In the last two decades, portfolio assessment has prevailed in teacher evaluation. In the United States, many teacher education institutions help teachers learn how to prepare teaching portfolio. For example, the National Board of Professional Teaching Standards has formulated the evaluation criteria for teaching portfolio when conducting teacher qualification certification. Many primary and secondary schools and universities hire teachers according to teaching portfolio, which they believe can reflect teachers' teaching ability.

Portfolio evaluation is mainly conducted by: interview evaluation, written evaluation, grade evaluation, and the like.

#### **4.2 E-teaching portfolio evaluation**

E-teaching portfolio evaluation is an effective qualitative evaluation method that relies on modern network information technology to evaluate education and teaching processes authentically, with focuses placed on developmental and reflective functions. Stemming from the changes in teaching and learning brought by prosperous global knowledge economy and network society, e-teaching portfolio evaluation is a teacher evaluation method and learning technology of massive potentials. [4]

As a new evaluation concept and method, E-teaching portfolio evaluation has its unique characteristics.

##### **4.2.1 High efficiency**

"Electronization" denotes not only a simple increase in information display technology, but capability of collecting extensive information that cannot be obtained before. As a learning method full of vitality and potential, it can effectively present teachers' achievements and lifelong learning ability supported by technical means.

E-teaching portfolios provide powerful technical support for information collection, presentation, processing and management. Although traditional teaching portfolios can also perform evaluation function, it may lose certain important teaching information. Besides, sorting, management and storage of largely accumulated data are heavy burdens for schools and teachers, ending up with nothing definite. In contrast, collecting all the teaching information, e-teaching portfolio is superior in large storage capacity, and easy saving, check, carry-over, management, operation, communication, and display, especially the web teaching portfolio developed by database, whose free operation, communication and display provide teachers with more convenience in managing their teaching portfolios through the Internet from anywhere.

##### **4.2.2 Favorable display form of teaching information**

Teaching portfolio presents teachers' teaching information through teaching plan, teaching video/recording, teachers' narration of teaching situation and other information forms. In this respect, it can be said to be consistent with the concept of narrative inquiry in education, which, starting from qualitative research rather than previous scientific research, emphasizes human experience, and describes people's experience, behavior and life style as a group and an individual by narration. According to Connelly, the process of narrative inquiry concerns the scene, the scene experience text and the research text, whose relations are the main focus of narrative inquiry. Specifically, the teacher is a part of the teaching scene. The purpose of teaching portfolio is to develop the teaching ability of the teacher by storing and analyzing the field experience text. Educational narratives in the form of audio and text are also allowed in teaching portfolios. Therefore, it can be said that teaching portfolio provides the best "residence place" for educational narrative inquiry. However, massive contents recorded in paper are space-consuming and difficult to query and manage, especially for fellow teachers and experts. The space-saving e-teaching portfolios solved this problem by order presentation

of information, simple query and management for peer teachers and experts, and easy implementation of teaching portfolio evaluation.

In addition, due to digitization of teaching information, computers assist us in obtaining previously unavailable teaching information, such as records of the number of times a teacher interacts with students, and the proportion of teaching time and practice time.

Therefore, E-teaching portfolio is the best way to display teachers' teaching information.

#### 4.2.3 Better reflection of qualitative evaluation

Qualitative evaluation entails comprehensive and interpretive understanding and evaluation of the “essence” of an object by in-depth, meticulous, and long-term experience through the interaction between the researcher and the researched object. Quantitative evaluation relies on measuring, calculating, and analyzing the quantifiable parts of things and their relations to achieve a certain understanding of the "essence" of the thing. Traditional teaching portfolio evaluation is mainly based on qualitative evaluation, such as evaluation of teachers' lesson plans, self-reflections and teaching videos/recordings that teachers uploaded, which are not comprehensive and cannot truly reflect the actual practices of teachers in the classroom. Therefore, the actual teaching information of teachers recorded by computers in real time objectively reflects the teaching situation of teachers and better signifies the significance of qualitative evaluation.

#### 4.2.4 Better reflection of process evaluation

According to the purpose of evaluation, teaching evaluation can be divided into diagnostic evaluation, process evaluation and summative evaluation. Diagnostic evaluation, also known as preparatory evaluation, is an evaluation performed before teaching activities, and is a preparation for teaching activities. Process evaluation, also known as formative evaluation, is an evaluation performed during the teaching process, assessing students' learning results and teachers' teaching effects for correct and complete teaching process. Summative evaluation, also known as result evaluation, is an evaluation that concludes the extent to which the entire teaching goal has been achieved after a relatively complete teaching phase.

Belonging to process evaluation, teaching portfolio evaluation aims to promote teachers' professional development.

- ◆ **Comprehensiveness.** Process evaluation is comprehensive in both the value orientation of evaluation and the content and method of evaluation, giving full play to the functions of evaluation. Focusing on both standards and processes, process evaluation does not measure all the teachers with overly rigid standards, but judges each teacher's teaching quality through class performance of teachers in the teaching process. Obtaining all the teaching status information, e-teaching portfolio evaluation reflects the comprehensiveness of process evaluation.
- ◆ **Timeliness.** Process evaluation is a simultaneous evaluation that is carried out concurrently with teaching. Obtaining real-time teaching information, e-teaching portfolio promotes integration of evaluation and teaching. Through interactive consultations, teachers, experts, and students provide advice to teachers in a timely manner, so that teachers can identify their problems and deficiencies, for timely correction and professional promotion.
- ◆ **Depth.** Process evaluation adopts various evaluation methods including qualitative evaluation. E-teaching portfolio provides comprehensive evaluation information from different objects such as teachers themselves, experts, peer teachers and students. Unlike traditional evaluation that merely measures quantifiable and relatively shallow teaching effect, e-teaching portfolio can describe and evaluate teaching quality and level from different aspects, in a deep manner.
- ◆ **Sustainability.** Unlike summative evaluation, process evaluation is implemented throughout the teaching process as e-teaching portfolio can obtain teaching status information all the time. With the gradual establishment of evaluation concept and mastery of evaluation methods, teachers tend to regard evaluation as a part of teaching, of

their life activities, and of important means to promote their own teaching capability and lifelong learning and development.

#### **4.2.5 Better reflection of the role of two-way evaluation**

Traditionally, teachers' classroom teaching performance is evaluated from pre-class meetings, class listening and post-class discussion. Some generally accepted standards are applied for school leaders to comment on the strengths and weaknesses of teacher's teaching performance, and provide corresponding suggestions to for teachers' teaching improvement. Taking the leading role in this stage, school leaders (such as principals) observe teacher-student interactions and teaching development, while teachers just listen and answer. This one-way evaluation neglects teachers' voice, which is addressed by teaching portfolio evaluation, in which teachers are no longer passive listeners and answerers. They can actively communicate with evaluators and promote their personal professional through evaluation and improvement. E-teaching portfolios enable teachers to truly participate in evaluation process and study effective teaching practices by self-reflection and self-evaluation, thereby improving students' learning and teachers' professional abilities.

It can be known from teaching portfolio contents that although teaching portfolio is mainly developed by teachers, the extensive participation of students and parents is also inevitable. By emphasizing the mutual selection, communication and negotiation between subjects during evaluation, and strengthening self-evaluation and mutual evaluation, e-teaching portfolio makes evaluation an interactive activity that teachers, managers, evaluation experts, students, parents, and other relevant people in the community participate in, facilitating communications spanning time and space between teachers, fellow teachers, experts and students. Teaching status information of teachers can be viewed and commented at any time, for teachers to reply upon logging-in. E-teaching portfolio also allows on-line and concurrent communication between teachers and experts, and the communication contents can be permanently retained for future reference.

- E-teaching portfolio evaluation has certain limitations.

(1) The evaluation intensity is difficult to determine.

Process evaluation runs through the whole teaching process, thus it is difficult to decide the evaluation intensity. If too much emphasis is placed on evaluation, teachers would be exhausted by frequent and tedious evaluations.

(2) Development of teaching portfolios is time-consuming and laborious.

As a process evaluation, teaching portfolio evaluation strives to fully reflect the teaching status of teachers, resulting in rich content yet complicated developing process. For teachers who develop teaching portfolios for the first time, it is tedious and laborious as it requires constant information collection and reflection. Only when teachers are familiar with the developing process can the evaluation show different effects. In addition, some teachers may focus on reflection while ignoring teaching practice. It should be noted that development and evaluation of portfolio is merely a means to improve teaching and promote teachers' professional development, teaching itself shall not be neglected. Compared with teaching portfolio evaluation, microteaching evaluation is time-saving.

(3) E-teaching portfolio has high teaching equipment and cost requirements.

E-learning portfolio evaluation requires digital teaching system and hardware facilities, such as computers, teaching videos, photos and other physical objects, which are not possible for teachers in remote schools without computers. In contrast, class listening evaluation, principal-colleague evaluation, target contract evaluation, and self-evaluation are easy to be performed as no teaching equipment is needed. However, as global electronic information technology popularizes, this problem will be automatically solved after several years.

E-teaching portfolio abroad is developed based on certain social and cultural background and educational ecological environment. As an "imported product", e-teaching portfolio may

diverge from the original one in practical applications due to the differences in national conditions and cultures during localization. However, the human-centered and future-oriented teacher evaluation concept is the same in all countries. Besides, sharing of rich information resources provided by information technology makes it possible for mutual reference of evaluation methods.

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