

Analysis on the Development Index System of University Teachers in the Era of Big Data

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Abstract: The developmental index system is not only an important part of the new curriculum reform developmental curriculum evaluation, but also a baton in curriculum reform. To a certain extent, the developmental index system affects the curriculum reform. The smooth implementation and real implementation of developmental curriculum evaluation is one of the most attractive highlights in the new round of curriculum reform. Implementing the developmental index system is the call of social transformation, the requirement of quality education and new round of curriculum reform, and the need of the development of school management and teacher evaluation system. Its social value lies in promoting the development of teachers' professional level, promoting the comprehensive and harmonious development of students, and promoting the democratization and scientificization of school management. This paper adopts the strategies of teachers' self-evaluation, managers' evaluation and colleagues' evaluation to carry out the developmental index system, so as to provide a good reference for teachers' sustainable development.

1. Introduction

With the advent of the “big data era”, a wave of intellectualized online education sweeping the globe is spreading. The traditional teaching mode in Colleges and universities tends to be subverted, and the professional development of university teachers will also be challenged. Many college students will produce huge amounts of data when they study online. How to mine and analyze these data is of great value to improve their teaching practice and promote their professional development. It has become an inevitable trend that learning analysis is widely used in Higher Education in the era of big data.

2. The Theory of Teacher Development Index System

2.1 Connotation of Teacher Development Index System

Teacher development index system is to promote the development of teachers. The process of teacher development index system is to promote the development of teachers. Therefore, when evaluating teachers, we should follow the principles of democratic consultation and equal dialogue, make objective evaluation and deep reflection on their work by teachers (including themselves), give full play to the guidance of evaluation, encourage and improve the function, and help teachers really get development.

2.2 Basic Principles of Developmental Indicator System

2.2.1 Sexualization Principle

Teachers are independent individuals. They have different hobbies and needs, different pursuits and potentials. The principle of individualized development requires school administrators to give full play to the potential of teachers' characteristics in many aspects, such as teacher's post arrangement, education and training, working environment, cultural atmosphere and resource allocation process. From the perspective of teachers' long-term development, putting the promotion of personality development in the first place is not simply a matter of disposal, nor is it merely a

matter of organizational utilitarian purposes.

2.2.2 Guiding Principles

School administrators give up their privileges, give equal and friendly suggestions and negotiate, so that teachers can consciously gather together and develop team spirit, which is conducive to individual professional growth.

2.2.3 Common Growth Principle

The development of schools can not be separated from the progress of teachers, and the progress of teachers can not be without the support of schools. The ultimate goal of school and individual growth is essentially to establish a real people-oriented management system on the basis of personal development.

Table.1 Proportional allocation in the basic principles of the teacher development indicator system

In principle	Proportion	Other
Personalization principle	45%	Promote personality development in the first place
Guiding principle	34%	Focus on guiding
Principle of common growth	21%	Teachers need to focus on growing together

2.3 Importance of Teacher Development Index System

The implementation of the developmental indicator system for teachers in schools is conducive to the establishment of a team of teachers who can teach and manage well, and to the realization of the purpose of running schools for private schools, pursuing quality and creating brand. Teachers' developmental index system is helpful to improve teachers' educational and teaching abilities and enable teachers to adapt to the requirements of school development. Its importance includes: first, to encourage teachers to tap their personal potential, perform their duties more effectively, improve the quality of education and teaching, and promote teachers to improve their professional quality and work. The developmental indicator system breaks the original trend of teacher evaluation and regards evaluation as an important platform for teachers to display their talents, pursue excellence, improve themselves and develop continuously. The developmental index system is a spiral upward evaluation process, which makes the evaluation fair, fair and democratic. It is conducive to optimizing the teaching staff and facilitating the dynamic management of teachers in schools. Therefore, the development index system is the guarantee to promote the professional development of teachers.

Secondly, to promote the achievement of teachers' work is the embodiment of humanistic care and individualization. Teachers are unique individuals with personality. Managers and evaluators in the retrograde teacher evaluation system not only pay attention to respecting teachers' personality, but also can accommodate teachers' shortcomings with a broad mind and encourage teachers' progress without losing time. The developmental index system makes teachers pay more attention to the study of students' psychology and pay attention to the educational, artistic and human nature of management. Teachers pay close attention to the whole process of individual growth. They basically treat students equally, care for them selectively, evaluate students objectively and impartially, and strive to provide enough space for each student to publicize their personality. The understanding, concern and support of managers and evaluators are the inexhaustible motive force for teachers' willingness to contribute. They can make teachers feel comfortable and willing to devote themselves to the cause of education. Of course, they are more willing to live in this "big family" with affinity and cohesion.

Secondly, the implementation of the school development plan and its implementation steps. Since the new curriculum reform, it is necessary to change the traditional evaluation system of rewarding and punishing teachers, adopt a developmental index system focusing on the future of teachers and highlighting the main position of teachers in evaluation, which is conducive to

promoting the improvement of teachers'comprehensive quality. The development index system adapts to the requirements of the times and supplements the deficiency of rigid management. Only in this way can we objectively and comprehensively evaluate teachers'work performance and comprehensive quality, and accelerate the pace of teachers' professional growth.

3. The Present Situation of Teachers'Development Index System

3.1 The Applicable Status of Teacher Development Index System

With the advent of the era of knowledge-based economy and the deepening of the new curriculum reform, a large number of double-qualified talents who can keep pace with the times, dare to explore and have creativity are required to adapt to it. The traditional management evaluation system with mandatory color is not conducive to the cultivation of talent's innovative ability and the development of self-potential. Only by implementing the developmental indicator system model for teachers can teachers'professional growth be better promoted. From the initial academic development to the core of teaching development, to the comprehensive development of teaching development, professional development, personal development and organizational development, the evolution of the connotation of University teachers'development shows the complexity and diversity of University teachers' development.

3.1.1 Teaching Development

The development of teaching mainly refers to the development connotation of teaching ideas, teaching skills, curriculum design and students'learning evaluation.

Because of the different types of personnel training, the teaching concept, teaching methods and skills, curriculum design and student evaluation are different in Colleges and universities, reflecting diversity.

3.1.2 Professional Development

Professional development mainly refers to the development connotation of the theory of subject knowledge and scientific research. Colleges and universities are the dissemination and research of advanced knowledge, which determines that teachers must carry out professional research of subjects and master the most systematic and forward-looking profound knowledge in order to impart, research and innovation.

3.1.3 Personal Development

The connotation of personal development is mainly influenced by Maslow's hierarchy of needs theory.

Teachers, first of all, as an independent individual, also need individual physical and mental development. From the physical point of view, cultural and health care is needed to improve physical fitness, and higher salaries are needed to ensure material life. From the psychological point of view, we need harmonious interpersonal and organizational relationships (including family and marital relationships), develop the ability to coordinate various relationships, improve teachers'job satisfaction and well-being, in order to truly realize personal self-worth.

3.1.4 Organizational Development

Organizational development mainly refers to the provision of a good organizational atmosphere, institutional environment and organizational structure for the development of teachers in Colleges and universities. Organizational atmosphere includes building a democratic, relaxed and equal organizational environment, strengthening the sense of belonging and the spirit of ownership of the organization, and actively contributing personal wisdom to the development of the school. Institutional environment includes reforming and perfecting personnel system, salary system and evaluation mechanism of teaching and scientific research, so as to better encourage and promote the development of teachers. Organizations refer to the organizers and managers of teacher development. The organizational activities of University teachers'development are generally

organized and managed by the school personnel office.

3.1.5 Types of Teacher Development in Colleges and Universities

The development of university teachers can be divided into different types according to different standards. According to the purpose of teachers' development and the different talents trained in Colleges and universities, teachers' development can be divided into corresponding types.

At present, all kinds of high-level talents trained by colleges and universities can be divided into four types: academic, engineering, technical and skilled talents, based on the analysis of the process and purpose of production or work activities.

Based on the cultivation of four types of talents in universities, universities naturally need four types of teachers to cultivate, namely, academic teachers, engineering teachers, technical teachers and skilled teachers.

3.2 Problems in the Application of Teacher Development Index System

3.2.1 The developmental index system itself has defects.

Although teacher evaluation is guided by the concept of “teacher development as the foundation”, which is conducive to encouraging teachers to grow up independently, it also has some insurmountable shortcomings, which greatly reduces its effect in the process of implementation. First of all, it is difficult to mobilize the enthusiasm of teachers' teaching and educators because it is not a “moderate” mechanism linked with rewards and punishments. Under the current situation that most teachers' material needs are not fully met, it is difficult to realize that teachers can only rely on self-awareness to improve teaching behavior and improve teaching effect. Secondly, it overemphasizes the diversity of evaluation criteria and methods, which is conducive to the evaluation of teachers from multiple perspectives and perspectives, and makes the evaluation results more objective, fair and comprehensive. However, in practice, there is no uniform and recognized standard for how to evaluate teachers' educational and teaching effects, which often leads to poor reliability and validity of evaluation results.

3.2.2 “Plateau Phenomenon” of Teacher Development

In the process of teachers' development, there are some teachers who lack the motivation to develop. Especially when they have appraised their professional titles or are getting older, their enterprising spirit has declined and the “plateau phenomenon” of development has appeared. Developmental indicator system was first put forward and implemented in western countries such as Britain and the United States. It embodies the concept of teacher development as the foundation of Western culture. It is easy to be accepted by all and has less resistance in Western countries. In China, the feudal society has lasted for more than two thousand years. The traditional feudal ideology has been deeply rooted in many people's minds. The sense of hierarchy and power is very serious. If managers are allowed to put down their posture and communicate with teachers face to face, the authority of managers will be challenged. The developmental index system emphasizes the diversification of evaluation subjects, and the evaluation results should be produced through multi-subject consultation. Thus, the power of managers in evaluation is weakened, which easily leads to managers' instinctive resistance to the developmental index system, even to the contrary. Under the influence of bad habits such as “peer is enemy” and “scholar is light”, peer evaluation among teachers is difficult to achieve the desired effect, or even counterproductive.

3.2.3 There is a conflict between the developmental indicator system and performance evaluation

China's current reward and punishment evaluation system is the product of thousands of years of cultural heritage in our country. It has a profound and deep-rooted impact on all kinds of schools at all levels in our country. Moreover, it is easy to operate and easy to operate, so it is generally welcomed by the evaluators.

4. Optimizing Strategy for the Application of Teachers' Development Index System

4.1 Strengthen rational thinking and do a good job in evaluation planning

It is necessary to establish a guiding scheme for the system of developmental indicators. First of all, we should mobilize widely. We should unify our thinking and publicize the importance and significance of the developmental indicator system, as well as the purpose, basic ideas and operational procedures of the evaluation. Teachers' initiative and interaction in evaluation should be further mobilized. We should constantly awaken teachers' self-development consciousness and implement teachers' principal position in evaluation. We should further guide teachers to take an active part in evaluation, fully respect teachers' self-evaluation, and help them establish a correct understanding of self-evaluation and its value. To avoid erroneous tendencies in self-assessment, one is that one cannot correctly evaluate one's own shortcomings, weakening or glossing one's own shortcomings for fear of the consequences of evaluation. Second, we can not objectively evaluate our strengths and achievements. Let evaluation be the process of teachers' self-learning, self-reflection, self-education and self-improvement. Teachers' self-evaluation should be given priority to, subject groups, teachers, students and parents should participate in the evaluation, listen to dialogue, communicate, learn from each other and develop together.

4.2 Dealing with the Relation between Performance and Developmental Indicator System

The evaluation conclusion should be used reasonably. Firstly, it can not be completely decoupled from rewards and punishments, nor can it be the only criterion of rewards and punishments, but should be the reference factor of rewards and punishments. The developmental index system is different from the traditional reward and punishment evaluation system. At present, schools are generally unable to get rid of the reward and punishment evaluation system required by higher management departments. When implementing the developmental index system, schools can minimize the significance of reward, pay more attention to the professional growth of teachers, and point the reward and punishment mechanism to development. . As long as teachers make progress on the original basis, they will be rewarded to enhance their enthusiasm and stimulate their enthusiasm for education and teaching. Secondly, the new information technology provides technical support for collecting teachers' information in an all-round way, but we should pay attention to the principle of legality and morality of collecting information, and make clear that privacy should not be used as evaluation content. Further explore the management mechanism of "teacher growth portfolio". If we really do a good job in developing indicator system for teachers, we can use information technology such as big data. Because the large amount of process data generated in the process of preparing for teaching is particularly important. It is the embodiment of the quality of teaching process. The teacher development index system based on process data will provide direction guidance for teachers to optimize and reconstruct the classroom.

4.3 Encouraging Teachers' Participation and Implementing Evaluation

In this important link of classroom teaching, teachers are encouraged to display their teaching style and build their own brand classroom in teaching practice. The school opens a convenient door for the improvement of teachers' professional ability and organizes activities such as "open classroom", "on-site observation and research", "teacher case analysis" and "participatory training". Teachers can enhance their connotation, develop themselves, perfect themselves, fully display their teaching charm, gradually build their own teaching style, throughout their teaching career. Everyone accepts the evaluation, and can formulate periodic goals according to the current problems, which is conducive to the professional development of teachers. In the whole process of teacher evaluation, teachers' self-evaluation should be the main factor. Leaders in charge should establish the concept of differential evaluation. Different teachers and the same teachers at different stages of the evaluation criteria can not be uniform, should be different, combined with teachers' actual differences in evaluation. We should further explore how to adhere to the principle of combining comprehensiveness and individuality of evaluation. This paper explores how to embody the epochal nature of teacher evaluation. According to the basic requirements of modern teachers' professional

development, it takes the evaluation of teachers' basic quality as the main body and combines quality evaluation (especially teachers' professional ethics) with responsibility evaluation and performance evaluation to promote teachers' all-round development.

5. Conclusion

Big data has changed the way human beings understand and explore the world, making it easier for people to understand the laws of education, close to the authenticity of education, and education may usher in a new era. Teachers of traditional education rely on their senses and intuitions, and form future-oriented teaching decisions based on the past experience of individual students. Although experience has certain advantages, there are blind spots in people's perception, and the reliability of intuition may be biased. This method of dealing with new students, which likes to make use of the effective strategies of students' previous coping strategies, may have been overused. One of the potential advantages of data-driven decision-making is to ensure objective criteria rather than intuition or stereotype as the basis for teaching decision-making.

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