

Information Block: Analysis of Factors Affecting the Training of Kindergarten Teachers

-- A Discussion based on the Perspective of Mechanism Design Theory

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Abstract. A discussion on factors affecting the training courses for kindergarten teachers has a great practical significance. First of all, an overview of the change of selecting indicators for accessing training effectiveness is provided. Based on it, an analysis conducted from the perspective of mechanism design theory shows that the training effectiveness cannot be reached due to asymmetric training information of both sides. Secondly, a solution of constructing a training information sharing mechanism for both sides is proposed in order to solve the problem of unsatisfied training effectiveness caused by asymmetric training information of both sides. Concretely, high information sharing degree means high training effectiveness, and vice versa. Moreover, if a trainer has an ample access to trainees' demand information flows, training dominated by him/ her will be efficient. And trainees' clear recognition of demands in their own professional development is a decisive factor for pursuing the maximum subjective values of trainees.

Keywords: Training; mechanism design; effectiveness.

1. Questions Raising

How can we enhance the construction of kindergarten teachers through training? What kinds of factors should we consider for the composition of the mechanism of assessing training effectiveness? Discussing the factors affecting the effectiveness of training is an integral part in the research. As a matter of fact, there have been researchers who have discussed trainees' demands, training targets, training contents, training methods, and the assessment of training effectiveness[1] (Xin Yu, 2010). An indicator system for assessing the training effectiveness is composed of the above 5 aspects. Also, factors analysis is based on discussing what kinds of criteria should be used for measuring the training effect.

2. Overview of Researches on Assessing Training for Domestic Teachers

2.1 The Structure of Indicators for Assessing Training Criteria Concerned by Domestic Researchers at the Start of the Century

Enlightened by Teacher Professional Development Standards published by NSDC in 2001, the standards for effectively conducting activities of assessing teachers' professional development have been also discussed at home[2] (Xia Chen, 2007& 2008). According to the above research, there are five levels consisting of the criteria for assessing the training effectiveness in the elementary path of enhancing teachers' professional development via raining. Indicators in the first and second levels have been mostly highlighted in applying the assessment criteria of teachers' professional development (training) due to their operational features. In comparison, the necessity of theories is proposed in indicators in the third, fourth and fifth levels. But the de facto integration cannot be found in most training institutions and kindergartens. As a result, the implementation of the assessment scheme remains in the text form, causing that the integrity of the indicator system of assessing training effectiveness is lacked in practice.

2.2 Researchers have Focused on the Mechanism Generated by Training Effectiveness in Recent Years.

Researchers have studied the inner mechanism generated by the training effectiveness through analyzing the coupling relation shared in learners and educators based on the driving mechanism of the educating rule of training[3] (Zurong Zhong, 2015). In terms of learners, the first is needs; the second is learning; the third is action; and the last is assessing the learning effect. In terms of educators, the first is to know learners' needs for activating learners' motivation; the second is to provide training courses; the third is to know the effect assessment; and the fourth is to guide in practice. Regarding the coupling of factors for training effectiveness, the coupling relationship between both sides in training has been summarized as a mechanism featuring "three assessments, two tracings and three transformations" from the drive of a dominant mechanism. However, bottlenecks encountered in the mechanism operation are exposed by difficulties and weaknesses in practice. The biggest problem is that a scientific system for assessing teachers' training demands is difficult to be established. Frankly, methods and tools used for assessing teachers' demands in practice are not scientific and effective, directly affecting the pertinence of training courses due to being incapable of tailor the training teachers. Meanwhile, single training method, lack of strength, guiding part or guiding capability brought by missing field work guidance system after training may result in low transformation in teacher training.

3. Factors Affecting the Effectiveness of Training in Theoretic Perspective of Mechanism Design

3.1 An Information Sharing Mechanism Should be Co-built by Both Sides of Training as Required in Asymmetric Training Information.

After referring research progress of training effectiveness assessing strategies from the start of the century to the present, it can be concluded that social individual's profit pursuit and information asymmetric contradiction are the biggest problems affecting the effective operation of the mechanism, while the optimal mechanism is a system arrangement with the lowest cost and the maximum motivation utility according to observations in the perspective of Mechanism Design Theory. If such information function is followed, on the basis of establishing an information sharing mechanism between trainers and trainees, high information sharing degree means high training effectiveness, and vice versa. For instance, since trainers have little information on trainees' learning demands, objectives set for the training courses are inconsistent with what trainees need for teaching development. In that case, with low effectiveness of training, there will be no foundation for initiating trained teachers' professional development. Consequently, both sides are seemingly harmonious in the training process, as the information sharing environment, the core of generating the mechanism of training effectiveness is not established. So, we need to consider what important information is in the training system of rural kindergarten teachers and how can we grasp such kind of information to serve the achievement of training effectiveness.

The effectiveness of training is hindered by asymmetric information between trainers and trainees in the training system. Little information occupancy of trainers means that the training process is less dominant; while little information occupancy of trainees will have an impact on trainees' enthusiasm and initiatives, causing that trainees are difficult to live up to the role of the subjective mechanism in the training process. If both sides have little information occupancy, the efficiency, effectiveness and social benefits of training will be largely lowered. What should we do in practice? Determined by students' subjectivity of the training process and trainers' dominant interaction mechanism, improving trainees' information occupancy is a practical path attempted at present from the analysis of further optimizing targets of training strategies.

Table 1. Comparison of optimizing the mechanism of training effectiveness assessing strategy [4]
(Xia Chen, 2007& 2008)

Strategic points	Information occupancy of both sides
Assessment of students' improvement in academic achievements	Trainers have little information on information occupancy
Assessment of the system and policy construction of the organizational environment for teachers to be trained.	Trainers have little information on information occupancy
Assessment of training courses based on course standards oriented at student development	Trainees have little information on information occupancy
Assessment of the improved school-oriented research and study regulation for teachers trained.	Trainers have little information on information occupancy
Assessment of the learning community of professional development organized by teachers trained	Trainers have little information on information occupancy

Table 2. Comparison of optimizing the mechanism of training effectiveness assessing strategy[3]
(Zurong Zhong, 2015)

Strategic points	Information occupancy of both sides
Assessment of the R& D of “three assessments” tools	Trainees have little information on information occupancy
Assessment of improving trainers' capabilities	Trainees have little information on information occupancy
Assessment of field work guidance	Trainers have little information on information occupancy
Assessment of the improved training regulation and the improved construction of the training system	Trainees have little information on information occupancy
Assessment of the input in training increased by the education administrative department	Both sides have little information on information occupancy

3.2 An Effective Training Mechanism can be Built with the Volume of Information Source of Training Demands

Based on a statistical analysis on the evolution of selecting policy tools for China's preschool education (from 1985 to 2016), it's found that China's pre-school education policy has been presented as an excessive use of command tools over the past four decades with the lack of using the reward and advice policy tools[5] (Ya Zhou& Zhengai Zhang, 2017). At present, the policy of incentive training for kindergarten teachers is implemented insufficiently. The information sources of trainees' professional development demands that are key for constructing effective training between trainers and trains should be explored in the case of external incentive measures failing to stimulate trainees'

training based on the initial dynamic analysis of the mechanism operation. Getting the point of trainees' training demands is of great significance to determining effective training objectives, developing effective training courses, selecting effective training methods, and performing effective training assessments. So where is the "key point"? It's a primary issue for grasping the key point accurately, tightly and firmly without doubt. Training demands are raised when trainees know the gap between their professional levels and professional standards. Is the information of kindergarten teachers' "professional standards" sufficient to meet trainees' understanding of their own needs? "Professional standard" is actually a constant target for the professional development of kindergarten teachers. Nevertheless, trainees' professional knowledge, capabilities, and thoughts are inconstant. The professional development of kindergarten teachers is endless according to the driving process of "teacher professional development" and achievements emerging in large numbers continuously. If the set information of kindergarten teacher's professional development is not consistent with the information needed for driving trainees' professional development, the information efficiency of establishing the effective training mechanism will be low. Therefore, a dynamic development of information sources for kindergarten teachers' professional standards is required.

Although a mature system for researching kindergarten teachers' professional development has been formed in the academic circle in recent years[6] (Bing Peng, 2012), few researches have been conducted to discuss the promotion of the effectiveness of kindergarten teacher professional development with the teacher training as a whole. Division of teacher's professional development stages has relative characteristics in theory with various kinds of benefits while being specific to each teacher's professional development. Also, some teachers plan their own professional development standards based on the theoretical professional development stages. What's more, some teachers implement their development paths driven by the external mechanism. Teacher training shall intervene in the professional development needs of those teachers timely. Meanwhile, a diversified "menus" under the teacher professional development standard should be provided by the training institutions to implement the theories of different teacher professional development stages and satisfy needs of kindergarten teachers in different stages of development, advancing in an autonomous and free state.

4. Exploring the "Professional Development Standards for Kindergarten Teachers" based on the "Professional Standards for Kindergarten Teachers" to Expand the Information Source of Kindergarten Teachers' Professional Development Demands.

4.1 Basic Functions of the "Professional Standards for Kindergarten Teachers" Should be Strengthened to Safeguard the Elementary Qualities of Rural Kindergarten Teachers.

Analyzing training demands being a prerequisite for improving the effectiveness of teacher training"[1] (Xin Yu, 2010) has been prioritized after analyzing five basic problems affecting the effectiveness of teacher training. What is the relationship between trainers analyzing training demands and trainees' information occupancy? The larger the students' information occupancy, the more accurate demand information of trainees will be obtained. To be brief, what the trained teachers need is determined by rationally understanding what they need. As what the ancients said, he who knows others is intelligent; He who knows himself is wise. Rational understanding requires an external scientific professional development standard as a benchmark. Trainees are able to distinguish boundaries between "want" and "need" with the benchmark conforming to the rule of teacher professional development, who can put forward scientific demands doing favor for self professional development through clear grasp of their own rationality, rather than swaying with the trend or following blindly with external forces. Clear standards for "post requirements" for both sides in training have been defined in "Professional Standards for Kindergarten Teachers (Trial)"[7] published in Feb. 2012, so as to assess the professional level of qualified kindergarten teachers, standardize the basic behavior of health care and education for kindergarten teachers, strengthen the construction of

pre-school education teachers, and guarantee the improvement in the quality of pre-school education. However, the researchers found that differences in the different stages of teacher professional development are not compiled well enough in the "Professional Standards for Kindergarten Teachers (Trial)"[7]. The compiler should supplement the professional standards that are suitable for different stages of teacher development, while the contents of professional development standards for kindergarten teachers for different regions should be added, considering that "different nationalities have different culture since there are a large number of nationalities in China's vast territories where have distinctive regional differences"[8] (Yuanyuan Guo, Qingru Duan, Yong Jiang, 2015).

4.2 Determining the Training Quality Standard for the "Professional Development Standards for Kindergarten Teachers" in Classification and Stratification

Some researchers point out that there are development characteristics in the connotation of "professional standards"[9] (Jinliang Qin, 2012), and believes that "capability-oriented" and "lifelong learning" concepts advocated by "professional standards" reflect their requirements and further define the implementation of the "concept". The state has already conducted reform trial in terms of policy adjustment from the institutional mechanism, such as changing the qualifications of kindergarten teachers to the implementation of the teacher qualification certificate registering every five years from the previous state of focusing on identifying at the starting point with the certification of kindergarten teachers qualification for a life-time long. Kindergarten teachers' on-the-job learning motivation can be stimulated with external driving forces.

The professional development of a kindergarten teacher after being employed can be divided into different periods. Researches on the teacher development stage were regarded as important bases for teacher education in the domestic academic circle at the start of this century[10] (Yong Jiang, Shuijin Yan, 2006). Meanwhile, changing research perspectives from "teacher orientation" overseas to "teacher independence" at home has been proposed. The independent development of teachers should be guided by achievable targets. Based on the basic reference points of teachers' professional development standards, each development stage of teachers is teachers' scientific cognition of self-demand, while trainers can also obtain the direction of information resources for teacher training demands from development standards. An effective operation mechanism of the training process can be formed by both sides reaching information flow sharing on the basis of professional development standard.

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