

Exploration of the Problem Diagnoses Based Training of Early Childhood Teachers: From the Perspective of the Development of Practical Knowledge

LI Dan^{1, a}, LI Jiali^{2, b}

¹ Preschool Education College, Chongqing University of Education, Chongqing, China

² Changsha Normal University, Changsha, Hunan, China

^adannalee95@gmail.com, ^bjiale@swu.edu.cn

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Abstract. Early childhood teachers' practical knowledge is the foundation of their professional development. The development of practical knowledge can effectively enhance the professional identity, strengthen the self-development consciousness, and increase the practical ability of the early childhood teachers. In order to innovate the pattern of early childhood teacher training which traditionally has over-relied on infusing theories and been away from practices, and based on the course of raising, diagnosing, discussing and resolving the practical problems, we developed the training ideas step by step, i.e. problem situation setting up, problem analysis and diagnosis, comparison of problem-solving program, clarification of theory, and action implementation and extension. This problem diagnoses based training pattern is proved to effectively promote discussing, exercising and sublimating the practical knowledge among early childhood teachers so as to accelerate the pace of their professional development.

Introduction

The development of early childhood teachers and the improvement of their quality are decisive to the healthy development of the preschool education in China. As is declared in both The 12th Five-year Plan for National Education Development and Suggestions on the Development of Preschool Education, 10 thousand kindergarten leaders and backbone teachers are supposed to get national training within 3 years and all kindergarten teachers and early childhood teachers around the country are supposed to get professional training within 5 years. Thus, various trainings including national trainings, municipal trainings, county-level trainings and kindergarten-based trainings for early childhood teachers have been carried out in full swing. It's urgent and necessary to pay more attention to the quality of trainings for early childhood teachers when the quantity and opportunities are increasing [1]. Current trainings for early childhood teachers have problems as follows: knowledge training overweighing practical ability training; lacking pertinence; low degree of teacher involvement; the trainings put so much emphasis on theory as to be difficult to apply them into real teaching [2]. In order to improve such awful status quos, it's significant for the improvement of training quality to reform the training content and form with the development of practical knowledge as the orientation. As the knowledge basis of teachers' professional development of Practical knowledge [3], it's the theory guiding early childhood teachers to teach. It equips teachers with insight, gives teachers support, helps teachers to select, standards the behaviors of teachers and provides guidance to teachers in teaching. It's helpful to enhance the practical ability of early childhood teachers as well as avoiding their blind compliance to theoretical knowledge, experts and scholars to take practical knowledge as the focus of early childhood teacher trainings. Thereby, early childhood teachers can grow into "producers" of practical knowledge from "consumers" of educational theory knowledge, thus developing relative strong professional identity and self-directed professional development consciousness. Therefore, it is undoubtedly the effective way to promote the development of early childhood teachers' practical knowledge to construct the "problem

diagnosis” training mode according to the law of the generation and development of their practical knowledge. It serves to enhance the practicability, effectiveness and feasibility of early childhood teachers’ trainings.

The design basis of “problem diagnosis” mode for early childhood teachers’ training

With practical problems of trainings as the departure, problem diagnosis training for early childhood teachers is an activity held with proposing problems, discussing problems and solving problems as the core. During the training, trainers and early childhood teachers are supposed to learn from each other so as to find solutions and implementation basis for practical problems according to the following train of thought: building problem context-analyzing and diagnosing problems-comparing solutions-elaborating on theoretical perspectives-taking actions. Comparing with the traditional training modes, it can urge early childhood teachers to discuss, drill and sublimate practical knowledge, thus improving the interest and enthusiasm for the participation of the training.

Retrospection on traditional trainings for early childhood teachers. Centralized specialist seminars and kindergarten-based training are the main modes of traditional trainings which focus on the spread of public theoretical knowledge of preschool education. Such modes don’t work well and invite much criticism. Frequent specialist seminars usually inoculate knowledge of some preschool education theory as well as its application passively and are divorced from the daily practice of early childhood teachers. Therefore, such training mode cannot cause cognition conflict according to their existing experiences and make the theoretical knowledge assimilate into the cognitive structure to transform into practical knowledge. The training effect wouldn’t be satisfactory. Some early childhood teachers may identify with the education theories conveyed in the trainings. However, they would have a smattering of knowledge and even go astray due to lack of context insight and the support of operative strategies. They must be helpless when faced with practical problems. As time passes, the specialist seminars would be considered as abstract, general and vague, boring, and insipid by early childhood teachers. “The training is exciting,” they complain, “but we are helpless after the exciting training”. Additionally, kindergarten-based trainings held by kindergartens tend to be limited by kindergarten conditions and trainees’ quality. It’s not easy for such poor-planned trainings to grasp the practical problems teachers facing in reality. Many kindergartens usually confuse kindergarten-based trainings with activities including regular meetings, teachers’ salon. More often than not, reading preschool education classics, learning important documents and conveying notification are the training content. The training process is too random to achieve satisfactory effect. On the whole, in-service early childhood teachers need not only to learn education theories guiding education reform to build scientific education concept but to learn how to solve problems and apply practical knowledge. If traditional training with theory or skills as the dominating content to be continued, the training would be divorced from the real needs of early childhood teachers and become formalistic.

Developing early childhood teachers’ practical knowledge needs “problem-diagnosis” training. We must abandon theory inoculation to improve the training quality. It’s advisable to focus on education practice of early childhood teachers and to take the development of practical knowledge of early childhood teachers as the essential orientation to help early childhood teachers to solve practical problems and enhance their ability to cope with practical problems. As practical knowledge is hidden in teachers’ daily practice, it’s difficult to be realized or recognized. It could be even more difficult to express with words. These are the major obstacles in developing early childhood teachers’ practical knowledge. The practical experience knowledge of teachers can be powerful after being systematized while those that haven’t been systemized tend to be fragment. Therefore, teachers should learn to build professional systematical mechanism to summarize their rich experience and form systematic knowledge system [4]. Accordingly, if we are to optimize the practical knowledge of early childhood teachers and improve their practical ability by training, we have to make a breakthrough on how to make practical knowledge explicit and build a mechanism whereby early childhood teachers can reflect on and integrate practical knowledge. Problem- diagnosis training

mode is feasible. First, we can select representative practical problems to guide teachers to explore the problem. The transformation from implicit knowledge to explicit knowledge can be done during the exploration, expression and dialogues. Then we can realize the transformation from theoretical knowledge to practical knowledge through theory extension, context interaction and strategy enrichment, thus developing practical knowledge in the spiral escalation process. Problem diagnosis training includes participatory training concept. On the basis of established practical knowledge of teachers, it makes practical knowledge explicit and systematic by means of connecting a series of problems, integrating theories to construct practical knowledge through collaborative study and reflective study.

Advantages of problem diagnosis training based on practical knowledge development of early childhood teachers. As the problem diagnosis training has clear orientation and strong applicability, it is close to the characteristics of thought of early childhood teachers. Its organization form makes it possible for every teacher to talk and operate. It encourages early childhood teachers to express themselves. It is a mode with features including practicalness, reflectiveness, cooperation, initiative and involvement. Therefore, such training can enhance early childhood teachers' initiative to take part in the training and urge teachers to take an active part in the training from the perspectives of thought, emotion and action. It respects early childhood teachers' professional autonomy and exiting experiences; furthermore, teachers' ability to analyze, retrospect and discuss preschool education practice can be improved through diagnosing practical problems and looking for proper practice schemes. It can make early childhood teachers sensitive to problems and help the teachers to process existing practical knowledge and enrich practical strategies. In addition, early childhood teachers can communicate profoundly in group work, which makes it convenient for teachers to share practical knowledge and learn from each other; Last but not the least, the training is developed based on common practical problems and return to practical operation. It makes it possible for the teachers to reflect practical problems in context close to real environment to experience the practical process, which shortens the gaps between teaching and practice, as well as teaching context and real life respectively and facilitates the teachers to apply what they have learned into practice. Meanwhile, it serves to deepen the teachers understanding to theoretical theories, principles and application strategies to expound on theories during the solution of problems. To learn theoretical knowledge with various sensory organs can improve the memory rate and the retaining rate.

To sum up, the "problem diagnosis" training mode is developed around problems. It's close to the teachers' daily practice and facilitates teachers to discuss, drill and sublimate practical knowledge. The participating enthusiasm of the early childhood teachers can be enhanced greatly. All teachers will be participants instead of bystanders during the training process.

The implementation strategies of problem diagnosis training

Problem diagnosis training is a group work based on practical problems with "heterogenesis within a group and homogenesis among different teams" as the grouping principle, the training progresses in activities including case studies, participatory discussion, debates, role play, brainstorm., case teaching, micro-teaching training, theory elaboration, operation experience, reflection and assessment. Developing from problems to practice and escalating from practice knowledge to theory vision, it encourages the early childhood teachers to share and innovate their particular practice experience and improve the retrospective exploration ability of the teachers.

Building problem context. The pure accumulation of teaching experience doesn't amount to practical knowledge. Teaching experience can generate practical knowledge only through the experience that the teachers have achieved in solving problems in daily practice. That is, the key to realize such transformation is how the teachers clarify problems in daily teaching [5]. "Problem-diagnosis" training helps teachers to clarify these problems. it tries to take practical problems as the entry point to enhance the teachers' awareness of problems, thus helping them to grasp the essence of problems in real context and develop a proper perspective for problem analysis to find an effective solution. Practical knowledge contains much tacit knowledge whose achievement

is connected to certain problems or tasks. Tacit knowledge is a comprehensively instinct grasp of the certain problems or tasks [6]. Problem diagnosis training breaks through the organization principle which is with theory and logic as the basis of traditional training. Practice problems run through the whole training and the training is developed with preschool education as the theme which is formed by combining specific contexts. Specifically, the training can select themes from aspects including context creation and material supply, language, art, society, health, scientific activity design and organization, game practicing, game creation, role play, the organization and guidance of games with rules, the strategies of special children education, common and typical problems in daily nursery. In the training, we can introduce the practice problems in daily activities, in a class, in a game or in a life scene by means of image-text cases, audio materials, on-scene view and emulation, role play, oral introduction to set the early childhood teachers thinking. or we can put the teachers into real context to urge them to take actions with problems and to test their practical knowledge with actions.

Analyzing problems. Generally, there are two ways to improve the practical knowledge of the early childhood teachers: first, the early childhood teachers are to be trained with practical knowledge of a particular field. They are stimulated to change their concepts and behaviors by external activities. Second, the early childhood teachers are to be trained to realize the importance and specificity of their practical knowledge, to grasp the effective way to acquire practical knowledge and to be able to develop their practical knowledge autonomously. The phase of analyzing and diagnosing problems should combine two methods. The early childhood teachers should realize new practical knowledge during the process of finding and analyzing problems while they should also reflect on and improving their existing practical knowledge during the process of discerning and diagnosing problems. The focus of this phase is to guide the teachers to start the systematic transformation mechanism of problem-solving experience and reflect on the problems, causes, conditions and purposes of practical context deeply to reproduce the generation process of practical knowledge. Meanwhile, a resonance of group cognition, thought and emotion should be achieved by means of discussing and analyzing practical problems within a group to deepen individuals' sensitivity of practical knowledge that they haven't express explicitly as education aim. Thus, the individuals can improve the sensibility to context-discerning knowledge and make deep retrospection with paradoxical sensation and the frustration caused by great gaps with others, which would set them thinking actively and thus lay the foundation of solving problems.

Comparing the solution schemes. After the phase of describing and analyzing practical problems, the trainers should lead various groups to look for proper solutions to problems and build effective behavior theory. "Behavior theories have common modes: you have to take A action if you want to get C outcome in S context." [7] For example, an early childhood teacher have to urge children to take off some clothes before sleeping and prevent them from leaving the rest room until he or she makes sure children have put on clothes when they get up if he or she aims to protect them from getting cold in afternoon nap. However, Type one theory tends to leave the practitioners in deadlock. Therefore, we have to reflect on the theory if we want to improve the professional performance. In addition, defense will inhibit practitioners from reflecting on and transforming practical knowledge on the whole. Therefore, we have to build a Type two behavior environment that is less defensive to transform reflective exploration into practical knowledge to make contributions to practice and professional education. Therefore, in the phase of comparing solution schemes, being frank and eclectic is very crucial. The early childhood teachers are encouraged to share their practical knowledge and provide as many schemes as possible through view conflicts and experience share to look for the optimal strategies. Furthermore, solving problems in a more effective way is the basis of comparing and selecting solutions. Personal attack which tends to fluctuate the thought of the teachers and decrease the defense behavior of the teachers shouldn't occur in discussion. During the process, hot debates and communication and collaboration would occur among the teachers. They would reach an agreement within the group after conflicts and rational criticism. Then they would demonstrate solution schemes in different groups and learn from each other. The teachers of other groups would observe and explore the demonstration with their own insight. They would compare

with other groups in regards to advantages and disadvantages and select the optimal practical scheme at last.

Clarify theoretical perspective. Theories are the forerunner of practice. Education theoretical knowledge and practical knowledge transform mutually, influence reciprocally and promote each other. In other words, the early childhood teachers have to take education theoretical knowledge as the nourishment and absorb nourishment from theories to analyze practical problems and make theories apply into practice perfectly if they are to develop practical knowledge profoundly. Such environment can defend the optimal practices acquired through thought vibration and hot debate to find scientific bases for practical actions. Trainers have to associate systematic theories with practical problems to explain to the teachers the reason, the advantages, the theoretical knowledge including pedagogy, psychology and physical hygiene that are contained in the theoretical system, and the source, opinion and logical system, which can not only deepen the teachers' understanding of practical problems but strengthen the teachers' understanding and master of theoretical knowledge. It starts the transformation channel of theoretical knowledge and practical knowledge of the early childhood teachers. On one hand, the trainers have to guide the teachers to systemize and abstract their fragment practical knowledge; on the other hand, they are supposed to supplement relative theoretical knowledge to update the old practical knowledge with new concept and new theories. The trainers' instructive elaboration on theories systematically can enlighten the teachers and highlight the theoretical frame. In addition, they can introduce some relative reading materials and guide the early childhood teachers to learn some more theoretical knowledge by themselves.

Behavior extension. Though problem diagnosis training is developed mainly around a practical problem, the problem is just a trigger and the foothold of the trainings is to arouse the teachers' awareness to reflect on practical knowledge, whereby practical knowledge can be spread and enriched gradually. Thus, the early childhood teachers' practical performance can be improved. Therefore, in the last phase of the training, application platform are to be built to enlighten the teachers to deliberate on the application methods of practical knowledge that is associated with theoretical knowledge in self-education practice. The application range is supposed to be enlarged and the theory application should be strengthened. After clarifying the principles and acquiring the identification of the teachers, the trainers should hold activities like demonstration, behavior simulated training, on-scene teaching and seminars to strengthen the teachers' comprehensive understanding of practical knowledge. Teachers should attempt to operate with the guidance of theories to acquire detailed practical strategies and thus form practical knowledge which combines knowledge and actions. There are various ways to organize behavior extension. The trainers can organize the teachers to view and emulate excellent practical episodes relative to certain themes, thus realizing the transformation from external emulation to the internalization of practical knowledge; or they can encourage the teachers to carry out experimental operation to test the effect of practical schemes and get suggestions from other teachers and trainers, thus improving practical knowledge; or they can design some action schemes and let the teachers to write some innovative practical envision, thus making the teachers to apply what they have learned into daily education practice.

The trainers' role in the problem diagnosis training for the early childhood teachers is as follows: collecting as many as typical problems that is urgent to be solved in daily education before the training; selecting relative materials and cases according to the training requirements of the early childhood teachers; deciding on the training themes and organizing the whole training process; offering theoretical perspective and practical suggestions. Therefore, it takes the following qualities for a person to be a qualified trainer. First, the trainers have to be equipped with theoretical knowledge including Psychology of child development and preschool pedagogy. Second, they are supposed to be good listeners to discern and summarize the teachers' practical knowledge. Third, they should have rich practice experience. Fourth, they have to be observant enough to discern the matching rate of practical problems and practical knowledge and provide feasible practical strategy, thus guiding the teachers' development in practical knowledge.

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