

Research on Development Strategies of Preschool Teachers' Practical Knowledge in Web 2.0 Era

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Abstract

The arrival and evolution of Web 2.0 era bring an opportunity for the development of practical knowledge of preschool teachers. It can both wake up the self-consciousness and set up a platform for the development of preschool teachers' practical knowledge. Therefore, based on the principles of the development of preschool teachers' practical knowledge and the era characteristics of Web2.0, the environment and products of Web2.0 can be utilized to accelerate the development pace of preschool teachers' practical knowledge via the methods such as: systematically absorbing the theoretical knowledge and practical strategies; forming the habit of reflecting on practical experiences; building up the mechanism of joint development in practical knowledge for preschool teachers - Preschool education experts - normal university student majoring in preschool education; and, developing multiple channels for the sharing of practical knowledge.

Keywords: *Web 2.0, Preschool Teachers, Practical Knowledge, Strategies*

1. Introduction

Teachers' practical knowledge is the foundation of their professional development [1]; at the same time, acquisition and accumulation, deepening and externalization of teachers' practical knowledge is an effective and specific way of their professional development. Preschool teachers' practical knowledge is "an applying theory" constructed and accumulated in their teaching activities, which plays multiple roles such as observing, supporting, selecting, standardizing and guiding in the process of teaching activities for preschool teachers. It also leads and norms the preschool teachers to using the knowledge and skills to carry out educational activities reasonably. Constructed on preschool teachers' life and practical experience, the practical knowledge is a kind of strategic cognitive system working on "how-to-do" in specific teaching situations. Practical knowledge is the foothold of professional growing up and fountain of practical wisdom, and its development is congruent with the professional development of preschool teachers. Therefore, to strengthen and improve the training of preschool teachers' practical knowledge not only can effectively resolve the preschool teachers' professional crisis, which is to equalizing the preschool

teachers stuff to female career, experience career and love career (i.e. pre-education teachers only require the general experiences and love to take care of the children), also help preschool teachers eliminate the blind compliance on the theoretical knowledge and experts, in order to change them from "customers" of the theoretical education knowledge into "producers" of the practical knowledge and form a strong sense of professional identity and independent development. Meanwhile, the clear path for the development of preschool teachers' practical knowledge not only points out the direction for preschool teachers to transform from a "skilled nanny" to a "reflection expert", also helps to speed up the pace of the preschool teachers' professional development, putting the confusing professional development goals of preschool teachers into practice in their specific daily teaching activities.

But the tacitness and situational characteristics of preschool teachers' practical knowledge leave it into a silent development state for a long time, stuck in the development dilemma with heavy obstacles such as collective aphasia, apathy of consciousness, lack of power, rigidity and inflexibility. So far, the coming of Web 2.0 Era, in which the Internet thoughts and ideas have been completely upgraded, provides a great opportunity for preschool teachers to develop their practical knowledge [2]. The teachers should absorb the thoughts of "participation, open, from-bottom-to-top, social connection and collective intelligence" advocated by Web 2.0 and reasonably make use of social-contact software such as Blog, TAG, SNS, RSS, wiki, P2P, Podcasting, IM under the environment of Web 2.0, which can effectively change their way of learning, eliminate their blind adherence to theoretical knowledge and experts, make their transformation from "customers" of theoretical teaching knowledge into "producers" of practical knowledge, constantly enrich their practical knowledge and form a strong professional identity and self-development consciousness.

2. Technical Route of the Development of Preschool Teachers' Practical Knowledge

The development of preschool teachers' practical knowledge is in the process of forming new practical knowledge, to continue to inspect, transform and reorganize the practical knowledge, making the content more perfect, the structure more reasonable, which follows the cumulative effect, based on the theoretical knowledge, taking the problematic situations as cause, practical reflections as method, social activities as extension and multi-channel promotion as a whole.

3.1. Theoretical Knowledge as the Foundation

The development of the preschool teachers' practical knowledge is the mutual transformation process between explicit knowledge and recessive knowledge, whose development source is "how-to-teach" educational theoretical knowledge. Theoretical knowledge of early childhood education reveals the basic rules of children development and early childhood education and conservation, penetrates the educational philosophy and values, and cultivates the preschool teachers' educational concepts. At the same time, the educational theoretical knowledge puts forward macro operation requirements to the preschool education practices. By repeat operation, reflection and enrichment, it can transform into practical knowledge. Conversely, if preschool teachers want to pursue in-depth development of practical knowledge, they should nourish from the pre-school educational theoretical knowledge, unceasingly absorb the nutrition of theory and think over the practical problems, in order to make it better to apply to the practices. Educational theoretical knowledge and practical knowledge can influence and promote each other. Although the selection, acceptance, and increase of preschool

teachers' theoretical knowledge root in their own practical knowledge, but the generation, understanding and application of preschool teachers' practical knowledge also depend on their educational theoretical knowledge. And not all the teachers' practical knowledge is educational, useful and valuable to society [3]. Practical knowledge of each preschool teacher in a certain stage is not perfect and needs continuous processing, refining and improving, and the realization of this process requires the guidance, detection and correction of the educational theoretical knowledge. Pure, systematic and profound educational theoretical knowledge can help preschool teachers improve their practical knowledge from the perspectives of values, principles and methods.

3.2. Problematic Situations as Cause

Dewey emphasizes that knowledge and human action cannot be separated and he believes that the meaning of knowledge lies to problem-solving and the reflection of consequences, rather than merely "confirmation to hypothesis". Real knowledge comes from problematic situations in the process of interaction between the individual and the environment [4]. The generation and the development of preschool teachers' practical knowledge also depend on practical problems, which not only exist in problematic situations, also are driven by coping with the practical problems. The more complex the practical problems preschool teachers deal with, the richer their practical knowledge will be. This is the key to quantitative accumulation of the practical knowledge. So, one way to promote the development of preschool teachers' practical knowledge is to pertinently create problematic situations, including oral representation of the problems or showing others' problematic scenes, even putting the preschool teachers in actual problematic situations. To induce actions from problems can guide preschool teachers to have insight into the problems and inspire them to think and correctly analyze the problems. In the process of looking for the problem-solving strategies, constant trial-and-error and rational criticism, preschool teachers' practical knowledge can get corresponding development.

3.3. Practical Reflections as Method

Reflection is the teachers' senior cognitive activities of perception, inspection, analysis, synthesis, evaluation on their own teaching practice experiences. It is a means of preschool teachers' professional development, as well as the purpose of their professional development. G. J. Posner puts forward a brief formula of teacher development: Experience + Reflection = Growth, and points out that experience without reflection is narrow, which can only form superficial knowledge [5]. Reflective thinking is a method of teachers' professional development, as well as the aim of professional development. "It can let us know what we are doing when we take actions. It turns appetite, blindness and impulsive actions into rational actions", Dewey said [6]. Teacher professional development theorists of Practice-Reflection orientation also think that practice is the source of development and reflection is the way of development. The development rate of preschool teachers' practical knowledge depends on the preschool teachers' consciousness of practical knowledge and their regular review and research on their own practices and effects. The basic generation condition of practical knowledge is practice, understanding and reflection. Preschool teachers' reflection on observation, selection, judgment and analysis of practices can promote preschool teachers to improve practical knowledge, according to the practice effect and preschool education theory, making silent practical knowledge explicit. Therefore, the effective method for

preschool teachers' practical knowledge development is to become practitioners of their reflections, keenly aware the deficiency of their own practices, reflect on their practices with a critical eye and optimize their practical knowledge. Channels of practical reflection are various. Preschool teachers can sense, inspect, analyze, synthesize and evaluate their own or others' teaching practices by way of writing reflective diaries, carrying out narrative researches and class evaluations, so as to better understand their applying theory into actions, and remove and improve the unreasonable factors.

3.4. Practical Reflections as Method

Although practical knowledge is mainly based on the individual practice reflection, its development also depends on the individuals to learn advantages from each other. Without communication and argument, it is likely to make the preschool teachers rigidify and model their practical knowledge, stuck in the past and unable to progress. Social interaction is a kind of beneficial complement form to inspire the preschool teachers to think and develop practical knowledge. During the interactions, such as class-listening, class-evaluation, demonstration, discussion and research between preschool teachers, they can share their practical knowledge, which can promote them to achieve the effect as said in Chinese classical work "When we see virtuous person, we should think being the same with them. When we see unmoral person, we should turn inwards and examine ourselves." In essence, social interaction is the process to promote preschool teachers' practical knowledge to attain "the unity of individuality and commonality" [7]. Learning from others' practical knowledge can help preschool teachers to break through individual practice patterns and horizontal limitations, constantly absorb beneficial experiences, enrich and improve their own practical knowledge. For example, during the active communication, observing and interactive process with the mature teachers and the experts, new preschool teachers not only can imitate and learn the recessive practical knowledge of a certain task or aspect, but also can get some guidance, open their horizon and enrich their practical knowledge.

3. The Influence of Web 2.0 on the Development of Preschool Teachers' Practical Knowledge

In 2003, the Internet steps into the Web 2.0 Era. "Represented by the websites such as Flickr, Craigslist, LinkedIn, Tribes, Ryze, Friendster, Del.icio.us, 43Things.com, and built on the application of social software such as Blog, TAG, SNS, RSS, wiki, Web 2.0 is the Internet new generation mode based on new theories and technical implementation such as six separations, XML and ajax." [7] Web 2.0 is, therefore, a generic name of some theoretical thoughts, technical products and services, as well as a new mode of the Internet. Taking users as the core, Web 2.0 make the users participate in the creation of content, which changes the information organization and management mode and transmission way on the Internet. It changes from the original connection between machine and machine into connection between human beings, which further strengthens the relevance and sociality, and evolves into an organic social network. The change renews people's thoughts and ideas and deepens the reform of people's way of learning, which provides the ideological and technical support for the development of preschool teachers' practical knowledge.

3.1. The Idea of Web 2.0 Awakens Consciousness of the Preschool Teachers' Practical Knowledge

Compared with Web1.0, "Web 2.0 is an Internet upgrading of concept and ideological system, changing from the original top-down system dominated by a few resource controllers into a bottom-up system dominated by the collective wisdom and power of users. The innate power source of Web 2.0 is to return the control of the Internet to individuals, fully explore the enthusiasm of individuals, and make them to participate into the system. Wisdom and influence contributed by countless individuals and the community influence formed by personal contact will replace the original influence made and controlled by the minority, thus greatly liberating the potential of the individual creation and contribution." [8] In general, "Web1.0 is the one-to-one communication between explicit knowledge, while Web 2.0 is the sharing, management, and accumulation of explicit knowledge and tacit knowledge in the social network." [9] Web 2.0 Era, therefore, emphasizes on the thoughts of "participation, open, from-bottom-to-top, social connection and collective intelligence", focuses on the individual knowledge and gives it the opportunity of self-expression, which turns the public view from blindly devotion to the general public knowledge into individual practices and knowledge, becoming the basis of practical knowledge growth. As for preschool teachers, Web 2.0 Era creates an opportunity for equal expression and record, in which everyone is the producers of knowledge, and everyone can put forward and spread individual knowledge, which changes from the traditional situation that preschool teachers simply attach importance to the teaching theories of scholars and experts into the new one that they realize the value of self-practices of knowledge, awakening the preschool teachers' self-consciousness of practicing knowledge and arousing their participation spirit as the main body. Led by the thoughts such as sharing, freedom, equality and openness in the Web 2.0 era, preschool teachers not only can quickly collect and comprehend others' practical knowledge, also can better to speak of their own applicable laws on solving practical problems, which promotes preschool teachers to intentionally extract, compare, process and improve their practical knowledge, and improves their practice wisdom.

3.2. Web 2.0 Products Builds up Development Platform for Preschool Teachers' Practical Knowledge

As the Internet steps into the Web 2.0 era, network learning also enters the e - learnig2.0 era. As said in the learning theories in digital era proposed by Canadian scholar Siemens, "In the information society, learning is no longer an internal and personal activity. The use of tools changes people's working methods and efficiency. As for learning, the change of learning tools and environment also plays a new role ". [10] In the Web 2.0 era, the Internet changes from a transmitting means into a true collaboration platform, from read-only network into readable network, in which users' participation and network openness are greatly increased, leading to many essential changes of e-learning compared to web 1.0, including organization and management of learning resources, the establishment of social relations between learners, the establishment of real learning communities, and mobile learning. Learning and life will incorporate deeply, and the creation and dialogue in learning becomes more important than how-to-learn [11]. The interaction, openness, decentralization, personalization and socialization of Web 2.0 set up a platform for the transformation between theoretical knowledge and practical knowledge, the externalization, sharing and perfection of practical knowledge. Products of Web 2.0, including Blog, TAG, SNS, RSS, wiki, P2P, Podcasting, IM, etc., set up a platform of social communication for preschool teachers to externalize, transmit, and sense the practical knowledge [12]. On the one hand, these products

can promote the establishment of the preschool teachers' learning communities, encourage the gathering and association of preschool teachers' practical knowledge, and improve the transmission efficiency of practical knowledge; on the other hand, they also make preschool teachers as individual break the status rank of traditional learning, break through the boundaries of time and space and widely collect information to search for effective experience of solving practical problems and rich practical knowledge. At the same time, they can also help preschool teachers to directly see how others to do the practices and think about others' practical knowledge.

4. Development Strategies of Preschool Teachers' Practical Knowledge Based on Web 2.0

Research shows that "Web2.0 has great advantages in individual knowledge management, knowledge sharing, education narrative, integrating education resources on the Internet, and promoting the construction of education resource base" [13]. Combining characteristics of Web2.0 Era and technical route of the development of preschool teachers' practical knowledge, we can adopt the following strategies to accelerate the development of preschool teachers' practical knowledge.

4.1. Collecting theoretical knowledge and practical strategies

The development of the preschool teachers' practical knowledge is a mutual transformation process between explicit knowledge and tacit knowledge of preschool children education, whose source is about "how-to-teach" teaching theoretical knowledge. Web2.0 Era contains plenty of preschool theoretical teaching knowledge. By making use of platforms such as wiki and Tag under the environment of Web2.0, preschool teachers can collect strong-systematic and high-integrated preschool theoretical teaching knowledge and form theoretical knowledge groups on a particular problem, thus accelerating their pace of making use of various resources for knowledge construction. In addition, Web2.0 environment also provides rich preschool teaching practice cases and the corresponding practical strategies. These typical and enlightening practical cases include situational problems, practical strategies, practical effects and reflective summarization, which carry rich education information. Whether to learn new practical knowledge or to reconstruct and develop existing practical knowledge are inseparable from specific practical cases. Preschool teachers' practical knowledge integrates with these practical cases which are related to concrete practice situations. If preschool teachers can purposely and pertinently collect and arrange practical cases on the Internet, summarize the corresponding practice strategies, they can examine other preschool teachers' practical knowledge more directly and stereoscopically, absorb the useful practical knowledge and put it into practice.

4.2. Forming the Preschool Teachers' Habit of Reflection on Practice

As mentioned above, reflection is the basis of generation and development of the preschool teachers' practical knowledge, which requires preschool teachers' repeat scrutiny and constant observation to the complex problematic situations, corresponding behaviors and effects, in order to find more appropriate strategies. The important task to promote the development of preschool teachers' practical knowledge is to make preschool teachers form a kind of criticism consciousness and consciously reflect on their teaching practices. Web2.0 Era provides many tools for preschool teachers to take reflection records, such as blog, RSS, QQ space, etc. Like

a camera, these tools can help preschool teachers to find out practical knowledge, and also can record and arrange preschool teachers' practical knowledge for the convenience of processing and perfection. If preschool teachers are good at making use of these tools, they can record their own perceptions, thoughts, ideas and understandings at any time, and form processing texts and instant view, including reflective diaries, teaching notes, activity records, narrative researches, papers, essays, or photos and videos of the class, which help them to check, analyze, synthesize, evaluate their own teaching practices, and management, thus expanding, improving and perfecting their practical knowledge [14]. This is an effective way for preschool teachers to dominate their practical knowledge, and is also the record of the preschool teachers' practical knowledge development track. Besides, abundant information and convenient checking form in Web2.0 Era greatly meet preschool teachers' various needs to reflecting and solving the problems. Preschool teachers who are diligent and willing to reflect can quickly find effective information on the Internet and get the sense of achievement by solving the questions, so as to inspire their studying interest to consistently explore the practical problems.

4.3. Building up Joint Development Mechanism of Preschool Teachers' Practical Knowledge

The representative of the Reggio Teaching, Loris Malaguzzi, believes that preschool teachers must give up isolated and silent working mode and build up a platform for preschool teachers' joint growth, which can urge preschool teachers to realize the accumulation, migration, sharing and innovation of a variety of practical knowledge in cooperation, dialogues and interactions, and the overall effect of the practical knowledge. Therefore, Web 2.0 provides quasi-authentic social network and popular classification, which can make preschool teachers more easily to break through the barrier of separation. Through the way of self-organization, they can constantly construct the cooperative development mechanism on the Internet, combining self-learning, research study and cooperative study into one. Under the equal, democrat, innovate, inclusive, cooperate, interacting and open cultural atmosphere, a mutual-beneficial symbiotic system can be built up, which include preschool teachers, kindergarten administrators, preschool education theory experts or students majored in preschool teaching. In this system, preschool teachers not only can communicate freely with other members living in different places, share learning resources and experiences, discuss solutions to practical problems, but also can get diversified, multi-leveled and multi-dimensional assistance and guidance, integrate the experience advantages of all members, and thus achieve the depth of communication and collaboration. Moreover, discussion activities can often be carried out, using the network interactive platform, on a certain practical problem, a key event or an activity design, which will help the preschool teachers to better extract and reflect on their daily using but unknowing theories, and promote the public spread of preschool teachers' practical knowledge, and inspiring them to think over the practices [15].

4.4. Develop Multiple Channels for the Preschool Teachers' Practical Knowledge Sharing

In the Web 2.0 environment, media sharing service websites and client apps can play a greater role in migrating and spreading the practical knowledge of preschool teachers, and expanding the horizons of them. For instance, the record of high-class educational practice can be shared by use of YouTube, Flickr, iTunes, podcasting and other websites or software. In the process of observation and participation of excellent teachers' teaching practices,

preschool teachers can feel the dramatic impact of wonderful teaching activities and develop the inspiration to create innovation of the practical knowledge. They also can learn effective practical strategies to shorten their time of exploring the practical knowledge. Even if the preschool teachers' observing activities still have some defects, they can function as a mirror to help the teachers think about themselves. In a word, viewing others' practical processes can enlighten preschool teachers on what should study in the field of preschool education, break through their habitual and stereotypical way of thinking, and remove the limitations of tacit practical knowledge that are unfavorable to the preschool teachers' development, so as to improve the quality of education. In addition, preschool teachers can also find new practical problems and arouse new thinking through network platforms such as blog, weibo, BBS, qq group, micro message groups, post bars. Meanwhile, free communication on the Internet can encourage preschool teachers to obtain some operation strategies to tackle the problems and deepen practical knowledge in exchanges of ideas.

5. Conclusion

To sum up, in Web 2.0 environment, numerous tools for network communication, sharing, and cooperation provide convenient ways for preschool teachers to get new information. Also they set up a new platform for preschool teachers to sense, express and update practical knowledge. Complying with the Web 2.0 era characteristics namely interactivity, openness and participation, preschool teachers can make more personalized, diversified and dynamic learning and reflection, obtain practical knowledge, and can more flexibly draw up their development route of practical knowledge according to their own needs.

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