

Constructing Platform for Distance Training of the National Training Program Based on Learning Cell

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Supported by the Project of China West Normal University for Youth Special Fund (15D018)

Received 14 December 2015; accepted 6 February 2016
Published online 26 March 2016

Abstract

With the progressive development of national training program, training areas and the numbers of participating in the training increases every year, but most of the projects set the training time is short, the training of teachers needed to rely mainly on the distance training. Current of distance training in some area uneven, less effective. Based on the analysis of the current situation on distance training, the article constructs platform of enhancing distance training quality on the ground of Learning Cell, which contains some characteristic functions of integration learning activities with learning content, KNS network, collaborative editing, paragraph annotation, procedural information evaluation.

Key words: Learning cell; National training program; Distance training

Xu, B. (2016). Constructing Platform for Distance Training of the National Training Program Based on Learning Cell. *Canadian Social Science*, 12(3), 10-13. Available from: <http://www.cscanada.net/index.php/css/article/view/8275> DOI: <http://dx.doi.org/10.3968/8275>

INTRODUCTION

According to the demand that we should reinforce the construction of teacher contingent, with the emphasis and improving the quality of teachers in rural areas, from the ministry of education and ministry of finance in the Seventeenth Congress of the CPC, in 2007. Based on

the achievement of training, it presented the National Primary and Secondary School Teacher Training Program, shortened form the National Training Program, and in 2010 the central budget earmarks, the official start of the 550 million yuan (Huang & Zhang, 2012). The main targets of the National Training Program are the key teachers of the rural primary and secondary schools (Zhang, 2011). Combining Off-job training, gather training and distance training of teachers, hoping we can improve the overall quality of the rural teachers and push the basic education of the service of higher normal colleges. In order to build the distance training of the National Training Program. This article is combing the current situation of the National Training Program in the China West Normal University and establish the mode of distance training which based on the learning cell, hoping we can provide the reference to the National Training Program distance training.

1. CURRENT SITUATION OF DISTANCE TRAINING IN NATIONAL TRAINING PROGRAM

From 2010, China West Normal University undertakes Chinese teaching in primary school as the subject of the National Training Program, now it includes English, math, physics, biology, chemistry, art, preschool education and so on. Training objects include core teachers, core teachers in charge of a class and core preschool teachers in middle and primary school. The culture area includes several countries and cities from the first, now it almost covers every region of Sichuan province, the number of people is increasing, the potential of training is enlarging

1.1 The Concept of Distance Training

Distance training of the National Training Program is a network technique-based platform, which provides interaction and learning for teachers and training specialist

in different areas. Based on this platform, it can provide more learning resource for teachers, and make the learning of teachers more independent, more individual. It can not only solve the contradiction of teachers but also increase the pertinence and actual effect of the training.

1.2 The Current Situation of the Distance Training

In order to accurately grasp the current situation of the distance training, this research made an online interview to 80 students who participated in the National Training Program (2013) — Sichuan province rural primary school Chinese core teachers short-term concentrated program in China West Normal University, these students have participated in different National Training projects. Our interview mostly embraces “the changes which distance training brings” and “what do you think that distance training may achieve”, the writer summarizes the current situation of the distance training by analyzing the records of interview.

1.2.1 Insufficient Functions of the Distance Training Platform

Distance training platform is the medium between students who participate in the training and specialists, its function related to the implementation of the distance training program. Most teachers who participated in the training said that the platform runs slow, each function is not clear division of labor, interaction between students and students, students and trainer are not easy-operating, this may influence the enthusiasm of the participant, and influence the result of the distance training.

1.2.2 The Resource of the Platform Update Slow and the Quantity Is Less

Resource of the distance training platform mainly rely on the National Training specialists, if specialists' frequency of the upload is low, it may cause the less quantity of the distance training platform, teachers who participated in the training can't get learning resource timely, this may influence the enthusiasm of the participant, and influence the result of the distance training.

1.2.3 The Interaction Between Teachers Who Participate in the Training and Specialist Is Insufficient

The National Training Program includes short-term class and long-term class, especially the training time of short-term class is short, include 7-15 days in normal, teachers who participated in the training reflect that the time is too short to acquire enough front-line experience, they hope to learn with excellent teachers and specialists by participating in the distance training. Nevertheless, in the distance training at the present, the interaction between teachers who participated in the training and specialists is insufficient, knowledge and experience cannot be shared.

1.2.4 Signal Evaluation Method

Evaluation guides instruction and learning, and that is the method of judging the result of learning activities and is the way of regulating learning direction, however, most of existing platforms only supply the tools of generating

test paper and evaluation result. But evaluation should pay attention to learners' multiple abilities, and should pay attention to procedure-oriented and performance-oriented, which made learners grasp the own learning situation in time.

2. NEW NATIONAL TRAINING PROGRAM PLATFORM BASED ON THE LEARNING CELL

2.1 The Introduction of Learning Cell Platform

The learning cell (Yu & Yang, 2009) was developed by Mobile learning education-china mobile joint laboratory is a new open learning platform which takes generate, evolution, sociality as its guide, it supports u-learning, free inquiry, knowledge construction, communication and cooperation, it can combine professional resources, people, practice of the education and tool, and provide knowledge sharing, communication and cooperation, teacher training, now it is widely used in leap type education teacher training by Beijing normal university, and good result was obtained. Learning cell includes learning cell, knowledge group, knowledge clouds and learning tools, and it possesses a series of special functions like learning activities and learning content integration, KNS network, collaborative editing, paragraph annotation, procedural information evaluation and so on.

The integration of learning activities and learning content. Learning cell platform provides a forum, polls, Q&A, online communication, publishing works, Six Thinking Hats, concept map, learning reflection, tests and quiz and other multiple level cognitive learning activities. Moreover, it also supports to embed learning activities into the learning content and different courses designed which all together to make learning activities more targeted, to ensure the greatest degree of learner input. By launching session consultations and exploratory activities and occurring deep interaction between learning activities and learning content, wake their prior knowledge, reconstruct new knowledge, and finally move to higher order thinking skills and get to the thinking faster.

KNS network. Learning cell learners can edit, study, evaluate, citing personal network and knowledge network that were automatically created in the process of learning cell study. It effectively describes the relations of people, people with knowledge and knowledge between knowledge. Through knowledge network, established dynamic connections between learners, teachers and discovered the other learning cells. Learners from the learning cell can communicate with the learning from the other cells without problems. Learners can get continuously updated knowledge as well as provide learning bracket for the better independent study, which will help a deep understanding of knowledge.

Collaborative Editing: Learners in a learning cell not only can contribute resources to the content, but also add text, insert images, embed external links to the existing resources which help a lot to the learners feedback; the more knowledge learning cells involves the extensive deeper, the breadth and depth of student learning increase.

Paragraph Comment. If the learner in a learning cell had doubts about content or have their own views, it can use annotation features to leave a comment in a timely manner. It is a direct and effective way to communicate and collaborate with others. Learners can benefit a lot to exchange views about a specific problem, prompting occurrence of an understanding of the depth of knowledge of the contents.

Process information evaluation. Focus on the learner's learning process and the learning process of monitoring and tracking. The learner's performance was truly based on a comprehensive assessment of the behavior in the learning process; the results of the evaluation are the components of the learning objectives and learning content evaluation items by weight that was carefully selected by teachers. Evaluation of content and results can be fed back to the students at any time, students can keep on eyes of their learning status to adjust learning strategies for effective learning as well as to guide and support the development of individual learning and self-reflection.

2.2 New Approach to Enhance the Quality of Distance Training Based on Learning Cell

Before organizing distance training, organizers established a knowledge group based on learning cell and teachers participating in the training must register and log in to the knowledge group, then specific content into a plurality of unit modules according to the main distance training goal, each as a learning cell in the created knowledge group. Finally, the organizers create learning contents and design learning activities by the specified learning cell.

Self-adaption terminal display can meet the learning needs of the trainees at any time, realizing the on-demand learning. Learning cell more adaptable terminal display allows participating teachers accessing contents on mobile device (cellphones, tablets, laptops, etc.) anywhere, at any time, not learning environmental constraint. Therefore, the teachers who have participated in training can study in any free time by any mobile device, and collaborate with other teachers in other cities, this way can use after-class time in the maximum degree and enormously increase in collaboration efficiency.

Mode of *Group Built and Sharing* in learning solved the problems of shortage of resources and slowly updating in the past of the platform. Learning Science has proven that when learners actively participate in the construction of self-knowledge, their knowledge of understanding will be deeper, more general, more motivation (Sawyer, 2010). The mode means the specialist is no longer a single resources creator, but all teachers involved in learning cell

can be a creator. As long as the participating teachers in the training have new resources, they can uploaded them to the learning cell, it shared with all participating teachers, which completely changed the situation that learning platform resources reorganizations rely solely on teacher in the past. Moreover, learners change from content consumers to content creators, which means that there has no longer just a simple process of learning content transfer, but much more of the creative and production from the learners their own, in other word, the learner is taking control of their learning process. This approach not only allows participating teachers sharing excellent teaching resources from other areas of teacher, to better mobilize the enthusiasm of teachers to learn, prompting teachers to gain knowledge of the deep understanding of the process of sharing knowledge with others.

KNS network can help learners with more trainees and experts interact, to get more resources. Learning cell is a large open platform for online learning; many educational organizations' educational activities are based on this platform to establish a group of knowledge or learning Cell, thereby forming a large and comprehensive Learning Cell of resources system, and a lot of experts and teachers participation in learning cell. KNS network automatically creates personal network and knowledge learning network in the process of learning cell users to edit, study, evaluate, cite, which effectively described the connection among people, between people and knowledge, between knowledge and knowledge, by searching within platform on learning and knowledge-related resources, discovering and learning with other learning-related cells, establish a dynamic link with the creators. In the end, students not only to exchange knowledge with this group of peer interaction, but also to strengthen interaction between excellent teachers and experts, can stimulate students' participation and initiative.

Model of *learning contents and activities integrated*, could help trainees to achieve deep understanding of the training, to promote migration application of knowledge. Re-integration of learning and teaching theory advocates that the integration of learning materials and learning activities ensure expected changes can take place in accordance with the teaching objectives of students' knowledge, skills and attitudes, and the integration of learning content and learning activities is a necessary condition for the occurrence of deep learning process. Learning cell that supported multiple level learning activities helps students cultivate cognitive skills and attitudes. Not only new knowledge and skills will be linked with learners' existing knowledge and skills but also experience of the learners live in, practice areas and interests of the learner. Through the depth of interaction of learning activities and learning contents (Huang, 2012), to promote the learner's advanced thinking skills training, to achieve shallow learning to deep learning transformation (Liu, 2013). Learning cell platform supports learning

activities embedded in the learning contents and different courses designed to make learning activities more targeted. By carrying out consultation and inquiry activities and occurring deep interaction between learning activities and learning contents, make the acquisition empirical knowledge to be verified in practice in time. It is an important standard to test whether the teachers acquired knowledge to put theoretical knowledge into practice.

Collaborative editing and *Paragraph annotation* features enhanced interaction between trainees, prompting learners depth understanding of a specify knowledge content. Collaborative editing is the feature that granted by the learning cell creator that allows the participated users in the learning cell to edit the existing content, by adding text, insert images, embed external links, etc.. The people participating in the training of different regions could connect together to learn, the more participants, the more knowledge gained. The content and structure of learning cell constantly adjust and perfect, finally it can meet the requirements of all kinds of dynamic and individuation learning needs from the learner. In the process of continuous criticism and reflection, promoting participated teachers experiences a deep learning. At the same time, paragraph notation function can also provide an effective and collective software for preparing lessons; teachers can constantly explore, modify one certain teaching design based on learning cell, and form an excellent teaching design schema at last.

The procedural information evaluation of learning cell supports individual development and reflective learning of teachers who participate in the training. Metacognition theory advocates when one person is learning, he or she need to use some strategies to evaluate own cognition process, and consciously supervise, control and adjust, and adjust cognitive objectives, cognitive strategies and cognitive operation by means of evaluation results, thereby, learner can select effective plans to study and resolve problems, which will be on the basis of self reflection and self monitoring for deep learning. The style of learning cell's evaluation has characters of procedural and developmental, which can help learners to realize self monitoring, adjust learning objectives, and lead to effective learning. So, the evaluation method can guide students to think how and why in every step they take, it can also support learner found a lasting, iterating learning record and experience, it can not only urge the occurring of the effective learning, but also urge the cultivate of reflective ability of learner (Zhu, 2013). Moreover, the multiple ways of evaluation of learning cell support teacher evaluation, peer grading and self-assessment, which strive to making all aspects of evaluation for learners, improving their own knowledge structure via evaluation from others, and reinforcing the assessment and adjustment of learning process by learners. It broke the past model of teacher evaluation, making teachers who participate in the training can find learning problems

immediately without the help of trainers, and via which, they can adjust their learning strategy.

CONCLUSION

Therefore, constructing platform based on the characteristic function of Learning Cell, which can promote the quality of distance learning from enhancing studying enthusiasm of trainees, collaboration and communication among trainees, Rich resources and developing reflection, especially, which can promote trainees to apply new knowledge in practice.

However, constructing platform based on the characteristic function of learning cell which will be faced with many challenges. To the trainers, or the constructor of learning cell, the real challenges are the method of stimulating interest in participating into studying based on learning cell, and how organize the structure of learning resource, and designing effective learning activities which was aimed at differential learning content which lead to effective learning of training students, and designing the appropriate standards of procedural information evaluation to help trainees to adjust learning strategies. To trainees who participated in distance learning, the challenges are the ability of flexible applying the functions of learning cell to support personal learning, and positively contributing own knowledge to learning cell for sharing with others when enjoying the use of other resource, and actively communicating with others, rethinking profoundly the learning process, and the key of solving these challenges is that taking the studying style based on learning cell as learning habits.

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