An Empirical Research on the Organizational Learning of the Teachers in Chinese University

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Abstract. The key to improving Chinese higher education is to build the teacher teams. In this case, organization learning could boost the development of teacher teams in terms of their efficiency and effectiveness, which would guarantee the development of the Chinese education industry. This empirical study combines qualitative and quantitative methodologies and analyzes the results of an organizational learning of teachers in Harbin University of Commerce. Thus, it will show the indispensable influence of this type of learning on development of teacher team in universities.

Introduction

In the last 20 years, in education science, there is an increasing number of researchers focus on teacher development. In addition, the research has been gradually shifted from teachers' behavior to their own cognition and development. This study combines compound aspects, for instance teacher knowledge, education & training and professional capacity development (Philippe Baumard, William H. Starbuck, 2006). Research in china in this area is more concentrated in the significance of the cognitive learning of teachers (Xie Qihu, 1998), the quality structure of elite teachers and the structure of teacher team (Song Fan, 2001). As the foundation of the China teachers training system which was established and implemented in 1990, China Teacher Post Training have played an important role in the update and supplement of teachers’ individual knowledge and skills. Nevertheless, the collective learning of individual teacher could not necessarily lead to the sustainable innovation ability for teaching.

Harbin University of Commerce which is the national-level university in Heilongjiang Province, China is selected for this research. The annual teacher on-post training is held by Harbin University of Commerce on 26th November, 2016 and participated by different teaching teams made up by selected teachers teaching different subjects in Harbin University of Commerce, such as English teaching team, management teaching team, mathematics teaching teams and so on. Data collection of this research has been conducted through colleagues in human resource department in Harbin University of Commerce adopting “teachers questionnaire” during the national-level teacher post training in Harbin University of Commerce in 20th, November 2016.

The purpose of this research is to explore and analyze the condition and relationship of the on-job training and organizational learning of Chinese university teachers. This study can provide the theoretical framework to advance the ability of obtaining and innovative teaching.

Organization Learning

For over 30 years, research on organizational learning has contributed greatly to the development of organizational theory. Moreover, this research has increased very rapidly over the past 10 years defines organizational learning as the process of "detection and correction of errors." In his view organizations learn through individuals acting as agents for them: "The individuals' learning activities, in turn, are facilitated or inhibited by an ecological system of factors that may be called an organizational learning system" Argyris (1977). Organizational learning focused initially on the
practice of five core disciplines, or capacities: system thinking; team learning; shared vision; mental models and learning cognition.

**Research Methodology**

**Subjects.** Formal survey subjects: In 2016, different teaching teams made up by selected teachers teaching different subjects in Harbin University of Commerce, such as English teaching team, management teaching team, mathematics teaching teams and so on.

Within formal investigation, 197 questionnaires were sent out and 150 returned. The returned rate was 76.1%. 138 questionnaires were valid.

**Tool.** The study employed ‘teacher questionnaire’ which was made up by myself and contained two parts:

Sub-questionnaire for Post-training evaluation which included four items: cognition to training, the degree of mastering the training knowledge, teaching capacity and impact of training to student education.

Sub-questionnaire for teachers’ Organizational learning evaluation which is consisted of, shared vision, learning Cognition, mental models, systems thinking, team learning and other dimensions.

**Investigation process.** Investigation was principally conducted at middle or later period of the training by releasing questionnaires at random previous to starting the training class. It is needed to tell participants that the outcomes are confidential and just will be used for study objectives ahead of investigation. Investigation is necessary to be conducted in a relatively concentrated period, and collected questionnaires after the class. Those questionnaires which could not be collected directly will be gathered by someone or during return visit.

**Data analysis.** The statistical methods in this research chiefly contained reliability analysis, exploratory factor analysis, variance analysis, confirmatory factor analysis and regression analysis. Data were analyzed by using SPSS10.5

**Results.** Items analysis on two questionnaires; Items analysis on Sub-questionnaire for Post-training evaluation

EFA was appraised for the sub-questionnaire on teachers’ on-job training evaluation and factors were collected by employment of PCA and analyzed with orthogonal rotation. The outcome collected one factor, the characteristic root was 1.750, explaining 61.23% of the total variation. 0.812 was the training evaluation sub-questionnaire’s coefficient of internal consistency.

Items analysis Sub-questionnaire for teachers’ Organizational learning evaluation.

By selecting objects from four side item analysis, the internal consistency coefficient was 0.899; divide half reliabilities were respectively 0.853 and 0.897.

The data from proper survey are used to analyze the structure of organizational learning sub-questionnaire. All goodness-of-fit criteria showed that sub-questionnaire for teachers organizational learning evaluation was proved by data.

The impact of demography variable on on-job training and organizational learning evaluation.

Firstly, “Professional title” and “best teaching accomplishment” had very important influence on evaluation of post (F1=4.013, F2=4.205, P<0.04). Secondly, “Post” greatly affected the cognition of organizational learning (F3 =3.774, P<0.04). Lastly, the effects of other factors are not important.

The results of analyzing two sub-questionnaires.

Aggregate score of “training evaluation” and four-dimensions score of “organizational learning evaluation” were analyzed by employing variance analysis and regression analysis
Discussion and Conclusion

Results of CFA and EFA showed “teachers’ questionnaire” has positive validity. The questionnaire’s internal consistency accorded with the condition of surveying science; its validity and applicability were proved.

The higher the capability which teachers have, the lower the satisfaction to on-job training. Therefore, compare to general on-job training, elite training is required by high-level teachers.

The higher-position teachers have deeper comprehension on organizational learning; it would relate to a great extent to teacher’s role in the teaching team. Accordingly, he (or she) would be in the greater intensity of the support to organizational learning towards the teachers. It coincides with the argument of “the leader is the important influence factor to the organizational learning” which is provided by lots of scholars.

It showed that evaluating organizational learning would expect the circumstances of training evaluation to a some extent (R²=0.31; F1 0.401, P < 0.05). And it also indicated that teacher’s on-job training is a sort of representation of ecological process. And on-job training is the organic component of organizational learning. Compared to on-job training, teacher’s organizational learning has richer connotation. The analysis found out important interactions between learning cognition and training evaluation (0.247, P<0.05), however, on-job training contains less learning cognition (B =0.133), it is the lowest in five prediction variables. So it is proved that teachers’ organizational learning makes emphasis on the deep cognition to study (F =1.092, P<0.05).

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Teachers’ organizational learning concentrates organizational sense of objective and sense of destiny. Shared vision cannot enter the regression equation to forecast training evaluation. So there are obvious differences in shared vision among organizational learning, learning organization and on-job training. Teachers’ on-job training chiefly emphasizes on developing individual ability. The organizational learning will be seriously hamper by the organization culture.

The organizational learning called for mental models(F=1.823, P<0.05). Even if communication and interactivity is put forward on teacher’s on-job training, but, mental models prediction for on-job training is relatively incomplete (B=0.312). So, duck-stuffing teaching way of those “authority” is merely the “mini-version” of open mind, or even the distorted version. This fundamentally created a lot of teachers who are ‘skilled incompetence’.

Teachers’ organizational learning focuses on information sharing and team learning(F=1.619, P < 0.05). Despite information sharing is the essential factor(B=0.478)of predicting position training evaluation, the real conditions amid teaching group is not developed so well. Therefore, the possibility that teachers may equal hard information with soft information cannot be ignored.

The training of systems thinking is also be emphasized by teacher’s organizational learning (F=1.318, P < 0.05). To get a successful training, systems thinking is an excellent instrument for teachers to know the character of a item and its regulation. As a result, the ability of systems thinking is a significant skill which needs to be educated and improved for university teacher.

Teacher’s questionnaire has approving validity and reliability. High-level teachers who have lower satisfaction to on-job training achieve richer understanding on organizational learning. On-job training is the organic section of teacher’s organizational learning. And for the teacher team, organizational learning has more plentiful connotation than on-job training.

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