

THE RELATIONSHIP BETWEEN INNOVATION TRAINING ON TEACHER COMPETENCE: A LITERATURE REVIEW

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ABSTRACT

Following the advancement of the scientific and technological revolution, a new era of knowledge-based economy and human capital that respects knowledge and emphasizes the cultivation of talents has been created in human society. Talents are indispensable to the development of all walks of life, and training of talents and improvement of their quality cannot be separated from the training of organizations and university teachers. It can be seen that human resources training and university teachers play an important role in personnel training. In addition, with the modernization of higher education governance system and governance capacity, and the impact of cutting-edge technologies such as cloud computing, Internet, big data and artificial intelligence, teachers' original educational ideas, it makes it difficult for teachers' original educational concepts, pedagogical thinking, and teaching methods to adapt to the reform and development of higher education. These real-life dilemmas have brought impacts and challenges to college teachers and human resource management in colleges and universities. This study outlines the definitions and dimensions of innovation training and teacher competence through an extensive literature review and summarizes the relationship between innovation training and teacher competence.

Keywords: Innovation training, Teacher competence, Relationship

INTRODUCTION

Teachers in colleges and universities are responsible for cultivating talents, teaching, scientific research, social service and other responsibilities, and their competence status will greatly affect the quality of higher education in China. It can be seen that teachers' competence is related to the quality and future of higher education. (Zheng & Chen, 2013).

In today's competitive era, innovation has become an important goal pursued by countries, enterprises and universities. As the modernization of higher education advances, the increasing maturity of modern information technologies such as multimedia, cloud computing, the Internet, computers and the impact of cutting-edge technologies such as 5G communication technology, big data and artificial intelligence have made it difficult for teachers' original educational concepts, knowledge structures and teaching methods to adapt to the reform and development of higher education.

Training is an important way to improve the talent structure. Training can improve the comprehensive quality and ability of employees and explore their potential, thus helping each department to achieve the goals of operation (Campbell & Kuncel, 2001; Karia & Asaari, 2006; Wang Gao, 2011; Wang Liting, 2022; Jin Chao, 2018;ORA Grou., 2020).

So, how can colleges and universities innovate their training? What is the relationship between innovation training and teacher competence? These questions are worth exploring.

Definition and Dimensions of Innovation Training

The Definitions of Teacher competence

Medley & Crook (1980) identified teacher competence as a collection of teacher abilities, the more competent the teacher is thought to be, the more competent the teacher is thought to be and the higher his or her competence. Carl Olsson (2004) believes that teacher competence refers to the knowledge, skills and attitudes that teachers need to succeed in teaching. Tigelaar et al(2004) believes that teacher competence refers to the set of personality traits, knowledge and teaching skills and attitudes required for effective performance in a variety of teaching Settings.Gu Jia (2019) believes that teacher competence refers to the characteristics that teachers can show in different teaching environments and situations, such as competence, knowledge and professional affection.Kaiser (2019) believes that teacher competence can be defined as the propensity to perform cognitively in response to specific contexts and to respond functionally to situations and needs in certain areas.Sulaiman & Ismail(2020) believes that teacher competence described as a combination of knowledge gained through experience and teachers' understanding of teaching practice Ergünay & Parsons, (2023) believes that teacher competence is defined as a collection of specialized knowledge and understanding, as well as a wide range of skills and attitudes.

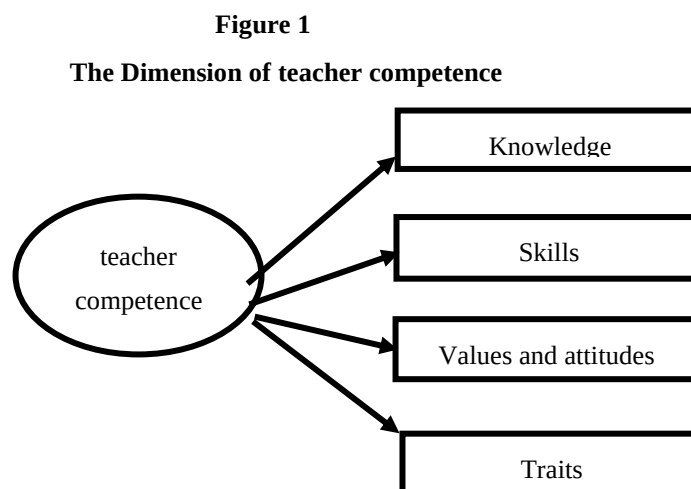
To summarize, this paper considers that teacher competence refers to the cosmetic, observable, measurable, and changeable abilities and attributes that teachers possess in their schoolwork.

The Dimension of teacher competence

Medley (1977) is a foreign scholar who conducted an early study on the dimensions of teacher competence. He evaluated teachers from three aspects: professional knowledge, professional skills or abilities, and professional attitudes or values. Kelchtermans & Vandenberghe (1994) studied teacher professional competence in a more comprehensive and in- depth way. He believed that teacher professional competence consisted of six parts, including self- intention, self- respect, work motivation,

job satisfaction, task perception and future prospects. Later, with the development of the research on competence movement, competence shows a trend of emphasizing the integration of ability and trait. Shinkfield & Stufflebeam (1995) believe that teachers' competence is divided into three categories, namely, professional knowledge, professional skills or abilities, and professional attitudes or values. Since the beginning of the 20th century, the Absorption of teacher competence research has gradually shifted from the original model construction dominated by external factors such as teacher skills, knowledge preparation and learning experience to the competence characteristic model exploring teachers' internal personality traits, and more emphasis has been placed on the core role of teachers' internal spiritual qualities such as willingness, emotion and resilience in forming their competence characteristics. For example, Kember (1997) studied teacher competence from the perspective of teaching and believed that modern teaching methods should realize the transformation from "teacher-centered" to "student-centered". It can be seen that she emphasized teachers' inner emotions, motivations and values. Olson & Wyett (2000) and other scholars emphasize the "quality-based" competence model of teacher competence and believe that teacher competence refers to the professional knowledge, professional skills and professional values that individual teachers possess for successfully implementing teaching. Spencer (2008) believes that teacher competence is a potential trait that connects individuals and work, which can be divided into five levels, including knowledge, skills, characteristics and motivation, and self-concept. Lopukhova & Makeeva (2019) summarized the elements of teacher competence: Ways of Thinking, Ways of Working. Working style, Tools for Working, Living in the World. Urinova et al (2023) argue that educators' ability to teach is one of the key components of the professional education ability structure. Ergünay & Parsons (2023) believe that teacher competence includes attitudes, values, beliefs and commitments.

This paper summarizes the concept of college teacher competence and the corresponding dimensions based on previous research results and years of practical experience. This paper argues that teacher competence includes four dimensions: knowledge, skills, values and attitudes, and traits.



The Definitions of Innovation Training

McGehee & Thayer (1961) believes that training is one of the important ways to organize human capital investment. The purpose is to improve employees' competence, production efficiency and better achieve organizational goals by influencing or changing employees' attitudes, behaviors and skills. Tracey (1991) that training is "a set of activities developed by an organization to enhance occupational skills and competitiveness before employees perceive a lack of knowledge and skills". Other scholars have also studied the definition of training, such as Dessler, Wu, Heng, Liu, Huajin, Pastore & Zimmermann, Christenko, Christenkoet, Pinnington, etc. Dessler (2001) believes that training is a process that can improve the working conditions of new and old employees, and better fulfillment of their needs. learning process. Wu Heng (2017) believes that training is a kind of cultivation or educational activity with planning and purpose to improve employees' knowledge, professional skills as well as to improve their work attitude and service standard through re-education, learning and other modes as permitted by relevant laws and regulations such as governmental agencies, institutions and so on. Pastore & Zimmermann (2019) believes that training is an activity for employees, it has many forms, the purpose is to achieve goals, training does not necessarily lead to success, it may delay the transition to work, but can open young people's horizons and long-term quality career. Kostanjšek & Jagodić (2020) believes that training is an activity in which employers, through innovative education, enable employees to bring added value to the organization in terms of knowledge, experience, skills and innovation at work. Pinnington et al. consider training as an activity undertaken to enhance general and specific skills (Pinnington et al., 2023).

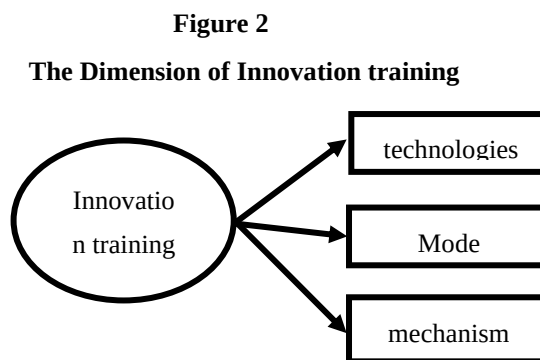
This paper argues that innovation training refers to activities within an organization or enterprise to improve employees' knowledge, skills, perceptions, behaviors, etc., under the premise of innovative thinking and using innovative techniques, models and mechanisms.

The Dimension of innovation training

Guan Jing et al (2009) believes innovation training includes three dimensions: concept, mode, mechanism. Ahadi & Jacobs (2017) believes innovation training includes three dimensions: technologies, process and mechanism. Reyes (2019) believes innovation training includes two dimensions: technologies, mode. Ma Li (2019) believes that the training work of colleges and universities faces many realistic dilemmas in practice, such as emphasizing theoretical teaching and neglecting technology transfer in training concept; focusing on professional development and neglecting teacher moral construction in training mode; emphasizing collective learning and neglecting individual needs in training method; and focusing on the form itself and neglecting the essence of content in training evaluation. In other words, Innovation training needs to be carried out in several aspects, including concept, mode, method, and evaluation. ORA Group (2019) believes innovation training includes two dimensions: technologies, mechanism. Zhang Haitao et al. (2023) argued that with the proposal of the Internet + strategy, the development of artificial intelligence, the presentation of the concept of meta-universe, the internal and external environments of colleges and universities and enterprises have changed, and the increasing abundance of training tools makes structured on-the-job training in the

context of the new era, which does not necessarily use on-site training, and, taking into account the cost factor, it can be more likely to use the Internet technology training or combined with the traditional S-OJT mode to carry out, including the utilization of PC Internet and mobile Internet to learn anytime and anywhere, which puts high requirements on the initiative of the trained subjects. Haitao Zhang compiled an S-OJT scale for teachers in Chinese universities and empirically tested this S-OJT scale to outline a five-factor model of structured on-the-job training for university teachers: planning, support, practice, feedback, and diversity.

Through the literature review, and then combining the actual situation in China and the characteristics of the research object, this study outlines the innovation training dimensions on the basis of the structured on-the-job training (S-OJT) teacher model of Chinese scholars Zhang Haitao et al. (2023). Innovation training includes three factors: technologies, model and mechanism.



The Relationship Between Innovation Training and Teacher Competence

Some scholars have proved that innovative training is positively correlated with teacher competence. Azam et al. (2014) argue that education is essential for the development of human capital, and therefore for society as a whole. There, the importance of teachers in creating the future of humanity is widely accepted. Teachers are those who have been chosen to hold the candle of enlightenment, the knowledge, and the keys to success. The success of a country depends on the success of its education system, which in turn depends on the quality of its teachers, who in turn depend on the quality of their training. It can be seen that training will affect teachers' competence. Zhang Lu (2020) shows that training has a positive impact on job performance. Gema Prasidio Akbar Hidayat et al. (2020) found that training has a significant impact on competence. Maritasari et al. (2020) found that training has a significant positive impact on teacher competence. Training has a significant positive impact on teacher performance. Teacher competence has a significant positive impact on teacher performance. Gong (2020) discussed the relationship between training and competence and believed that training would improve post competence. He investigated flight attendants and concluded that participating in pre-service training only has a positive impact on the potential ability of flight attendants but has no significant impact on the improvement of apparent ability of flight attendants, and only exploratory learning training mode has a significant impact on the improvement of potential ability of flight attendants. According to

the research results, he suggested that airlines should pay attention to and strengthen the pre-service training of employees when designing pre-service training programs. Sato & Ishimaru (2022) argue that on-the-job training (OJT) is critical to improving the competence of nurses. Pang Xiaomeng (2023) believes that through training and innovation, enterprises can improve the professional skills, management skills, centripetal force, and other competencies of employees, so that enterprises can occupy a place in the fierce market competition and seek greater development.

RESULTS

By combing through the literature, this paper finds that: many scholars believe that training is significantly and positively related to competence. The purpose of training for college teachers is to do their job better and promote their career development. Training college teachers with novel training methods is conducive to improving their competence.

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