

Development a Teaching Model for Enhancing Normal University Students' Creative Teaching Skills

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Abstract

Creative teaching skills are very important in the cultivation of college students, and are closely related to issues related to creativity in fields such as psychology, sociology, education, and management (Sternberg, RJ 2000). For over a decade, the Vocational and Technical Teachers College of Guilin Guangxi Normal University in China has collaborated with various vocational schools both inside and outside the region to cultivate vocational teacher qualifications. This study has developed a new teaching model to enhance the creative teaching skills of university normal students in teacher education training courses. This study explores creative teaching skills and explores them from three parts: Observation Skills, Creative Thinking, and Creative Operational Skills. With the development of creative teaching models, specific examples are used to illustrate the practical exploration of teacher education courses for normal students based on the development of creative teaching models. The implementation of creative teaching skills in teacher education courses is studied and the development model is used to achieve three optimizations. This study conducted in-depth observations on 10 teachers and analyzed a sample of 68 students majoring in e-commerce at Guangxi Normal University. The collected data included interviews, observations, ratings for eight teaching units, and photos of the classroom environment. Through data analysis, the survey results show that teachers cultivate creative teaching skills in the classroom through teaching, curriculum, and environment. After learning and implementing the development model, students have significantly improved their creative teaching skills compared to before implementation. These findings have a significant impact on how teachers can cultivate creative teaching skills among Chinese university students. Based on the research of creative teaching skills, suggestions are proposed for resource sharing, cooperation and mutual assistance, collaborative promotion, and scientific integration, closely linking theoretical teaching with practice.

Keywords: Creativity, Creative teaching skills, Teaching model

Introduction

The process of globalization requires a large number of outstanding international talents. Stephens pointed out that international talents should have strong cross-cultural communication and cooperation ability, broad global vision, strong creative consciousness and good creative skills and other qualities (Stephens, 2009). Cultivating innovative talents is required by the knowledge economy, depends on the fate of the country, is the general trend of the world, and is compelled by the development situation. The key to cultivating talents lies in teachers especially the creativity of teachers. The state has promulgated a series of documents and policies to effectively guarantee the improvement of the teacher-training students' innovative skills. The essence of education is innovative teaching and creative thinking. The curriculum standards in many countries such as Germany, the United Kingdom, Thailand and China all point to the requirement of "creative ability". In order to improve the awareness of innovation, relevant innovation courses have been opened.

Amabile and Hennessey believe that creativity is one of the key factors driving the development of civilization (Amabile, TM 1996). Since the 1980s, when the U.S. National Commission on Excellence in Education (1983) released the report "The Nation is in Crisis: The Imperative for Educational Reform," a new wave of educational reforms has been set off in various countries, and the standard of talent cultivation for Chinese university students has been further raised. Creative education combines professional education with skills education, focusing on the cultivation of specialized and professional talents. The "skills" in the competency standard highlights the attributes of today's education, i.e. creative teaching skills, strengthens the process of competency cultivation, updates and optimizes the education and teaching mode of talent cultivation, and develops the cultivation mode of innovative teaching skills. The development of this model requires the basic formation of a new form of education and teaching centered on teacher training students, a significant improvement in the quality of practical teaching, and a basically sound mechanism for collaborative training. China's teacher training mode continues to innovate, continue to promote the training of teacher trainees in the new pattern of global education environment, in accordance with the overall idea of "resource sharing, collaborative promotion, innovative training, scientific integration" in colleges and universities for teacher trainees to develop a teaching model, build a creative teaching skills training learning platform for college teachers and teacher trainees to establish a creative skills teaching and learning platform. To establish an interoperable talent cultivation pathway for teaching and learning of creative skills.

1. Theory of Creative Teaching Skills

Creative teaching skills refer to the new problems that teacher trainees may have in their future education and teaching. They are able to propose or utilize unique, novel and socially valuable new ideas in advance, innovate teaching content, teaching tools, teaching management, teaching environment, education and teaching innovation, and social services. According to the World Health Organization, creative education should cultivate students' abilities in three areas: observation, thinking, and practice. In this paper, the creative teaching skills of the teacher trainees under study are categorized into teaching observation skills, creative thinking skills, and creative practice skills. This study takes students in EDMC learning mode as the research object to investigate whether different levels of prior knowledge can improve creative teaching skills in teacher training schools.

Prof. Liu Xianjun (2015) believes that cultivating college students' creative ability is a very important task of quality education in colleges and universities. Creative teaching skills not only require teachers to exercise teacher training students' imagination and thinking, divergent thinking and convergent thinking, intuitive thinking and theoretical thinking, but also to carry out a series of creative and coordinated activities, as well as emotions, will, character, faith and so on. It is closely related to other psychological qualities of personality. Creative teaching skills are the result of acquired education and practical training in skills, which cannot be separated from school and parental training, as well as personal study and practice.

Creative teaching skills have been involved in all aspects of our teaching, from its content, mechanism, function have been explored by scholars , in the era of information technology education creativity provides a new cultivation ideas for educational research . This research is based on the advantages of the development model in many years of teaching practice of vocational education teachers, based on the platform studied to make full use of the resources for the construction of the curriculum, the basic idea is to expand the team of teachers, share the curriculum resources, realize the innovativeness of the training of teaching skills, improve the accuracy of the model development, and realize the teacher training students from the knowledge-based to the competence-based .

2. Importance of creative teaching skills in teacher education programs

"National Commission on Teaching & America's Future (NCTAF) emphasized that the quality of teacher education is the key to education reform, and in its report that: 1) Teachers' subject knowledge and creative teaching skills directly affect students;2) The key to reforming school education is to cultivate, select and retain excellent teachers; 3) Only when the school improves the teaching environment for teachers can the reform be successful. In recent years, China has attached great importance to the cultivation of creative teaching ability of teacher trainees. In recent years, China has attached great importance to the cultivation of creative teaching ability of teacher trainees. In February 2019, the CPC Central Committee and the State Council issued China Education Modernization 2035, which explicitly pointed out "building intelligent campuses and coordinating the construction of integrated intelligent teaching, management and service platforms" with a view to realizing the goal of managing and educating people, to promote the connotative development of colleges and universities. Research on how to cultivate students' innovative thinking ability and teacher trainees' creative teaching skills in the field of education is mainly reflected in journal articles and master's and doctoral theses. For example, Xu Xianlong and Zhu Zhiting believe that it is best to start from primary and secondary schools in order to cultivate students' innovative ability; He Kekang pointed out in his article "On Creative Education and Innovative Education" that China's innovative education mainly cultivates students' innovative thinking and innovative ability through scientific and technological means; Shen Jingjie, Zhao Chengling, and Zhou Duanyun put forward the idea of project-based learning as the core of innovative teaching, with the aim of "Cultivating innovative awareness, innovative thinking, and innovative skills". (Jingjie, Zhang Chengling, & Fengling, Z. 2018) Relevant research shows that innovative thinking can be effectively improved through training, and the cultivation of innovative thinking should be integrated into curriculum teaching. For example, for a specific problem, students can think and solve the problem from multiple perspectives. In order to cultivate innovative thinking, in

the teaching of graphic design, students are encouraged to "solve one more problem and think about one more problem", and to train divergent thinking and collective thinking through a variety of problems in daily training.

The students that VET teacher educators will have to face in the future are highly individualized. It is important for VET teacher educators to embed innovative teaching and learning in their teaching practice, and to use the theory and model of creative teaching skills to establish a mechanism for teacher educator course management and to share the resources of teacher education courses. Teacher education program teaching should allow students to develop innovative skills, enhance creative thinking, and ultimately complete innovative operational works. The model is divided into 4 areas, Concept Exploration, Meaning Making, Demonstration&Application, and Experiential Engagement, so the teaching of teacher trainees should be coordinated and operated in the form of course teaching and management in order to enhance the education and teaching skills of VET teacher trainees.

The introduction of the creative teaching skills model has greatly accelerated the process of educational innovativeness. For teacher training colleges and universities to train a reserve of high-quality teachers to adapt to the development of the information society, the use of creative teaching in teaching reform, practice and exploration to cultivate teacher talent is of forward-looking and strategic significance. Teaching practice requires teachers to have more teaching methods to improve the utilization of educational resources and optimize management. Changes in higher education concepts, environment, and teaching resources have triggered changes in the learning styles of college students, traditional classroom teaching cannot meet the diversified social needs, and the development of information technology allows learning to happen at any time, such as mobile learning, cell phone APPs and catechisms bring us the learning gains of fragmented practice, such as the implementation of the grid management in teacher education courses for teacher trainees.

3. Creative Teaching Skills Development Model Practice Platform

Creative teaching skills are essential skills for teacher education programs. The practice of creative teaching skills development model is a two-way process, which enables teacher trainees to perceive teaching and learning in the actual context of vocational schools. Dewey put forward "learning by doing", that is, "Effective apprenticeship education emphasizes learning by doing, and permits the student to participate in the whole process of learning by doing, from observation to limited and finally to full responsibility for the management of the whole process, which facilitates the student's own learning of practical, judgmental intellectual work". This facilitates students to learn practical, judgmental intellectual work by themselves", which can help teacher trainees to enhance creative thinking, cultivate innovative consciousness, improve creative skills, and enhance teacher trainees' professional skills from the profession of teaching. In this paper, the feasibility of learning creative teaching skills is illustrated by the example of Vocational and Technical Teachers College of Guangxi Normal University in Guilin, China. Guangxi Normal University has carried out the top internship work in various vocational schools in and outside Guangxi region during the decade, and the cooperative teaching and modular training with secondary vocational colleges and universities have well realized the combination of industry and education and collaborative education. The following is part of the teacher education courses of the professional core curriculum platform of the Vocational and Technical Teacher Training College of Guangxi Normal University:

Course Platform	Nature	Course Code	Course Name	Total Credits	Credits	Practical Training Credits	Total Credit Hours	Hours	Laboratory Practical Training Hours	Semester of Offering
Professional Core Courses	Required	JB32001051	Vocational Educatio	3.0	3.0	0.0	51	51	0	3
Professional Core Courses	Required	JB32001061	Vocational Education Psychology	3.0	3.0	0.0	51	51	0	4
Professional Core Courses	Required	JB32001067	Vocational Education Curriculum and Teaching Theory	2.0	1.0	1.0	51	17	34	5
Professional Core Courses	REquired	JB36001786	Teacher Professional Skill Training	2.0	0.0	2.0	68	0	68	6
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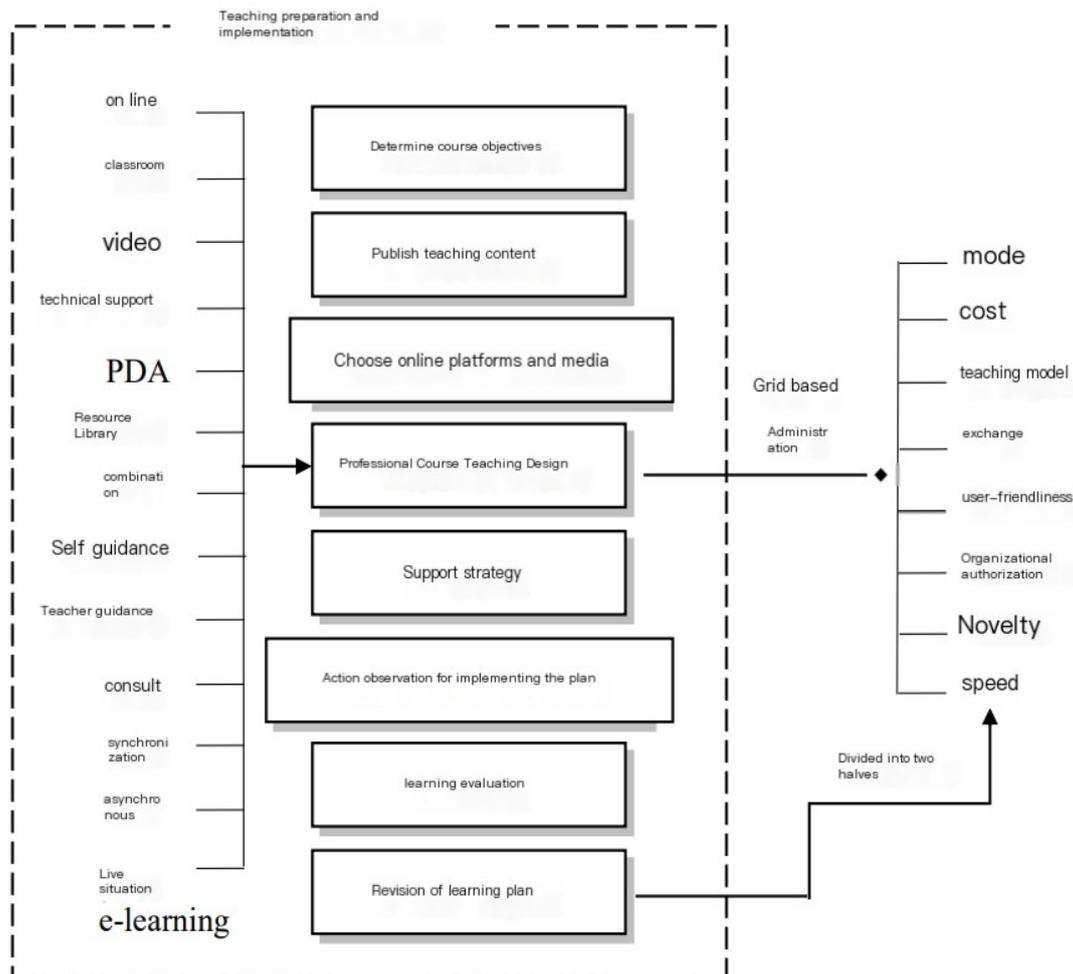
From the perspective of serving the industry and cultivating vocational education teachers, Guangxi Normal University implements the practice link in the teaching of "Vocational Education Curriculum and Teaching Theory" and "Teacher Vocational Skills Training" into the process of education apprenticeship, and in the education internship, the lead instructor highlights the strengths of the teacher education program, applies the innovative teaching skills in "Teacher Vocational Skills Training" into the practice teaching, and strives to achieve the goals of the teacher education program to support graduation requirements.

4. Creative Teaching Skills Development Modeling Practices

All students in the 21st century should have many skills for their occupation in the future, such as higher-order thinking skills, learning skills, and life skills. Creativity and innovation also the important skill that the students should have (The Community for Creativity and Innovation.2020;United Nations.2020).Creativity and innovation skills is an ability to generate new idea and develop to an innovation (Griffith University. 2011).There are 3 components of creative teaching skills.The 1st component is Observation skills,The 2nd component is Creative thinking and the 3rd is Creative operational skills. Since the design of operational skills is very broad in terms of the aspects, so in this study, the micro-teaching production is mainly used as the research direction of creative operational skills development, from Meet teaching objectives, Academically correct, Suitable for target group, The knowledge content is short, easy to understand and meaningful, Interesting and feasible, The language design is generous and decent. language design is generous and decent. The interface design of the work is clear and has strong operability.

The assessment form of Creative Teaching Skills is crucial for the learners of Guangxi Normal University to distill Observation Skill, Creative thinking and Creative operational Skills to measure the students' creative teaching skills in the teacher education program in a continuous improvement and training The process allows experts to better in the examination of the indicators of creative skills and competencies possessed by the researchers action guidelines are as follows: Examine documents on creative skills in academia and research. For example Beer & Sue (2013); Ministry of Education (2009); Griffith (2011); Piirto (2011); Sung Khamphu (2014); Marut Patphol (2016) demonstrated the elements of creativity. Through the analysis of the first and second chapters, combined with the interview conclusions, the rationality of the structural system for improving college students' creative teaching skills is checked according to the secondary index method, and expert opinions are collected online and offline to improve the creative teaching of Chinese normal college students.

As an example, Professional Skills Training for Teachers, which is a core required course for teacher education majors, initiated the implementation of an innovative teaching skills model with the following teaching practices:



Teachers firstly release teaching content, including: learning task list, micro-video, micro-lesson materials, practice questions and discussion questions, which provide students with materials for online learning and testing of learning effect; secondly, teachers release learning tasks on the innovative teaching mode management platform every week, and after the release of the learning tasks, teachers or teaching assistants can, through the background management, irregularly check the situation of students' learning video, checking courseware, doing exercises, participating in Finally, before each class, the teacher prepares the class online, determines the knowledge points of the class, and selects the corresponding exercises, questionnaires and discussion questions. Teaching implementation is to utilize the innovative teaching mode, adopt online and offline combined learning, and utilize the classroom teaching in the way of inter-class pair division. Teaching feedback is to adhere to the three dimensions of innovative teaching skills, "Observation, Creative Thinking and Operational skills", and to evaluate the lecture and trial session of "Teacher Professional Skills Training" from multiple perspectives, and also refer to systematics, and to utilize big data to evaluate different topics of different majors and different subjects. Utilize big data to integrate the contents of different subjects in different majors to achieve data sharing, carry out teaching skills competitions, promote training by competitions, promote learning by competitions, promote use by competitions, and realize the breakthrough of energy-saving function of teaching for teacher trainees. In the management of innovative teaching skills model, with the method of "experience and inquiry, innovative resources, feedback and improvement", the skills training units of different specialties are effectively done, detailed and practical, such as the classification, transmission, feedback and integration of the data of teachers' vocational skills training, so as to improve the credibility and effectiveness of the management of the implementation of the model of innovative teaching skills for teacher trainees.

The whole process should circumvent the silo effect, and the implementation of grid-based management teaching is an excellent way to achieve this goal in the practice of grid-based management of teacher training courses for vocational education teacher training students, with the concept of co-construction and sharing, which in turn realizes the unity of the division of work of the courses within the students. Gridized teaching management is built on the basis of smart campus. Specifically, grid-based teaching management is to unite the teaching elements, teaching resources and teaching units on the campus to form a grid-based teaching management system, and to accurately deliver teaching resources and information to every teacher and student on the network nodes through the teaching platform + webcasting (or recording and broadcasting). Grid-based teaching management includes vertical and horizontal organizational structure, which can guarantee the swiftness of teaching demand and response by forming a cross-communication group of teaching and management and forming a vertical and horizontal mesh platform. Grid-based teaching management can effectively promote the innovation and development of the teacher training mode of applied talents.

On the one hand, this grid-based teaching management model can promote the creative application of modern teaching technologies. Teachers will actively learn modern education and teaching technologies, including recording or live streaming of courses, online testing and homework checking, and discussion and Q&A on the cloud. The onlinezation of large-scale and high-coverage offline teaching activities promotes the development of online courses and the creative application of information technology. On the other hand, the grid-based teaching management model will force the innovation of teaching technology. In the

process of grid-based teaching management, network congestion, slow signal transmission and instability problems may occur due to the centralized use of the platform, as well as the incompatibility between teaching software and the platform, and the inability to integrate the functions of live course broadcasting, meetings and Q&A and the need to switch back and forth between multiple Apps. The emergence of new problems puts forward new requirements for teaching technology, and the solution of these new problems will promote the innovation of teaching technology. In addition, the intelligent management of student learning, such as learning resources recommendation, performance analysis and problem diagnosis, private customization of learning programs, etc., requires more cutting-edge intelligent technical support; online course learning, such as scanning code check-in, grid management of horizontal communication, tutor appointments and cloud Q&A, there is still a lot of room for technological improvement and development. This demand for teaching and teaching management mode will force the teaching technology innovation and promote the process of education informatization, and it can be foreseen that "Internet + Education" and "Intelligence + Education" will become an important direction of future teaching reform.

5. Conclusion

This paper puts forward the model of creative teaching skills cultivation, establishes a bridge between educational practice and creative teaching skills cultivation, and connects a new model of practical education for teacher trainees in teacher training colleges, which can effectively promote the reform and development of teacher education programs. Creative teaching skills of college teacher trainees are required by the current situation, and in the creative teaching practice of college teacher trainees, we take the training of teacher trainees as the orientation, face the diversified problems of education and teaching practice, carry out the reform and innovation, set the goal, and make efforts from the teacher education course itself, and try to form the grid management pattern of "resource sharing, cooperation and mutual assistance, synergistic promotion, compartmentalized management, and scientific integration". We are striving to form a "resource sharing, cooperation and mutual assistance, collaborative promotion, compartmentalized management, scientific integration" grid management pattern, to promote the growth of teacher education students to provide a platform for development, and to lay a solid foundation for the growth and success of the students.

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