

DEVELOPMENT OF OUTCOMES-BASED EDUCATION AND CREATIVITY-BASED LEARNING INSTRUCTIONAL MODEL TO IMPROVE CALLIGRAPHY COMPREHENSIVE ABILITY FOR VOCATIONAL COLLEGE STUDENTS



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Abstract

The purpose of this study was: 1) To examine the factors affecting students' calligraphy comprehensive ability, 2) To develop outcomes-based education and creativity-based learning to improve students' calligraphy comprehensive ability, and 3) To study the results of outcomes-based education and creativity-based learning to improve students' calligraphy comprehensive ability. Answer research objectives 1, 2 and 3 in stages. The first phase is aimed at 150 former students and 3 lecturers who are studying calligraphy courses in preschool education majors at three vocational colleges in Beijing in the first semester of the 2022 academic year. The target group for the second phase is three experts. The samples of the third stage are 31 students majoring in preschool education in Beijing Vocational College of Science and Technology. The research tools are 1) a set of student questionnaires and lecturer interviews. 2) OBE&CBL Instructional model Questionnaire, 3) Lesson plan, 4) Grading standard form. Data were analyzed by percentage, mean and standard deviation.

The results are shown the factors that affect the calligraphy comprehensive ability in vocational colleges include internal factors and external factors. The former included learning attitude and experience and feeling while the latter involved teaching methods, materials, social environment, evaluation and practical activities, and OBE&CBL instructional model of calligraphy comprehensive competence in Beijing Vocational College of Science and Technology includes 5 components: 1) Principles and reasons, 2) objectives, 3) content, 4) teaching methods and materials, and 5) assessment. Assessed by three experts. The internal factors influencing students' calligraphy abilities, as identified in teacher interviews, revolve around knowledge and skills, psychology, and attitude. Teachers emphasize the importance of students' foundational calligraphy knowledge, choice of teaching content, and the teachers' own abilities and attitudes. External factors include teaching methods, materials, and the learning environment. Teachers advocate for suitable instructional models, effective evaluation systems, and the role of families and societal support in fostering a conducive learning atmosphere. The findings align with student questionnaire results, emphasizing the interplay of internal and external factors in shaping students' comprehensive calligraphy abilities.

Keywords: Outcomes-Based Education (OBE), Creativity-Based Learning, Calligraphy Comprehensive Ability

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Introduction

Calligraphy course is a required course for college art, preschool education and other majors. As the most representative symbol of Chinese excellent traditional culture, calligraphy is an important part of the Chinese nation's humanistic quality education. The calligraphy course takes the teaching of literacy and writing as the basic content, the improvement of Chinese writing ability as the basic goal, and the practice of writing as the basic way to integrate calligraphy aesthetics with calligraphy culture education. The basic compulsory course of calligraphy offered by the preschool education major of Beijing Vocational College of Science and Technology can not only enrich students' cultural knowledge and broaden their cultural vision, but also help them inherit and carry forward the excellent traditional Chinese culture, improve their ideological quality, and cultivate patriotism and cultural self-confidence. The integration of Outcomes-Based Education and Creativity-Based Learning Instructional Mode is a breakthrough in the instructional model of calligraphy courses in vocational colleges. The curriculum follows the basic and professional, professional and contemporary principles.

It adopts a combination of theory and practice, online and offline, in-class and out-of-class, individual improvement and group progress. The purpose is to guide students to understand and master the basic theoretical knowledge and skills of calligraphy, and to cultivate students' calligraphy comprehensive ability such as writing skills, aesthetic ability and creativity.

As students majoring in preschool education in vocational colleges, students' calligraphy comprehensive ability is one of their most important professional abilities. Beijing Vocational College of Science and Technology has always attached great importance to calligraphy teaching. Some achievements have been made, but there are still many problems and challenges.

It is mainly reflected in the lack of "calligraphy comprehensive ability" such as writing ability, aesthetic ability and creativity. 1) Writing skills need to be improved. Some vocational college students do not realize the importance of writing skills. Too much use of electronic input methods and neglect of pen writing. Writing Chinese characters is not serious, non-standard, slow, and there are cases of forgetting the characters. Writing self-control, endurance is insufficient, writing skills need to be improved. 2) Aesthetic deficiency. Students lack a deep understanding of Chinese characters and calligraphy art, especially the perception, judgment, appreciation and other aesthetic abilities of the five calligraphy styles of Chinese characters.

3) Lack of creativity. In teaching practice, students lack a clear understanding and analysis of font observation ability and writing creativity ability, so the quality of their calligraphy works is poor. It is necessary to further strengthen the ability to observe and practice Chinese characters, strengthen the ability of innovative thinking, integration, and the ability to create and spread calligraphy works.

In general, to solve the above problems, not only requires the efforts of students themselves, but also requires the education system and educators to pay attention to these problems, strengthen the comprehensive ability of students through the formulation of reasonable education policies and curriculum design, and design a more reasonable instructional model. So as to improve students' calligraphy comprehensive ability.

The term "Outcomes Based Education" (OBE) was proposed by William Spady in 1981 in his book *Beyond Imitation Reform: Building a Real Future for All Learners*. As soon as this model was put forward, it was widely concerned and applied. After more than 10 years of development, in 1994, Spady·W wrote *Output-Based Education Model: In the book Controversies and Answers*, this model has been thoroughly studied and a relatively complete theoretical system has been formed. In the OBE education system, educators must clearly understand the abilities and levels that students should achieve when they graduate, and then seek to design appropriate educational structures to ensure that students meet these expectations. The education system is driven by student output rather than textbooks or

teachers' experience, in stark contrast to traditional content-driven and input-oriented education. OBE soon became the mainstream of education reform in the United States, Britain, Canada and other countries have also paid attention to it and put it into practice. China began to attach importance to this instructional model in 1995. This model of teaching is student-centered, with teachers helping students achieve learning outcomes through partnerships and focusing on the ability of students to apply what they have learned after completing their studies.

There is research support as follows: Zuo Gabe (2014) adopted OBE teaching design in the School of Hotel Management of Vancouver Community College in Canada, allowing students to complete the hotel operation course in the campus restaurant, and achieved good results. Liu (2017) believes that OBE is also a new type of education. At present, many institutions of higher learning in China are transforming into application-oriented universities, emphasizing the cultivation of students' application ability and practical ability. Based on the OBE concept, Yang Jihua Javedin (2023) proposes that learning outcomes should include professional skills and basic skills such as communication, teamwork, problem solving and critical thinking skills, which are the integration of knowledge and ability. Skill. And in the digital media technology professional practice, instructional model construction, achievements have been recognized.

"Creativity-Based Learning" (CBL) encourages students to use a combination of thinking processes such as analysis, synthesis, and evaluation to actively seek rational answers, express their own views, and create new things or better solve existing problems. CBL aims to organize activities that provide students with creative knowledge by focusing on active learning in research, enabling students to develop the skills needed for the future. Namely 1) critical thinking skills, 2) knowledge seeking skills, 3) communication skills and 4) creative thinking. Creativity based learning is not acceptance learning, but discovery learning. CBL is the study of how learning stimulates and fosters creativity. (Robinson, 2006)

Howard Gardner (1983) proposed the theory of multiple intelligences. In the study of creative learning, the interactive roles played by students, teachers, academic disciplines, uncertainty, and context in creative learning. Robert Sternberg (2009) argues that creativity is a multi-stage learning process, including environmental analysis, problem formulation, preparation, thought generation and evaluation, and has conducted a comprehensive analysis of the measurement of creativity with remarkable results. Liu (2022) practiced the CBL model in the vocational painting course and used the famous Torrens test to measure students' creativity in school. The results show that the application of CBL model in higher vocational education is very effective.

For the above reasons, the researchers recognize the importance of "improving calligraphy comprehensive ability of vocational college students through Outcomes Based Education and Creativity-Based Learning".

Objectives

1. To examine the factors affecting students' calligraphy comprehensive ability.
2. To develop outcomes-based education and creativity-based learning to improve students' calligraphy comprehensive ability.
3. To study the results of outcomes-based education and creativity-based learning to improve students' calligraphy comprehensive ability.

Material and Method

Literature review

In the study of “Development of Outcomes-Based Education and Creativity-Based Learning Instructional Mode to Improve Students’ Calligraphy Comprehensive Ability”, the researcher studied the documents concerning the following.

Outcomes- Based Education

In 1981, Spady W. G. published "Outcome based Instructional Management: A Sociological Perspective", which was the first to use the concept of " Outcomes- Based Education ". In this paper, the Outcome-based Instructional pyramid (Figure 2.1) is proposed and used as an expression tool to reveal the connotation of outcome-based education. In the early 1990s, the United States launched a large-scale education reform. In this reform, results-based education has gained widespread support at a particularly impressive rate. In the United States, Kentucky, Michigan, Minnesota, Missouri, Pennsylvania and Washington have respectively carried out curriculum reform movements based on OBE.

On the basis of the outcomes-based education concept, we have created a variety of characteristic possible models. In 1995, the American Engineering and Technology Education Accreditation Organization (ABET) jointly launched the cognitive standard EC2000 and engineering curriculum plan. The Technical education certification organization introduced the development model of this course in order to improve the rigid and outdated certification standards in the past, and to improve students' independent innovation ability, leadership ability, and teamwork ability. This model mainly emphasizes learning output, requiring graduates to master survival ability and corresponding knowledge in the process of learning. The system of "results-based education" constructed by Jiang Bo (2003) is elaborated from the aspects of results, objectives, assumptions, and system principles. Li Guangmei (2007) proposed that in order to implement results-oriented teaching, we must first change the teaching concept. Li Zhiyi (2014) introduced outcomes-based education for the first time in China's Ministry of Education and tried to apply it to teaching reform practice. Based on the OBE concept, many scholars began to turn to the relevant research of curriculum development and instructional model.

Liu Bin et al., Song Yue et al. (2016) established the vertical course cluster system based on PLC controller and the embedded measurement and control technology course cluster system respectively. Zhang Liwei (2016) proposed the path selection for optimizing the practice teaching system of economics and management by integrating OBE concept. Chu Huangyu (2017) proposed a results-oriented reconstruction of practical training curriculum system for radio and television majors in universities; Bai Jing et al. (2018) and Zhang Jiumi et al. (2018) constructed a resource structure model of open online courses based on the OBE concept. Wang Xiaoxiao et al. (2017) proposed a widely applicable MOOC course design framework based on the OBE concept; Liu Feng et al. (2018), Liu Ying et al. (2018), Wang Tingjian et al. (2018) discussed the teaching activities of mechanical courses based on the OBE concept; Liu Long et al. (2018), Liu Qiang (2018) and Yan Yong et al. (2018) respectively explored the advanced instructional model of "electronic Engineering design" for medical statistics, software engineering and automation majors based on the teaching concept of OBE; Li Jing et al. (2016) and Zhang Jingying et al. (2019) constructed a new three-dimensional cartographic teaching system based on OBE. From the existing research, the curriculum construction based on OBE concept is mostly concentrated in the field of engineering.

Ding (2023) investigated the effects of the reform and practice of curriculum teaching under the concept of outcomes-based education. The results show that the student-oriented vocational education curriculum reform can be realized by reconstructing the curriculum system based on reverse thinking. Combined with the characteristics of the curriculum and the analysis of learning situation, the implementation of OBE concept as the leading, ability training as the goal, task-driven as the main line to put forward an innovative online and

offline mixed curriculum reform. It also summarizes and reflects on the process of teaching reform, and provides reference for the teaching reform of similar courses.

On this basis, from the perspective of curriculum theory, the present situation, existing problems and reasons of preschool education practice courses are deeply analyzed. At the same time, taking outcomes-based education as the breakthrough point, the undergraduate preschool education practice curriculum is reflected and reconstructed, and the concept of teacher professional certification is responded to from the practical curriculum level. Zhang Juan (2020) made a dynamic analysis and improvement of the curriculum construction of preschool education in H University through two rounds of action research, and prospected the future curriculum construction of preschool education in H University from two aspects of continuous improvement and internationalization construction based on the concept of OBE.

Tian Tengfei and Liu Renlu (2022) proposed to restructure the curriculum system according to graduation requirements and adjust the curriculum structure according to certification standards based on the OBE concept of curriculum construction. Strengthen practice-oriented, optimize the course content; Pay attention to training effect, implement curriculum teaching; Focus on the achievement of goals and carry out curriculum evaluation.

Creativity-based learning

Creativity-based learning (CBL) has been valued by the academic community and used to train creative talents since the early 1980s. Psychological theory, based on Bruner's discovery learning and Guilford's creative thinking, emerged in the United States in the 1950s. The term is directly derived from the concept of "innovative learning" in the book *Learning Without Limits* (1979). This kind of learning, as opposed to the maintenance of learning, will cause change, renewal, reorganization, and form a series of problems. Its main characteristics are comprehensive, open applicable environment, wide system; Its main goal is to expand the influence of ideas in sufficient time; It involves creative work. This then progressed to "creativity-based learning".

Howard Gardner (1983) proposed that the theory of multiple intelligences is the theoretical basis of creative learning. He believes that human intelligence is not only a reflection of IQ, but also includes other aspects of ability, such as music, space, human relations and so on. In the study of creative learning, the interactive roles played by students, teachers, academic disciplines, uncertainty, and context in creative learning.

Creativity Learning is a field that studies how learning stimulates and fosters creativity. Teresa A (1974) focused on the relationship between creativity and motivation, and explored how to stimulate creativity in the work environment. Robert S (1998). His research covers the application of intelligence and creativity in the field of education. And a comprehensive analysis of the definition and measurement of creativity. The results show that creativity can be quantified and measured concretely in the course.

Orawan Udomsuk (2021) states that creative teaching is the basis for learners to develop their intelligence by empowering them with research skills, thinking skills, group work skills, and the ability to connect knowledge. New knowledge is combined with previous knowledge, and teachers encourage students to be creative. When ideas are presented, they can be adapted for effective teaching and learning.

Theory

Creativity-based learning is often thought of as a product of two Western psychological theories. One is Bruner's discovery learning; The second is Guilford J.P.'s creative thinking. The theory of multiple intelligences proposed by American educational psychologist Howard Gardner is its theoretical basis.

1. Discover learning theories

Discovery learning refers to a form of learning in which students obtain answers to questions through their own exploration and search in the learning context. That is, to acquire knowledge in all its forms with one's own mind. Discovery learning is conducive to stimulating students' curiosity, mobilizing students' internal motivation and enthusiasm for learning, and cultivating students' critical and creative thinking (Bruner J.S.,1996). Creative

learning emphasizes learner's subjectivity; What is advocated is to learn to learn, pay attention to learning strategies; Learners are good at novel, flexible and efficient learning methods; Learning motivation of creative activities Pursue creative learning goals.

2. Three-dimensional structure model theory

American psychologist J.P. Guilford created the theory of three-dimensional structure model of intelligence in 1967. He believes that the structure of intelligence should be considered from the three dimensions of operation, content and product, and that it contains 180 basic abilities after continuous improvement. This is a deep understanding of the structure of human intelligence, which promotes people to explore the structure of intelligence. In his analysis of creativity, he connected creativity, which had previously been ignored from the concept of intelligence, with divergent thinking, and also corresponded divergent thinking with convergent thinking. Divergent thinking has three dimensions of fluency, flexibility and originality, and is the core of creativity.

3. Multiple intelligences theory

The theory of multiple intelligences, proposed by American educational psychologist Howard Gardner, holds that human intelligence is not only a reflection of IQ, but also includes other aspects of ability, such as music, space, and interpersonal relationships. Gardner proposed eight types of intelligence, namely: linguistic intelligence, spatial intelligence, logical-mathematical intelligence, physical kinesthetic intelligence, musical intelligence, interpersonal intelligence, introspective intelligence, and natural discerning intelligence. Each person has strengths and weaknesses in various categories of intelligence, and Gardner believes that each intelligence can be continuously learned or trained to a certain level. In the study of creative learning, the interactive roles played by students, teachers, academic

Material and Method

This research used mixed method of research. This research is divided into 3 phases.

Phase 1 was conducted to answer research objective 1: To examine the factors affecting students' calligraphy comprehensive ability.

Table1: Summary How to conduct research in Step1

Topics	Details
Research Process	Analysis of internal and external factors.
Research Objectives	To examine the factors affecting students' calligraphy comprehensive ability.
Research Method	This paper studies the factors that affect the calligraphy comprehensive ability -- internal factors and external factors.
Resources/Target Group	1.Population - 150 students 2. Key Informants - 3 Lecturers
Instruments	1. The questionnaire for students 2. Interview for teachers
Data Analysis	Descriptive Statistics i.e., Frequency, MEAN (μ), Standard Deviation (σ) Content analysis
Results	Factors affecting Calligraphy comprehensive ability of Vocational College Students.

Phase 2 was conducted to answer research objective 2: To develop outcomes-based education and creativity-based learning to improve students' calligraphy comprehensive ability.

Table2: Summary How to conduct research in Step 2

Topics	Details
Research Process	Designed and developed based on OBE&CBL pattern.
Research Objectives	Create Outcomes-Based Education and Creativity-Based Learning Instructional Model to improve students' calligraphy comprehensive ability.
Research Method	Conformity assessment based on OBE&CBL learning model.
Resources/Target Group	3 experts
Instruments	Development of Outcomes-Based Education and Creativity-Based Learning Instructional Model. in terms of accuracy standard, propriety standard, feasibility standard, and utility standard.
Data Analysis	Descriptive analysis i.e. frequency and percentage. The acceptable items must not be less than 100%.
Results	Instructional model the appropriateness of which is confirmed by experts for further implementation.

Phase 3 was conducted to answer research objective 3: To study the results of outcomes-based education and creativity-based learning to improve students' calligraphy comprehensive ability.

Table3: Summary How to conduct research in Step 3

Topics	Details
Research Process	The implementation of instructional model.
Research Objectives	To study the results of outcomes-based education and creativity-based learning to improve students' calligraphy comprehensive ability.
Research Method	Rubric scoring form
Resources/Target Group	Population - 156 students
Instruments	1. Lesson plans using Outcomes-Based Education and Creativity-Based Learning Instructional Model. 2. Rubric scoring
Data Analysis	Categorize students' performance according to rubric scoring criteria into their levels descriptor.
Results	Results of implementing Outcomes-Based Education and Creativity-Based Learning Instructional Mode instructional model – students' performance according to rubric scoring criteria into their levels descriptor.

Results

This chapter presents findings derived from the fieldwork procedures outlined previously, focusing on data collection crucial to this study. The objectives, outlined in Chapter I, serve three primary purposes:

Objective 1: To examine the factors affecting students' calligraphy comprehensive ability. This section presents analysis results serving objective 1 using table and description in terms of MEAN, standard deviation, interpretation (Level of Attitude), and ranking of all factors in overview. After that, items of all factors are presented likewise.

The amount of students College

From class 1: 50 students, Preschool education of Beijing Vocational College of Science and Technology.

From class 2: 50 students, Preschool education of Beijing Huijia Vocational College.

From class 3: 50 students, Preschool education of Beijing Peili Vocational College.

Common data of the respondent in overall (N=150)

The common data of respondents show that the overall gender is mostly female, accounting for 94.00% of the total. Male respondents accounted for 6.00% of the total. This is very consistent with the characteristics of more woman in preschool education. People aged 18-19 years old accounted for 70.67% of the total, 20-21 years old accounted for 21.33%, under 18 years old accounted for 4.46%, and over 21 years old accounted for only 3.33% of the total. This is also very much in line with the age characteristics of second-year vocational college students.

The result of questionnaire from students in overview (N=150)

The indicates that internal factors affecting the calligraphy comprehensive ability for vocational college students are found to be at a high level overall ($\mu = 4.36$). Considering each item individually, it was found that No.2 have the highest mean ($\mu = 4.55$), followed by No.6 ($\mu = 4.33$), and the lowest mean is No.1($\mu = 4.23$).

For external factors affecting the calligraphy comprehensive ability for vocational college students, the overall level is also found to be at a high level ($\mu = 4.16$). Considering each item individually, it was found that No.7 has the highest mean ($\mu = 4.49$). followed by No.11 ($\mu = 4.45$). and the lowest mean is No.10($\mu = 3.59$).

The Lecturers Interview analysis results

The amount of lecturers University. From 3 lecturer, work on Beijing Vocational College of Science and Technology.

Teacher 1: Mr. Sun

Teacher 2: Miss Wang

Teacher 3: Mr. Zhao

The Common data of the respondent in Beijing Vocational College of Science and Technology.

The common data of the lecturers shows that the most common gender is male, representing 66.67% of the respondents, while female lecturers make up 33.33% of the sample in terms of teaching experience, 3-6 years accounted for 33.33% and over 9 years accounted for 66.67%; In terms of the age of teachers, 25-35years, 35-49 years and Over 49 years accounted for 33.33% respectively. In terms of Professional title, Professor, Assistant Professor, and Lecturer accounted for 33.33% each. It can also be seen that the interviewees are experienced and representative.

Through interviews with three teachers, the factors affecting calligraphy comprehensive ability in vocational colleges are summarized as follows:

Internal Factor

The internal influencing factors of teacher interview mainly include Knowledge and Skills, Psychology and Physical and Attitude. After finishing, it is mainly manifested in:

Knowledge and Skills: Students' calligraphy foundation is a key factor. Calligraphy is an important part of Chinese excellent traditional culture. In the basic education stage, there are many schools offering calligraphy interest courses for students to choose. Some students have chosen to learn some calligraphy knowledge and writing skills due to their parents' attention and personal interests. Therefore, some students have a good foundation to offer calligraphy classes in vocational colleges. Mr. Sun believes that it is very helpful for students with basic calligraphy to receive professional calligraphy learning in vocational colleges to improve their calligraphy comprehensive ability. Among the students under Miss Wang's guidance, those who have a basic knowledge of calligraphy are more interested and active in learning, and they can quickly see the effect of learning. Mr. Zhao strongly agrees that students can learn calligraphy from an early age to lay a solid foundation. He believes that students who have a basic calligraphy study in vocational schools can master writing skills faster and be more creative. Students' calligraphy foundation is one of the most important factors affecting students' calligraphy comprehensive ability.

The choice of teaching content should not be ignored. The three interviewees agreed that the choice of teaching content is very important in calligraphy teaching, which directly

affects the improvement of students' calligraphy comprehensive ability. Mr. Sun believes that the 5000 years of Chinese civilization is accompanied by the emergence and development of Chinese characters. Calligraphy is the art of writing Chinese characters with a brush. After thousands of years of development and evolution, it has retained a lot of valuable knowledge, culture and skills. What kind of basic knowledge of calligraphy should students in vocational colleges learn, and what kind of skills should they master among the five major calligraphy styles to improve their calligraphy comprehensive ability is a major issue in calligraphy teaching. Miss Wang believes that the art of calligraphy is extensive and profound, and it is necessary to choose the content of suitable vocational college students. Calligraphy teaching should choose different teaching contents according to different majors: for example, students in the College of Art and design can choose font design and cursive writing skills in the five calligraphy styles, focusing on improving their aesthetic ability and creativity. Students majoring in preschool education should choose the skills of regular script writing in the five major styles, standardize writing, and cultivate their self-control and endurance. Mr. Zhao believes that the teaching content of calligraphy in vocational colleges should focus on improving writing skills, the aesthetic ability of calligraphy art and the creation of calligraphy works. The content selection should be more practical, and after learning, you can write couplets in traditional Chinese cultural festivals.

Psychology and Physical: Three teachers believe that the ability and quality of calligraphy teachers are very important. Calligraphy is difficult to learn by yourself and requires a teacher's demonstration and guidance. Calligraphy knowledge and skills need long-term practice and accumulation, and need very professional teachers. Therefore, the requirement for teachers in calligraphy teaching is very high. Teachers' personal calligraphy ability and their understanding of calligraphy art will affect the improvement of students' calligraphy comprehensive ability. According to Mr. Sun; Calligraphy is a very practical course. It is difficult to get good grades in calligraphy by reading books on your own. Only when teachers explain, demonstrate and teach students practice hand by hand can calligraphy comprehensive ability be improved. Miss Wang pointed out that teachers must have a strong calligraphy comprehensive ability, and their understanding of calligraphy and teaching is a major factor in improving students' calligraphy comprehensive ability. Mr. Zhao believes that teachers should establish the idea of lifelong learning. In-depth study of cutting-edge calligraphy knowledge and skills can guide students to better study, so as to improve calligraphy comprehensive ability.

Teacher attitude: Teacher's attitude towards calligraphy teaching and students' learning can affect students' interest in learning calligraphy and the effect of learning. Mr. Sun believes that teachers themselves love calligraphy, attach importance to calligraphy teaching, care for the growth of students, and teach by example is the best education. Miss Wang believed that students in vocational colleges would fall in love with the course if they liked a teacher. If the teacher cared for and loved the students, the students would actively imitate the teacher and want to become such a person. Therefore, the teacher's attitude has a great influence on the learning of calligraphy. Mr. Zhao believes that teachers should treat students the same as their own children, strict and love, so that students realize that learning calligraphy well has a lot of benefits for the improvement of their comprehensive ability, and can find suitable calligraphy training jobs in the future.

External Factor

The external influencing factors of teacher interview are mainly carried out from three aspects: Method of Teaching, Materials and Environment. After finishing, it is mainly manifested in:

Method of Teaching: including instructional model selection, organization of course implementation, evaluation and feedback. Good education must be accompanied by good instructional model. The three interviewees all argued that a comprehensive understanding of students' situation, the selection of appropriate instructional models combined with calligraphy teaching objectives, and the scientific organization and implementation are one of the factors

affecting students' comprehensive calligraphy ability. Mr. Sun believes that at present, many schools try to use project instructional model, outcomes-based education (OBE), example instructional model in calligraphy teaching, and so on, but there are certain achievements and shortcomings. At present, I am also trying the outcomes-based education (OBE) model, and the results are relatively remarkable. Miss Wang believes that the teaching goal can be achieved by studying different calligraphy teaching, selecting suitable teaching strategies, and improving and adjusting them according to students' conditions. Mr. Zhao believes that the strong practical characteristics of calligraphy curriculum determine the choice of instructional model. Both the outcomes-based education (OBE) and creativity-based learning (CBL) instructional model are student-centered, which are more suitable for calligraphy teaching. It can achieve the goal of improving students' calligraphy comprehensive ability.

In the interview, the three teachers all mentioned the improvement of the evaluation system and feedback mechanism in the teaching of calligraphy. Mr. Sun believes that students should be the main body, teachers are the main force, course construction is the main battlefield, and classroom teaching is the main channel. In the teaching process, we should grasp the situation of students in time, and actively evaluate and give feedback. I can practice calligraphy every day and interact with my teacher timely through mobile phones and the Internet. Good work should be praised in time, and when psychological and attitude problems occur, teachers should give full play to their leading role and communicate with students. Students should give positive evaluation to their calligraphy works. In order to better improve calligraphy comprehensive ability in the future. Miss Wang believes that evaluation is a means, and feedback is the last and most critical part of evaluation work. Whether the expected purpose of learning can be achieved depends on the implementation of feedback evaluation information. Establishing a feedback and evaluation mechanism is the key to improve students' calligraphy comprehensive ability. Mr. Zhao believes that calligraphy, as an art form, has diversified evaluation criteria, and it is necessary to formulate more accurate evaluation criteria for students' calligraphy ability in vocational colleges. This is one of the factors affecting the calligraphy comprehensive ability of vocational college students.

Materials: The three interviewees have always believed that teaching materials play an auxiliary role in calligraphy teaching. Mr. Sun believes that at present, there is no textbook that can directly improve students' calligraphy comprehensive ability. The key to calligraphy teaching is teachers' demonstration and guidance, and students' active practice and reflection. Students in vocational colleges have relatively weak calligraphy skills before, and they need teachers to teach them according to their aptitude. Only after students' comprehensive calligraphy ability has been greatly improved, they can consult and study related calligraphy ancient books and famous posts. Miss Wang believes that Chinese calligraphy is extensive and profound, and the cultivation of calligraphy comprehensive ability is difficult to explain clearly in a textbook, which is determined by the characteristics of calligraphy itself. Mr. Zhao believes that a good calligraphy textbook does not play a major role in improving students' calligraphy comprehensive ability, but has an auxiliary effect. It depends more on teacher's demonstration and students' own foundation and attitude.

Environment: Under the guidance of teachers, students need to practice calligraphy repeatedly to improve calligraphy comprehensive ability. Therefore, all three interviewees said that a good calligraphy teaching environment, campus calligraphy atmosphere, family learning environment and society's attention to calligraphy teaching have a great role in promoting the learning of calligraphy. Mr. Sun believes that now the country attaches great importance to the study of calligraphy, and the whole society is carrying forward and inheriting the excellent art of Chinese calligraphy, which has laid a good social environment for calligraphy teaching. Miss Wang believes that families are of great help in learning calligraphy and improving comprehensive skills. Through her own investigation in first-line classes, she finds that parents can write calligraphy, and practicing calligraphy at home can stimulate students to learn independently, and the improvement of calligraphy comprehensive ability of these students is very obvious. The construction of special calligraphy classrooms in schools, the control of small class teaching with less than 20 students, and the regular organization of students to visit

calligraphy exhibitions and participate in calligraphy competitions are all external factors affecting the improvement of students' calligraphy comprehensive ability. Mr. Zhao believes that calligraphy is now advocated into the campus, into the classroom, into the textbook, to create a good social, school and classroom environment for calligraphy learning. These are the factors that affect the improvement of students' calligraphy comprehensive ability.

Through the above interviews with teachers, it is found that the results of factors affecting students' comprehensive calligraphy ability are basically consistent with the results of students' questionnaire survey.

After comparing the data collected by the student questionnaire and the lecturer interview, the researcher made a summary analysis according to the two groups of people, internal factors and external factors

Advantages

1. For students: They can write a good hand, understand the traditional Chinese characters and calligraphy culture, improve writing skills, aesthetic ability, creativity and other calligraphy comprehensive ability, become the 21st century's skilled talents, broaden their horizons, improve students' innovative thinking, and solve more complex problems in future study or employment.

2. For teachers: They can improve, develop a new instructional model, realize the teaching goal, to the lecturers' teaching ability, research ability was increased, and the other lecturers play the role of guidance and demonstration.

3. For colleges and universities: build different types of curriculum reform and innovative curriculum development models, deepen education and teaching reform, improve teaching quality, and cultivate application-oriented talents with deep professional foundation, high level and strong professional ability, in line with the current needs of society. It plays an important role in improving the overall teaching level of vocational college, cultivating more skilled students and enhancing the visibility of the school.

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