The Contingent Logic of Teaching Ability Improvement of Teachers in Vocational Colleges and Universities in the New Era--Based on the Perspective of Teaching Ability Competition of National Vocational College Skills Competition

Yuhan Zhang \(^1,2\) & Liang Xing \(^1\)
\(^1\)Chongqing City Vocational College, China

Abstract: The National Vocational College Skills Competition provides an important idea for the improvement of teachers' teaching ability. The text reviews the research on teachers' teaching ability at home and abroad and points out that teachers in vocational colleges should not only have the basic teaching ability necessary for teachers in colleges and universities but also possess the relevant skills in line with their vocational attributes. From the perspective of teaching ability competition, the text puts forward four pairs of keywords for the improvement of the teaching ability of teachers in vocational colleges and universities: occupation and profession, elaboration and innovation, bright colors and characteristics, temperament, and aura. Teachers should seize the opportunity of the teaching ability competition to promote teaching through the competition, establish themselves and reach others, and promote their professional growth while improving the quality of classroom teaching.

Keywords: vocational education; teachers' teaching ability improvement; teaching ability competition;

Introduction

Vocational education is a type of education closely linked with economic development. As China enters a new stage of development, industrial upgrading and economic restructuring are accelerating, and the demand for technical and skilled personnel in various industries is becoming more and more urgent. The important position and role of vocational education is more and more obvious. As vocational education teachers shoulder the task of cultivating 9 million high-quality laborers and technical and skilled talents every year, it can be said that only with high-quality vocational education teachers will there be high-quality vocational education.

Therefore, the country in the new era attaches great importance to the construction of teachers in vocational colleges and universities, and since 2018, the country has issued various documents and policies to guide and support the growth and development of vocational education teachers. The National Vocational College Skills Competition Teaching Competitiveness Competition (hereinafter referred to as "Teaching Competitiveness Competition") is a national-level event. It can not only effectively improve teachers' teaching skills and classroom teaching effect, but also play a positive orientated role, implement the fundamental task of cultivating people with moral character, promote the...
reform of "Three Teachings", and improve the quality of vocational education talent cultivation.

1. Domestic and foreign research on the connotation of higher vocational teachers’ teaching ability

Most of the research on teachers’ competence in higher education institutions abroad focuses on building the structural model of teaching competence. The most exemplary model is proposed by Molenaar W M. The model considers whether the teacher is competent from three dimensions (teaching process, executive level, and personal skill attitude). (Wang & Yin, 2022). The representative studies on teachers’ teaching competence in China are as follows: Jiliang Shen et al. suggested that teaching competence is derived from cognitive ability and is a unique ability revealed in the teaching of specific subjects. It mainly includes monitoring ability, cognitive ability, and operational ability. (Shen & Wang, 2000) According to Su Qiang et al., teaching competence represents the desired level of teaching, of which instructional design, instructional organization, and instructional evaluation are key components. These aspects are directly related to teaching effectiveness, which in turn has a significant impact on the quality of talent training. (Su et al., 2018).

Yu Jie constructed a framework of teaching competence for higher vocational teachers, which consists of three levels: basic competence (e.g., language expression, etc.), professional skills (related to teaching), and developmental skills (e.g., reform and innovation). (Wang & Yin, 2022).

In summary, teachers in vocational colleges should not only have the basic teaching competence necessary as teachers in colleges and universities but should also possess skills that are consistent with relevant skills of professional attributes, focusing on the professionalism and philosophy of the profession. In the teaching process, they focus on practicability and emphasize interactive experience.

2. The logic of improving the teaching ability of teachers in vocational colleges and universities from the perspective of teaching ability competition

The Teaching Ability Competition of the National Vocational College Skills Competition promotes schools around the world to land on the national teaching standards of vocational education, and through the submitted lesson plans, implementation reports, and lecture videos, it examines the teachers' abilities in various aspects such as teaching design, teaching implementation, integration of Civics and reflective improvement, etc. in a multi-faceted way. Therefore, from the perspective of the Teaching Competitiveness Competition, combing through the excellent works awarded in the National Competition in recent years, we can find out the requirements of the Teaching Competitiveness Competition on the teaching ability of teachers in vocational colleges and universities.

2.1 Occupation and Profession

2.1.1. Career-oriented

The Teaching Ability Competition Programme for the National Vocational College Skills Competition 2022 (hereinafter referred to as "the Programme") points out that: “In terms of teaching content, according to the requirements of the National Teaching Standards for Vocational Education, it should be aligned with the vocational standards (norms), vocational skills level standards, etc., to optimize the structure of the curriculum, update the teaching content, and fit the level orientation. Teaching content should be optimized and updated to fit the hierarchical positioning. The content of public basic courses should reflect the integration of subject knowledge and industry application scenarios, and the content of professional (skills) courses should be aligned with new industries, new business models, and new occupations, reflecting professional upgrading and digital transformation and green transformation.” As can be seen from the above program, vocational education links career and education and should be career-oriented. The vocational nature of vocational education determines that VET teachers should know the theory of VET and the theory of professionalism,
as well as teach VET and the ability to practice professionalism. The teaching ability competition of vocational colleges and universities should be career-oriented and job-focused, so that the vocational nature can be carried through the teaching of the curriculum and the vocational ability and professional spirit of the students can be cultivated. Specifically, teachers should systematically examine the relevant requirements of the "Post Course Competition Certificate", combine the national teaching standards with the professional training program, and reconstruct the course content as a whole; when defining the teaching objectives, they should take the cultivation of students' vocational ability as the base; and when formulating the teaching strategies, they should integrate the "learners" in the school and the "learners" in the workplace. In the formulation of teaching strategies, it is necessary to integrate the dual roles of school "learners" and workplace "practitioners" in typical work tasks; in the process of teaching and learning, it is necessary to choose the contents of vocational situations and typical cases in the workplace; and it is necessary to highlight the spirit of vocational and vocational literacy in the integration of course ideology and politics.

2.1.2 Embodying professionalism

The program points out that the professional (skills) courses advocate the design of modular courses based on the actual production and job requirements, the combination of work and learning, theory and practice, thinking and practice, and the teaching of projects, tasks, cases, scenarios and so on. This requires teachers to carefully study the professional talent training program and curriculum standards, and look at the curriculum outside the curriculum. It is necessary to grasp the positioning of the participating courses from the professional course system, course objectives, course teaching content, assessment and evaluation, and course resources. Teachers should fully reflect on their education teaching professionalism, and professional skills. For example, "learning situation analysis" should combine qualitative and quantitative analysis, questionnaire surveys, and individual interviews in various forms to obtain first-hand information, the use of cognitive psychology, constructivist learning theory, the scaffolding theory to carry out more targeted analysis, according to the student's ability base, cognitive habits, and learning methods, to fully grasp the characteristics of the students. Based on the student's ability base, cognitive habits, and learning methods, we will determine the teaching objectives, and teaching strategies and adjust the teaching implementation according to the teaching content of the competition.

2.2 Careful and Innovative

2.2.1 Careful planning in teaching preparation

To compete with the level and results of the teaching ability competition, the ultimate competition is the overall teaching ability and comprehensive quality of the participating team. Therefore, it is very important to set up a high-level, structured teacher-teaching innovation team. It is necessary to carefully select the members of the participating course team, from the age structure, title structure, teaching experience school-enterprise combination, and other aspects of the selection, reasonable matching, to achieve the strengths of the team members to make up for their shortcomings and complement each other's strengths. Participating teachers should not only carefully design and repeatedly polish the curriculum at the macro level and reconstruct the modular curriculum, but also make great efforts at the micro level, such as designing and writing lesson plans, introducing the curriculum, articulating the teaching links, refining the teaching language and applying information technology, and so on, to strive for perfection and meticulousness.

2.2.2 Breakthroughs and innovations in all aspects of teaching

Xu Yuan and Zhao Lina believe that the teaching innovation of teachers in the field of integration of "post-course competition certificate" is the innovation of the teaching concept, lets vocational education follow the development of industry changes, and integrate the standards into the
whole process of teaching; secondly, it is the innovation of teaching content, let the content of vocational education be practical, and turn the tasks and abilities required by the corresponding posts of this profession, competition projects and certificate standards into teaching projects; thirdly, it is the innovation of teaching content, let vocational education contents be practical, and turn the tasks and abilities required by the corresponding posts of this profession, competition projects and certificate standards into teaching projects. into teaching projects; third is the innovation of teaching situation, realizing the multi-master sportsman of school, industry, and enterprise; fourth is the innovation of teaching resources transformation, using the actual work tasks of enterprises, competition projects, and certificate assessment projects as teaching resources; lastly, it is the innovation of teaching evaluation, encouraging the students to develop and progress in various aspects (Xu & Zhao, 2022).

Specifically in the teaching ability competition, teacher innovation should reflect the innovation of teaching concepts, teaching content innovation, teaching situation innovation, the transformation and innovation of teaching resources, and teaching evaluation innovation. Take the first prize work of the 2021 National Competition "Early Childhood Speech Development and Guidance (1-3 years old)" as an example, this work innovates the "dual classroom, dual ideology, and politics" teaching strategy of garden-school integration, carries out the school classroom "one activity, three programs", implements the "learning to do" teaching strategy and the "learning to do" teaching strategy, which is the first prize of the national competition. The work innovates the teaching strategy of "double classroom and double contemplation", carries out "one activity and three programs" in the classroom of the school, implements "learning to do" exploratory learning; and carries out "three activities and one program" in the practice of going to the garden, and implements "learning by doing" reflective learning, forming a new model of classroom teaching that integrates the garden and the school and unifies the interaction between learning and training. It has formed a new mode of classroom teaching that unifies the integration of campus and school and the interaction of learning and training and a new method of combining subjective education and intergenerational transfer of curriculum thinking and politics.

2.3 Bright colors and characteristics

2.3.1 Creating bright colors of teaching in the characteristics of course content

In the teaching ability competition, classroom teaching should not only keep the teacher's original color and polish the strong base color but also show the teaching characteristics and add vivid bright colors. At present, the phenomenon of homogenization of teaching design and teaching strategy has appeared in the works of the Teaching Competence Competition, and some schools have been imitating and applying the teaching design and teaching strategy of the award-winning works of the National Competition of the past years, rather than creating the bright colors of teaching from the characteristics of the content of the course itself.

Taking the 2019 National Competition award-winning work "Starting the Journey of Derivatives from the Perspective of Aviation - Derivatives and Their Applications" as an example, the work takes the carrier aircraft as a carrier, and designs cases such as take-off and landing of carrier aircraft, flight curves, flight materials, and the structure of the aircraft, to specialize the mathematical knowledge. We have explored the teaching strategy of "attracting interest through professionalism, bringing learning with interest, enhancing literacy through learning, and promoting development through literacy", and formed a teaching line of derivative and its application with the gradual progression of "basic-application-literacy", which effectively achieves the goal of "Learning is interesting, learning is useful, learning is useful, learning is useful, and learning is useful". Learning and interesting, learning and useful, learning and will be used" teaching objectives. The biggest highlight of this work is the combination of mathematical knowledge and
professional application, and the project career setting is full of novelty.

2.3.2 Summarise the characteristic teaching experience from the teaching effect

According to Wu Weimin, teaching characteristics refer to the advantages or specialties of teachers in teaching with individual characteristics, which can have positive effects and produce good teaching and learning results. Teaching characteristics are characterized by uniqueness, stability, practicability, and effectiveness. The implementation report of the Teaching Competence Competition requires that the course team should report on the aspects of teaching design, teaching implementation, teaching effect, and teaching characteristics, among which the teaching characteristics require that the strengths and highlights of this course that have been implemented in teaching and have received good teaching effects be deeply summarised to form a characteristic teaching experience.

Taking the 2020 National Competition award-winning work "Clothing CAD Patternmaking - Personalised Skirt Customisation" as an example, the work summarises four features from the teaching mode, teaching methods, application of new technologies, and teaching evaluation: (1) 363 specialized and integrated teaching design mode to promote entrepreneurial practice; (2) combination of learning characteristics and PPI research method to practice learning as teaching; and combination of learning and PPI research method to practice learning as teaching. the combination of learning characteristics and PPI research method to practice learning-based teaching; (3) the use of 3D virtual imaging technology to achieve strengths and avoid weaknesses; and (4) the "three-perfect" course evaluation system to promote the achievement of goals.

2.4 Temperament and Aura

2.4.1 Cultivate an excellent temperament both internally and externally

German philosopher Jaspers said: education is a tree shaking another tree, a cloud pushing another cloud, education is a soul to wake up another soul. Teachers should have a special temperament because teachers should not only disseminate cultural knowledge but also enlighten the wisdom and cultivate the soul. The so-called teacher's temperament is not only the external appearance and behavior but also the inner cultivation. Teacher temperament of the inner culture, including righteousness, bookishness, talent, and so on.

The body is a model, the teacher's positive spirit can be a subtle influence on students, and let a person respect. Teachers read to improve their own lives, ideological cultivation, and cultivate a fresh and elegant temperament. Teachers' "talent" means that in addition to teaching, they should cultivate one or two elegant hobbies, such as music, chess, calligraphy and painting, poetry and music, singing, and dancing, to add self-charm and attract students' interest in learning.

From the point of view of the teaching ability competition, teachers should fully demonstrate a positive spirit in classroom teaching, or be full of bookishness, or talent, to add flowers to the classroom teaching. 2020 National Competition award-winning work "Appreciation of Chinese and Western Music", the innovation of an intuitive image of the "Live-4D" demonstration of the teaching method, the teacher through the classroom to carry out "The teacher demonstrates teaching by singing, drawing, playing and dancing in the classroom, helping students to understand the abstract connotations of music intuitively and concretely, which fully demonstrates the versatility of the teacher's talent and implements the teaching concept of educating people with beauty and transforming them with music.

2.4.2 Doing enough homework to show a strong aura

Aura is a good mental and physical state, giving others the feeling and influence. For teachers, the aura is the unique teaching charm and wisdom emanating from the classroom, which has a strong attraction to students.
From the perspective of teaching ability competition, a teacher with aura is first of all a confident teacher, and confidence is the key to the aura. Confidence comes from analyzing the students' learning situation before class and from careful preparation before class. When a teacher stands on the podium with confidence, a look, a smile, or a question, can catch the attention of the students. A teacher with an aura must also be calm and reliable. Taking the excellent work "Emergency Disposal of Typical Accidents" which won the National Competition in 2021 as an example, the classroom recording of this work shows that the teacher's dress is in line with the course content - dressed in safe and convenient uniforms, wearing a safety helmet on his head, with a proper appearance, simple and powerful body language, not panicking in case of accidents, with a loud and calm tone of voice in commanding the handling, giving students a good demonstration and showing the strong aura and deterrent power of the teaching team.

**Conclusion**

To sum up, based on the perspective of teaching ability competition, the contingent logic of teachers' teaching ability enhancement in vocational colleges and universities includes the following four pairs of keywords: occupation and profession, elaboration and innovation, bright colors and characteristics, temperament, and aura. Teachers in vocational colleges and universities should start from the study of occupation and profession, constantly innovate teaching design, optimize teaching strategy, consolidate teaching implementation, improve teaching effect, create teaching color and characteristics, and present teachers' temperament and aura. They should promote their growth while improving the quality of classroom teaching by promoting teaching through competitions.

**Conflict of Interest**

The authors declare that they have no conflicts of interest to this work.

**References**


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