A Survey on the Deep Integration of Information Technology and Classroom Teaching of English Teachers in Higher Vocational Colleges

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Abstract: Based on the theory of personal growth initiative, effective teaching theory and system theory, this paper establishes a set of evaluation index system for the integration ability of information technology and classroom teaching of English teachers in higher vocational colleges by combing domestic and foreign literature. This system has strong pertinence, rationality, scientificity and operability. This paper will help teachers accurately position their information technology and classroom teaching integration ability, find out the effective way to improve their information technology and classroom teaching integration ability, and explore the feasibility and practicability of the evaluation index system. In this paper, the establishment and implementation of the evaluation index system are introduced in detail, and the quantitative table of the evaluation index system will be distributed to the English teachers in higher vocational colleges for actual evaluation to verify the effectiveness of the evaluation index system.

1. Introduction

With the development of information technology, the integration of information technology and education has been paid more and more attention by educational researchers. The application of information technology has become a hot topic on teachers' educational ability. The state has issued a series of policy documents to strengthen the application of information technology in education. The Outline of National Medium and Long-term Education Reform and Development Plan (2010-2020) in 2010 proposed that the emergence of information technology would inevitably have a great impact on the development of education. We must attach great importance to information technology and learn to apply it to promote the development of education. The Ten Year Development Plan of Education Informatization (2010-2020) in 2014 pointed out that the role of information technology in education and teaching should be fully played and the integration of

information technology and education should be promoted. It is necessary to integrate information technology into education and teaching, improve the teaching efficiency of teachers and realize the modernization of education. In 2016, the 13th Five-Year Plan for Educational Informatization also pointed out that we should make full use of information technology, strengthen the deep integration of information technology and education, create a good information teaching environment for teachers and students, change the traditional teaching theory centered on teachers and teachers and students as the auxiliary teaching mode, and promote the comprehensive reform of teaching content, We will promote the in-depth application of information technology in education and teaching. In the Action Plan of Education Informatization 2.0 issued by the Ministry of Education in 2018, it is pointed out that vigorously promote the improvement of teachers' information technology ability and realize the deep integration of information technology and classroom teaching. In 2019, the Implementation Plan for Accelerating the Modernization of Education (2018-2022) issued by the State Council specifically mentioned that we should vigorously promote education informatization, realize the reform of education and teaching through information technology, and promote the service of education and teaching through Internet and other information means. In 2019, the State Council issued 2035 of China's Education Modernization clearly stated that: we should make full use of information technology to accelerate the educational reform and realize the goal of a powerful educational country by the year of 2035. The state has issued a continuous text on educational informatization from 2010 to 2019. Therefore, the information teaching ability has become the necessary professional ability of teachers in the information age. In the education information, the teaching information is the core; in the teaching information, classroom teaching is the key. Therefore, the deep integration of information technology and education depends on the deep integration of information technology and classroom teaching to a large extent.

2. Literature Review

2.1. Classroom Teaching Evaluation

N. L. gage and D. C. Berliner put forward four important teacher behaviors, which will affect students' effective learning. Britain has put forward the theory of developmental evaluation, which has the style of modern teaching evaluation. It mainly emphasizes that students are the main body of development and should pay attention to the process, developmental and formative evaluation of students. The theory has an important impact on the current classroom teaching evaluation in the world.

Multiple intelligences theory, constructivism theory and post-modernism theory, which flow into China, promoting the development of classroom teaching evaluation in China. After the 1990s, China's teaching theory has developed more rapidly, gradually maturing and blossoming. From the standard of "a good lesson", in the process of classroom teaching evaluation, teachers' teaching behavior is an important factor to evaluate a lesson. However, this standard over-highlights the status of teachers in classroom teaching, and often weakens or ignores the important role of students as the main body of the classroom.

In 2001, the Ministry of Education put forward establishing an evaluation system to promote students' all-round development; establishing the evaluation system to promote the continuous improvement of teachers; establishing the evaluation system to promote the continuous development of curriculum. Subsequently, the new round of basic education curriculum reform has established the specific curriculum objectives of "knowledge and skills", "process and method", "emotional attitude and values", emphasizing that students' learning results and development

process are of equal importance. The new evaluation standard of classroom teaching is based on the development of students, from focusing on the single elements of the classroom to focusing on the overall elements.

The emergence of classroom teaching evaluation promotes the development of its evaluation tool, classroom teaching evaluation scale. Flanders put forward the interactive analysis system of classroom teachers and students after 1960. In 1988, McGraw (T.L.) put forward a set of evaluation indexes to promote teachers' professional development by analyzing others' classroom teaching evaluation.

For classroom teaching evaluation, Meeth (L.R.) mainly focuses on the essence of the teaching process. He closely links the teaching guidance process with students' existing cognitive structure as the main index to evaluate the teaching process, and finally puts forward "nine ultimate evaluation indexes".

Babanski, an educator of the former Soviet Union, evaluated the classroom teaching evaluation index from nine different dimensions. In order to make the evaluation index more operable, we also set the scoring standards for all levels of evaluation indexes. The deficiency of the research is that the evaluation standard is too general and there is no specific evaluation standard.

The British Education Bureau has formulated eight teacher classroom teaching evaluation, each index is very detailed and has a strict logical structure, which not only enriches the teacher evaluation index system, but also is worth learning from when we construct the teacher evaluation index system, which has an important impact on the construction of the later evaluation index system.

In 2008, Pei Dina, a professor from Beijing Normal University, designed three sets of classroom teaching evaluation indicators for different purposes based on her research achievement Research on Classroom Teaching Evaluation Standards based on modern teaching concep: through various teaching theories, she carried out field research in different schools around the country, and finally developed classroom teaching evaluation indicators with strong operability and high rationality. The research results of this paper play a certain reference role. This study can use the hierarchical structure of system theory to build the evaluation index system of information technology and classroom teaching integration ability.

In 2013, Liu Hua analyzed the previous classroom teaching evaluation index system at home and abroad, and found the defects of each set of evaluation index system by comparing different teaching evaluation index systems. According to the defects of classroom teaching evaluation index system, two sets of developmental classroom teaching evaluation index system are constructed. These two sets of evaluation scales describe teachers' behavior, record how teachers solve the teaching objectives and teaching difficulties, and grade the classroom teaching behavior of the evaluators on the corresponding evaluation items.

Over the research results of these foreign researchers, we can find that the evaluation index proposed in the evaluation of information-based classroom teaching is more and more perfect, and the operability of the evaluation index is also more and more strong. Every little action of teachers is recorded as a standard to evaluate teachers' classroom teaching ability, and the dimension division of evaluation index is getting smaller and smaller. These classroom teaching evaluation index system, the choice of index dimensions and the way to develop evaluation standards are all for the evaluation of the integration ability of information technology and classroom teaching in this study.

2.2. Research on the Standards of Teachers' Information Technology Ability

With the development of information technology, teachers generally start to apply it to promote classroom teaching and promote students' learning efficiency. Many countries have developed corresponding standards of teachers' information technology ability to measure the level of teachers' information technology ability.

In 1993, the International Educational Technology Association (ISTE) promulgated the first edition of American teacher education technology standards. In 2008, the American International Educational Technology Association launched the fourth edition of American educational technology standards for teachers, which is used to guide the training of teachers' educational technology ability in the new situation. The AECT standard (2012 Edition) was also promulgated by the American Association for education communication and Technology (AECT) in 2012. Australia once formulated the professional standards of teachers in Australia in 2002, pilot 2002, professional standards for teachers, which has the corresponding standards for teachers' information technology application ability. In 2011, Australia officially released the national professional standards for teachers (npst). The UK also promulgated the corresponding teacher information technology competence standard "ICT applied to subject teaching" which is formulated according to the national conditions, which emphasizes that teachers must use it to promote students' learning and promote the sustainable development of their major with the help of information technology. In 2008, UNESCO issued the first edition of ict-cst. Subsequently, in 2011, UNESCO issued the second edition of the framework for teachers' ICT capabilities. After UNESCO issued a series of standards on Teachers' information technology capability, European Union, Ghana, Japan and other countries have carried out localization integration on the basis of UNESCO framework, and successively implemented the information technology competence standards suitable for their teachers. For example, the EU also simplified UNESCO based on its own educational development, and put forward the localization framework of etq teachers' it capability.

Different countries have issued a series of standards of teachers' ability, which not only shows that the state attaches importance to the application of information technology of teachers, but also stipulates the information teaching ability of teachers in different aspects. And the standard of IT application ability has become one of the important credentials for the evaluation, training and strategy development of teachers' IT application ability.

3. Definition of Related Concepts

3.1. Deep Integration of Information Technology and Classroom Teaching

13th Five-Year Plan of Education Informatization points out: "we should use information technology to create a good information teaching environment for students, change teachers' traditional teaching ideas, advocate the student-centered and teacher-led teaching mode , change the traditional teaching content, and promote the in-depth and wide application of information technology in classroom teaching." In education informatization, the core is: In teaching informatization, classroom teaching is the key. Therefore, it can be said that the deep integration of information technology and education largely depends on the deep integration of information technology and classroom teaching.

"Deep Integration of Iinformation Technology and Classroom Teaching" refers to the school and teachers who create a good information technology environment for students, which can not only help teachers improve the quality of classroom teaching, but also help students use information technology to find and solve problems faster, and cultivate students' awareness of active learning, active thinking and active exploration

3.2. Classroom Teaching Evaluation

Classroom teaching evaluation refers to the measurement and evaluation of teaching efficiency and students' learning effect in order to improve teachers' teaching and promote students' effective learning. Zhang Dajun defines classroom teaching evaluation as the value judgment of teachers' classroom teaching behavior and teaching effect. Classroom teaching evaluation is an important measure to help teachers improve teaching methods, promote students' understanding of knowledge, achieve teaching objectives, and effectively improve the efficiency of classroom teaching. He Kekang mentioned that a classroom teaching can be divided into three stages: first, the teaching design stage. For a good lesson, teaching design is extremely important. Only by designing a lesson, can we clearly understand the teaching objectives, teaching difficulties, teaching situations, teaching links, etc. of this lesson, can we have a good lesson, and the teaching design contains a lot of content, The comprehensive quality of teachers should be examined; The second is the teaching implementation stage, which is the actual teaching link in the classroom teaching after the teaching design is carried out by teachers, and is the process of interaction among teachers, students and teaching resources. Third, after class extension stage, which includes students' participation in classroom teaching, students' evaluation of teaching effect, classroom teaching atmosphere, students' application of information technology and so on.

4. Investigation and Analysis on the Integration of Higher Vocational English Teachers' Educational Informatization and English Teaching Ability

In this study, Delphi method (Fig. 1) is used to make a questionnaire on the integration of educational informatization and English teaching ability of English teachers in higher vocational colleges. The quick respond code of the questionnaire is generated and sent to English teachers in Shandong Vocational College of Industry. The questionnaire design covers the following aspects: basic personal information, information infrastructure construction, information teaching awareness and attitude, teachers' information teaching ability and teachers' understanding of the evaluation index system.
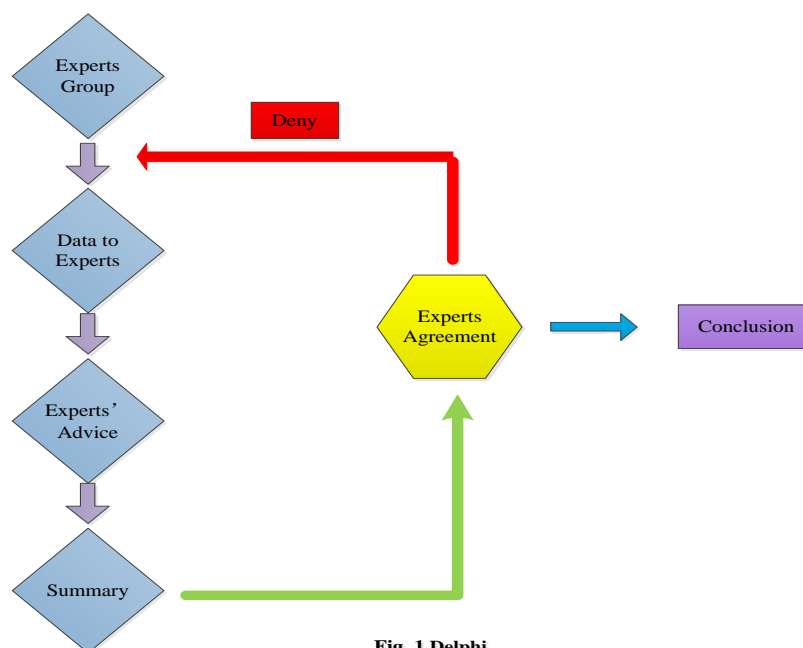

Fig. 1 Delphi

Through the questionnaire analysis, it can be seen that the construction of information hardware facilities and software facilities in Shandong Vocational College of Industry has been basically completed. The data shows that teachers have a high awareness and attitude towards information-based teaching. In daily teaching, information technology is often used to assist teaching and improve teaching efficiency. It is believed that information-based teaching ability plays an important role in teachers' professional development. And most teachers will use the search engine to search resources to make courseware, and can skillfully use the software in daily teaching. The analysis of the questionnaire data shows that the teachers in our school have certain information teaching ability, but there are some differences in each teacher's information teaching ability. In order to better meet the requirements of the digital era, teachers' information-based teaching ability also needs to be continuously improved. Most of the teachers have participated in the evaluation of information-based teaching, which can also help teachers understand their information-based teaching ability.

5. Conclusion

By combing relevant domestic and foreign literature, combining with the current situation of information infrastructure construction of Shandong Vocational College of Industry and the current situation of teachers' information technology application ability, Delphi method and AHP method are adopted to construct the evaluation index system of the integration ability of information technology and classroom teaching of vocational English teachers with weight, grade and score. Teachers can better understand their own information teaching ability through this standard system, find their own ability disadvantages, carry out targeted training, improve their information technology and classroom teaching integration ability; to realize the deep integration of information technology and education, to create a digital teaching environment for students can not only improve the teaching quality of teachers, but also help to cultivate students' thinking ability to find and solve problems.

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