Practical Analysis on the Reform of Chinese Interactive Teaching Mode Based on Cloud Computing and Random Forestry Model

Haoqiong Li[1*]

[1]Henan Women's Vocational College, Zhengzhou City, Henan Province, China
*Corresponding Author.

Abstract:

Cloud computing has been widely used and developed in industrial production and manufacturing. In this paper, cloud computing is used in Chinese interactive teaching, and the innovation model of Chinese teaching is studied. Random forest has fast operation speed and excellent performance in processing big data. Random forest is convenient to calculate the nonlinear effect of variables, and can reflect the interaction between variables. Under the guidance of the new curriculum reform, combined with the actual situation of front-line teaching, this study boldly tried the practice of interactive teaching in the actual Chinese teaching. This paper not only analyzes the shortcomings of traditional teaching, but also develops the advantages of traditional teaching on this basis to better serve the interactive teaching. This paper not only pays attention to the theory of interactive teaching, but also pays more attention to the effectiveness of interactive classroom, and uses successful cases to guide the teaching practice of Chinese new curriculum. The results show that the interactive teaching of Chinese is a bold practice of the new curriculum standard. It is a new education mode with rich content, far-reaching significance, challenging form, forward-looking consciousness and lasting effect on the basis of summarizing excellent traditional education experience and western education experience. Teachers' correct understanding and effective practice of it is related to the integrity of students' Chinese knowledge system and the comprehensiveness of their ability.

Keywords: *Cloud computing, random forestry model, Chinese interactive teaching, teaching reform, industry*

I. INTRODUCTION

The new curriculum standard of senior high school Chinese emphasizes that students should play the main role in Chinese teaching, while the traditional basic Chinese courses are [1]:

Lecture reading, self reading, review, composition and activity. It is difficult to fully mobilize the enthusiasm of students in teaching, so as to form a harmonious situation of equal participation of teachers and students. The research on classroom teaching mode has a long history at home and abroad, especially in recent years, our country's education circle has put forward some new classroom teaching mode one after another. Such as research-based learning, cooperative learning, practical learning and so on, but the teaching mode which is really operable, can improve the efficiency of classroom teaching, improve the comprehensive quality of students, still needs the majority of educators to carry out in-depth research and discussion in the teaching front line. According to my practical experience in Chinese teaching in senior high school, I decided to research the topic of "interactive Chinese teaching under the new curriculum". In order to better study my topic, I studied the works of famous educators and thinkers at all times and in all over the world, and found that they can start from the fundamental goal of students' learning. No matter learning knowledge or cultivating morality, we should build on the basis of students' conscious needs, and give full play to students' initiative and enthusiasm [2]. Confucius emphasized the guiding and helping role of teachers in the teaching process, which is an earlier example of teacher-student interaction in the world. Confucius advocated that education should conform to students' physical and mental characteristics, teach according to their ability, and make students happy to receive education. It is an early educator who realized that advanced education should take students as the main body. In modern times, Chen Heqin and Tao Xingzhi took the lead in "living education". Their educational thoughts emphasize "doing" as the basis, establish the main position of students in teaching activities, stimulate their interest and personality, and strive to play their creative role. This is a good attempt and practice of interactive education, and it pays attention to the interaction and cooperation between teachers and students in the process of education.

II. THE THEORETICAL BASIS OF INTERACTIVE TEACHING

The new course type is formed on the basis of the abstract summary of some common characteristics of various types of courses, which adapts to the requirements of the times of teaching, improves students' thinking quality and interest in learning, and stimulates their desire for knowledge. It takes students as the main body and serves all students. It inherits the knowledge and tool of traditional teaching, and develops the humanity, openness, impartiality and objectivity of new class. In the process of teaching, more attention should be paid to the students' initiative, individuation and collectivization.

An important difference between the new curriculum and the traditional teaching is that the former changes the original form of knowledge logic system and text vertical structure. But in order to achieve the educational goal of Chinese curriculum, around a specific theme in Chinese

curriculum, through the integration of students' experience and related content, module teaching is carried out. In form, the five compulsory courses in senior high school comprehensively embody the goals and contents of "reading and appreciation" and "expression and communication" [3-5]. The elective courses are divided into five series: "poetry and prose", "novel and drama", "news and biography", "language application" and "research and reading of cultural works". Each series is divided into many modules. The school can also carry out different school-based courses and offer elective courses according to the characteristics of the school. This actually provides a vast space and great freedom for students' learning and teachers' teaching. Therefore, interactive teaching is born to meet and adapt to its needs. There is a qualitative difference between the new curriculum teaching and the traditional teaching. The comparative analysis of traditional teaching and interactive teaching is shown in Table 1.

TABLE I. Comparative analysis of traditional teaching and interactive teaching

TRADITIONAL TEACHING MODE	INTERACTIVE TEACHING MODE
Review and ask questions: mainly ask questions about the knowledge learned in the previous section	5 minutes before class, retell the text, talk about the topic or make an impromptu speech.
Put forward the goal, guide self-study: teachers clear learning goals, students according to the goal of self-study, in learning can ask questions.	Overall perception: students read the text freely, learn words, and teachers sort out ideas.
The teacher analyzes the important and difficult points, and the students memorize them.	Mutual teaching, mutual learning, key guidance: after students' self-study and discussion, teachers will give targeted and intensive instruction according to students' problems.
Consolidation exercise: (1) test the knowledge learned in class. (2) Paragraph training (mostly with fixed answers).	Feedback in class to consolidate new knowledge: (1) activate practice: use games, competitions and other forms to stimulate interest in practice and thinking. (2) Standard Test: let students complete independently through projection or multimedia, summarize feedback, find problems and discuss together.
Homework: usually after class questions or exercise books.	My homework is up to me: recommend homework for students at different levels or choose it by themselves.
Evaluation: pay attention to the mastery	Pay attention to the ability training of

of knowledge, pay attention to the results, and use test scores to measure students' ability.	students, pay attention to the process, and use more comprehensive, independent and humanistic activities to improve students' ability.

The new curriculum type and the traditional curriculum type complement each other. The new curriculum type is not only the necessity of education development, but also the necessity of traditional education. It is the inheritance and development of traditional education. The new curriculum not only pays attention to the status and role of students and teachers in the teaching process, but also pays more attention to the differences between pragmatism and retreat, order and disorder, standard and non-standard, acceptance and communication, individual and whole, elegance and vulgarity, explanation and discussion, single and comprehensive.

The essence of education is a process of shaping personality and cultivating creative ability with knowledge as the carrier. In this process, students will become the main body of learning if they are the main body; To serve all students, students will be served. Teaching is an efficient way to transfer information, but it is not conducive to students' thinking. Interactive teaching enables students to become the main body of learning, and cultivate discussion and questioning into students' learning habits, so that they can cultivate their sense of innovation, develop their thinking ability, and consciously study, argue and study in the process of positive thinking and collision of different opinions. Every object and method has the possibility of improvement. The endless multiple needs of the society breed innovation. Those with strong innovation consciousness will be more sensitive to innovation projects and have stronger catching power.The comparison between self-learning and traditional learning mode is shown in Table 2.

TABLE II. Comparison between traditional teaching and Online Autonomous Learning

TRADITIONAL TEACHING	NETWORK AUTONOMOUS LEARNING
Teacher's role as "actor" teacher	Acting teachers
Students as passive receivers	Active learners
Teaching method blackboard + teacher + Classroom Activity	Network multimedia Autonomous Learning + teachers + Classroom Activities
Teaching form explanation + practice + Multimedia Courseware	Classroom + online and offline learning + student teacher collaboration
Teaching evaluation test + question	Formative assessment

+ homework	
Teachers' quality, basic teaching skills and teaching design	Network information technology + comprehensive knowledge + curriculum integration ability
The ultimate goal is to gain knowledge	Get knowledge + learn to apply knowledge

Constructivism holds that knowledge is not imparted by teachers, but acquired by learners in a certain social and cultural context, with the help of others (including teachers and learning partners), using the necessary learning materials, through the interactive way of constructing meaning [6]. We can understand this as follows: first, constructivist learning theory emphasizes that students are the center of learning, and students are the main body of learning information processing and the active constructors of knowledge meaning, which is essentially consistent with the rules and research methods of taking students as the main body and acquiring knowledge in the process of research advocated by interactive learning, Interactive learning is the beneficial practice of constructivism learning theory; Second, constructivism teaching theory holds that teachers should change from imparters and instigators of knowledge to helpers and promoters of students' active construction of meaning, which is consistent with the idea that students are the main body of interactive learning, teachers are the key guides, helpers, organizers and promoters of students' interactive learning process, and teachers' work should serve all students [7]. Thirdly, constructivism advocates "situation", the characteristics and functions of multimedia technology and network, which is the material basis of constructivism learning environment and the embodiment of constructivism learning theory in interactive teaching.

The purpose of students' learning is to understand the nature of science, train their thinking ability and master learning methods. Classroom is the medium for teachers to transform educational thoughts, concepts and tenets into specific educational practice, and it is also the main position for students to receive education. Classroom teaching should emphasize the subjectivity education, and change the classroom culture from single, indoctrination and closure to cooperation, exploration and opening; Changing the subject of classroom from teacher to student; The object of classroom respect should be changed from teachers to both teachers and students, with special emphasis on respecting students; The teaching materials will be changed from a single textbook to a variety of materials such as videos and Internet; The teaching method will be changed from one-way lecture to heuristic, interactive, experiential and other forms; The way of lecturing has changed from full classroom teaching to comprehensive application of teaching, case analysis, student discussion, individual and group report, role play

and so on; Change the rigid structure of classroom into flexible structure. In teaching, teachers emphasize the process of "discovering" knowledge, the method of solving problems creatively and the spirit of inquiry, rather than simply obtaining results. That is to say, in theory teaching, teachers should be the leading force, students should be the main body, training should be the main line, innovation should be the core, and the purpose of improving personal quality should be to cultivate students' good learning habits and methods; In practice teaching, we should pay attention to the cultivation of students' hands-on ability and practical ability, actively guide students to actively participate in and think independently, and encourage students to have their own characteristics in experimental training reports, so as to cultivate students' innovative consciousness; Emphasis on exploration and design, cultivate and develop students' divergent thinking, critical, conducive to students' innovation. According to the different contents and purposes, the interactive forms can be divided into: network class, inquiry class, practice class, generation class, appreciation class and review class.

III. THE CHARACTERISTICS OF INTERACTIVE TEACHING OF NEW CHINESE CURRICULUM IN SENIOR HIGH SCHOOL

(1) Live teaching thought

The teacher's teaching thought is the guarantee of interactive teaching. In preparing lessons, we should consider how to guide the students to self-study most effectively. First of all, we should analyze the teaching progress and gain and loss, and have a deep understanding of the students' learning situation; In the teaching content, students have what knowledge, which is more vague, on this basis, determine the teaching plan of each class hour. It mainly lacks the scope, contents, methods, time and requirements of students' self-study. What problems may be encountered in self-study? What kind of on-the-spot detection can be designed to expose the problems that students may have after self-study to the maximum extent, and how to guide students to solve these problems. Therefore, in addition to the grammar required in the textbook, the author also requires students to extract and refer to the common grammar in reading, find out the semantics, and establish a personal Handbook (see Table 3).

TABLE III. Vocabulary manual table

Words or phrases	0.4
Meaning	0.4
Example sentence	0.4

(2) Teaching content should be flexible

The teaching content should be flexible, and students' Chinese knowledge and skills are most widely used in social practice. Therefore, Chinese teaching must be combined with social life, otherwise, if we only study the limited "excellent" textbooks, there will be a new "useless reading" theory. Therefore, we should expand the content of Chinese teaching materials and take the whole social life as the source of Chinese teaching. Let students go out and come in every day. That is to go out from the teaching materials, into the society, into life; To come back is to come back to the "quality" of teaching materials. Through the study of "quality", we can improve our ability. So that students learn to learn, learn to behave, learn to seek knowledge, learn to think, learn to innovate.

(3) Live teaching and training

Teaching training is the later stage of the whole teaching activity and the consolidation stage of the teaching results. Interactive teaching should feed back the students' learning situation with diversified training, find out the blind spots of learning, and solve them in time, so as to optimize the teaching. The following training methods can be adopted:

1) Comprehensive training: Games, competitions, interesting training, lectures, debates, blackboard newspapers, radio and other forms can be used to stimulate students' sense of participation and competition, stimulate their interest and thinking in connection, and let them learn in a relaxed atmosphere.

2) . Standard Test: students can complete the test independently through question board, projection and courseware. After the completion of the feedback in class, students interact with each other.

3) Layered practice: according to the common problems of different students, a small amount of homework or let students choose.

(4) Live teaching evaluation

With proper evaluation behavior, teachers can capture students' shining point, let students experience the joy of success, and form a good process of "interaction" between students and teachers and students. Wei Shusheng has a famous saying: "there are 100 ways to do a thing and 100 ways to say a word [8]. That is to say, as a teacher, students should be allowed to speak

freely and express different views, and "no mistake principle" should be used to evaluate every speech of students scientifically. For example, a word of praise, a look of warm encouragement and a chance of performance can build up their self-esteem and self-confidence, help them expel the dark clouds in their hearts, and immerse the whole teaching process in a harmonious, pure and distant atmosphere, so as to open up the collision of thinking and thinking, the acceptance of heart to heart, and help students to have a kind of doubt and emotion Critical courage, whimsical creativity, unconventional point of view.The experimental data are shown in Table 4.

TABLE IV. The scores of Chinese autonomous learning ability and the average of each category after the experiment

Total score	Learning motivation	Goal setting	Learning strategy	Cognitive ability
64.65	2.48	2.76	2.37	2.68
47.33	2.46	2.73	2.26	2.42

IV. THE IMPLEMENTATION PROCESS OF CHINESE INTERACTIVE TEACHING

(1) Richness

That is to say, in the process of learning Chinese, students internalize the excellent cultural achievements of Chinese language through literacy, writing, reading, writing, oral communication and comprehensive learning, and finally develop a level of self-cultivation in students. The basic points of Chinese literacy should include: loving the Chinese of the motherland, understanding and using the attitude of the Chinese of the motherland, enriching the knowledge of Chinese, developing the ability of Chinese, cultivating the sense of language, forming a good personality and so on. Interactive teaching is also a new teaching mode under the requirements of the new curriculum reform. It not only pays attention to the mastery of students' knowledge, but also pays attention to the improvement of students' ability; We not only pay attention to the instrumentality of Chinese, but also the humanity. According to different teaching contents, we divide Chinese class into network class, inquiry class, generation class, practice class, appreciation class and review class. The colorful interactive teaching not only increases students' knowledge, but also exercises students' ability.

(2) Far reaching

Classroom interaction should take homework as a bridge and extend to extracurricular activities. The purpose is to let the students learn and use the language in the process of completing the task. The completion of interactive homework also follows the principle of interaction. In fact, the setting of "Chinese reading book" in senior high school is the reasonable product of this extension. The rational use of it requires teachers to have the overall concept and consciousness. The homework setting of interactive teaching stresses that I am the master of my homework, which is actually the embodiment of the improvement of students' self ability and strict self requirements. Our traditional teaching pays attention to the mastery of students' knowledge, but ignores the improvement of ability and the application of knowledge. The memory of knowledge for a long time has not been tested by practice. A Chinese University Graduate's final knowledge memory is about twice that of foreign graduates with the same education, but our practical ability is far behind others. Just like the world Olympic Games, China's athletes are almost searching for gold and silver medals, while no Chinese winner has won the Nobel Prize for so many years. Doesn't that mean something? The new curriculum reform is to see the disadvantages of traditional education, on the basis of absorbing foreign teaching experience, combined with the actual characteristics of our country. Interactive teaching is also a powerful practice mode of the new curriculum reform, and its successful implementation has far-reaching historical significance.

(3) Challenging

Ye Shengtao, a famous educationist in China, said that teachers teach for the sake of not teaching. The process of Chinese learning does not lie in imparting systematic Chinese knowledge, but in students' practical activities of listening, speaking, reading and writing [9-10]. Taking reading teaching as an example, Chinese curriculum standard points out that reading teaching is a process of dialogue among students, teachers and texts. "Reading teaching" should make students fully read, feel the whole in reading, feel something in reading, cultivate language sense in reading, and be influenced by emotion in reading. Therefore, the main form of reading teaching should be "mainly reading, discussion and communication", and most of a class should be students' reading and communication activities. Of course, this kind of reading activity is not simply to let students read by themselves. Teachers, as organizers, promoters and participants of reading exchange activities, should arrange the learning process hierarchically and give necessary dialogic guidance and explanation, so as to promote students' reading exchange activities orderly and qualitatively. Then, it is a great challenge for both teachers and students to successfully implement this kind of teaching which requires the participation of both students and teachers.

(4) Prospective

To see a successful teaching, we should not only look at students' mastery of knowledge, but also their generative development in the learning process. In teaching, the generative development of students is relative to the expected development. Anticipatory development refers to the development that is set up in advance by the teacher before the implementation of teaching and learning. Generative development means that students' enthusiasm is greatly aroused in learning, everyone actively participates in and cooperates with each other, good feelings are stimulated, ideas collide with wisdom sparks, so as to obtain unexpected gains. Teaching is the unity of opposites of presupposition and generation. On the other hand, teaching is relatively closed, which is harmful to students' generative development. Traditional teaching overemphasizes presupposition, which makes classroom teaching mechanical, boring and stylized, lacking vitality and fun, challenging wisdom and stimulating curiosity, and making the potential of teachers and students not fully play in the classroom. In the new classroom teaching, we should dare to break this situation. We should realize that human beings are naturally open and creative, and education should not act on human beings in a rigid form, otherwise it will restrict and restrict their free development.

Classroom teaching should not be a closed system, nor should it stick to the pre-set program. In the process of implementation, the preset goals need to be open to direct experience and flexible elements. Teachers should grasp the improvisation in the interaction between teachers and students, surpass the predetermined requirements of goals, and achieve unexpected development. People can't predict the whole range of teaching results, dare to pursue unexpected development, can maximize the students' generative development, is the superb performance of teaching art. Therefore, the interactive teaching pays attention to the unexpected development of students in the classroom, and carries out the classroom teaching from the perspective of development.

(5) Persistence

The role of teaching should not only run through the whole process of teaching, but also make the role of teaching develop continuously. Today's learning is for tomorrow's transfer and application. Only when the knowledge and ability of learning reach the level of "transfer", can students grow up and develop healthily. Then this kind of continuity needs to transfer, the transfer of knowledge and knowledge, the transfer of knowledge and ability. Interactive teaching pays great attention to the continuity of teaching effect. Extension is the expansion of knowledge, and transfer is to analyze and solve problems under new conditions. In this way, students are required not only to reach the standard, but also to transfer their knowledge and ability. For example, the process of reading to promote writing and the combination of reading

and writing in the interactive teaching of Chinese is the process of transferring the author's language into his own. In addition, we should carry out Chinese interactive practice class activities, broaden Chinese learning channels, and make Chinese classroom teaching "transfer" to extracurricular, off campus and life practice. Interactive network course can guide students to use the reading room, the Internet to expand the amount of reading, access to information, collect and process information and so on. Only by extending Chinese teaching to extracurricular activities, can students' Chinese literacy get long-term development in extensive transfer and application.

V. CONCLUSION

Chinese education is an important course with multiple functions and foundational functions in the curriculum system of basic education. The quality of Chinese teaching not only determines the students' current Chinese academic performance, but also, to a certain extent, determines the students' future overall humanistic level and the direction of personality development. In the new round of national basic education curriculum reform, Chinese teaching has undergone gratifying changes from teaching concept, teaching content to teaching mode and teaching method. However, due to the strong resistance of exam oriented education, the practice of interactive teaching in Chinese teaching has always been in a mere formality. In particular, the lack of a more comprehensive and scientific guidance system and strategy system has seriously affected the reform and development of other aspects of Chinese education.

ACKNOWLEDGEMENTS

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