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Research Article

Construction and Effect Evaluation of Russian Wisdom Classroom Teaching Model under the Background of "the Belt and Road"

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Abstract

"The Belt and Road" has promoted the in-depth cooperation between China and many countries in various fields. And the versatile Russian talent is the indispensable communication bridge. The innovative wisdom classroom teaching model relying on artificial intelligence, big data and cloud computing has created a teaching ecosphere with good interaction and easy evaluation for teachers and students. This study follows the construction process of the wisdom classroom model in Russian teaching, and carries on the analysis on the teaching data. The result shows that wisdom classroom can effectively improve college students' professional ability of Russian, and effectively enhance their coping capacity in communication.

Keywords

The Belt and Road • Russian Teaching • Wisdom Classroom • Teaching Model

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"The Belt and Road" strategy has received a broad international response since it was proposed by President Xi Jinping in 2013 (Lee, Zhao & Hassna, 2016) and has reached extensive exchanges and in-depth cooperation in political, economic and cultural fields. "The Belt and Road" runs through Asia and Europe, passing through the five countries in central Asia, Russia and other Russian-speaking countries that boast rich resources, such as oil, natural gas, uranium, potassic salt ore and zinc ore (Bradshaw & Lynn, 1998). In addition, the unique culture, original natural environment and geographical geomorphology of these Russian-speaking countries can create competitive tourist attractions. Mobile tourists can significantly promote the political, economic and cultural integration between countries (Haesung, Yong & Eunju, 2015).

A large number of talents and technical forces from China are required in the cooperation in the development and effective utilization of rich mineral resources and energy resources, and the laying of complex traffic safety efficiency. In this process, the professional versatile Russian translation talents will be a very important link. At the same time, the development of tourist attractions and after service also needs a large number of Russian talents. Based on the status quo of Russian education in China, it is of great significance to quickly train a group of professional Russian translators to fill the huge gap.

However, the unstable political situation and the receding economic environment in Russian-speaking countries have affected foreign language talents' cognition of Russian in China, which reduces the enthusiasm of choosing Russian as a second language. In the context of English as an international language, Russian education is in a very weak position in foreign language teaching in China, such as single teaching method, outdated teaching materials and teaching contents, few high-quality students and few practical opportunities for students. The trained talents are deficient both in quantity and quality. Along with the rise of a number of advanced computer technologies, such as artificial intelligence, big data and cloud computing, customized tools for various needs can be provided with its intelligence, automation and reusable characteristics, which promotes the rapid development of many fields. Wisdom classroom is a new teaching model, which aims at cultivating students' innovative spirit and innovative ability, and realizes the development of the essence of students' learning wisdom. This study attempts to combine the efficient and intelligent computer technology with the wisdom classroom model and apply it to Russian teaching so as to solve the problems faced in the course of Russian education.

In the second part of this study, the demand analysis of the wisdom classroom teaching model is conducted and the prototype of tool customization is put forward. The third part discusses the construction process of the wisdom classroom teaching model. The fourth part carries on the reasonable assessment on the wisdom classroom model according to the Russian student's study achievement and the fifth part is conclusions.

Demand Analysis of Russian Teaching in the Application of Wisdom Classroom

Background of wisdom classroom

Under the traditional teaching model, the teaching method is dull and mechanical, and the teaching methods among the subjects are all most the same that take the students' mastery of the subject knowledge as the key index. Under this background, a large number of students have stereotyped thinking and lack innovative

consciousness with poor subjective initiative and weak practical ability. There is a big gap between them and the talents that the actual production environment needs. The practical education school emerging after the development of humanism has pointed out a new teaching direction for the field of education. Starting from cultivating students' practical ability, they help students to build a solid knowledge base and stimulate students' innovative consciousness so that students actively discover and solve various problems and finally turn knowledge into their own energy—wisdom. From this, wisdom classroom emerges as the times require.

Essence of wisdom classroom

In essence, the teaching under the wisdom classroom model is still to impart knowledge to students. However, the wisdom classroom more encourages the teacher to conduct planned, purposeful and systematic guidance for students, stimulates students' enthusiasm for learning, make them master a set of learning method, inspire students' learning interest and innovative thinking so that students can actively pursue the knowledge.

Student group is not a fixed model but has a variety of choices, each of which contains a large number of political, experience and cultural background. The best teaching method does not aim at one of the models but recognizes the diversity of model of this group (Bruner, 1985). The diversity of students stems from the differences between them, which exist in several aspects, including experience, emotion and cognition. The essence of the internalization is manifested through the personality characteristics, life attitude and way of life. Teacher-student interaction in the process of education is a subtle process. The flow and collision of ideas between teachers and students promote the growth of students' experience and knowledge while unconsciously affecting the inner psychology of students. Many effects are so profound that they accompany the student's whole life. The wisdom teaching model is to treat students as unique individuals and to admit the objective differences between them. In the teaching, different students are provided with different ways of education and guidance.

According to the discovery learning proposed by Bruner, learning is the opening of wisdom. Although the opening of wisdom is inseparable from knowledge, the development of wisdom cannot simply rely on the acquisition of knowledge but on the active thinking and inquiry of students. The wisdom classroom model advocates that teachers set up certain scenarios in the teaching process to arouse the students' curiosity, put the students in the position of initiative and discovery, and make their learning become a process of discovery, acquisition and application, and finally transform into wisdom. In this learning process, people's subjective initiative should be made full use of to achieve happy learning and enjoy the joy of achieving goals.

Teaching process of wisdom classroom

The wisdom classroom has brought the new teaching model to the teacher while bringing new challenges. It requires teachers to provide vivid and three-dimensional teaching resources. In the teaching process, teachers shall capture students' mood and thinking state and can guide students to discover the fun of learning in the classroom, as well as promote the communication between teachers and students to achieve the growth of the mind. At the same time, teachers are required to flexibly adopt teaching strategies to promote the production of students' emotions and help them transform their experiences into wisdom and achieve great growth. What's

more, the purpose of evaluating students is not to develop a way to control students. This process needs to be filled with humanistic care and to use a unique way of communication for each unique student.

Application of computer tools

The wisdom classroom model fully reflects the humanism thought, but has brought new questions. To realize the difference teaching for each student has brought the massive work to the teacher. However, at present, Russian teachers are short in China. It is almost inconceivable that the Russian teaching of the wisdom classroom model can be realized completely by the individual strength of the teacher.

In recent years, a number of advanced technologies have emerged in the computer field, such as artificial intelligence, big data and cloud computing. These technologies have entered a relatively mature stage and are applied in many fields to solve a lot of difficult problems that manpower can't do, which has made great achievements. These technologies have the characteristics of intelligentization and automation, and can be reused. It is a feasible solution to apply them to the wisdom classroom model of Russian.

Tool requirements of Russian teaching

From integrating the computer technology into the classroom teaching, the students' behavior data are grasped in the teaching process, and the learning map of each student is generated through data mining and artificial intelligence screening according to a large amount of data. Among them, the student's behavior data belong to the customization item and needs to go deep into each link of the teaching.

A complete set of courses is divided into four links, namely, pre-class preparation of teachers and students, teaching and learning, consolidating the exercise of contents of the class and completing the homework, homework feedback (Aithal & Aithal, 2016). The pre-class preparation link needs to provide the teacher with introducing and perfecting the courseware function, and the student with preview and note adding function. The teaching and learning link can be connected to the classroom intelligent system, including each student's tablet PC and sharing multimedia equipment so as to realize the distribution and submission of classroom tasks. To consolidate the exercises and complete the work process, it is necessary to divide the progress node process, complete the homework and submit it to the subject representative and to the teacher. In the homework feedback stage, it is necessary to record the usage data of the following functions: courseware system, word system, reading system, note system, scene simulation system, homework system and question and answer system.

The contents of the courseware, word and reading system are all provided by the teacher. The knowledge is basic and important, belonging to the foundation stone of Russian learning. The data of these functions are used as the evaluation of the students' Russian major learning. Note and scene simulation system requires for subjective participation and use of students. Students have strong subjective motivation and willingness to learn a second foreign language, which is one of the main reasons for their success (Gardner & Lambert, 1972). The statistical data serve as the assessment of the students' initiative in Russian learning. Homework and question and answer system is the students' after-class feedback, which is the true reflection of students to Russian results and interest. This part of the data serves as assessment of students' Russian learning results and interest.

The final output result of this set of data is the Russian learning state of each student, which enables the teacher to implement customized teaching according to the result. This can effectively reduce the workload of the teacher while providing real and reliable data statistics so as to improve the efficiency and quality of teaching and learning.

There are four types of people who use this tool, including students, subjective representatives, teachers and administrators. In order to ensure the security of the software system, these four types of users have different permissions under different functions (Zhang & Wang, 2009). Table 1 and Table 2 list the operation permission of the account type under the main functions, where r is reading permission, w is writing permission, and d is deletion permission.

Table 1
Account Permission (1)

	Courseware	Word	Reading	Note	Real scenes
Student	r	r	r	r/w/d	r
Assistant	r/w	r/w	-	-	-
Teacher	r/w/d	r/w/d	r/w/d	r/w/d	r/w/d
Administrator	r/w/d	r/w/d	r/w/d	r/w/d	r/w/d

Table 2
Account Permission (2)

	Homework	Question and Answer	Class test	Score
Student	r/w/d	w	r/w	-
Assistant	-	-	-	-
Teacher	r/w	r/w	r/w	r/w/d
Administrator	r/w/d	r/w/d	r/w	r/d

Construction Process of Wisdom Classroom

Environment of wisdom classroom

The wisdom classroom teaching process adopts the agility model. In the classroom, the students are divided into groups and each group has its own goal. Each group member has the personal task and the schedule to achieve the group goal. Based on the agility model, each student takes the initiative to develop his own plan based on the group goal, achieving high-quality learning through deep participation (Uskov *et al*., 2016).

The classroom needs an intelligent classroom environment, including a local area network environment, a multimedia environment and intelligent devices (such as mobile phones and pads). A Russian tool system needs to be installed on the intelligent devices. By applying intelligent devices to learning, an environment of inquiry learning and collaborative learning is constructed to assist teachers with a detailed understanding of students and teaching conditions (El-Hussein, Osman & Cronje, 2010).

Use of the environment of wisdom classroom by teachers

The ultimate purpose of wisdom classroom is to stimulate students' interest in learning, to apply theoretical knowledge to practice, and to have the ability to discover and solve problems. The computer tools stay in the

auxiliary role in the teaching process and the true realization of wisdom classroom still depends on the teacher's teaching thought. How to apply these high-tech tools and carry on the expansion and the realization to the learning goal requires teachers to set reasonable learning goals and teaching process according to the students' learning state. For example, the goal of a Russian class is to let the students grasp grammar and words, and then the teacher will set the communication scenarios for these words and grammar. The process of establishing these communication scenarios should make effective use of the intelligent environment provided by the wisdom classroom so that students can learn new knowledge in the process of listening and speaking.

After each teaching class, the teacher also needs to pay attention to the data output of Russian tools, adjust and optimize the teaching process according to the recorded track of teaching and learning. At the same time, the teacher also needs to use the tool system to construct a student evaluation index system, timely gives the student the academic feedback so as to help them discover the gain and the insufficiency in the learning process.

Selection of experimental classes

In the first and second grades of Russian major, three classes are respectively chosen as experimental classes of wisdom classroom, and three courses of Russian major are selected for each grade to be carried out under the wisdom classroom model. During half a semester, the entire teaching process is tracked by the tool system. At the end of the semester, the experimental group and the control group are put into practice for 4 weeks in the enterprise. We pay a return visit to the internship tutor in the form of questionnaire and students' feedbacks on Russian teaching from the experimental group and the control group are collected through questionnaire.

Results and Evaluation of Classroom Data

The experimental group involved in this experiment contains 2 grades, 6 classes, 176 students, 6 courses of Russian major, 684 teaching courses, and 2 test scores. In the control group, there are 2 grades, 6 classes, 178 students, 6 courses of Russian major, 684 teaching courses, and 2 test scores. Finally, 176 valid enterprise questionnaires and 178 student questionnaires are obtained.

Statistics and analysis of tool usage

The data of experimental group come from software statistics, and the data of control group are from questionnaires. According to the pre-class review time and after-class review time, the data statistics are shown in Table 3.

Table 3
Tools Login Time

	Preview ratio	Review ratio	Average preview time	Average review time
Experimental group	57%	76%	27min	21min
Control group	45%	62%	30min	15min

In the experimental group, the number of preview and review students is relatively large, and the analysis indicates that the courseware stored in the mobile phone app can reduce the difficulty of acquisition which is hardly limited by time and place. Through the label function provided by the tool, students can customize their own learning data and their goal of learning is relatively clear. There are two reasons for the shorter learning time of the students in the experimental group. First, the data made statistics by the app is more accurate. Similarly, the students of the control group obtain the data in the form of questionnaire, and the error between the obtained data and the actual data is relatively large. Second, the app provides a word system that reduces lookup time.

Preview before class and after-class review are very effective ways of learning. Through repeated memory training, the brain is able to convert short-term memory storage into long-term memory, which is a very important link of linguistics (Gardner, Beck, Omanson & Perfetti, 1972). The auxiliary function of the tool system is obvious. At the same time, under the wisdom classroom teaching model, the whole teaching process is more agile with short cycle, definite goal and quick iteration, which has promoted the learning process of the students.

Statistical analysis according to the exam results

The test score data comes from the mid-term exam and the final exam. The results are shown in Table 4.

Table 4
Exam Results

	Midterm	Midterm oral	Final exam	Final exam oral
Experimental group 1	92.3	80.4	89.5	85.5
Control group 1	89.0	74.6	82.8	76.5
Experimental group 2	83.6	85.7	87.4	88.2
Control group 2	81.7	78.0	83.5	80.2

According to the exam results, the overall score of the experimental group is better than that of the control group, and the final score has bigger gap than the mid-term score. It shows that the teaching in the wisdom classroom model can improve the students' mastery of Russian.

The Statistical Analysis of Enterprise Questionnaire

The satisfaction feedback of enterprises to students is shown in Table 5.

According to the data, the enterprise is obviously more satisfied with students in the experimental group. The communication skills, practical ability, problem solving ability and cooperation ability of the experimental group are better than those of the control group, especially in the communication skills. It shows that the wisdom classroom teaching model improves the students' practical ability of using Russian significantly.

Table 5
Company's Evaluation of Students

	Communication skills	Practical ability	Problem solving ability	Teamwork ability
Experimental group 1	9.3	8.7	8.6	8.8
Control group 1	7.5	7.2	7.4	7.1
Experimental group 2	9.4	8.9	8.5	8.9
Control group 2	7.7	7.8	7.9	7.4

Statistical analysis of questionnaire on students' Russian learning

The questionnaire of students about Russian learning is shown in Table 6.

Table 6
Students' Evaluation of Russian Learning

	Learning target	Satisfaction	Interesting	Practice
Experimental group 1	8.9	9.7	9.5	9.2
Control group 1	8.2	8.3	7.7	6.5
Experimental group 2	8.9	9.6	9.4	9.4
Control group 2	8.4	8.5	7.9	6.7

According to the data, the students under the wisdom classroom teaching model are more satisfied with the Russian learning, satisfied with the practice of the curriculum arrangement, and have a relatively clear learning goal, as well as think that the Russian language is more interesting.

Conclusion

The analysis of this study indicates that the wisdom classroom teaching model can effectively improve the students' professional ability of Russian and improve the ability of using Russian in practical communication. The students under the wisdom classroom have mastered more learning skills and methods and found the fun of learning. The practice shows that the initial investment cost of the wisdom classroom teaching model is large, including the long preparation period, the complex environment construction process, the high investment of funds and manpower. The cost of the later period can be controlled after the construction of the teaching model that forms a set of positive feedback incentive cycle to teachers and students, greatly improving the quality of Russian talents.

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