

#### ISSN 2581-5148

Vol. 5, Issue.4, July-August 2022, page no. 441-446

To cite this article: Yue Wang, Dan Li and Meihua Li (2022). RESEARCH ON TEACHING MODE AND EVALUATION OF FOREIGN LANGUAGE WISDOM EDUCATION BASED ON BIG DATA, International Journal of Education and Social Science Research (IJESSR) 5 (4): 441-446

## RESEARCH ON TEACHING MODE AND EVALUATION OF FOREIGN LANGUAGE WISDOM EDUCATION BASED ON BIG DATA

Yue Wang<sup>1</sup>, Dan Li<sup>2</sup> and Meihua Li<sup>3</sup>

<sup>1,2,3</sup>Department of Foreign Languages, Liaoning Institute of Science and Technology, Benxi 117000, China

DOI: http://dx.doi.org/10.37500/IJESSR.2022.5430

#### ABSTRACT

The development of modern information technology and the deepening integration of education and teaching provide excellent support for the upgrading and popularization of foreign language wisdom education platform. The foreign language wisdom education platform based on the theoretical framework of foreign language educational technology conforms to the law of foreign language teaching, and provides teachers with an intelligent teaching assistant system based on big data analysis, so as to truly realize autonomous learning and improve learning efficiency; To provide big data decision analysis for teaching administrators, so as to truly realize intelligent teaching management and comprehensively improve teaching quality. Under the background of big data, the concept of wisdom education has brought systematic changes to foreign language education. Data mining and learning analysis technology are adopted to construct personalized learning efficiency and learning autonomy, thus realizing intelligent and personalized education.

**KEYWORDS**: Big data; Foreign language wisdom education; Teaching mode; Teaching evaluation

#### **1. INTRODUCTION**

Big data is "a new ability unique to today's society: to obtain products and services with great value or profound insights by analyzing massive data in an unprecedented way". The application of learning system and network platform in the field of education is based on big data mining and analysis of various complex educational data, which marks the coming of the era of educational big data. "China's educational informationization has gradually entered a new era of integration, innovation and intelligence leading", and "emerging information technology has promoted and supported the reform and development of education".

The intelligent education information system based on big data aims to promote the wisdom cultivation and sustainable development of educational stakeholders-students, teachers, parents, managers and the public. In this process, improve the intelligent level of the existing digital education system, and realize the deep integration of information technology with intelligent teaching,



ISSN 2581-5148

Vol. 5, Issue.4, July-Aug 2022, p no. 441-446

intelligent learning, intelligent management, intelligent evaluation, intelligent scientific research and intelligent service.

Intelligent foreign language teaching is to learn and simulate human language by using man-machine collaboration, natural language, corpus and other technologies. Study the psychological mechanism of human language learning, use Internet technology to develop intelligent teaching platform, simulate language application scenarios, build online and offline intelligent classroom, and implement a new teaching paradigm of adaptive learning and data-driven teaching management and evaluation.

## 2. CONSTRUCTION OF FOREIGN LANGUAGE WISDOM TEACHING SYSTEM

## 2.1 Educational Technology Systems

Artificial intelligence center and data center constitute the supporting layer of intelligent education technology, and apply human-computer interaction, natural language processing, intelligent search, learning analysis, intelligent adaptation and other technologies to establish a small corpus to support the learning level of intelligent education. The data center includes learner information data, learning behavior data, e-learning files, vocational ability evaluation data and so on. Through knowledge modelling, behavior modelling, teaching decision modelling and evaluation modelling. It is the technical basis of intelligent teaching quality assurance system to support the whole process of data recording, storage, analysis, evaluation and reporting with strong computing power, support adaptive learning and online community communication, provide decision-making basis for instructional design, and support informationization and data-based teaching diagnosis and improvement.

## 2.2 Intelligent Learning System

Autonomous learning modules mainly include online oral practice and test, online writing and review, online translation practice, online test and diagnosis, online intellectual adaptation learning and other modules. It has intelligent diagnosis and push functions, can analyze learners' learning characteristics, diagnose their knowledge and ability, cluster and group them, provide learners with analysis reports, learning strategies and learning scheme suggestions, and intelligently push learning materials "one person, one case" to realize personalized teaching. Curriculum resources are the content modules of intelligent education and learning platform, It consists of offline course center and online course and resource center, Together form O2O intelligent learning curriculum system, that is, realize offline teaching networking, informationization, management and evaluation data, extend and expand offline mixed courses and online independent courses, promote information-based flip teaching, and realize online and offline interaction and feedback.



ISSN 2581-5148

Vol. 5, Issue.4, July-Aug 2022, p no. 441-446

## 2.3 Multivariate Evaluation System

Through modern education evaluation technology and education big data technology, From three dimensions: learning behavior, curriculum and teaching, and professional ability, Comprehensive evaluation of learners, curriculum and teaching, teaching management, etc., Then, an intelligent education evaluation system from social needs to vocational ability training objectives, evaluation standards, process dynamic evaluation and summative vocational ability evaluation is formed, including curriculum evaluation, teaching evaluation, learning evaluation (self-evaluation and mutual evaluation), electronic growth record, skill test and vocational ability evaluation. Learning behavior evaluation includes response analysis, skill evaluation results, learning participation, knowledge mastery, test scores and their analysis. All data can be visually presented immediately, fed back to students, teachers and teaching administrators, and served as the basis for teaching management, teaching mode optimization and teaching decision adjustment. Curriculum and teaching evaluation is mainly based on students' satisfaction with curriculum and teaching, teaching evaluation, as well as students' actual learning module selection, learning behavior process, learning effect and other data, so as to obtain students' evaluation information on curriculum, teaching and teachers, thus optimizing and redesigning curriculum, adjusting curriculum sequence and improving learning efficiency.

## 3. TEACHING MODE OF FOREIGN LANGUAGE WISDOM EDUCATION

#### 3.1 Flip classroom teaching online and offline

By constructing an extracurricular online curriculum system, vigorously building online teaching resources, creating a parallel classroom combining offline classroom with online classroom, implementing online and offline flip classroom teaching, and giving full play to the teaching auxiliary function and adaptive learning function of intelligent teaching platform are feasible ways to realize the combination of large-scale teaching and personalized learning.

#### 3.2 Constructing classroom teaching by output-oriented method

Output-oriented teaching method aims at cultivating comprehensive application ability in the workplace, and changes the traditional teaching methods which emphasize language knowledge, discourse reading and practice. Output-oriented mixed teaching under wisdom education can be task-driven before class, define learning themes, require students to learn micro-courses and massive open online course, conduct group inquiry, collect data, complete summaries and form small reports. In class, group task report, defense and mutual evaluation are carried out, and under the explanation, analysis and organization of teachers, in-depth exploration is carried out to solve language problems, and students improve the plan. After class, further data collection and inquiry learning are carried out in the form of group cooperation to form the final project report or plan. Make full use of online resources for flip teaching, take students as the center, drive input to promote output, integrate "doing, learning and using", and improve comprehensive language application ability.



ISSN 2581-5148

Vol. 5, Issue.4, July-Aug 2022, p no. 441-446

## 3.3 "Live Broadcast + Tutoring" Mixed Teaching Mode

Live courses will greatly enrich foreign language teaching forms in colleges and universities, play an important role in elective courses, extracurricular autonomous learning counseling, personalized teaching, skill competition guidance and project teaching, expand the teaching classroom to extracurricular, and construct an information-based flip teaching mode of "classroom teaching + extracurricular online autonomous learning + live counseling/teaching". First, online "video + live broadcast + electronic text" flip teaching. Pre-class tasks are arranged through the network, students are arranged to learn by video (micro-class, massive open online course) before class, and then live lectures are carried out to explain important and difficult knowledge, demonstrate core skills training operation, explain project requirements, decompose and deploy tasks, and students carry out afterclass expansion, inquiry learning, complete exercises, skill drills, and submit homework or project results. Second, "live broadcast + offline guidance" is taught by double teachers. Select backbone teachers to set up teaching teams, prepare lessons collectively, carry out division of labor and cooperation according to the task requirements of teaching materials production, anchor teaching, offline teaching assistants, etc., implement live webcasting teaching, and teach important and difficult knowledge, core skills and operation procedures. Offline teachers guide in small classes, complete skill operation together, answer questions about projects, guide the implementation of training projects, report and evaluate results, etc.

## 4. MULTI-EVALUATION SYSTEM OF FOREIGN LANGUAGE WISDOM TEACHING

Diversified evaluation system is based on teacher-student interaction and student-student interaction recorded by big data. It is no longer obtained by relying on experience in the traditional sense, but by summarizing and sorting out a large amount of data, and then finding out the rules on this basis, providing a basis for realizing the virtuous circle of teaching evaluation and optimizing teaching. Diversified evaluation of students based on big data is a quality monitoring system consisting of formative evaluation and staged summative evaluation in teaching activities, covering the whole teaching process, and is no longer just a result evaluation.

Teacher evaluation involves holographic learning information big data such as activity form, learning process and learning environment, and makes a comprehensive, scientific and developmental evaluation of students. The evaluation contents include learning track, learning habits, learning efficiency, learning attempts, learning methods, efforts, activity participation, achievement innovation and so on. Student evaluation focuses on self-reflection, satisfaction of personal learning willingness, learning gain and ability improvement. In the process of task implementation, Implement the evaluation mechanism of combining self-evaluation and mutual evaluation of group members, mutual evaluation among groups and general evaluation by teachers. With the help of the application of big data, a multi-faceted information feedback network for students, teachers and students, and students themselves is formed, and on this basis, students are evaluated more objectively and comprehensively, which makes the evaluation feedback process more diversified and open, and makes the evaluation data more personalized and refined.



#### ISSN 2581-5148

Vol. 5, Issue.4, July-Aug 2022, p no. 441-446

Relying on big data means to record the process of teacher-student interaction and student-student interaction before, after and after class, students have great interactive participation and high enthusiasm; Diversified interaction arouses learners' high attention to the differences between input knowledge and output knowledge; The interaction between teachers and students makes the relationship between teachers and students harmonious, and teachers keep students in a positive emotional state, which is the key to improve the internalization of input knowledge and transform it into efficient output; The flexible application of information technology and various interactive ways makes the input process diversified, thus accelerating the output process and realizing the organic unity of classroom teaching and extracurricular autonomous learning.

## **5. CONCLUSION**

The rapid development of big data and its gradual application in education provide basic technical conditions for the intelligent upgrading and transformation of traditional digital resources. Under the background of wisdom education, supported by intelligent technology environment and guided by personalized education concept, helping students find suitable "teachers" and "classrooms" through data mining and learning analysis technology can realize teaching students in accordance with their aptitude and personalized education in the true sense, greatly improve students' learning autonomy and learning efficiency, and help students cultivate their innovative ability. Intelligent learning environment realizes the organic integration of physics education environment, virtual network education environment and social education environment, and uses data mining and learning analysis technology to obtain and analyze relevant learning data, thus realizing intelligent decision-making and multiple evaluation in the learning process.

## ACKNOWLEDGEMENTS

2021 Liaoning Institute of Science and Technology Undergraduate Teaching Reform Research Project "Research on the construction of a virtual simulation language skills training platform", Project No. 202101034.

2021 Liaoning Institute of Science and Technology Undergraduate Teaching Reform Research Project "Research and Practice on the Construction of Online and Offline Mixed Courses of College English--Relying on Superstar's One Level and Three Ends Platform ", Project No. 202101043.

2021 Liaoning Province's undergraduate teaching reform research high-quality teaching resources construction and sharing project "Research and Practice of Cross-school Integration Teaching Mode of Diversified Communication Courses under the Background of Professional Quality and Ability Training of Applied Talents", Project No. 976.



#### ISSN 2581-5148

Vol. 5, Issue.4, July-Aug 2022, p no. 441-446

#### REFERENCES

- Luo Qingli. Practice and evaluation of college English audio-visual and speaking classroom teaching based on the theory of "secondary development" of teaching materials [J]. Industry and Technology Forum. 2020, (7). 175-176.
- [2] Wang Chunhui. Design and practice of college English audio-visual and speaking teaching strategy based on network platform [J]. Modern communication. 2018, (5). 175-176.
- Ren Xiaowei. Application of three-dimensional teaching mode in college English audio-visual and speaking teaching-taking Taizhou University as an example [J]. Journal of Jinan Vocational College. 2013, (6). 63-64, 67.
- [4] Ma Junli. Research on Accurate Teaching and Effective Evaluation Model of College English Audio-visual and Speaking under the Background of Big Data [J]. Journal of Changchun University. 2019, (8). 102-105.
- [5] Lin Chenjian. Research on College English Audiovisual and Oral Teaching Strategies in China in the New Era [J]. Think Tank Era. 2018, (49). 264, 267.
- Chen Zhiyun. Feasibility analysis of formative assessment in college English audio-visual and oral teaching [J]. Journal of Jilin Institute of Education (Subject Edition). 2008, (11). 71-72.
- [7] Liu Peiyu. Teaching Research on Business English Negotiation Course Based on Flip Classroom Model [J]. Journal of Jilin Agricultural Science and Technology College. 2019, (1). 104-107
- [8] Wu Yingning, Zhang Zhengrong. Analysis on the Countermeasures of Promoting Autonomous Learning and Flipping Classroom Teaching [J]. Academic Weekly. 2019, (15). 20-22.
- [9] Hao Kexin, Yu Chunmei. Cultivation strategies of college students' English autonomous learning ability under the flip classroom mode [J]. Journal of Jilin Agricultural Science and Technology College. 2018, (4). 76-77.
- [10] Hu Jing. Analysis of Flipping Classroom on Improving College Students' English Autonomous Learning Ability [J]. Digital Design (I). 2018, (7). 131.