Digital Intelligence Empowering Two-Teacher Classroom
--The deepening application of the national wisdom education platform for primary and secondary schools in elementary school language teaching

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Abstract: The National Wisdom Education Platform for Primary and Secondary Schools is a comprehensive platform that integrates excellent educational teaching resources across the country. Its application marks the official launch and implementation of China's education digitalization strategy action. In the traditional teaching mode, the stereotyped thinking of teaching, insufficient resources for teachers to prepare lessons, a single form of classroom teaching and the lack of guidance for students' extracurricular learning all make classroom teaching boring and uninteresting, and students lack interest in learning. The case addresses the above situation and describes how the front-line teachers of language subjects in our school comprehensively use the smart education platform, combine online and offline teaching resources, and carry out innovative practices on daily teaching, large units, interdisciplinary, project-based and other teaching modes, which have achieved good results.

Keywords: national wisdom education platform for primary and secondary schools; elementary school language; dual-teacher classroom

1.Introduction

In March 2022, the Ministry of Education launched the Program for the Construction and Application of the National Wisdom Education Platform for Primary and Secondary Schools, marking the official operation of the platform. Amid national education reform and updated concepts, to cultivate talents with innovation and practical skills, our school's frontline teachers have been exploring efficient teaching methods. The platform aims to implement the national education digitalization strategy, support the "Double Reduction" policy, integrate information technology with teaching, boost basic education quality, and offer systematic resource services for schools, teachers, students, and parents. Previously, our school's teachers provided online vacation teaching via diverse resources and integrated offline classrooms. By effectively operating the platform, systematic and collaborative resource use has been achieved in daily teaching, including lesson preparation, teaching, and training, enhancing teaching quality and teacher collaboration.

2.Objectives and Ideas

2.1 Overall Objectives

Realize authentic and efficient classroom teaching.The education platform brings together a wealth of teaching resources and training materials.Teachers use the smart education platform before class to make lesson preparation more convenient and class more efficient.From the viewpoint of course teaching,the platform has excellent teachers and course videos,and from the viewpoint of professional training,the platform has professional knowledge resources not limited to expert forums and simulated classrooms.High-quality resources fill the lack of teachers'ability to a certain extent,in which the specialized resources help teachers supplement their knowledge in a timely manner and improve the depth of lesson preparation.Teachers can also quickly and accurately locate what they need for teaching according to their own teaching plans and curriculum needs.This efficient resource integration not only saves teachers'time in collecting and organizing information,but also ensures the accuracy and cutting-edge of teaching content.

Promote the updating of teachers'teaching concepts.With the help of big data and artificial intelligence technology,the National Intelligent Education Platform for Primary and Secondary Schools,through the interpretation

of the latest education policies by professional education experts and the capture of key information,not only covers 11 major boards,covering all aspects of morality,intelligence,physicality,aesthetics,labor,and multiple areas of subject knowledge videos,but also covers the teachers'professional growth of the country's new education concept and new program learning videos.Teachers can update their subject knowledge,and at the same time,they can also iterate the new educational concepts to reach the optimization of the teaching design,so as to meet the digital transformation of education and the deepening of education and teaching reform in the context of the new requirements of the education and teaching reform.

2.2 Research Ideas and Methods

Starting from the specific situation of the practical application of the National Intelligent Primary and Secondary Schools Platform,quantitative and qualitative research is carried out based on the application scenarios of teachers and students in our school,mainly from the perspectives of the disciplines of language classroom teaching and language teaching and training.Through literature research method,questionnaire survey method,case study method and other research methods,we comprehensively grasp the application of the smart primary and secondary school platform in the"teaching"and"learning"of teachers and students in our school,dig deeper into the use of the smart platform in different scenarios,and explore how the smart platform can be used in the future in the process of digital development.In the process of digital development,how to give full play to the advantages of the intelligent education platform in the existing language teaching.

3.Specific Measures

Since the construction of our school in September 2021,there are 4 grades,20 administrative classes and 20 language teachers,who specialize in language teaching in each class and also manage the classroom teachers.At the time of its establishment,our school set up a language teaching and research group,and established a language teaching and research leader under the direct leadership of the teaching office to accomplish high-quality development of language teaching.The emergence of the National Intelligent Primary and Secondary Education Platform has made language teaching more efficient and authentic.The deep integration of the intelligent education platform with daily teaching strategies provides students with diverse learning resources and promotes the development of knowledge breadth and depth.

3.1 The platform provides lesson preparation resource support and learning assistance

Application of subject knowledge.In language teaching,teachers in our school make full use of the platform resources in lesson preparation.20 language teachers make use of the Wisdom Platform when preparing for lessons,searching for the language curriculum of the relevant grade and reviewing the knowledge points of the textbooks.In the Smart Platform,under the topic of curriculum teaching,there are two major sections:students'independent learning and teachers'lesson preparation and delivery.Teachers can use course packs and courseware when preparing lessons.The video resources in the curriculum package include at least two or more learning videos,as well as teaching design,learning task list,and post-course practice learning materials.These resources are selected from excellent front-line teachers across the country,the length of micro-lessons is no more than 20 minutes,the learning task list and other knowledge summarizing materials are directed to the teaching objectives,the important and difficult points are clear,and the assignments are effective and real.The teachers involved in recording the videos strictly follow the curriculum concepts of the 2022 edition of the Language Curriculum Standards and comply with the content requirements of the teaching books for language teachers,from overall teaching to breakthroughs in some important and difficult points,from introducing knowledge to the text,from classroom exercises to post-course homework assignments.These resources are characterized by high quality,professionalism and systematicity,providing a solid guarantee for teachers'pre-course teaching preparation[1],and are the reference guide for language teaching for teachers in our school.When teachers use the platform,they can fully understand the structural framework of the knowledge points of the text,so they will not be at

a loss when teaching.At the same time,the efficient integration of teaching resources helps teachers in our school to boost their practice teaching,clarify their teaching ideas,and target and tailor their teaching to the students'needs.In daily teaching and research,the language group also takes the lesson preparation resources of the wisdom platform as an important part of the teaching and research ring section,focusing on watching and categorizing the discussion,the young language teachers,led by the new concept,exchange and grow with each other.These novice language teachers in our school,who are new to the school,carry out classroom teaching through the dual-teacher classroom mode of the national platform,all of them have different degrees of improvement in terms of updating their teaching concepts,optimizing the teaching process,and improving the level and quality of education and teaching.

3.2 Teachers'"teaching"and students'"learning"in dual-teacher classrooms

The National Intelligent Education Platform for Primary and Secondary Schools and our teachers'daily teaching classroom form a good interaction of the dual-teacher classroom,which provides more possibilities for the teaching method and learning method.Classroom

The classroom,as a basic unit,regulates the basic scene of education and teaching,and is the main position and main battlefield of education and teaching reform[1].Teachers in our school are generally young,and for language teachers,they take on the important role of classroom management.Therefore,in the course of the new teaching,reading the text,more use of platform resources to guide the direction,a better grasp of the textbook,mastery of the students.Dual-teacher classroom,as the name suggests,means that the classroom teaching activities are accomplished by two teachers working together.In common parlance,language teachers use the large screen in the classroom to open the"lecture"function in the course teaching section of the national platform,combining the teaching resources of the national platform courses and offline teaching activities to carry out classroom teaching,covering classroom introduction,knowledge explanation,classroom interaction,classroom practice and other links.Reconstruction of the teaching body breaks the geographical barriers of high-quality teachers.

Traditional Mode	Dual-teacher mode
A single teacher dominates the classroom	Dual-driven"online master teacher+offline master teacher".
Knowledge transfer relies on personal experience	Online master teachers provide standardized quality content
Teacher-student interaction is limited to the classroom	Offline classrooms provide real-time explanations and personalized tracking

The Smart Platform also includes two sections,Basic Homework and Exercise Bank,in which Basic Homework contains targeted exercises for elementary school grades three and above.Fundamental homework in-depth analysis of the unit's humanities theme and reading elements,to grasp the unit learning requirements,learning tasks based on the scientific development of unit homework objectives,and in turn design appropriate homework content.Under the guidance of the"Double Reduction"policy,the use of basic assignments on the official platform makes our language teaching efficient and convenient.Unlike the traditional duck-type teaching by teachers,the dual-teacher classroom model on the national platform provides richer connotations and extensions.Students'independent learning before class and extension after class give full play to the learnability function of the smart platform.When you open the smart primary and secondary school platform,you will see moral education topics such as party history learning and patriotism education,moral education,after-school tutoring,special education and other sections and columns that effectively combine current affairs and politics as well as the latest education policies,which are high-quality resources for students'independent learning and for teachers to refer to in classroom knowledge points.

Learning Content Type	Percentage	Examples of High Frequency Feedback
Academic Courses	45%of the total	"Comprehensive knowledge,short time"
E-Textbook and Exercise Bank	30 percent	"View online for easy searching"
Other topics	18%	"Can expand knowledge outside the classroom"
Online discussion forums,etc.	7%	"Slightly difficult to operate"

For example,after carrying out the classroom teaching of"Speaking the News"in the second book of the fourth grade of the Humanist version of the language oral communication,the language teachers of the fourth grade group made full use of the intelligent education platform to broaden students'horizons and deepen their learning experience.The theme of this unit is humanities and science and technology,mainly studying articles on nanotechnology and space flight,our language teachers selected the topic of popular science education in the after-school service section,studying the open class learning resources of"Exploring the Universe with Dr.Human's Dream of Flying to the Sky",so that students can watch these videos after class,read popular science articles on the application of artificial intelligence,space exploration,etc.,and learn about the latest development of the frontiers of science.After completing the study of cutting-edge scientific literature and in-depth learning in the two-teacher lecture hall,the teacher relies on the intelligent education platform to build the"Creative Writing Seminar"online classroom,which guides students to complete the cognitive leap from critical thinking to creative expression through the hierarchical progression of teaching strategies.

The language homework assignment is no longer simply dependent on the language textbook,but also includes learning on the platform,pre-study before class and review after class,basic homework,and my question bank,etc.By making efficient use of the resources on the platform,the language teachers in our school not only realize the layering and optimization of the homework assignment,but also carry out the innovation and extension of the homework design.Interdisciplinary and project-based curriculum frameworks have been realized with the help of the smart platform application.Since the founding of our school,we have been actively carrying out interdisciplinary,project-based,out-of-school practice and other innovative courses.With the help of the high-quality resources of the Smart Platform,the language teachers explain and demonstrate before class,and complete the school-level courses such as the first-grade Botanical Garden Mystery Journey to explore the treasures of nature;the second-grade Walking the Walls of the City to learn about humanities and history,and Exploring the World of Water to explore the sewage treatment plant;the third-grade Mystery of the Ocean World to explore the Huaxia Cultural Tourism Trip;and the fourth-grade Silk Road Joyful World to explore the Silk Road Research and Learning Journey.The pre-requisite resources of these courses are provided by the platform.Whether it is humanities and social sciences or natural engineering,the National Intelligent Education Platform for Primary and Secondary Schools provides a broad search for resources,so that students can study anytime and anywhere,inside and outside the school.

4.Achievements

4.1 Students'Learning Autonomy Generally Improved

Students can consciously use the platform for lesson application and make up for deficiencies.Based on the survey results of 857 students in our school,the questionnaire surveys on independent pre-study before class,the percentage of learning content,the length of learning and the satisfaction with the use of the platform showed that in the distribution of learning contents,the preference of using platform resources is a high-frequency feedback.68%of students can frequently use the platform for independent pre-study two to three times,and 23%can conduct independent study one to two times.This indicates that over 90%of students have the awareness of pre-study learning.Students can adjust their learning progress according to their ability and knowledge mastery.

4.2 Enhancement of competence in teaching and research

(1)Enhancement of teaching ability

Innovative teaching methods.Online training brings together excellent teaching cases and educational methods.Teachers can learn new teaching modes and apply them to actual teaching.

Optimization of teaching skills.Teachers can watch videos of famous teachers'lectures and participate in online classroom evaluation activities to learn teaching skills and improve their own teaching.

Personalized teaching.Online training provides data analysis tools and personalized learning resources to help teachers understand students'learning characteristics and needs.

(2)Enhancement of teaching and research

Breaking geographical restrictions.Online training enables teachers to communicate and discuss at any time and any place,improving the level of teaching and research.Our school completed the"14th Five-Year Plan"educational technology research planning project with the help of the platform.

5.Conclusion and Prospect

As a new national education infrastructure,the characteristics of teachers and students reflect the actual effectiveness of technology-enabled education.The digital transformation of education has reshaped the education ecology.Our language teachers use the platform to deepen online and offline blended teaching.The platform serves as the core support for online teaching and integrates with offline classroom teaching.It completes students'pre-study before class,dual-teacher"teaching"classroom,independent review after class and expanded learning,promoting the construction of learning teachers,learning schools and learning society.Macro resource data provides scientific support for education decisions and helps optimize education resources.

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