

# Study on the Teaching Model of the Intelligent Classroom in Chinese Primary School

Ling Sun\*, Jiaxin Liu

*School of Education (Teachers College), Guangzhou University, Guangzhou, Guangdong, 511400, China*

*\*Corresponding author*

**Abstract:** *The advent of the "Internet+" era has deepened the integration of information technology and subject teaching, and the "smart classroom" has injected fresh blood into the reform and innovation of the traditional classroom. In the context of artificial intelligence, some students are still not interested in Chinese learning, and the phenomenon of teachers filling the classroom still exists. This paper analyzes the characteristics of the intelligent classroom of primary school Chinese in the context of artificial intelligence and refines the three-stage teaching application model of "individual learning, mixed learning, and extended learning" in the intelligent classroom with the tablet computer as the carrier. This article hopes to solve the current problem of Chinese teaching and learning by promoting students' Chinese learning through good intelligent education.*

**Keywords:** *Intelligent Classroom, Primary School, Chinese*

## 1. Introduction

With the development of science and technology, the use of "Internet+" thinking and new generation information technology such as big data and cloud computing to create intelligent and efficient smart classrooms has become a hot issue in the current research of education informatization. The breakthrough of teaching and learning time and space, the monitorability of classroom behavior, the real-time acquisition and analysis of classroom data, and the accurate personalized counseling after class have all become possible.

As a basic subject, Chinese should focus on cultivating students' grasp of language as well as emotions, and teachers should further improve students' language literacy and form good ideological, moral and scientific, and cultural qualities by guiding them to explore and taste language. By bringing into play the application effect of information technology and the support of artificial intelligence technology, the smart classroom meets students' learning needs, carries out the specific guidance of purposeful classroom teaching, enhances students' ideological awareness, helps them master the methods and points of language learning, and thus improves the efficiency and practice of classroom teaching.

The use of smart classrooms in the classroom is gradually increasing, but many front-line teachers think that language teaching in a smart classroom environment is difficult to restore the essential properties of language teaching, which is almost "metaphysical" in nature. How to integrate the smart classroom with language teaching and maximizing wisdom is a problem we need to solve.

There are many papers on the Internet about the construction of smart classroom teaching models, but there are few studies related to language subjects. Further thinking and research are still needed on how to teach Chinese subjects more richly through intelligent technology and reflect the emotional nature of language teaching.

## 2. Characteristics of the smart classroom in primary school Chinese

Liu Bangqi and Li Xinyi et al. (2019) proposed the "4+N" feature model of Chinese subject smart classroom, namely, 4 common features and N individual features, among which, the common features refer to data-based teaching decisions, immediate evaluation feedback, three-dimensional communication and interaction, and intelligent resource delivery, while the individual features refer to interactive appreciation and review, rich media expression and sharing, and quantified reading resource library. Therefore, this study characterizes the intelligent classroom in primary school as a new, efficient

and diverse classroom with "teacher-machine-student" interaction.

### ***2.1. Teaching Tools for Teachers***

Internet technology is used as a teaching tool to provide teachers with rich Chinese teaching materials and to realize the basic elements of the construction of a smart classroom for primary school Chinese. With the help of the learning platform in the classroom to increase the effectiveness of teacher-student interaction in the classroom, the classroom data analysis to obtain student learning reports to help teachers to carry out subsequent reflection. Chinese teachers' teaching content should not be limited to book knowledge, but also need to extend beyond the classroom based on the textbook syllabus. The library of reading resources in the learning platform supports students to expand after class and forms students' learning records, providing teachers with diverse teaching guidance.

### ***2.2. Optimize the effectiveness of classroom teaching***

The use of information technology to create a smart classroom for primary school languages not only breaks the time and space boundaries of traditional teaching but also provides teachers with rich teaching resources and improves teaching efficiency. Teachers diversify their teaching resources in the classroom to achieve diversified teaching methods and improve the motivation of teachers and students in the language classroom. As a teaching tool and learning tool, information technology effectively mobilizes students' interest in language learning, changing from teacher-teaching-oriented to student-learning-oriented, giving students a greater sense of accomplishment in the classroom and improving the efficiency of language classroom teaching.

### ***2.3. Student Learning Tools***

The tablet-based learning platform supports synchronous and asynchronous mutual aid learning and cooperative discussion, which increases students' participation and turns passive learning into active learning; students can also find suitable resources for their learning in the rich online resource library, and form the awareness and habit of independent learning. Students can also find suitable resources for their learning in the rich network resource library and form the awareness and habit of independent learning. In the learning process, students can raise learning doubts through the learning platform, and teachers can answer them online in real-time, breaking through the limitations of time and space and improving efficiency.

## **3. Design of intelligent classroom teaching model in primary school Chinese**

The teaching model starts from teachers' activities and combines the needs of Chinese teaching and the characteristics of the smart classroom to refine the three-stage teaching model of "individual learning, in-depth learning, and extended learning". The implementation process is as follows.

### ***3.1. Personalized pre-learning: Curriculum and student-based instructional program design***

The primary school Chinese syllabus is the only one with vague competency requirements for the language subject, so Chinese classroom objectives need to be set by teachers based on student learning as well as course content.

The design of teaching objectives in the smart classroom should combine the teaching characteristics of Chinese subjects, focus on emotional and attitudinal objectives, and closely integrate the teaching objectives into the process of knowledge learning in the smart classroom environment based on the application of the smart classroom information environment. According to the predetermined teaching objectives, teachers import the corresponding pre-study materials into the learning platform reading resource library, and students independently conduct shallow learning of the knowledge they will learn according to their own needs and demands, and upload the pre-study results to the learning platform. Teachers can predict the learning situation according to the analysis report of the data by the evaluation information system and provide scientific decisions for precise teaching. Students no longer start learning at "zero", but enter the classroom with a "half-understood" desire to learn, and are more motivated to learn.

### **3.2. In-depth Study**

Teachers use deep learning in the classroom, i.e., following the principle of problem orientation, through which students identify problems, think about them, and solve them, and finally, the teacher provides feedback to achieve the purpose of deep learning.

#### **3.2.1. Create a vivid and personalized teaching situation**

For AI to effectively penetrate the primary school Chinese classroom, teachers need to use AI to create a teaching environment in which students are willing to participate in the classroom. Therefore, teachers need to choose appropriate ways to present rich teaching resources, make text content more visual, put students in their shoes, and enhance students' emotional experience.

#### **3.2.2. Follow the problem-oriented principle**

The introduction of information technology into the language teaching classroom can change the traditional teacher-student single interaction. The teacher-student interaction in the smart classroom environment is based on intelligent mobile devices and learning platform support to achieve three-dimensional and efficient interactive communication, reflecting the wisdom of the classroom.

In the classroom, the teacher asks questions based on knowledge points and guides students to use the learning platform to find relevant learning resources and analyze the questions with their prior knowledge, giving full play to students' subjective initiative and promoting their independent learning. The teacher opens a class discussion forum to initiate real-time discussions, and students display and share their learning results on the learning platform, interacting with peers and collaborating on investigations; the teacher uses the teacher's side of the tablet to monitor learning in real-time, providing immediate guidance and assistance to students and promoting the construction of students' knowledge system.

#### **3.2.3. Draw learning rules from one example**

There are also rules to follow in Chinese learning. We can also guide students to summarize special learning methods in teaching, such as refining the framework of the article and establishing their composition framework at the beginning of the unit of writing; feeling the emotions that the author wants to express in the article of writing scenery through pictures and music, guiding students from "scenery" to "emotions"; using micro-lessons resources when reading literary texts to help students feel the rhythm of ancient texts, so that students can learn to learn literary texts and enjoy learning them.

#### **3.2.4. Having multiple paths of evaluation reflection**

The teacher releases the test to the students through the teacher's machine, and the students upload the results in time after completing the test tasks. The back-end database platform quantifies and analyzes the test results to produce the learning report. The report is real-time and efficient, so teachers can have a comprehensive understanding of students' learning effects and problems, implement compensatory teaching guidance, record videos of students' weak knowledge points and push them to the learning platform point by point to encourage students' independent learning and improve their learning quality.

Students post their learning results to the learning circle and visualize their results, while prompting them to use the platform to appreciate and comment on each work and upload their comments to the discussion forum, realizing the interaction of appreciation and comments and gathering collective wisdom. The learning platform analyzes students' learning through discussion forum exchanges and forms a profile of students' learning characteristics.

At the same time, teachers track students' learning routes in the classroom in real-time through the platform, such as students' homework completion and text recitation, and record information on students' learning time, learning outcomes, and cognitive dimensions to form classroom analysis reports for further development of personalized teaching strategies.

### **3.3. Extended Study: Connecting inside and outside the classroom**

The acquisition of Chinese subject competence requires students to accumulate experience in practice, and it can only be acquired through the channel of language practice. Teachers should make full use of the relevant contents of the textbook to guide students to carry out comprehensive language practice activities, pay attention to the process of active participation of students, and enhance students' awareness of learning and using Chinese anytime and anywhere. Students can always interact with teachers and

students after class through the questioning function of the learning platform in practice. Getting students out of the classroom and learning in an unconscious environment not only shapes students' insight, thinking skills, and innovation but also enhances their interest in Chinese learning.

#### 4. Conclusion

The reasonable use of artificial intelligence in the primary Chinese classroom can not only improve the degree of intelligent teaching in the language classroom, but also provide new ideas and conditions for the Chinese classroom, and effectively improve the efficiency and effectiveness of Chinese classroom teaching. Although teachers' teaching skills and technology cannot be fully integrated at present, and many subject teaching models and strategies about the intelligent classroom are still being explored, AI will become a powerful helper in teaching with the continuous development of the intelligent classroom.

#### References

- [1] Yuan Qiuyue. *A study of disciplinary differences in teaching rhythm in primary school* [J]. *Curriculum Education Research*, 2020(03): 19.
- [2] Ji Xuye. *The special characteristics of high school language subjects in "flipped classroom"* [J]. *Language World*, 2015(34): 23-24.
- [3] Wang Xuemei. *Analysis of the construction measures of primary school language wisdom classroom* [J]. *New Course*, 2021(43): 174.
- [4] Development, platform architecture, and application design of smart classroom Liu Bangqi. *The development, platform architecture, and application design of smart classroom-from smart classroom 1.0 to smart classroom 3.0*[J]. *Modern Educational Technology*, 2019, 29(03): 18-24.
- [5] Liu Bangqi. *Research on the design and implementation strategies of intelligent classroom teaching in the era of "Internet+"* [J]. *China's computerized education*, 2016(10): 51-56+73.
- [6] Luo Xianping. *The practice and exploration of creating an efficient classroom based on the "Le Class" platform* [J]. *Information Technology Education in Primary and Secondary Schools*, 2019(05): 51-53.
- [7] Lai Shuangjie. *Multiple teaching models and applications of English smart classroom in primary school* [J]. *English Teacher*, 2021, 21(17): 157-159+167.