Retraction

Retracted: Construction of an Inquiry-Based Teaching Model for Ideological and Political Education in Colleges and Universities from the Perspective of Deep Learning

Mobile Information Systems

This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

(1) Discrepancies in scope

(2) Discrepancies in the description of the research reported

(3) Discrepancies between the availability of data and the research described

(4) Inappropriate citations

(5) Incoherent, meaningless and/or irrelevant content included in the article

(6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

In addition, our investigation has also shown that one or more of the following human-subject reporting requirements has not been met in this article: ethical approval by an Institutional Review Board (IRB) committee or equivalent, patient/participant consent to participate, and/or agreement to publish patient/participant details (where relevant).

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

[1] B. An and L. Gao, "Construction of an Inquiry-Based Teaching Model for Ideological and Political Education in Colleges and Universities from the Perspective of Deep Learning," *Mobile Information Systems*, vol. 2022, Article ID 9286979, 12 pages, 2022.

Research Article

Construction of an Inquiry-Based Teaching Model for Ideological and Political Education in Colleges and Universities from the Perspective of Deep Learning

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Social development and people's daily life have undergone unprecedented great changes under the impact of the reconstruction of the knowledge economy and information age, and ideological and political education, as a social practice activity for cultivating people, has also been affected. The purpose of knowledge has shifted from retelling facts to discovering and applying knowledge, requiring learners to be able not only to have basic factual rules and operating procedures but also to experience irrational factors such as character, value, and spirit about knowledge and beyond it, so as to have a sense of the quality of deep learning. And, this deep learning ability has become a key ability necessary to support human survival and development in the future artificial intelligence era, and it is also the main basis for measuring the learning ability of learners. Because of this, deep learning research has set off a wave of teaching reforms around the world. This research is based on the analysis of the stage characteristics of smarter classrooms and the adaptation of inquiry-based teaching to the development stages of smarter classrooms. Inquiry-based teaching needs to be designed. The demand analysis of inquiry-based teaching design is carried out, and then the main line of inquiry-based teaching design is to focus on the development of students' wisdom to promote the development of students' wisdom. A detailed analysis and design are carried out, and the specific performance is given. Inquiry-based teaching is applied to practice and test its effectiveness. The interview method was used for the experimental class. The practical results show that the advanced design of inquiry-based teaching in smarter classrooms is very effective, providing a reference for smarter teaching in primary and secondary schools.

1. Introduction

The current society has developed rapidly, social life and the main contradictions in society have changed, and the development of informatization and intelligence has penetrated into all aspects of life, which determines that the function of ideological and political education and the role of value will inevitably change. On this basis, the urgent requirement for innovative development of ideological and political education is put forward, so that it can better guide and practice, do a good job in the educational transformation and quality improvement of people's thoughts, and finally promote the innovative development of ideological and political education. Looking back at the research on

ideological and political education since the reform and opening up, it can be found that whether it is the subject of education research at all levels from the central to the local level, or the practice of ideological and political education reform in schools at all levels, the effectiveness of ideological and political education has been subject to the attention of theoretical researchers and scholars. However, the corresponding effect has been widely questioned by all walks of life for a long time. The ideological and political education in schools has become more and more powerless, and the effectiveness of ideological and political education is low, which seems to be unanimously agreed by everyone. There are many factors that affect the effectiveness of ideological and political education. Among them, the traditional, old-

fashioned, and backward teaching of ideological and political education in schools, such as materialization of teaching objects, generalization of teaching content, and rigid teaching methods, is one of the key factors. In order to get rid of this dilemma of internal and external difficulties, school ideological and political education based on this must follow the pace of social development and carry out profound changes that meet the needs of current social development.

The great progress of technology has brought profound changes to ideological and political education. Modern classroom teaching is inseparable from the supporting role of the information environment. With the continuous application and development of the concept of smart education in subject teaching, it has become a traditional classroom teaching method. The internal driving force of the transformation of new classroom teaching methods is used to guide the development of teaching activities. The new classroom is the smart classroom, which is the realization form of the smart education concept focusing on the classroom. The smart classroom learning environment has changed from the traditional blackboard and podium-based environment to a smart learning environment. In addition, the way of interaction between teachers and students and the way of delivery of learning content have also changed. Education and social and economic development complement each other. In the industrial society before the information age, the teaching-based teaching mode can adapt to and meet the needs of education. However, with the advent and development of the information age, multimedia computers, interactive whiteboards, and more advanced tablet computers have entered the classroom one after another. The classroom environment is constantly changing, and the high-tech content is increasing. The smart classroom also has different stages of development. In different stages of the smart classroom, its teaching and model design is particularly important. At each stage, appropriate teaching design is carried out to meet the needs of the times, so that technology and teaching are perfectly combined, so as to better promote the cultivation of students' wisdom and the all-round development of education. At the same time, it is necessary to change the teaching method and further use advanced information technology to explore and establish a new teaching model of ideological and political education that is teacher-led and learner-centred. Cultivate students' learning ability in the information environment, cultivate students' habit of using information technology and information means to learn, encourage students to use information technology to learn actively, autonomously, and cooperatively in the information environment, and enhance students' learning in the network learning environment. The ability to ask questions, analyze problems, and solve problems improves the quality of student learning. Inquiry-based teaching is a modern teaching mode actively advocated by the new curriculum reform. It can mobilize students' enthusiasm for learning, guide students to conduct independent, cooperative, and inquiry-based learning, and focus on cultivating and developing students' intelligence. Students are the main body, changing the traditional

teaching method and teaching mode in which students passively accept knowledge and repeat mechanical operations. At the same time, it is also a kind of teaching in which teachers are the advocates and facilitators of teaching, and students are active participants in learning methods and learning styles. Therefore, inquiry-based teaching can adapt to the needs of the continuous development of the information environment.

2. Related Work

The study of inquiry learning has a long history in foreign countries, which can be traced back to Socrates' theory of "midwifery," that is, through the teacher's continuous questioning of the students, the students can be stimulated to think in the questions. But the concept of "inquiry-based learning" was first put forward by Dewey. Before that, most scholars believed that the method of science education was to let students learn a lot of scientific knowledge, concepts, and principles through direct teaching. Based on this, Dewey proposed the use of inquiry methods in school science education in his speech at American Association for the Advancement of Science. American educator Schwab (Joseph J. schwab) first proposed the concept of "inquiry learning" in his speech "Science Teaching as Inquiry." He pointed out that "If students are to learn the methods of science, what better way to learn than by being actively involved in the process of inquiry?" This sentence has had a profound impact on inquiry learning in science education. Based on this, Schwab proposed an inquiry-based learning method based on reading literature rather than experiments, which he called "inquiry into inquiry." Such discussion allow students to understand how scientific knowledge arises and what are the basic elements of scientific knowledge? The research of foreign scholar FDochy pointed out two points: first, inquiry learning can promote students' mastery of skills, and students can keep knowledge longer through inquiry learning, but it affects the efficiency of knowledge learning. Second, students' original intelligence level is a very important moderating variable for students' skills and knowledge learning. There are huge differences in the skills and knowledge acquired by students with different intelligence levels in exploratory learning. That is to say, the effective development of inquiry-based learning requires the corresponding knowledge and ability of students. Moreover, compared with lecture style teaching, the individual differences in both the inquiry learning process and the learning results will be greater. Balci and Cakiroglu explored "inquiry-based learning teaching strategies." They believed that, in the process of learning science, there are many modes of inquiry. The 5Es learning cycle is one of the most common methods of inquiry, and it consists of the following steps: (1) participation: students participate in survey questions; (2) exploration: students plan, design, conduct experiments, and record experimental data; (3) Refinement: students extend and apply their findings in new contexts, especially in everyday life; (4) evaluate: in a variety of ways, evaluate students' performance during the experiment and their experimental results, such as an activity report,

instructor-led observations during the activity, and student demonstrations of the experiment. Saksri Supasorn and Anchule Lordkam confirmed in their research that the use of five scientific inquiry learning activities (12 hours) to isolate natural substances is effective in improving students' academic performance. It can be seen that the implementation of daily life-based inquiry experiments is effective, and it can promote students' attitudes towards learning science, which in turn increases their conceptual understanding and academic performance. Therefore, it is best to use inquiry learning activities in the whole college learning process so that students can improve their scientific inquiry skills and the ability to build knowledge through the inquiry process [1–8].

3. Deep Learning Theory and Methods

3.1. Smart Classroom. The connotation of smart classroom is derived from the concept of smart education, and it is the result of the implementation of smart education in classroom teaching. Different researchers have different views on the concept of smart classroom. Therefore, there is no exact and unified concept. For example, Zhu Zhiting and others believe that smart education is to cultivate the learning wisdom of learners, based on information technology, make full use of the characteristics of information technology, create a smart learning space environment, and promote the comprehensive, coordinated, and sustainable development of learners. Tang Yewei and others believe that smart classroom is a new type of classroom, a personalized, digital, and intelligent classroom [9]. This paper believes that smart classroom is based on the theory of teaching and learning, guided by the concept of smart education, and takes the generation of students' wisdom as the fundamental purpose. With the application of information technology means such as learning analysis, it is helpful for teachers' teaching and students' personalized learning in an effective classroom, specifically as shown in Figure 1.

3.2. Inquiry-Based Teaching. Inquiry-based teaching, as its name implies, is an inquiry-based teaching. Among them, "inquiry" refers to the way of inquiry, usually referring to the methods, means and strategies used by natural and social phenomena. "Inquiry-based teaching" originated from Plato divides students into two different classes for different education: the first class teaches truth-telling education, and the second class allows students to take a critical approach to what they have learnt. Attitudes are questioned and can even be revised and improved. The teaching method used in the second class is "inquiry-based teaching." In China, it can be considered that Confucius is the first person to use inquiry-based teaching in teaching, and his heuristic teaching idea is to promote students' autonomy and inquiry-based learning. Inquiry-based teaching is to introduce the form of inquiry into teaching. Like scientific inquiry, let students learn in an inquiry-based way. This process is inquiry-based learning for students and inquiry-based teaching for teachers. Specifically, inquiry-based teaching refers to the creation of various

teaching situations for students with the help of teachers' inspiration and guidance, using textbooks or digital teaching resources as the content and providing students with questions that can be fully questioned, explored, and discussed, so that students can take the initiative. It is a teaching form in which the knowledge learned can be applied in solving practical problems. Inquiry-based teaching focuses on cultivating and developing students' intelligence and creative thinking. It can mobilize students' enthusiasm and initiative, and cultivate students' ability to discover, ask, analyze, and solve problems. Inquiry-based teaching is a multilateral activity of teaching and learning in which students are the main body and teachers are the leading, and both teachers and students participate together. It is a special teaching method and teaching mode to cultivate students' scientific inquiry ability as shown in Figure 2 [10].

4. Design of the Teaching Mode of Inquiry-Based Ideological and Political Education in the Smart Classroom

4.1. Demand Analysis of Advanced Design of Inquiry-Based Ideological and Political Education Teaching. The ultimate goal of inquiry-based teaching in the integration stage of smart classroom is to focus on the generation of students' wisdom in the initial stage to promoting the development of students' wisdom ability. The inquiry-based teaching in the integration stage is designed in the environment of tablet computer intelligent mobile terminal. It takes the intelligent teaching goal formed by the core literacy of the subject + the three-dimensional teaching goal as the teaching goal. "Wisdom" teaches "wisdom" and forms a wisdom teaching system. Under the teaching concept of improving students' higher-order thinking ability, problem-solving ability, and core literacy of the subject, intelligent teaching is realized through the teaching links before, during, and after class. Therefore, inquiry-based teaching can be called "individual interactive" inquiry-based teaching, interspersed with the wisdom of combining online evaluation and offline evaluation, formative evaluation and summative evaluation, and knowledge skills and thinking ability. Teaching evaluation ultimately promotes the development of students' intellectual ability. The transition from the initial stage to the integration stage is reflected in various aspects such as theoretical basis, teaching objectives, technical conditions, program design of teaching activities, and teaching evaluation. The overall design of inquiry-based teaching from the initial stage to the integration stage is shown in Figure 3 [11].

4.2. Teaching Goals of Wisdom Ideological and Political Education. In the smart classroom environment, students' wisdom is constantly developing. The core of teaching design from the beginning to the integration stage is to promote the development of students' wisdom. Its teaching concept as a supporting condition has undergone great changes compared with the initial stage. Teaching goals have also changed. For the stage of the integration of technology and teaching concepts, only promoting the development of
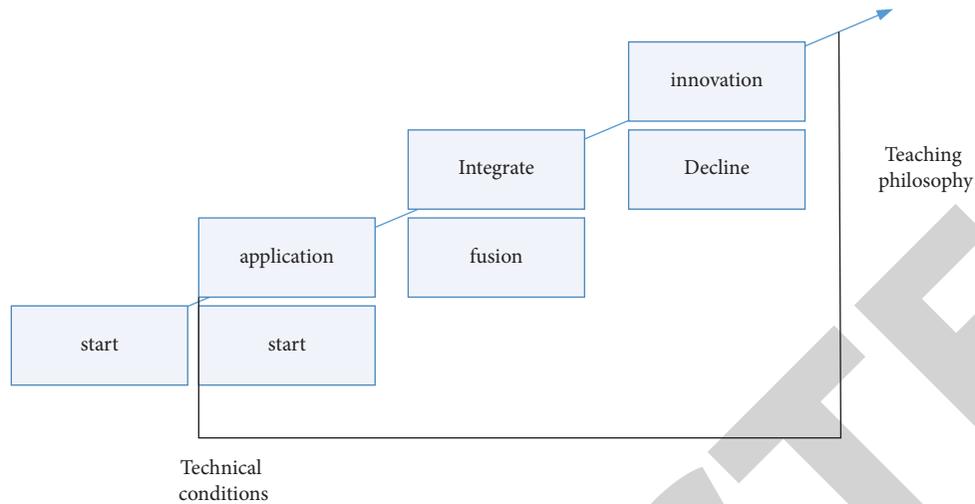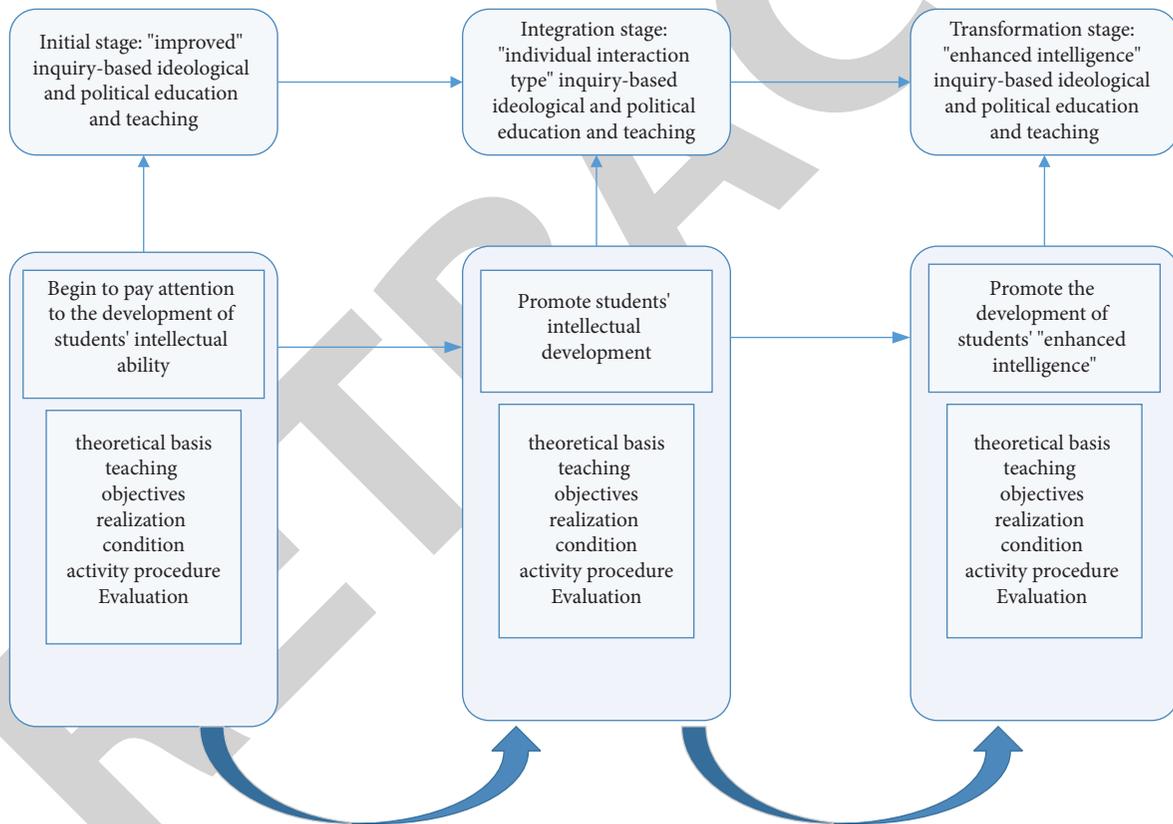
Figure 1: Technical conditions.

Figure 2: The advanced process of inquiry-based teaching in the smart classroom.

students' three-dimensional goals can no longer meet the ultimate goal of promoting the development of students' wisdom, and it cannot fully complete the purpose of "meaning construction" of knowledge. Therefore, in the context of the integration of smart classrooms, the teaching objectives of ideological and political education are transformed from three-dimensional objectives to intelligent teaching objectives of ideological and political education. The specific advanced performance is shown in Table 1 [12].

The "improved" inquiry-based ideological and political education and teaching in the multimedia network environment in the initial stage takes the three-dimensional goal as the teaching goal of ideological and political education. In the initial stage, students can get rid of the limitations of blackboards and chalks, and with the support of technology, they can actively discover problems, analyze problems, and try to solve problems with the cooperation of teachers and classmates. It should be able to initially take care of students'
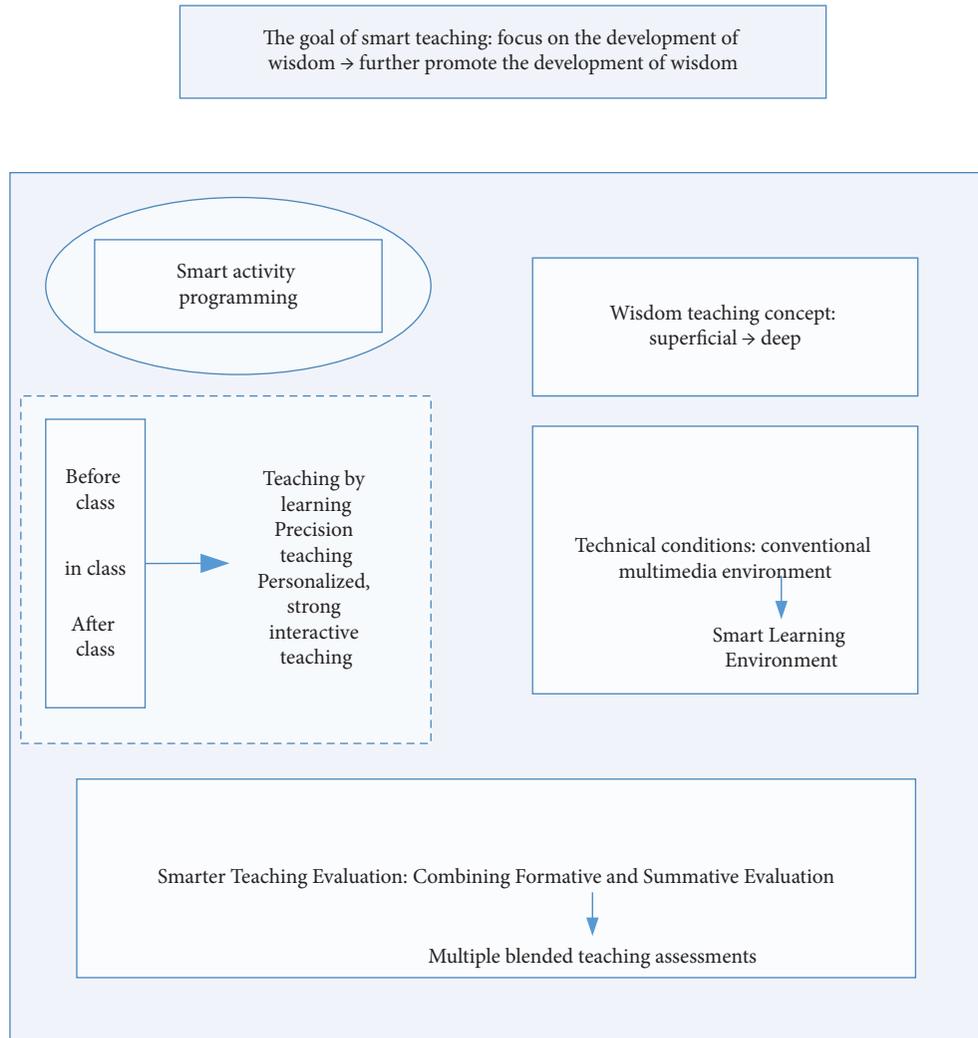
FIGURE 3: The overall design of inquiry-based teaching from the initial stage to the integration stage.

TABLE 1: Advanced performance of teaching objectives.

	"Improved" inquiry-based teaching	"Individual interactive" inquiry teaching
Teaching objectives	Relying on 3D goals to cultivate wisdom: knowledge and skills process and method emotional attitudes and values	Smart teaching goals: (1) Deep learning (2) Higher order thinking skills (3) The core competencies of students
	Advanced performance: smarter teaching concept integrates three-dimensional goals and develops into smarter teaching goals	

higher-order thinking skills such as analysis, problem-solving, and innovative thinking. In addition, the technical conditions and teaching concepts in the initial stage have laid the foundation for the cultivation of students' innovative ability. However, in the integration stage, the technical conditions are more perfect, the teaching concept is more advanced, and the students' initiative is more prominent. After finding a problem, you can use tools to analyze and solve the problem by yourself, and under the drive of divergent thinking, you can innovate the problem-solving method to reflect your own personality. In this process, students' problem-solving ability is continuously improved,

and high-level abilities such as innovative thinking are continuously improved. The "individual interactive" inquiry-based teaching in the integration stage is based on the three-dimensional teaching goal and integrates deep learning, higher-order thinking ability, and core literacy of disciplines to form a smart teaching goal of ideological and political education [13].

4.3. Technical Conditions. Compared with the initial stage, the technology in the fusion stage is more advanced, and its infrastructure, resources, and tools have advanced to a level

that is compatible with the "personal interaction" inquiry-based teaching. In terms of the technical conditions of inquiry-based teaching design, the advanced performance from the initial stage to the integration stage is shown in Table 2.

As shown in the table above, with the development of informatization, its infrastructure has developed from a multimedia network environment in the initial stage to a mobile terminal device that promotes students' mobile learning. Ideological and political education teaching resources are more abundant, and the cloud, network, various rich media ideological and political education resources, digital ideological and political education resources, and generative ideological and political education resources provided by the smart classroom information environment composed of terminals, etc., promote students' personalized learning, digital learning, and interactive learning. In terms of tools, the integration stage supports the development of students' higher-order thinking and the solution of complex wisdom problems and can carry out personalized teaching and learning based on the students' whole-process learning data provided by ideological and political education learning analysis technology.

4.4. Smart Activity Programming. In terms of activity procedures, it is an inquiry-based teaching design, so teaching activities are carried out based on student autonomy, cooperation, and inquiry. Compared with traditional teaching, the two stages are "student-centered, with students being the main body and teachers being the facilitators and helpers" to carry out teaching activities. However, compared with the two stages, the "individual interaction" teaching in the integration stage has its own unique advantages, which can better promote the development of students' wisdom [14]. Before class, push personalized learning resources through the smart platform, which can realize "learning to teach"; in the classroom, due to the development of intelligent technology, students can better carry out exploration activities, and teachers can use various ideological and political education teaching tools to conduct teaching evaluation. After class, the design of inquiry-based teaching in the integration stage can effectively carry out personalized teaching and learning and improve the teaching of personalized teaching and differentiated teaching that cannot be well realized in the integration stage due to technology and other reasons. The advanced performance of inquiry-based ideological and political education teaching from the beginning to the integration stage is shown in Table 3.

Ideological and political education teaching activities from the beginning to the integration stage is to better realize the teaching concept of "determining teaching based on learning, precision teaching, interactive teaching, individualized teaching, and differentiated teaching" in order to realize the comprehensive development of cultivating students' wisdom. The smart activity program in the integration stage and the development from the start to the integration stage are mainly carried out from three parts: before class, during class, and after class [15].

4.4.1. Before Class. The preclass ideological and political education and teaching activities from the start to the integration stage mainly include teacher activities and student activities. However, due to the lack of support of advanced technical conditions and infrastructure, and the teaching concept cannot achieve the desired purpose, it cannot fully achieve accurate teaching. For the initial stage, teachers distribute study guide plans to students before class, and students conduct previews before class. Teachers analyze the completion of students' study guide plans, find problems, and improve teaching strategies for ideological and political education. Although teachers can analyze students according to their usual performances, they lack comprehensive understanding of students due to lack of systematic study analysis, the interaction between teachers and students before class is not strong, and the depth of communication is not enough. It cannot fully achieve personalized teaching and good teaching based on learning. With the emergence of the integration stage of smart classrooms, inquiry -based ideological and political education and teaching can be advanced, which effectively solves the problems existing in the initial stage. Due to the use of tablet computers, it is truly possible to teach by learning. It embodies the concept of personalized learning. The advanced development from the initial stage to the fusion stage is shown in Table 4 [16].

For the integration stage, the preclass ideological and political education and teaching activities mainly include learning situation analysis, resource push, independent learning, and exchange feedback. It fully reflects the independent learning of students. As shown in Figure 4, the teaching activities of teachers and students in the integration stage are shown in Figure 4.

4.4.2. Inclass. Ideological and political education in the initial stage of smart classroom is carried out in a multimedia network classroom environment, starting from the purpose of paying attention to the development of students' wisdom, aiming at cultivating innovative and creative thinking ability and at the same time emphasizing students' problem awareness and enthusiasm for learning. The cultivation of initiative is an inquiry-based ideological and political education and teaching model with the ultimate goal of promoting students' wisdom and development, with students' independent inquiry and cooperative learning as the main line. The main teaching activity process include creating a situation, eliciting a problem, discovering a problem, raising a problem, guessing a hypothesis, exploring a problem, solving a problem, communicating and interacting, evaluating feedback, and integrating innovation. Inquiry-based teaching in the initial stage can promote students' enthusiasm and initiative in learning more than traditional teaching and can also stimulate students' problem awareness. In the multimedia network teaching environment, teachers raise questions by creating an environment, students discover problems through teaching situations and establish connections between old and new knowledge, and teachers trigger students' conjectures and assumptions about problems through mind maps and cognitive tools. Then, they carry out independent

TABLE 2: Advanced performance of technical conditions.

	"Improved" inquiry-based teaching	"Individual interactive" inquiry teaching
Technical conditions	Infrastructure: multimedia network technology environment (electronic whiteboard). Resources: paper resources + digital network resources. Tools: external cognitive tools such as mind maps, concept maps, information tools, communication tools, and evaluation tools	Infrastructure: mobile terminal (tablet) smart learning environment. Resources: personalized, digitized web resources + generative resources. Tools: various cognitive tools
Advanced performance: effective application of smart learning environments such as smart mobile terminals and smart classrooms		

TABLE 3: Advanced performance of ideological and political education teaching activities program.

	"Improved" inquiry-based teaching	"Individual interactive" inquiry teaching
Teaching activities program	Before class: in the preview class: creating a situation, eliciting problems, discovering problems, raising questions, guessing assumptions, exploring problems, solving problems, communicating and interacting, evaluating feedback, integrating innovation after class: consolidation review	Before class (teaching based on learning): learning situation analysis, resource push, independent learning, communication and feedback during class (precision teaching, interactive teaching, and personalized teaching): creating situations, intelligent interactive teaching, independent cooperation and exploration, display and communication, real-time after-class testing (personalized teaching): personalized teaching and learning, communication and reflection, homework summary
Advanced performance: through the design of preclass, in-class, and after class in the integration stage, it can better realize teaching concepts such as teaching based on learning, precision teaching, strong interactive teaching, and personalized teaching and better promote the realization of smart teaching		

TABLE 4: Comparison of the advanced development of the preclass link from the initial stage to the integration stage.

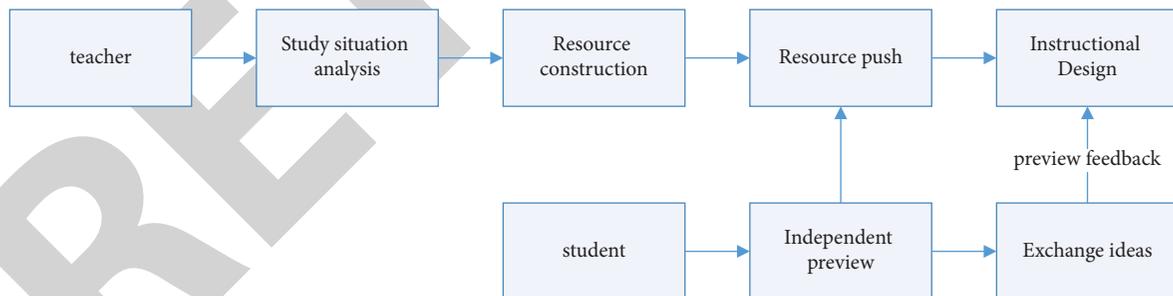|	"Improved" inquiry-based teaching	"Individual interactive" inquiry teaching
Teacher activity	Distribute study guides Correction of the case study guide Analyze student preparations Improve teaching strategies	Study situation analysis Resource construction Resource release Instructional design
Student activities	Independent study guide	Self-study and exchange of experience

FIGURE 4: The process of preclass activities.

and cooperative exploration, and through multimedia computer upload function, demonstration function, and other functions, teachers and students can communicate and interact, evaluate, and give feedback, so that students can better reflect, improve innovative thinking ability, and improve teaching effect. . However, due to the limitations of teaching concepts and technical conditions, although the questions raised by students in the teaching process are explored through cooperation, most of them are answered with the help of teachers, and due to the lack of data provided by the smart learning platform in the students' learning process, a complete individualized teaching cannot carry out precise teaching, so the individualized development of students is insufficient. Therefore, in order to better promote the personalized development of students, promote strong interaction between teachers and students, and promote precision teaching, the inquiry-based teaching in the initial stage needs to develop to the integration stage, and due to the emergence of intelligent technologies such as big data and cloud computing, integration the inquiry-based teaching of ideological and political education in the initial stage can solve the shortcomings of inquiry-based teaching in the initial stage,

and the inquiry-based ideological and political education teaching in the integration stage of smart classrooms solves the lack of interaction in the initial stage. Insufficient personalized development and other problems: we have achieved precise teaching, interactive teaching, and personalized teaching, which further promotes the development of students' wisdom from the initial stage of inquiry-based ideological and political education teaching to the advanced development of the integration stage of inquiry-based teaching [17]. The in-class links in the integration stage of the smart classroom are mainly based on the strong interaction between teachers and students. The teaching activities in the class mainly include creating a situation, intelligent interactive teaching, independent cooperation and exploration, display and communication, and real-time detection and other processes. The specific teacher activities and student activities are shown in Figure 5.

4.4.3. After Class.

The after-school link in the smart classroom integration stage can make up for the lack of personalized training for students. Its main activities include teachers uploading courseware to students and assigning after-school homework. Students take the initiative to complete the tasks assigned by teachers according to their learning conditions. The initiative has been improved, but complete personalized learning has not been achieved, and the feedback of teachers is not immediate, which lacks the depth of the cultivation of students' intellectual ability. Therefore, teachers and students at the initial stage urgently need new teaching methods. In order to improve their abilities in all aspects, the design of inquiry-based ideological and political education and teaching in the integration stage can effectively carry out personalized teaching and learning and improve the personalized teaching and differentiated teaching that cannot be well realized in the integration stage due to technology and other reasons [18].

Therefore, the inquiry-based ideological and political education teaching in the initial stage will develop to the inquiry-based teaching in the integration stage as shown in Table 5.

After-school teaching is mainly based on individualized counseling, targeted, and differentiated teaching, its main activities include individualized teaching and learning, communication and reflection, and homework summary.

4.5. Teaching Evaluation of Wisdom Ideological and Political Education.

The ultimate purpose of teaching activities is to achieve teaching goals, and teaching evaluation is also to better achieve teaching goals. The traditional classroom emphasizes the result and ignores the process, but the smart classroom pays more attention to the result and more attention to the process. Therefore, whether it is in the initial stage or the integration stage, it attaches great importance to the evaluation of students' input and the achievement of teaching goals, that is, formative and consequential. However, due to the development of technologies such as big data and learning analysis, the integration stage is more objective and accurate than the teaching evaluation in the initial stage.

As well as teachers' evaluation of students, it is more conducive to the development of students' analytical thinking, critical thinking and other higher-order thinking, thereby contributing to the development of students' wisdom. Its advanced performance is shown in Table 6 [19].

5. Analysis of the Application of Inquiry-Based Ideological and Political Education and Teaching in Smart Classrooms

5.1. Statistical Analysis of Questionnaires.

In order to facilitate the statistics and analysis of questionnaire data, this paper adopts the form of questionnaire star to distribute and fill in the questionnaire. At the same time, the questionnaire is filled out at the designated time in the ideological and political education class, which can ensure the recovery rate and efficiency. This research requires 55 students and 57 students from two experimental classes in two schools to participate in their own questionnaires. In this survey, 55 and 57 questionnaires were distributed, and 55 and 57 were recovered. The number of valid questionnaires was 54 and 56, respectively. The recovery rate of the two schools' questionnaires was 100%, the effective rate of W school was 98.18%, and the effective rate of Z school was 98.25% [20].

5.2. Analysis of the Process of Inquiry-Based Learning in Ideological and Political Education

5.2.1. Preclass.

In the preclass aspect of ideological and political education, the investigation is mainly carried out from two aspects: the students' adaptability to the study guide and whether they can complete the preview independently. The survey results showed that 48.1% of the students agreed with the view that the teacher's preclass study guidance plan was suitable for them. Of course, a very small number of students felt that it was not suitable, accounting for 7.4%; Yes, the proportion reached 66.7%. It can be seen that the inquiry-based ideological and political education and teaching in the initial stage is very effective for students' learning before class. The specific data are shown in Figures 6 and 7 [21].

5.2.2. Inclass.

In the initial stage of the smart ideological and political education classroom, the main links are the exchanges and learning between teachers and students and students. For the in-class links, this research mainly investigates the mastery of multimedia functions, the mastery of basic knowledge and skills, and the utilization of classroom teaching resources for ideological and political education. The survey results are shown in Table 7 [22].

It can be seen from Table 7 that most of the students "agree" with the learning in the ideological and political education class. Therefore, it can be seen that the teaching in the initial stage of the smart classroom is practical. Through learning in the multimedia network environment, 55.6% of the students can master the functions of multimedia computers or electronic whiteboards, 53.7% of the students can
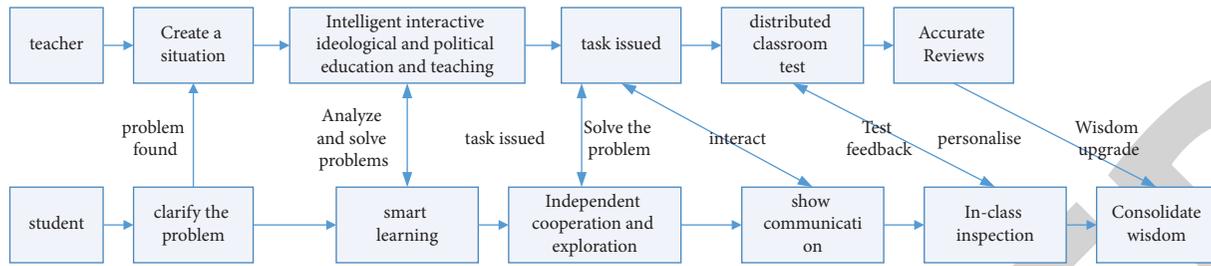
FIGURE 5: The activity process in the lesson.

TABLE 5: Comparison of the advanced development of the after-school link from the initial stage to the integration stage.

	"Improved" inquiry-based teaching	"Individual interactive" inquiry teaching
Teacher activity	Upload courseware homework	Personalized push. Personalized coaching. Teaching analysis and reflection
Student activities	Finish homework. Reflection and promotion	Finish homework. Summary reflection

TABLE 6: Advanced performance in teaching evaluation.

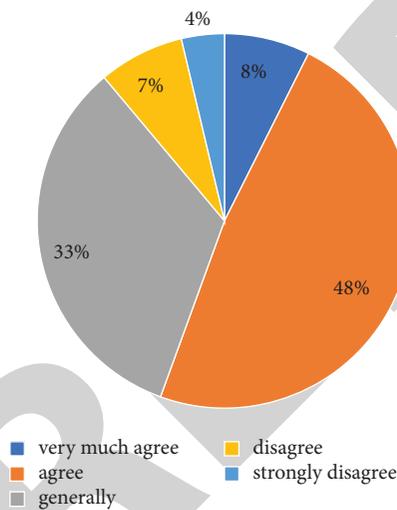|	"Improved" inquiry-based teaching	"Individual interactive" inquiry teaching
Teaching evaluation	Combining formative and summative assessments	Smart and precise teaching evaluation combining online and offline, formative and summative, knowledge skills and smart thinking
Advanced performance: The application of a variety of mixed teaching evaluation, from fuzzy evaluation to precise evaluation		

FIGURE 6: The adaptability of the lesson plan before the lesson.
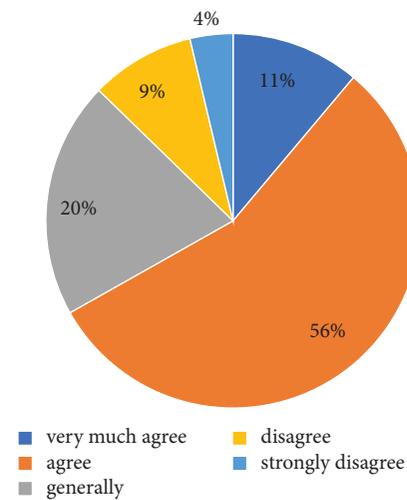

FIGURE 7: Independent preview.

master the basic knowledge and skills, and in the use of classroom resources, it is also more than the average students can use ideas Political education and teaching resources, but there are also some students who fail to make good use of ideological and political education and teaching resources. In the initial stage of smart classrooms in the multimedia network environment, most students can actively participate in ideological and political education and teaching activities, and in the classroom, most of the students can take the initiative to ask questions, but some students are not sure whether they can take the initiative to

ask questions. In addition, in the interaction between teachers and students in the classroom, 14.9% of the students are not very good. However, most students can grasp what they have learned in time. Therefore, the inquiry -based ideological and political education and teaching carried out in the multimedia network environment is of positive significance [23].

5.2.3. After Class. The after-school link of ideological and political education mainly investigates the completion of tasks and the consolidation and improvement of students'

TABLE 7: Sections in the lesson.

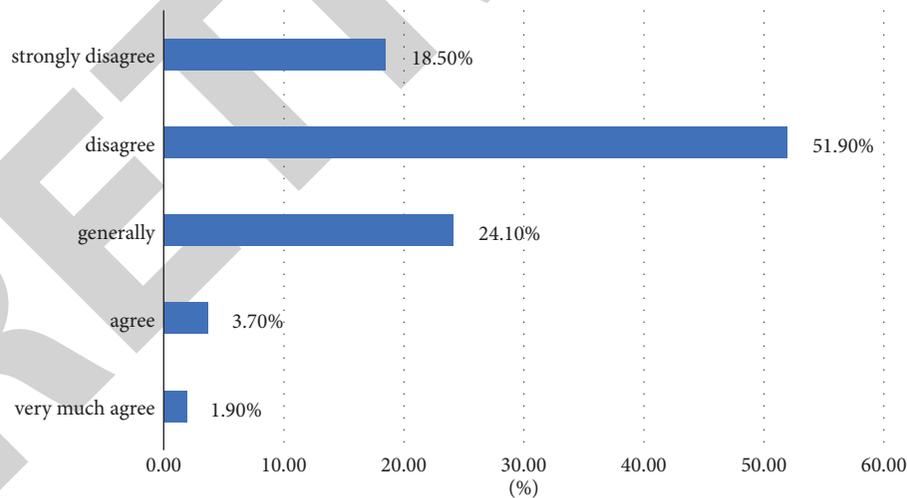|	Very much agree	Agree	General	Disagree	Strongly disagree
Mastering the functions of multimedia computers	9 (16.7%)	30 (55.6%)	15 (27.8%)	0 (0%)	0 (0%)
Mastery of basic knowledge and skills	8 (14.8%)	29 (53.7%)	16 (29.6%)	1 (1.9%)	0 (0%)
Use of classroom resources	4 (7.4%)	27 (50%)	18 (33.3%)	3 (5.6%)	2 (3.7%)
Active participation in teaching activities	5 (9.3%)	28 (51.9%)	18 (33.3%)	2 (3.7%)	1 (1.9%)
Teacher-student interaction	4 (7.4%)	26 (48.1%)	16 (29.6%)	5 (9.3%)	3 (5.6%)
Proactive questioning	5 (9.3%)	27 (50%)	19 (35.2%)	2 (3.7%)	1 (1.9%)
Summary of the content of this lesson	4 (7.4%)	29 (53.7%)	17 (31.5%)	2 (3.7%)	2 (3.7%)

FIGURE 8: Active completion of tasks.

FIGURE 9: Self-consolidation and improvement.

autonomy. The specific situation is shown in Figures 8 and 9. 48.1% of students can complete the tasks assigned by teachers, and 9.3% of them are very good, but 11.2% of them cannot complete them well, but the overall degree of completion is very high; for students' ideological and political education courses, after the improvement of self-consolidation, more than 70% of students can achieve self-consolidation. It can improve yourself well. Therefore, the inquiry -based ideological and political education and teaching in the initial stage can well promote the improvement of students' knowledge and ability.

5.3. Investigation and Analysis on the Learning Effect of Ideological and Political Education. Taking W school as an example, the learning effect of W school students mainly

TABLE 8: The results of the survey on learning effects.

	Very much agree	Agree	General	Disagree	Strongly disagree
Mastery of basic knowledge	9 (16.7%)	23 (42.6%)	16 (29.6%)	6 (11.1%)	0 (0%)
Increased interest in learning	8 (14.8%)	22 (40.7%)	17 (31.5%)	7 (13.0%)	0 (0%)
Improve learning enthusiasm and initiative	9 (16.7%)	24 (44.4%)	15 (27.8%)	4 (7.4%)	2 (3.7%)
Increased awareness of the problem	4 (7.4%)	21 (38.9%)	19 (35.2%)	6 (11.1%)	4 (7.4%)
The improvement of imagination	6 (11.1%)	25 (46.3%)	18 (33.3%)	3 (5.6%)	2 (3.7%)
The improvement of independent cooperation and exploration ability	6 (11.1%)	23 (42.6%)	19 (35.2%)	4 (7.4%)	2 (3.7%)

includes the mastery of basic knowledge of ideological and political education, the improvement of learning interest, the improvement of learning enthusiasm, the improvement of initiative, the ability to ask questions, the improvement of imagination, and the improvement of independent cooperation and exploration. Several aspects of capacity improvement were investigated. Compared with the students' initial level, the students' abilities in all aspects after the experimental teaching tend to "agree." Among them, more than 59.3% of the students agree that the use of the inquiry-based ideological and political education teaching method has improved their mastery of basic knowledge. Similarly, in terms of enthusiasm and initiative in learning, more than 70% of the students believe that the enthusiasm and initiative in learning have been improved; in addition, in terms of the improvement of problem awareness and imagination, 35.2% and 33.3% believe that the effect is average, but large. Most of the students think that they have improved a lot, and they have improved their independent cooperation and exploration ability. Therefore, through this teaching method, students' learning effect has been significantly changed, their enthusiasm for learning has been improved, students' awareness of problems can be stimulated, and students' innovative thinking ability has been improved. The results are shown in Table 8.

6. Conclusion

As a hotspot of educational informatization research in China, smart classrooms in ideological and political education have received widespread attention. It implements the theory into the classroom teaching of ideological and political education, focusing on the teaching activities between teachers and students. Information technology and intelligent technology are important technical components of smart classrooms in ideological and political education. With their rapid development, smart classrooms show staged characteristics. Under these staged characteristics, each stage is brought about. Different inquiry-based ideological and political education teaching: this research aims to explore the development of inquiry-based teaching in smart classrooms of ideological and political education at different stages from the perspective of theory and practice and to conduct advanced design research on inquiry-based teaching in smart classrooms of ideological and political education, with a view to promote the development of students' intelligence. After reading a large number of

relevant literature studies on smart classroom, smart classroom teaching, inquiry-based teaching, etc., this research conducted a necessity analysis of the advanced design of inquiry-based ideological and political education teaching in smarter classrooms and initially designed the inquiry-based ideological and political education. Based on this, the advanced design of inquiry-based teaching is carried out. Finally, in order to test the effectiveness of the advanced design of inquiry-based ideological and political education teaching in smart classrooms, students from W school were selected as subjects to conduct practical tests. The results show that the advanced design of inquiry-based ideological and political education teaching in smart classrooms is possible. This paper conducts in-depth research on the design of inquiry-based ideological and political education teaching in smart classrooms, which can provide some reference for schools, but the design needs to be further improved. Due to the limitations of various conditions, the inquiry-based teaching design of the smart classroom stage is only prospected in theory, and no further in-depth design is carried out. Therefore, it needs to be further improved in the future.

Data Availability

The dataset can be accessed upon request to the corresponding author.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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