



# From the national "Red Net" to the rural "net red" -- Research and practice on the national smart education platform red resources and resource red rural applications

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**Abstract.** The "Work Plan for Comprehensively promoting the construction of the" Big Ideological and Political Course" issued by the Ministry of Education and other ten departments aims to continue to promote the high-quality development of ideological and political courses and ideological and political education, and the phased results achieved by the national smart education platform can help the further application of red resources. This research report aims to explore the application of the red resources of the National smart education platform in rural areas and explore the strategies to promote the use of the red energy of the national platform in rural areas. Through the in-depth analysis of the red resources of the national intelligent education platform, it is found that these resources have important value in inheriting red culture and carrying forward the revolutionary spirit. The study found that the red resources of the national smart education platform have been widely used in rural areas, not only enriching rural cultural life, but also inspiring the patriotic feelings of rural teenagers. In addition, this report also puts forward a series of strategies and suggestions to promote the application of red resources in rural areas, including strengthening the construction of red education bases, innovating red culture communication methods, etc., to further play the role of red resources in rural revitalization, and promote the comprehensive economic and social development of rural areas.

**Keywords:** National smart education platform, Red resources, Rural application.

## 1 Introduction

The National Smart Education platform was rapidly developed amidst the 2020 epidemic to facilitate "learning without school attendance". As educational needs have evolved, transforming it into the current national smart education platform for primary and secondary schools. The report to the Party's 20th National Congress emphasized: "Uphold the spiritual legacy of the Chinese Communists, drawing from the Party's founding spirit, leverage red resources effectively, conduct extensive propaganda and

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education on socialist core values, reinforce education in patriotism, collectivism, and socialism, and diligently cultivate new generations to shoulder the monumental task of national rejuvenation.”<sup>[1]</sup>

The significance of red resources in education is that they act as a conduit between classroom-based ideological and political teachings and broader societal contexts, seamlessly merging theory with practice, and bolstering the vibrancy and efficacy of ideological and political education. Through in-depth study and inheritance of the great Party building spirit contained in red resources and the rich spiritual pedigree of Chinese Communists, we can establish socialist core values in the hearts of young people, stimulate patriotic feelings, and cultivate collectivism and socialist consciousness. Concurrently, red resources offer an abundance of educational materials and contemporary examples that narrate the narrative of the “Great ideological and political course” in the contemporary era, thereby reinforcing the curriculum’s role in fostering a new generation of young individuals imbued with a sense of historical duty and purpose, and nurturing individuals poised for the era’s significant mission of national rejuvenation. Therefore, the full exploitation and application of red resources is the key way to achieve the development of high-quality ideological and political education, and has an irreplaceable important role in training the new era to assume the responsibility of national rejuvenation.

## 2 Related Questions and Issues Raised

### 2.1 The Necessity and Urgency of Rural Red Digital Resource Construction

Red resources now face challenges, primarily regarding technical adaptation and content accuracy. Currently, most colleges and universities are still in the early stages of grasping and exploring digital teaching methods, leading to issues like a shortage of qualified professionals and underdeveloped technology in the digital delivery of ideological and political courses<sup>[2]</sup>. The comprehensive implementation of the rural revitalization strategy offers a valuable opportunity for the effective development and application of red resources. The interplay between the two demonstrates reciprocal promotion and influence throughout historical development<sup>[3][4]</sup>. The value and function of red cultural resources in the process of rural revitalization mainly include three aspects: red cultural resources provide strong spiritual guidance for rural cultural revitalization, red cultural resources are an important content of rural revitalization, and red cultural resources are an important support for rural social governance<sup>[5]</sup>.

The development and utilization of digital red resources can also foster the economic and social development of rural areas. Combining rural red tourism resources and promoting through digital means, it can not only attract more tourists, but also drive the development of local related industries and promote rural revitalization. Digital means also contribute to the innovative development of red culture, which can present red stories to the public in a more vivid and diversified form, and improve the communication effect and influence of red culture in contemporary society. Preserving red culture through digital means is a crucial strategy for adapting to the evolving demands of the new era and ensuring the perpetuation of red heritage across generations.

## 2.2 Obstacles to Resource Acquisition and Utilization

### **Obstacles to Resource Acquisition and Utilization.**

There is an urgent need for customized content and accessible resources for students in rural areas. Some users reported that the updating speed and pertinence of resources need to be improved to adapt to the changing educational needs. In rural areas, due to network conditions and equipment restrictions, some students and teachers are difficult to make full use of platform resources. Some teachers say that the platform's user interface needs to be classified more precisely, which now makes it difficult for users to quickly find the resources they need. Many students said the platform may lack the ability to provide personalized resource recommendations based on user needs and preferences, which are consistent for what each student searches for. The primary issue is that teachers and students may lack adequate training to become proficient in the platform's use and functionalities. The second is that the resource update of the platform may not be timely enough to meet the real-time and dynamic needs of educational content.

### **Bridging the Urban-Rural Gap and Enhancing Home-School Cooperation.**

To enhance educational outcomes, it is essential to address the issues that hinder the platform's application experience, such as network speed and operational procedures. Students may lack self-control and be easily addicted to mobile phone games and short videos instead of studying. On a macro level, there are significant differences in the distribution of educational resources between urban and rural areas, leading to rural students being at a disadvantage. From the middle perspective, left-behind children may lack necessary family support and supervision due to their parents going out to work, affecting their studies. Finally, there may be inadequate communication between home and school in rural areas, making it difficult for parents to participate in their children's education process.

### **Current Utilization of Red Resources in Rural Schools.**

Overall, the use of red resources in rural schools to instill patriotic sentiments and values holds significant educational importance. Generally, red resources are integrated into the daily teaching of rural schools in the form of Taoist courses and themed class meetings. In the more developed areas, the application of red resources in rural education helps to improve the quality of education and promote rural revitalization. For example, by "activating" and "using" red cultural resources, the old revolutionary base area of Hunan and Jiangxi has enabled rural revitalization and created a "red cultural tourism town", which has promoted the development of local economy and culture. The research on Bengbu school asked "How often do you use the red resources on the national smart education platform in your daily teaching?" Among the answers, 34.21% are often used, while 51.32% are occasionally used, which is closely related to the nature of different disciplines. When answering "Have you ever tried to integrate red resources into rural teaching?" 96.05% of teachers answered that they had used red resources, indicating that teachers would choose courses related to red resources, but

subjects such as chemistry and physics, which have a stronger proportion of logical thinking, rarely use red resources, while subjects such as Chinese and history can be applied to a large extent.

In addition to the nature of the subject, the application has a great relationship with the level of teachers and the choice of school resources. Schools affect the choice of teachers, and teachers' own professional quality is also related. Research shows that most old teachers have a lower utilization rate of red resources on the platform than young teachers.

### **3 The National Smart Education Platform and the Rural Application of Red Resources Promotion Strategy**

#### **3.1 Accelerate Win-win Cooperation among Multiple Entities and Promote the Popularization and Application of Platforms**

##### **Coordinate Forces at all Levels and Give Full Play to the Role of Home, School and Community.**

To effectively promote the national smart education platform in rural areas, it is essential to establish an ecosystem of multi-participation and win-win cooperation. All levels involved in education should fulfill their roles, including the government, educational institutions, technology providers, non-governmental organizations, and the involvement of rural communities, such as the Ministry of Education, central and local audio-visual facilities, and school expert teams. Through collaboration, educational technology solutions tailored to rural environments can be jointly developed and implemented. At the macro level, the government provides relevant policy support and capital investment for the national platform, technology suppliers provide updates of national platform resources and regional characteristics resources, video education centers and school organizations assist in training and community mobilization, and rural communities provide valuable local knowledge and feedback, and all levels jointly help rural applications. For instance, the Inner Mongolia Autonomous Region initiated the "National Smart Education Platform in Inner Mongolia Pilot Equipment Technology (audio-visual education) special working group," which focuses on the pilot construction and application of the smart education platform in primary and secondary schools.<sup>[6][7]</sup> According to the localization characteristics of different regions, only when each subject plays its unique role can the platform and its red resources be applied more widely.

For education competitors such as iFlytek, such enterprises and social organizations can be encouraged to participate in platform construction and content provision through policy guidance and incentive measures to form a mutually beneficial and win-win cooperation model. Corporate participation will bring more diversified educational resources and teaching tools to meet the learning needs of different students. Through competition and cooperation, we promote the advancement of educational technology to improve teaching effectiveness and learning experience. High-quality education resources can cover rural and remote areas more widely, which can narrow the urban-

rural education gap. The cooperation will encourage enterprises to carry out technological innovation, promote the sustainable development of the education industry, and promote social and economic prosperity.

The community serves a vital support role in rural education, and its participation is crucial for the integration and application of red resources. Initially, it is recommended to leverage community resources and integrate red education with local culture and community activities. For example, red education can be integrated into the cultural life of the community by organizing red-themed community activities, such as revolutionary story meetings, red movie screenings, and visits to red memorial sites, so that students can learn revolutionary history and red spirit in the process of participating in activities.

Secondly, the education sector should collaborate closely with the community to jointly identify and organize local red resources and integrate them into the school's education system. For example, people with rich revolutionary experience such as old party members and retired soldiers in the community are invited to the campus, and through lectures and discussions, students are told the story of revolutionary history and the red spirit, so that students can feel the power of red culture more deeply in close contact.

Furthermore, the community can also offer additional support for the school's red education resources, such as providing access to venues and facilities, organizing visits for students to local red memorial halls, or undertaking social practice activities themed around red education. Through the extensive participation of the community, Red Resources will no longer be limited to classroom teaching, but will be integrated into the daily life of students and become an important part of their growth process.

### **Explore Multiple Modes of Integrating Platform Red Resources into Teaching Moral Education.**

Rural resources are of great value to the revitalization of rural education. We should make full use of the humanistic value of rural resources, reconstruct the rural education curriculum system under the background of rural culture, and help the construction of campus culture<sup>[8]</sup>. There are huge differences between different disciplines, regions and provinces, so in the actual promotion, customized solutions should be provided according to the specific conditions of different rural schools, different disciplines and different teachers to meet the needs of different schools and students. Moral education is an important educational content that every subject should penetrate, and red resources contain rich historical and cultural values. By integrating them into moral education teaching, national spirit and revolutionary tradition can be effectively inherited and carried forward. As well as the strong appeal and educational significance of red resources, it can stimulate students' patriotic feelings, enhance the attractiveness and effectiveness of moral education, cultivate students' sense of responsibility, collectivism and dedication, and promote students' all-round development. The integration of red resources is a response to the national education policy, which encourages the integration of patriotic education and revolutionary traditional education into the school education system. However, the characteristics of different disciplines make it impossible to use a unified

teaching mode, so it is necessary to sum up multiple teaching modes according to the characteristics of disciplines.

Throughout the curriculum implementation, teachers should receive professional training to enable them to accurately comprehend and effectively communicate the educational value of red resources. It also encourages teachers to integrate red resources into lesson preparation. Similarly, teachers should adopt different teaching methods according to the content of selected red resources to improve students' participation and sense of experience, such as case teaching, situational simulation, discussion and communication. Finally, establish a scientific evaluation mechanism to evaluate and feedback the effect of integrating red resources into teaching moral education.

### **3.2 Strengthen the Supply of Multiple Resources on the Platform and Promote Personalized Teaching and Learning for Teachers and Students**

#### **Continuously Improve the Level of Resource Supply and Accurately Meet Individual Needs.**

In order to better promote the application of red resources in education, we should first strengthen the integration and innovation of red resources and various disciplines. The government should actively promote the integration of red resources with modern teaching methods and technologies. For many teachers, the red resources of the platform are relatively simple, and a special red education resource integration module should be established to unify and integrate high-quality red resources across the country and promote them to schools at all levels. This will greatly improve the coverage and utilization of red resources, ensuring that all students have equal access to and use of these educational resources.

There are differences among different provinces. There is still a big gap between different provinces in teaching competitions and related research on the application of red resources. Resource upload channels of different provinces should be added to the red resources section of the national platform and timely updates should be made. Any participant related to education can upload and download resources from this section. Only by providing a richer supply from the root can we promote the application and promotion of the red resources of the platform.

Secondly, we should innovate the presentation form of red education resources in terms of content, and use digital tools and network platforms to make red education more vivid and easy to contact. For example, interactive red education courses can be developed. In addition, through online courses, video lectures and other forms, more rural students can have access to high-quality red education resources, and further enhance their sense of identity and understanding of red culture.

#### **Artificial Intelligence Technology Helps Teaching and Improves the Application Innovation of the Platform.**

The advent of artificial intelligence has significantly enhanced educational quality, yet its adoption in rural schools significantly trails that of urban schools, in terms of both infrastructure and teacher proficiency. Hence, our initial priority should be to

substantially invest in intelligent facilities for rural education, equipping schools with the necessary conditions to implement AI-enabled teaching, followed by training rural teachers in AI technology to enable them to effectively utilize these tools in support of teaching. Using big data and artificial intelligence technology, it can provide personalized learning paths and recommendation systems for students according to their learning habits, abilities and progress to help them learn and master knowledge more effectively. To provide resources and platforms for teacher professional development, including online training, teaching seminars and experience sharing, to enhance teachers' teaching ability and skills in using the smart education platform. In the teaching process, AI is of great help to teachers in pre-class preparation, classroom teaching and after-class evaluation and reflection, and this is also reflected in the student side. For example, the intelligent tutoring system uses natural language processing (NLP) technology to answer students' questions and provide immediate feedback; Automated assessment can automatically evaluate students' homework and exams, reducing the workload of teachers; Virtual teaching assistants can assist teachers with classroom management, provide administrative support, and enable teachers to focus on teaching and interacting with students; Intelligent content creation can help create educational content, such as automatically generating exercises, simulation experiments and educational games, enriching teaching resources.

### **3.3 Increase the Propaganda and Promotion of the Platform, and Improve the Digital Ability of Rural Teachers**

#### **Increase Publicity Efforts by Multiple Means to Improve the Acceptance and Availability of Red Resources.**

Only when everyone has cognitively accepted the red resources of the national smart education platform can the application be enhanced. First of all, through online and offline publicity and promotion activities, rural teachers and students can improve their awareness and interest in the smart education platform. Secondly, demonstration projects can be established to demonstrate the application effect of the smart education platform in rural schools and stimulate the enthusiasm of other schools and teachers to participate. This is an encouraging mechanism, and the study of surface performance expectation and community influence has a direct and positive impact on rural teachers' willingness to use the national platform<sup>[9]</sup> Various competitions in which teachers use the red resources of the platform can also promote rural teachers' understanding of red resources. In the interview, a teacher of Ideological politics said that in the provincial competitions, Through learning and using the red resources of the platform, I found the great advantages of the platform, and recommended other teachers in the school to use it in the subsequent teaching. Teachers and students say that the resources of the platform have largely met their needs, so they know little about the national platform. Therefore, necessary publicity activities are very important, and parents and community members need to be encouraged to participate in the promotion and use of the smart education platform to form a social atmosphere supporting education information.

In order to narrow the gap between urban and rural education resources, it is necessary to further enhance the availability of red education resources in rural areas. First

of all, the government should increase investment in the construction of information infrastructure for rural schools to ensure that all rural schools can access the national smart education platform and successfully obtain high-quality red education resources. Secondly, it is suggested that policy makers should update and supplement red education resources regularly according to the actual needs of rural schools to ensure the contemporary and adaptability of their content. At the same time, local education departments and social forces are encouraged to cooperate and provide more support for red education resources for rural schools, especially in areas with a rich revolutionary history, and the coverage of red education can be expanded through resource sharing.

### **Strengthen the Training of Rural Teachers and Improve the Professional Development of Teachers.**

Teachers are important transmitters of educational resources, and their professional quality and teaching ability are directly related to the application effect of red resources in education. Therefore, more efforts should be made to train rural teachers to improve their understanding and application of red resources. First of all, education departments should regularly organize special training on red education, invite experts and scholars to systematically train rural teachers, and help them deeply understand the historical background, educational value and practice methods of red resources. Secondly, teachers should be encouraged to participate in the development and innovation of red education resources, so as to make the teaching content closer to the actual needs and interest points of students, and improve the effectiveness and attractiveness of teaching. Organize digital skills training to help rural teachers master the necessary information technology and improve their ability to use smart education platforms.

In terms of resource development, it is suggested that local education departments should encourage cooperation between rural teachers and education researchers to develop red education resources with local characteristics according to local characteristics and teaching needs. By combining local revolutionary history and cultural traditions, the educational content suitable for local students is designed to make red education more vivid, specific and targeted. In addition, it is suggested to establish a mutual aid exchange platform for teachers to promote experience sharing and cooperative learning among rural teachers. By building such a platform, rural teachers can exchange teaching experience, share the experience of using red resources, and jointly improve the quality of education.

In the interview, it can be found that many teachers are not proficient in using the functions of the platform, and the question-answering staff organized by the school cannot timely meet the doubts of teachers when they encounter problems. In the process of classroom teaching and pre-class preparation, teachers lack corresponding guidance, and many teachers hope to have special training, and can form a mutual aid team for teachers in schools. Therefore, the government should also establish a special training mechanism for rural teachers to enhance their teaching ability and innovation awareness in red education. Special training courses and teaching seminars are held regularly to help rural teachers better understand and use red resources to ensure that these resources can be effectively applied in the classroom.



## 4 Conclusion

This survey has provided a comprehensive overview of the use of red resources on the national smart education platform in rural areas, highlighting their significance in cultural and spiritual education. Despite the platform's rich offerings, challenges such as technological adaptation, content accuracy, teacher training, and market competition persist in rural settings. To enhance the impact of these resources, we recommend strategies for technological integration, content standardization, and teacher training. Strategies should focus on fostering collaboration, diversifying content, and enhancing digital skills among rural educators. With concerted efforts and AI integration, we foresee improvements in rural education quality and the potential for red resources to drive rural development.

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