

Exploration of the Ideological and Political Teaching Model of “Ten-Minute Pre-Class · Red Geography Mini-Seminar”: A Case Study of the Geography Science Major

Chenguang Zhang¹, Jing Niu^{1*}, Zhaoli Liu¹, Xiaojie Yuan¹, Na Duan²

¹School of Geographical Sciences, Xinyang Normal University, Xinyang 464000, Henan, China

²Party Committee Office, Xinyang Normal University, Xinyang 464000, Henan, China

**Corresponding author:* Jing Niu, niujing200212@163.com

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Abstract: Promoting the in-depth integration of ideological and political education in courses (referred to as Curriculum-Based Ideological and Political Education) with professional education is the key to solving the problem of the disconnection between ideological and political education and professional teaching in colleges and universities. Taking the Geography Science major of Xinyang Normal University as a practical case, this paper, based on Xinyang's unique regional advantage as a part of the E-Yu-Wan old revolutionary base area, constructs a regular Curriculum-Based Ideological and Political Education teaching model named “Ten-Minute Pre-Class · Red Geography Mini-Seminar.” This model systematically integrates local red cultural resources with professional geographical knowledge, and designs three core teaching modules, namely “Red Landmarks · Geographical Decoding,” “Heroic Landscapes · Spiritual Inheritance,” and “Geoscientific Perspective · New Looks of the Old Revolutionary Base Area.” In the ten minutes before regular professional courses, students are guided to use professional theories and methods such as Geographic Information System (GIS), remote sensing, and geomorphology to scientifically interpret the spatial logic and contemporary value of red history, thus realizing the organic integration of ideological and political elements with professional knowledge, just like “salt dissolving in water.” Practice shows that this model not only effectively stimulates students' awareness of independent learning and strengthens their professional identity and family-country feelings, but also explores a new path for the reform of Curriculum-Based Ideological and Political Education in local colleges and universities, relying on regional characteristics and highlighting disciplinary advantages. It provides a replicable and promotable practical paradigm for the innovation of ideological and political education in similar institutions and applied normal majors.

Keywords: Curriculum-based ideological and political education; Geography Science; Teaching model

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1. Introduction

A nation's strength lies in its people, and outstanding talents are nurtured through education. Fostering virtue through education is the fundamental principle of higher education, and Curriculum-Based Ideological and Political Education is a core strategic measure to achieve this fundamental task ^[1]. The *Guidelines for Promoting Curriculum-Based Ideological and Political Education in Institutions of Higher Education* clearly points out that it is essential to "integrate ideological and political education into the entire talent training system, comprehensively advance the construction of Curriculum-Based Ideological and Political Education in colleges and universities, and give play to the educational role of every course" ^[2]. As a comprehensive discipline spanning natural sciences and social sciences and closely related to the "human-environment relationship," Geography Science contains abundant ideological and political elements in its knowledge system, such as dialectical materialist thinking, family-country feelings, ecological civilization concepts, the concept of harmonious human-environment coexistence and the concept of spatial justice, endowing it with inherent advantages in carrying out Curriculum-Based Ideological and Political Education ^[3]. However, in previous teaching practices, ideological and political education has often been disconnected from professional teaching or fallen into the rigid model of superficial labeling and forced integration. As a result, the educational effect remains superficial and fails to truly touch students' hearts.

Xinyang Normal University is located in the core area of the E-Yu-Wan old revolutionary base area. This region is not only dotted with precious red heritage sites, such as the former site of the E-Yu-Wan Branch Bureau of the Central Committee of the Communist Party of China, the birthplace of the Fourth Front Red Army, and the hometowns of many military generals, but also boasts highly valuable physical geographical units including Jigongshan Geopark, Nanwan Lake and the tea plantations of Xinyang Maojian. The high spatial overlap of "red culture" and "green landscapes" provides a unique "regional treasure trove" for the construction of Curriculum-Based Ideological and Political Education in the Geography Science major. How to transform this resource advantage into an educational advantage and build an ideological and political teaching model that can be deeply integrated into professional classrooms and effectively stimulate students' internal motivation has become an urgent practical issue to be explored and addressed.

Based on this, through systematic design and continuous practice, this study proposes a miniaturized, serialized, and inquiry-based Curriculum-Based Ideological and Political Education teaching model—"Ten-Minute Pre-Class · Red Geography Mini-Seminar." Aiming to make full use of the precious ten minutes before formal professional courses, this model creates a new carrier for ideological and political education featuring students as the main body, interpreting red culture from a geographical perspective as the content, and shaping values as the purpose. It strives to realize the organic unity of "value guidance, knowledge impartation, and competence cultivation."

2. Research status

2.1. Review of domestic and foreign research

Domestic research on Curriculum-Based Ideological and Political Education has advanced from the initial stage of concept advocacy to in-depth practice. The academic community has reached a general consensus that Curriculum-Based Ideological and Political Education is a key link in realizing the "all-round, whole-process, and all-staff education" initiative ^[4]. Within the field of geographical sciences, studies primarily focus on two dimensions: First, systematically analyzing and integrating ideological elements into various geographical disciplines (e.g., "Human Geography," "Economic Geography," "Physical Geography"). For instance, Liu

explored how to incorporate national condition education and cultural confidence into human geography instruction ^[5]. Second, emphasizing the cultivation of patriotic sentiment and scientific spirit through fieldwork and social surveys. Dong highlighted that ideological education in the geographical field practice remains a frontier issue requiring urgent exploration and research ^[6].

In terms of utilizing the micro teaching time of “ten minutes before class,” existing practices are mostly seen in “Daily Reports” in college English courses or current affairs sharing in some general education courses, which mainly serve the purposes of language training or information expansion. Although a few studies have begun to focus on applying this time segment to ideological and political education, most of them are limited to simple storytelling and fail to achieve in-depth and systematic integration with professional knowledge ^[7]. Especially for applied disciplines like Geography Science, in-depth and systematic research is lacking on how to design a regular activity plan that can consolidate professional knowledge and provide valuable guidance by making use of fragmented pre-class time.

Although there is no explicit concept equivalent to “Curriculum-Based Ideological and Political Education” abroad, its practices in value education, civic education, and service-learning are worth learning from ^[8]. For example, universities in Europe and America often integrate community service and environmental research into courses to cultivate students’ social responsibility and environmental ethics, which is highly consistent with the core competence of geography, focusing on the human-environment relationship.

In summary, this study attempts to make breakthroughs based on existing research. Firstly, it systematically develops the “ten minutes before class,” which was previously overlooked in teaching, into one of the key positions for Curriculum-Based Ideological and Political Education. Secondly, it deeply integrates geography as a discipline with regional red culture through the core concept of “red geography” and constructs specific practical approaches.

2.2. Theoretical foundations

2.2.1. Constructivist learning theory

Learning is a process in which learners actively construct meanings based on their existing knowledge and experience, rather than passively accepting knowledge ^[9]. The “Red Geography Mini-Seminar” model requires students to form groups to independently select topics, collect data, conduct analytical research, and present results. The whole process enables students to actively construct their geographical cognition and emotional identification of red culture, while teachers play the role of guides and collaborators.

2.2.2. Situated learning theory

Proposed by Jean Lave and Etienne Wenger, this theory holds that learning is essentially a situational activity and a process of “legitimate peripheral participation” in the culture of a community of practice ^[10]. This model places ideological and political education in the real and concrete compound context of “geography-history-culture” in the Xinyang old revolutionary base area. When students explore “the causes of the karst landforms in the Red Army Cave Group on Jintai Mountain,” they not only acquire physical geography knowledge, but also deeply perceive the survival wisdom and fighting spirit of revolutionary predecessors as if they were on the scene, thereby internalizing values education in real situations.

2.2.3. The concept of “Comprehensive Ideological and Political Courses”

The General Secretary emphasized that “we should make good use of the ‘comprehensive ideological and political courses’ and always integrate them with reality” ^[11]. This concept points out the direction for the

reform of Curriculum-Based Ideological and Political Education. The “Ten-Minute Pre-Class · Red Geography Mini-Seminar” is a micro-practice of this concept. It breaks the barrier that confines ideological and political education to specialized ideological and political classes by integrating it into professional courses. Beyond the limitations of textbook theories, it introduces vivid materials from the “social classroom” in the Xinyang old revolutionary base area, such as mountains, rivers, revolutionary sites, and development achievements, realizing the in-depth integration of small ideological and political classrooms with the large social classroom.

3. Systematic construction of the teaching model of “Ten-Minute Pre-Class · Red Geography Mini-Seminar”

3.1. Core philosophy and goal orientation

The core philosophy of this model can be summarized as “Carrying Red Spirit through Geography, Infiltrating Ideological Principles into Hearts.” Here, “Geography” refers not only to the discipline of geography but also to the red land of Xinyang. “Carrying” means inheriting and bearing, that is, using geographical knowledge as a key to unlock the door to red history. “Principles” include both geographical theories and ideological and political truths. “Infiltrating into Hearts” emphasizes that the educational effect should touch students’ souls and resonate with them. The model aims to guide students to deeply understand and recognize the history of the E-Yu-Wan revolution, inherit the red gene, establish the ambition of rooting in the old revolutionary base area and serving the country, and cultivate their cultural confidence and family-country feelings. It also aims to strengthen students’ geographical spatial thinking ability, information integration and processing ability, oral expression ability, and teamwork ability. Ultimately, it promotes students’ comprehensive application and in-depth understanding of professional knowledge such as physical geography, human geography, and geographical information technology, helping them construct an interdisciplinary and integrated knowledge network.

3.2. Systematic design of content system

3.2.1. Series 1: Red Landmarks · Geographical Decoding

This series focuses on specific revolutionary sites and memorial places, guiding students to conduct scientific analysis using geographical tools. Examples of topics include Analysis of the Topographic Advantages of a Main Battlefield of the Red Army in the Dabie Mountains Based on Topographic Profiles, An Exploration of the Settlement Location Selection and Defense Functions of the Former Site of the Capital in Xinxian County, and Evaluation of the Cave Landforms and Living Environment of the Red Army Cave Group on Jintai Mountain. This series is intended to cultivate students’ strategic thinking of “adapting measures to local conditions” and a rigorous scientific inquiry spirit.

3.2.2. Series 2: Heroic Landscapes · Spiritual Inheritance

This series personifies physical geographical elements such as mountains, rivers, forests, and farmlands in the region and explores their spiritual and cultural connotations. Examples of topics include The Geographical Significance of the Huaihe-Yangtze Water Divide and the Adherence to Regional Division during the Revolutionary Period, The Soil and Climatic Conditions of the Xinyang Maojian Tea Area and the “Green Economy” in the Revolutionary Years, and The Hydrological Changes of the Zhugan River and the Logistics Support Movement with “Small Bamboo Rafts.” It aims to guide students to understand the profound bond between the army and the people and recognize the shaping role of geographical environment in regional

culture and revolutionary spirit.

3.2.3. Series 3: Geoscientific Perspective · New Looks of the Old Revolutionary Base Area

This series guides students to observe the contemporary development and changes of the old revolutionary base area using modern geographical methods. Examples of topics include Study on the Expansion of Xinyang's Built-Up Area and Changes in Ecological Land Based on Multi-period Remote Sensing Images, Optimization Analysis of the Spatial Structure of Red Tourism Resources in Xinyang Supported by GIS Technology, and Study on the Model of "Supporting Both Aspirations and Competence" for Poverty Alleviation in the Xinyang Old Revolutionary Base Area from a Geographical Perspective. The series aims to cultivate students' sense of contemporary mission, encourage them to use professional knowledge to serve regional development, and deepen their understanding of the profound connotation of "lucid waters and lush mountains are invaluable assets."

3.3. Standardized implementation process

To ensure the operability and sustainability of the model, a standardized "five-step cycle" implementation process has been established. Its operational mechanism is shown in **Figure 1**.

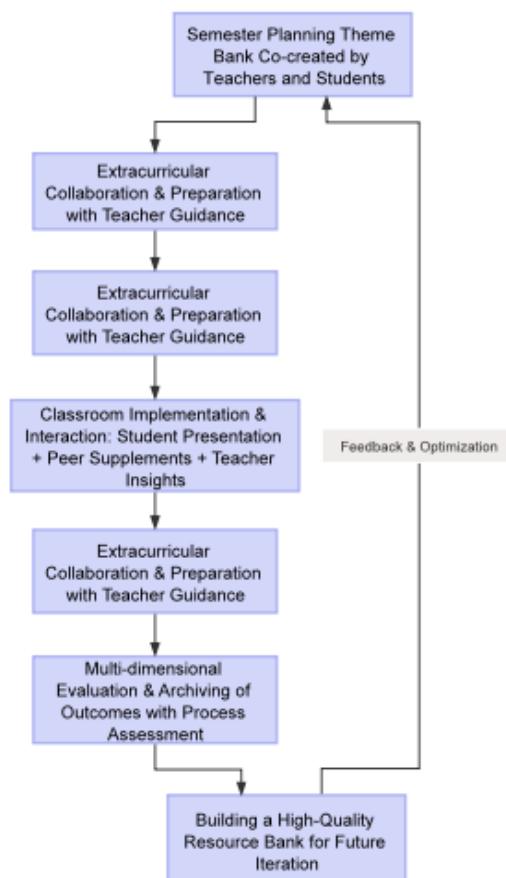


Figure 1. Flow chart of the organization and implementation of the "Ten-Minute Pre-Class · Red Geography Mini-Seminar"

4. Typical cases and practices

4.1. Teaching case demonstration: “An Analysis of the Rock Types and Geological Causes of the Red Army Cave Group on Jintai Mountain in the Dabie Mountains”

Belonging to Series: Red Landmarks · Geographical Decoding Applied Course: General Geology Student Group: A 4-student group from the Geography Science major (for freshmen, the number of group members is appropriately increased to share tasks and promote cooperation)

Background and Implementation Process: General Geology is a basic disciplinary course for the Geography Science major. Freshmen are in a critical period of establishing professional cognition and interest. This case aims to guide freshmen to apply the initially learned knowledge of petrology and structural geology to analyze the geological background of nearby revolutionary sites, achieving the triple goals of professional knowledge learning, regional cognition, and red education.

Topic Selection and Preparation: Considering the limited knowledge reserve of freshmen, teachers provided a more guiding topic, “The Rock Secrets of the Red Army Cave Group on Jintai Mountain” in the topic pool, along with supporting materials such as basic geological maps, a list of relevant references, and rock specimen identification manuals. By consulting the Regional Geological Records of Xinyang, academic papers, and popular science materials of Jintai Mountain Geopark, the group confirmed that the main exposed rock types in the Jintai Mountain area are Late Proterozoic metamorphic rocks and Mesozoic granite. Taking safety precautions, group members conducted field observations at Jintai Mountain Geopark on weekends and took numerous photos and videos. They focused on observing the rock characteristics (color, mineral composition, and hardness), joint (crack) development, and macro landforms of the mountain where the Red Army Caves are located. In the laboratory, under the guidance of teachers, they initially identified the legally collected rock samples using magnifying glasses and dilute hydrochloric acid, distinguishing granite (with coarse grains, mainly composed of quartz, feldspar, and mica) from metamorphic rocks such as gneiss (with directional structure).

Classroom Presentation (10 minutes): Keynote Speech (6 minutes): A student representative gave a report with an elaborately made PPT and on-site images. Introduction to Geological Background (2 minutes): First, the representative briefly introduced that Jintai Mountain is located in the Qinling-Dabie Orogenic Belt in terms of tectonics, explained its main rock composition, and displayed geological maps and photos of rock hand specimens. Analysis of Geological Causes (3 minutes): The focus was on analyzing the formation of the Red Army Caves. The group pointed out that, contrary to being eroded from soft rocks, the caves developed in extremely hard granite bodies. The formation reasons are as follows: (1) Intense tectonic movements led to dense joints (cracks) in the crust of this area; (2) Subsequent weathering processes (such as temperature changes, water erosion, and plant root penetration) eroded and peeled off the fragile joint zones, gradually forming caves and rock shelters suitable for hiding. They clearly demonstrated this process of “structure-controlled weathering” with schematic diagrams. Preliminary Connection with Red History (1 minute): From this, it was derived that the caves shaped by hard rocks and specific geological processes provided a hidden and stable natural sanctuary for the Red Army. Supplementary Speech (2 minutes): Another group member made a supplement. He first showed more close-up photos of the internal structure of the Red Army Cave Group, then vividly told a short revolutionary story: “It was these caves made of hard granite that served as ‘natural fortresses’ for wounded Red Army soldiers and guerrillas during the three-year guerrilla war on Jintai Mountain. They could not only resist enemy gunfire but also shelter from wind and rain, preserving the vital strength of the revolution. It can be said that the hard rocks of the Dabie Mountains protected the ‘spark of the revolution’ in

their unique way.” This story closely linked the abstract geological environment with specific historical events. Teacher’s Concluding Remarks (2 minutes): “This group’s presentation is excellent! They have not only learned how to initially identify rocks, but more importantly, they have applied the core geological concepts of ‘structure’ and ‘weathering’ that we have just learned to scientifically explain the formation of a natural phenomenon (caves). What is even more commendable is that they have connected these geological features with red history, making us deeply realize that the wisdom of revolutionary predecessors was reflected not only in their strategies and tactics but also in their profound understanding and ingenious use of the natural environment—they found the most ‘solid’ reliance. This vividly embodies a key aspect of the ‘human-environment relationship’ often emphasized by geographers: how human activities are profoundly restricted and empowered by the geological background. I hope all students can follow this group’s example, view the red land under our feet from a new perspective through ‘geological lenses,’ and discover the scientific and spiritual treasures contained within it.”

This case transforms abstract concepts in General Geology, such as “rock types,” “structural joints,” and “weathering,” into keys to solving the specific problem of “why the Red Army Caves emerged here.” It enables freshmen to intuitively understand the practical significance of geological processes and greatly stimulates their interest in subsequent professional courses.

Through independent exploration, students recognize that the preservation of red sites is inseparable from specific geological conditions. Revolutionary stories are no longer distant historical narratives but credible and admirable epics of struggle rooted in solid scientific foundations. The admiration for the survival wisdom and perseverance of revolutionary predecessors fostered through scientific inquiry is far more profound and lasting, achieving the internalization of ideological and political education.

For freshmen, the process—from literature review and field observation to laboratory analysis and achievement presentation—serves as a miniature scientific research training. It initially cultivates their geographical thinking, practical abilities, and teamwork spirit, hones their comprehensive competencies, and lays a solid foundation for future professional learning.

This activity enables students from different regions, especially those from other provinces, to quickly and deeply understand Xinyang’s unique geological and red culture, strengthening their sense of identity and belonging to the place where they study.

4.2. Reflection on comprehensive practical effects

Ideological and political content has transformed from abstract theories into vivid stories explored and told by students themselves, shifting from “passive acceptance” to “active exploration” and significantly enhancing recognition and appeal. To deliver high-quality seminar presentations, students must delve into relevant professional knowledge and comprehensively apply various skills, realizing “learning through teaching and applying” and achieving more solid mastery of knowledge. Students’ abilities in literature retrieval, data analysis, PPT production, public speaking, and teamwork have been fully trained. The seminar achievements of many participating students have subsequently served as the foundation for entries in the “Challenge Cup” National College Students’ Extracurricular Academic and Technological Works Competition and college students’ innovation and entrepreneurship training programs. Through this activity, students from other provinces have rapidly deepened their understanding of and affection for Xinyang and the Dabie Mountains region, and some have shown a strong willingness to serve local development in their graduation thesis topics and career intentions.

4.3. Operational guarantee mechanisms

Establish a “Curriculum Ideological and Political Cooperation Group” involving professional course teachers and counselors, who conduct regular collective lesson preparation, jointly review the topic pool, and provide collaborative guidance to students.

Cooperate with local institutions such as the Party History Research Institute, Local Chronicles Office, and Dabie Mountains Revolutionary Memorial Hall to co-construct the “Xinyang Red Geography Information Resource Database,” providing data support for teachers and students’ research.

Incorporate students’ performance in the seminars into the usual grades of professional core courses with a weight of no less than 10%. At the end of each semester, select “Gold Medal Lecture Teams” and “Best Mini-Seminars” and award commendations to stimulate students’ enthusiasm and sense of honor in participation.

5. Conclusion and prospects

This paper constructs and practices the ideological and political teaching model of “Ten-Minute Pre-Class · Red Geography Mini-Seminar.” By systematically integrating the characteristics of the geography discipline with the regional advantages of Xinyang as part of the E-Yu-Wan old revolutionary base area, it realizes the organic unity of professional knowledge impartment and value guidance. Guided by the core philosophy of “Carrying Red Spirit through Geography, Infiltrating Ideological Principles into Hearts,” the model designs three content series—“Red Landmarks · Geographical Decoding,” “Heroic Landscapes · Spiritual Inheritance,” and “Geoscientific Perspective · New Looks of the Old Revolutionary Base Area”—and naturally embeds ideological and political education into professional teaching through a standardized organizational implementation process. Practice has proven that this model effectively resolves the disconnection between ideological and political education and professional teaching, and is an innovative application of the “Great Ideological and Political Course” concept in grassroots teaching practice of local colleges and universities.

In the future, this model can be further deepened in three aspects: first, promote digital transformation by using VR/AR technology to create immersive red landmark experiences and enhance teaching intuitiveness; second, advance achievement transformation and upgrading by building an achievement incubation chain of “mini-seminar → research project → competition work → policy recommendation” to improve students’ social service capabilities; third, strengthen inter-university collaboration and radiation by joining hands with regional colleges and universities to co-construct a “Red Geography” resource library, forming a synergy in education, and providing a replicable and promotable practical plan for cultivating new-era talents who can shoulder the responsibility of national rejuvenation.

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Author contributions

Conceptualization: Chenguang Zhang, Na Duan

Writing: Chenguang Zhang, Jing Niu, Zhaoli Liu, Xiaojie Yuan

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