

Research On Cultivating the Concept of Human-Environment Coordination in Middle School Geography Under the Background of the New Curriculum Standards

Lei Zhang, Li Shi*

School of Tourism, Taishan University, Taian, Shandong, China

**Corresponding Author*

Abstract: It is emphasised that the new curriculum standard attaches importance to the cultivation of core literacy in geography, of which "the concept of human-land harmony" is an important part, and its effective cultivation is crucial to the formation of correct geographic cognition and the concept of sustainable development. By comprehensively analysing relevant literature at home and abroad, we comprehensively review the current status of the cultivation of the concept of human-earth harmony, and point out the progress and shortcomings at the theoretical and practical levels. The article focuses on the connotation and core meaning of the concept of human-earth harmony, and explains in detail how to permeate the concept of human-earth harmony in geography teaching, taking into account the requirements of the new curriculum standards. Based on the field research data in some secondary schools in Tai'an City, the article reveals the problems of monotonous teaching methods and insufficient practical ability of students, and puts forward a series of teaching optimisation strategies combining in-depth development of teaching materials and diversified teaching practices, with the aim of stimulating students' interest in learning through diversified teaching means and promoting the independent construction and deepening of the concept of "human-earth harmony" among students.

Keywords: Human-Environment Coordination View; Middle School Geography Teaching; Teaching Strategies.

1. Introduction

In the development process of education, with the continuous progress of society, a profound

change is quietly unfolding. The implementation of the new curriculum standards has brought new concepts to teaching. Under the background of basic education curriculum reform, the cultivation of core subject competencies has become an important direction for curriculum implementation. As a fundamental course for studying the relationship between humans and the environment, the unique educational value of geography is mainly reflected in the cultivation of students' understanding of human environment coordination. The concept of human environment coordination refers to the correct values upheld in the relationship between humans and the geographical environment [1]. In today's society, global issues such as resources and environment are becoming increasingly severe, and these issues are closely related to the relationship between humans and the environment. Cultivating the concept of harmonious coexistence between humans and the environment among middle school students is crucial for them to accurately grasp various issues, enabling them to understand the interactive influence of human and geographical environmental factors, and thus establish accurate population awareness, resource concept, environmental concept, and development concept. The concept of harmonious coexistence between people and land, as a unique value in the field of geography, plays an indispensable role in improving students' comprehensive quality and promoting sustainable progress in future society. It is the soul of geography education and an important manifestation of the fundamental task of "cultivating virtue and nurturing people" [2].

In geography teaching, the traditional teaching paradigm tends to focus solely on knowledge transmission, with insufficient attention paid to cultivating students' awareness of human environment coordination. This leads to students

mastering a certain amount of geographical knowledge, but lacking the ability to analyze and solve problems in actual human environment relationship problems, making it difficult to form correct values. Whether middle school geography teaching can effectively implement and systematically cultivate students' human environment coordination views is the key to measuring the success or failure of its education and teaching [3].

2. Current Research Status at Home and Abroad

In foreign countries, the attention to the concept of human environment coordination in geography education has a long history, but there is no such thing as "human environment coordination" in foreign countries, mainly "environmental education", "sustainable development education" and "ecological civilization education". The "Man and Nature; or, Physical Geography as Modified by Human Action" defines the relationship between human activities and the natural geographical environment. In 1992, the concept of the relationship between humans and the environment was included as a major concept in geography by the International Charter on Geography.

In China, with the advancement of basic education curriculum reform, the importance of the concept of human environment coordination is gradually being significantly emphasized. The 2017 version of the geography curriculum standards for ordinary high schools explicitly lists the concept of human environment coordination as one of the core competencies of geography [4]. One of the core tasks of geography teaching is to focus on cultivating students to establish appropriate concepts of human environment coordination. Chen Lianghao, Zhang Sujuan, and others pointed out that the connotation of the concept of human environment coordination should include three aspects: the impact of the land on people, the impact of people on the land, and the coordinated development between people and the land. Zhang Sujuan, Wang Tao, and others believe that the teaching content should be deeply explored, and the cultivation of the concept of human environment coordination should be integrated throughout. Learning content and different materials can also be integrated to cultivate students with a certain

"knowledge width". Based on the research results of numerous scholars, the primary task for effectively cultivating the literacy of human environment coordination is to deeply understand its connotation, clearly define relevant concepts, and construct students' geographical thinking framework accordingly. A search on China National Knowledge Infrastructure (CNKI) with the theme of "cultivating the concept of human environment coordination" has yielded a total of 501 articles with high relevance to the topic since its first appearance in 2017, indicating a significant amount of research in this area in China.

3. Theoretical Analysis of the Coordination View of Human Environment in Middle School Geography under the New Curriculum Standards

3.1 The Connotation of the Concept of Human Environment Coordination

The concept of human environment coordination, as the core literacy of geography, has rich connotations and important core principles. It refers to the correct values that people hold towards the relationship between humans and the geographical environment, and deeply reflects the recognition of the interdependence and mutual influence between humans and the natural environment. It is an extension and extension of the concept of sustainable development, encompassing three levels of logical connotations, from "land to people" to "people to land", and ultimately to "harmony between people and land" [5].

3.2 Interpretation of the Requirements of the New Curriculum Standard for Cultivating the Concept of Human Environment Coordination

The geography curriculum standards for ordinary high schools have put forward higher-level requirements for the cultivation of the concept of human environment coordination, focusing on the development of students' comprehensive thinking, regional cognition, and other aspects, in order to promote students' in-depth understanding and application of human environment relationships. In terms of comprehensive thinking, students are required to be able to comprehensively understand the geographical environment and the relationship between people and the environment from the

perspectives of multiple geographical elements interconnected and spatiotemporal changes [6]. For example, in the process of studying agricultural development in a certain region, students need to comprehensively consider natural conditions such as terrain, climate, soil, and water sources, as well as the impact of human factors such as population, market, policies, and technology on agricultural production. From the perspective of temporal and spatial changes, it is necessary to analyze the characteristics and reasons for changes in agricultural development in the region during different historical periods, as well as the future trends of agricultural development.

In terms of regional cognition, students need to start from the perspective of region and space, deeply understand the geographical environment and its interrelationships with human activities, understand the characteristics of different spatial scales and types of regions on Earth, as well as the connections and differences between regions. When studying regional geography, students need to analyze the natural and cultural characteristics presented by various regions [7]. Taking the Northeast region as an example, it is mainly a plain landform and is the main center of grain production in China. Its agricultural development characteristics include vast land, sparse population, and high degree of mechanization. The Yangtze River Delta region is an economically developed area in China, with manufacturing as the main industry, dense population, and high level of urbanization. Students also need to understand the connections between different regions, such as the "West East Gas Pipeline" project, which transported abundant natural gas resources from west to east, achieved resource allocation between regions, alleviated energy shortages in the eastern region, promoted economic prosperity in the western region, analyzed and evaluated regional human environment relations, which can help us understand the necessity of designing regional development concepts based on regional realities, and formulate reasonable development strategies according to the characteristics and advantages of each region. Realize harmonious development between humans and the environment [8].

In terms of practical application, students are encouraged to participate in geographical practical activities, such as geographical field investigations, geographical experiments, social surveys, etc. Through practical activities, they

can apply the knowledge of human environment coordination to solve practical problems. In geographical field investigations, students can observe the characteristics of the natural geographical environment on site, understand the impact of human activities on the natural environment, deepen their intuitive understanding of human environment coordination through practical activities, and enhance their ability to solve practical problems, thereby further strengthening their concept of human environment coordination.

4. Teaching Strategies and Practical Cases for Cultivating the Concept of Human Environment Coordination in High School Geography

4.1 Deep Exploration of Teaching Strategies Based on Textbooks

4.1.1 Integrate textbook content and construct a knowledge system for human environment coordination

Textbooks are an important basis for geography teaching, and in-depth analysis of the materials on the concept of human environment coordination in textbooks is the foundation for cultivating students' concept of human environment coordination. In order to effectively cultivate students' concept of harmony between humans and nature, it is necessary to comprehensively integrate the content of textbooks to construct a systematic knowledge framework for the concept of harmony between humans and nature. In the process of integration, it is necessary to break down the boundaries of textbook chapters and organize and summarize the content related to human environment coordination that is scattered in different chapters.

By using concrete examples from real life, students can closely link the relevant knowledge of the concept of human land coordination with real life. In the process of learning urban geography, students need to solve problems related to the relationship between people and land that arise during urban development, such as farmland loss, urban congestion, and pollution caused by urban expansion. Students will learn how to apply the knowledge of the concept of human land coordination to analyze the causes of these problems and propose appropriate solutions. Students need to conduct research on urban sustainable development, learn about

urban planning, green transportation, garbage classification, and other related topics, in order to enhance their awareness and ability to apply the concept of human environment coordination to practical life. This course establishes a knowledge system of human environment coordination concepts from basic concepts to application examples, allowing students to comprehensively and systematically understand the concept of human environment coordination, and improve their ability to analyze and solve real-world problems using the concept of human environment coordination.

4.1.2 Application of diversified teaching practices in cultivating the concept of human environment coordination

In middle school geography teaching, diversified teaching practices can be used to cultivate students, such as project-based learning focusing on real problems such as "comprehensive management of the Yellow River Basin", allowing students to explore real-life contradictions by combining various materials; Interdisciplinary integration of knowledge from history, politics, biology, and other fields, guiding multidimensional thinking; Combining on-site inspections with virtual experiences to intuitively experience the bidirectional impact of human intervention; Conduct debates on social issues and cultivate dialectical thinking. The design of homework after class is also crucial, such as practical assignments such as ecological logging, household water-saving plans, and creative expression tasks, breaking through traditional models and extending the concept of human environment coordination from cognition to action. Diversified teaching practices with multidimensional infiltration, situational teaching method driven by real tasks, and homework based on real-life practice, combined with the two, can enhance students' geographical thinking quality and inject sustainable development value genes into their lifelong development.

4.2 Exploration of Teaching Practice for Cultivating the Concept of Human Land Coordination

4.2.1 Situational teaching method promotes the cultivation of human environment coordination concept

Situational teaching, as a student-centered teaching philosophy and method, allows students to feel, experience, and think in a context,

thereby promoting the understanding and application of knowledge. Reasonably create scenarios around the concept of human environment coordination in classroom teaching, strengthen students' willingness to participate in classroom interaction, and thus better improve teaching efficiency. Taking the comprehensive management of the Yellow River Basin in junior high school as an example, the teaching content is integrated into three sub units: "Overview of the Yellow River - Human River Contradiction - Collaborative Management", focusing on the core issue of "How to achieve sustainable development of the Yellow River", and gaining a preliminary understanding of the Yellow River: analyzing the hydrological characteristics of the Yellow River and the distribution of basin resources (such as the characteristics of energy based basins) based on maps; Problem exploration: Explore the negative impact of human activities on the Yellow River through case studies (such as soil erosion, flow interruption, pollution, etc.); Governance Practice: Group design of comprehensive management plan for the Yellow River Basin (such as afforestation, reservoir scheduling, cross regional cooperation), emphasizing the feasibility of human land coordination; Complete the instructional design in this scenario. (Attached Teaching Design).

4.2.2 The role of homework design in enhancing human environment coordination literacy under the background of "double reduction"

In 2022, the "Compulsory Education Curriculum Plan (2022 Edition)" and the "Compulsory Education Geography Curriculum Standards (2022 Edition)" were successively issued, providing concepts and methods for the implementation of the "double reduction" policy [9]. In the context of "double reduction", improving teaching quality and reducing academic burden are important, and cultivating students' core competencies is an important indicator for effective homework design [10]. Taking the "Management and Development of the Yellow River" in junior high school as an example, basic consolidation assignments will test the basic knowledge of the Yellow River, such as its source and the areas it flows through. Through such assignments, students can understand the natural characteristics of the Yellow River and form a preliminary understanding of the impact of human activities on the geographical environment. The expanded

and extended tasks analyze some practical problems, such as why soil erosion in some areas of the Yellow River needs to be controlled and how to control it, in order to help students understand the need for harmonious coexistence between human activities and the geographical environment and achieve sustainable development. Practical activities have deepened students' understanding of the harmonious coexistence between humans and the geographical environment. For example, in the activity of "Simulating the Yellow River", students can observe the changes that occur in different environments, experience the impact of human activities, and use practical activities such as field investigations and interviews with local residents to connect the knowledge they have learned with real-life situations, enhance their understanding and application abilities, and more effectively cultivate the concept of human environment harmony.

5. Conclusion and Prospect

This study carefully analyzes the importance and implementation strategies of cultivating the concept of human environment coordination in the process of middle school geography teaching. Based on theoretical exposition, current situation analysis, and teaching practice, the following conclusions are drawn:

5.1 Theoretical Analysis Results

A deep understanding of the philosophical connotation of the coordination of human land relations is extensive, including three dimensions: "land to human", "human to land", and "human land harmony". The concept of coordinating the relationship between humans and the environment, as a core element of geography, has significant value in enhancing students' geographical knowledge and overall ability development. It not only helps students to have a correct understanding of global issues such as population, resources, and environment, but also guides them to pay attention to the relationship between human activities and geographical elements in real life, cultivate their sense of social responsibility and global perspective. Therefore, high school geography teaching must attach great importance to the cultivation of the concept of human environment coordination.

5.2 Current Situation Investigation Found

The current situation of cultivating the concept of human environment coordination in middle school geography teaching faces several challenges and difficulties. Teachers have deficiencies in their understanding of relevant theories, teaching practices, and utilization of teaching resources, resulting in a single teaching method that mainly relies on lecturing and lacks innovation and depth. At the same time, students' cognitive level of the concept of human environment coordination is also uneven, lacking the ability to apply theoretical knowledge to practical problems. These issues urgently need to be addressed in order to better achieve the goal of cultivating the concept of human environment coordination.

5.3 Teaching Strategies and Practical Effectiveness

To address these issues, this study proposes a teaching strategy based on in-depth exploration of textbooks and diversified teaching practices. By integrating textbook content, a knowledge system of "human environment coordination view" is constructed. Implement situational teaching methods, homework design, and other means. In the teaching design of "Comprehensive Management of the Yellow River Basin", the situational teaching method is used to help students understand the relationship between humans and the environment. Under the background of "double reduction", effective cultivation of students' human environment coordination concept is achieved through basic consolidation, expansion and extension, and practical activity based homework design. The practical application of these teaching strategies has achieved multidimensional infiltration in cultivating the concept of human environment coordination, significantly improving students' geographical thinking quality, and injecting the gene of sustainable development values into their long-term development.

In summary, the cultivation of the concept of human environment coordination in middle school geography teaching has important theoretical and practical significance. Through optimizing teaching strategies and practical exploration, we are committed to strengthening the concept of cultivating students' human environment coordination, and building a solid foundation for their comprehensive abilities and promoting sustainable social development.

References

- [1] Feng Wenjuan. The current situation and problems faced by the infiltration of environmental education into middle school geography curriculum. Scientific Consultation (Educational Research), 2018, (20):9.
- [2] Zhang Sujuan. Analysis of the connotation of "human environment coordination view" and its connection with teaching content. Reference for Middle School Geography Teaching, 2018, (01): 21-24.
- [3] Wang Jing. Middle school geography teaching that cultivates students' understanding of human environment coordination: taking the lesson "China's Rivers" as an example. New Curriculum, 2024, (30):147-150.
- [4] Wang Jingli, Du Junlan, Wang Hua, etc. Analysis of Environmental Education Content and Strategies in the New Geography Textbook for Seventh Grade. Journal of Inner Mongolia Normal University (Education Science Edition), 2007, (08):89-92.
- [5] Zhu Hong, Li Yiting, Chen Xiaoliang. The "New" and "Old" of Cultural Geography: From Paradigm Transformation to Teaching Implications. Reference for Middle School Geography Teaching, 2025, (22):16-21.
- [6] Chen Lianghao, Zhang Lizhen. The connotation and cultivation strategy of the "human environment coordination view" in high school geography. Journal of Dalian University of Education, 2017, 33 (4): 21-23.
- [7] Geng Ruidan. Using the activity section to cultivate students' understanding of human environment coordination: taking the People's Education Press middle school geography textbook as an example. Middle school geography teaching reference (first half of the month), 2017 (6): 41-43.
- [8] Li Xinlian. Teaching Practice of Junior High School Geography under the Guidance of the Concept of Human Land Coordination: Taking Water Resources as an Example. Reference for Middle School Teaching, 2024, (31):96-98.
- [9] Zhang Yanru, Peng Jianfeng. Application of Google Earth in Geography Teaching under Core Literacy. Modernization of Education, 2019, 6 (51): 151-154.
- [10] Basic education curriculum Adhering to the principles and promoting the reform of geography curriculum-Interpretation of the Geography Curriculum Standards for Compulsory Education (2022 Edition). Basic Education Curriculum, 2022, (09): 47-56.