System Construction for Integrating Local Knowledge into Human Geography Courses

Jiuju Zhang

School of Geography and Planning, Nanning Normal University, Nanning, Guangxi, China

Abstract: The human geography course is plagued by challenges such as a gap between theory and practice, along with a dearth of regional characteristics. Grounded in the shared focus on human-land relationships and the inherent logic and theories surrounding it, this paper proposes a framework for integrating local knowledge into the curriculum. This framework is developed from three key perspectives: screening criteria, integration pathways for four major course modules, and harmonization with existing courses. This proposed system not only addresses the limitations of traditional courses but also holds potential for further enhancement through digitalization in the future.

Keywords: Local Knowledge; Human Geography; Course System Construction

1. Introduction

Human geography, as a discipline exploring the intricate interplay between human activities and the geographical environment, occupies a pivotal role within the geographical science education framework. It is committed to revealing the spatial configurations and regional distribution patterns of human endeavors, spanning diverse fields such as economic geography, urban geography, population geography, and cultural geography. Its contribution to nurturing students' holistic qualities, fostering a global outlook, and instilling a sense of human-land harmony is irreplaceable. Nevertheless, the practical implementation of human geography education is currently confronted with several hurdles.

The knowledge framework of human geography courses tends to prioritize theoretical instruction, often neglecting the in-depth and timely examination of the complex, dynamic human geographical phenomena unfolding in the real world. This results in a disconnect between the knowledge acquired and its practical applications. Furthermore, the content of human geography courses is somewhat constrained by regional boundaries, lacking a systematic incorporation of local knowledge and the authentic experiences of students. The majority of textbooks predominantly feature macro-level case studies on a global or national scale, overlooking the local contexts and experiences of students. Consequently, students find it challenging to forge a strong emotional connection and sense of identification during the learning journey. Hence, the construction of a system for integrating local knowledge into human geography courses becomes imperative.

Local knowledge refers to the body of knowledge and experience accumulated by communities in a specific geographical region through prolonged engagement in production and daily life. It encompasses various aspects of both the natural environment and human society, and is characterized by its regional specificity, practical applicability, and cultural significance. The integration of local knowledge into human geography courses offers multiple pedagogical benefits. It not only enriches the curriculum by connecting theoretical concepts with students' lived experiences, thereby enhancing their engagement and motivation, but also facilitates a deeper understanding and mastery of fundamental geographical theories and methodologies. Furthermore, this integration strengthens students' practical and innovative competencies. In addition, it fosters emotional attachment to their hometowns, cultivates a sense of social responsibility, reinforces cultural identity and belonging, and supports the preservation and sustainable development of local cultural heritage.

2. The Inherent Logic of Integrating Local Knowledge into Human Geography Courses

2.1 Inherent Logic

The integration of human geography and local knowledge is grounded in solid inherent logic and profound theoretical foundations.

Both focus on the relationship between human activities and the geographical environment, albeit from different scales and perspectives. Human geography systematically studies the interrelationship between human activities and the geographical environment from macro and meso scales using scientific theories and methods, while local knowledge vividly and concretely presents the human-land relationship in a specific region from a micro scale, based on the firsthand experiences and practices of local residents.

The macro-theoretical framework of human geography can provide scientific guidance for the systematic organization and value extraction of local knowledge, preventing it from falling into the fragmentation of experience due to regional limitations. On the other hand, the vivid local practices and detailed insights in local knowledge can offer abundant real-world cases for the theoretical verification and localized application of human geography, endowing macro-level research with a stronger sense of real life and practical vitality. The in-depth integration of the two not only enables human geography to take root in real local contexts but also allows local knowledge to gain new paths for inheritance and innovation from a broader academic perspective.

2.2 Theoretical Basis

The human-land relationship theory serves as an important cornerstone for their integration. Both the various human-land relationship theories in human geography and the human-land concepts embedded in local knowledge emphasize the interaction between humans and the geographical environment. In local knowledge, people gradually develop production methods and living habits that are adapted to the local natural environment through long-term production and living practices, reflecting the adaptation and ecological theories within the human-land relationship [1].

In summary, by integrating local knowledge into human geography courses, students can utilize familiar local natural landscapes, folk cultures, and economic forms as carriers to transform abstract human geography theories into concrete life scenarios, stimulating their desire for exploration and enhancing their problem-solving abilities. Furthermore, by exploring local knowledge, students can gain a deeper understanding of the evolution of human-land relationships and the cultural heritage of their hometowns, thereby strengthening their cultural identity and social responsibility. This approach achieves the educational goal of "from knowing one's hometown to loving it, and then to building it," while also providing vibrant and diverse localized teaching resources for human geography education [2]. It addresses the shortcomings of traditional courses that predominantly feature general knowledge and lack regional characteristics, making discipline education more practical, relevant to daily life, and student-centered.

3. Construction Strategies for a Local Knowledge System in Human Geography Courses

3.1 Screening Criteria for Local Knowledge

Firstly, the screening of local knowledge should closely align with the teaching objectives of human geography courses, ensuring that the selected knowledge can effectively support the teaching content and help students achieve their learning goals.

Secondly, it is crucial to screen local knowledge based on students' cognitive levels and interests. By conducting surveys, facilitating classroom discussions, and employing other methods to understand students' hobbies and areas of concern, the selected local knowledge can better cater to students' actual situations [3].

Thirdly, taking full account of local characteristics and cultural heritage is essential when screening local knowledge. Each region possesses unique natural environments, historical cultures, and socioeconomic features, which constitute the core of local knowledge. During the screening process, it is important to highlight the distinctive aspects of the locality, thereby enhancing students' sense of identification with regional culture.

Fourthly, attention should be paid to the scientific and accurate nature of the knowledge. Although local knowledge originates from folk practices and experiences, it requires scientific verification and organization before being introduced into course teaching. For knowledge related to natural sciences, social sciences, and other fields, it is necessary to ensure its compliance with scientific principles and objective facts to avoid disseminating incorrect

or misleading information [4]. Simultaneously, local knowledge should undergo appropriate academic processing to facilitate its integration with the theoretical framework of human geography and better serve teaching purposes.

3.2 Integration Pathways for Course Content

Design integration pathways for local knowledge based on the four major course modules of human geography: "Regional Geography, Cultural Geography, Urban and Rural Geography, and Economic Geography." Each module is matched with corresponding local knowledge themes. During integration, methods such as replacing general cases and adding practical modules are employed, combined with specific teaching cases, to enable deep integration of local knowledge with the course and facilitate students' understanding of disciplinary theories (Table 1).

Table 1. Integration Pathways for Course Content

Course Module	Knowledge Theme	Local Knowledge Content Examples	Integration Methods
Region-al Geography	Regional Development Disparities and Coordination	Economic, cultural, and ecological differences between the local area and surrounding regions	Replace general regional cases and conduct "Regional Comparative Analysis"
Cultural Geography	Cultural Geography	Local Cultural Landscapes Local traditional architecture, folk culture, and intangible cultural heritage	Add a "Cultural Landscape Research" practical module
Urban and Rural Geography	Rural Settlements and Rural Revitalization	Morphological evolution, characteristic industries, and revitalization cases of local rural settlements	Conduct "Project-Based Learning on Rural Revitalization"
Econo-mic Geography	Industrial Location and Characteristic Industries	Location selection, development history, and transformation experience of local characteristic industries	Organize "Industrial Field Trips"
Religio-us Geography	Religious Landscape	Local Religious Customs and Geographical Environment	Organize a "Religious Customs Research"
Tourism Geography	Tourism Development	Local Tourism Resource Development	Design a Study Tour Plan
Political Geography	Global Political Geographical Pattern	Local Political Status in the Region	Collect Cases of Local and International Connections in Groups

3.3 Integration and Cohesion with Existing Course Content

When integrating local knowledge with existing course content, it is first necessary to conduct a comprehensive review of both. Analyze the teaching syllabus and textbook content of human geography courses in detail to clarify the key points and difficulties of the course. Simultaneously, delve into local knowledge resources and categorize them. For example, when reviewing cultural geography content, match concepts such as cultural regions, cultural diffusion, and cultural ecology in the course with local folk culture, language, religion, and other local knowledge. Through this review, identify the points of convergence between the two, laying the foundation for subsequent integration and cohesion.

It is also very crucial to rationally arrange the teaching timing and methods of local knowledge in the curriculum [5]. When explaining relevant theoretical knowledge, local cases can be appropriately introduced for analysis at the right time. For instance, when explaining agricultural location factors, take local characteristic agriculture as an example to analyze the impact of natural factors (terrain, climate, soil, etc.) and socioeconomic factors (market, transportation, policies, etc.) on agricultural production.

During the integration process, it is important to avoid duplication between local knowledge and existing course content [6]. Local knowledge that overlaps with course content should be appropriately streamlined and refined. Local knowledge that can deepen students' understanding of course content should be emphasized and expanded upon. Through reasonable integration, ensure that local knowledge can be organically incorporated into the existing course system, enriching teaching content without increasing students' learning burden, and achieving teaching continuity and systematicness.

3.4 Developing Local Teaching Resources

Compiling a repository integrated with local knowledge is a crucial measure to enrich

teaching resources for human geography. It is essential to fully explore local knowledge in aspects such as local nature, culture, and economy, and organically integrate it into textbook content. Special chapters and cases can be designed to introduce the local geographical overview, historical culture, folk customs, industrial development, and other related content [7]. When teaching population geography, local population data and population migration cases can be combined to analyze the causes and impacts of population distribution and migration. In the context of cultural geography, detailed introductions can be given to local cultural elements like traditional festivals, folk arts, and dialects, so as to demonstrate the unique charm of local culture. Additionally, the repository can include exploratory questions and practical activities, which guide students to apply the acquired human geography knowledge to analyze and study local phenomena, thereby cultivating students' practical abilities and innovative thinking.

The use of multimedia resources enables vivid and intuitive presentation of local knowledge. Teachers can collect and organize multimedia materials related to local knowledge, such as pictures, videos, and audio clips, and develop them into teaching courseware or online courses, providing students with abundant learning resources. For example, videos introducing local natural scenery and cultural landscapes can be produced, allowing students to appreciate the beauty and cultural characteristics of their hometown without leaving home. Local audio materials like folk stories, legends, and folk songs can be collected and played in class, helping students feel the charm of local culture. Moreover, virtual reality (VR) and augmented reality (AR) technologies can be employed to create an immersive learning experience for students, enabling them to understand the human geographical phenomena in the local environment more intuitively. Through the application of multimedia resources, students' interest in learning can be stimulated, and the teaching effect can be enhanced.

The development and utilization of on - site resources can provide students with real - life learning scenarios. Schools can establish cooperative relationships with local government departments, enterprises, communities, cultural institutions, and other entities to develop a series of on - site teaching resources. For instance, in collaboration with local museums, cultural centers, and folk villages, off - campus teaching practice bases can be built, and students can be organized to visit and learn on a regular basis, allowing them to personally experience the atmosphere of local culture. In partnership with local industrial parks and agricultural cooperatives, on - site research activities can be carried out to help students understand the current situation and development trends of local industrial development. Furthermore, students can be organized to participate in local social practice projects such as urban planning, environmental protection, and cultural heritage protection. In this way, students can apply the knowledge they have learned in practice and contribute their own efforts to the development of their hometown. Through the development and utilization of on - site resources, students' learning channels can be expanded, and their practical abilities and sense of social responsibility can be strengthened [8].

3.5 Innovative Teaching Methods

The problem-based teaching method holds significant application value in human geography courses. Teachers can meticulously design a series of inspiring and exploratory questions based on the local knowledge system to guide students in thinking and problem-solving [9]. When explaining the factors influencing agricultural location, take the cultivation of local characteristic agricultural products as an example and pose questions such as: "Why is this area suitable for growing this kind of agricultural product? Which natural and socio-economic factors play a key role?" Through thinking about and analyzing these questions, students can gain an in-depth understanding of the theory of agricultural location and learn to apply this theory to explain practical agricultural production phenomena. Such question guidance stimulates students' attention to and thinking about the development of local economy, and cultivates their ability to analyze and solve problems.

The project-based teaching model enables students to deepen their understanding of local knowledge through practice. Teachers can organize students to carry out projects related to local knowledge, such as the "Protection and Development of Local Traditional Villages" project. By means of on-site investigations, questionnaires, interviews and other methods,

students gain an in-depth understanding of the historical culture, architectural style, spatial layout, population structure, economic development and other aspects of local traditional villages. During the implementation of the project, students need to apply relevant knowledge and methods of human geography to analyze and organize the collected data, identify the problems faced by traditional villages, and put forward corresponding protection and development strategies. Through such project-based learning, students can not only improve their practical abilities and teamwork skills, but also enhance their awareness of protecting local culture and their sense of responsibility [10].

On-site investigation is an important teaching method that combines local knowledge with human geography courses. Teachers can lead students to conduct on-site investigations in local nature reserves, historical and cultural heritage sites, industrial parks, commercial districts and other places, allowing students to personally experience and perceive the human geographical phenomena in the local environment. When investigating historical and cultural heritage sites, students can learn about the local historical changes, cultural inheritance, folk customs and other aspects, and feel the charm of local culture. When investigating industrial parks and commercial districts, students can analyze the local industrial structure, economic development model, commercial layout and other aspects, and understand the interdependent relationship between economic activities and geographical environment. Through on-site investigations, students can combine the theoretical knowledge learned in class with practical local cases, thereby deepening their understanding and mastery of human geography knowledge.

4. Conclusion

By deeply exploring and screening local knowledge and constructing a knowledge framework from multiple dimensions, organic integration and cohesion with existing human geography course content can be achieved, thereby addressing course challenges and responding to the demands of the times. Future research can further deepen the construction of the local knowledge system. Strengthen the digitalization of local knowledge by utilizing big data, artificial intelligence, and other technological means to establish a local knowledge database and a digital teaching platform, enabling efficient management, sharing, and dissemination of local knowledge. Further exploration is also needed regarding the integration of local knowledge with human geography courses, particularly focusing on expanding both the depth and breadth of this integration. Research should be conducted on how to more comprehensively and deeply incorporate local knowledge into various sub-fields of human geography, such as population geography, urban geography, cultural geography, and economic geography, so as to achieve all-round innovation in course content. Greater emphasis should be placed on innovative research into teaching methods and models during the integration process. Efforts should be made to explore more teaching methods and models suitable for local knowledge instruction, thereby enhancing teaching effectiveness. In addition, interdisciplinary research should be carried out by combining human geography with disciplines like sociology, history, ecology, and economics. By examining local knowledge from a multi-disciplinary perspective, this research will provide broader space for the application and development of local knowledge.

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