

Original article

The geographical culture of the locality in pre-university education



La cultura geográfica de la localidad en la educación preuniversitaria

A cultura geográfica da localidade na educação pré-universitária

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ABSTRACT

Young people graduating from pre-university education should possess a broad and comprehensive general knowledge, which inherently includes local geographical knowledge, to facilitate their social and civic development in the 21st century. The objective of this article is to propose a structured didactic alternative, divided into methodological stages, for developing local geographical knowledge in pre-university students. This approach is based on the principle of studying the immediate environment within the framework of the Third Improvement of the National Education System. Theoretical methods (historical-logical, analysis-synthesis, and inductive-deductive) and empirical methods (document analysis, classroom observation, surveys, and interviews) were employed. The initial assessment revealed a fragmentation of local geographical knowledge and methodological limitations in the teaching-learning process. As a solution, a proposal was designed, articulated in three stages of pedagogical intervention, progressing from teacher preparation and spatial

characterization to the students' community outreach. Validation through expert criteria and a pedagogical pre-experiment demonstrated the viability, relevance and positive impact of the proposal to enhance attachment to the homeland, identity values and developmental learning of Geography.

Keywords: alternative teaching method; local geographical culture; pre-university education; local study; third improvement.

RESUMEN

Los jóvenes que egresan del nivel preuniversitario deben poseer una vasta cultura general integral, la cual lleva implícita la cultura geográfica de la localidad para facilitar su desenvolvimiento social y ciudadano en el siglo XXI. El objetivo de este artículo es proponer una alternativa didáctica estructurada en etapas metodológicas para el desarrollo de la cultura geográfica de la localidad en estudiantes de preuniversitario, sustentada en el principio del estudio del entorno cercano en el marco del Tercer Perfeccionamiento del Sistema Nacional de Educación. Se emplearon métodos teóricos (histórico-lógico, análisis-síntesis e inductivo-deductivo) y empíricos (análisis documental, observación a clases, encuestas y entrevistas). El diagnóstico inicial constató una fragmentación en el conocimiento geográfico local y limitaciones metodológicas en el proceso de enseñanza-aprendizaje. Como solución, se diseñó una propuesta articulada en tres etapas de intervención pedagógica, que transitan desde la preparación docente y la caracterización del espacio hasta la proyección comunitaria de los educandos. La validación mediante criterio de expertos y un preexperimento pedagógico demostró la viabilidad, pertinencia e impacto positivo de la propuesta para potenciar el apego al terruño, los valores identitarios y el aprendizaje desarrollador de la Geografía.

Palabras clave: alternativa didáctica; cultura geográfica de la localidad; educación preuniversitaria; estudio de la localidad; tercer perfeccionamiento.

RESUMO

Os jovens que concluem o nível pré-universitário devem possuir uma vasta cultura geral integral, a qual implica a cultura geográfica da localidade para facilitar o seu desenvolvimento social e cidadão no século XXI. O objetivo deste artigo é propor uma alternativa didática estruturada em etapas

metodológicas para o desenvolvimento da a cultura geográfica da localidade em estudantes pré-universitários, fundamentada no princípio do estudo do entorno próximo no âmbito do Terceiro Aperfeiçoamento do Sistema Nacional de Educação. Foram empregados métodos teóricos (histórico-lógico, análise-síntese e indutivo-dedutivo) e empíricos (análise documental, observação de aulas, inquéritos e entrevistas). O diagnóstico inicial constatou uma fragmentação no conhecimento geográfico local e limitações metodológicas no processo de ensino-aprendizagem. Como solução, foi delineada uma proposta articulada em três etapas de intervenção pedagógica que transitam desde a preparação docente e a caracterização do espaço até a projeção comunitária dos educandos. A validação por meio de critério de especialistas e um pré-experimento pedagógico demonstrou a viabilidade, pertinência e impacto positivo da proposta para potencializar o apego à terra natal, os valores identitários e a aprendizagem desenvolvimental da Geografia.

Palavras-chave: alternativa didática; cultura geográfica da localidade; educação pré-universitária; estudo da localidade; terceiro aperfeiçoamento.

INTRODUCTION

In the contemporary educational landscape, marked by accelerated sociocultural transformations, the education of new generations demands an integrative vision that transcends mere academic instruction.

In compliance with the Sustainable Development Goals (SDGs), the United Nations states that a profound transformation in the way of thinking and acting of the actors involved is required, so that they become agents of change (United Nations, 2018).

In the 2030 Agenda for Sustainable Development, goal 4 raises the need for quality and inclusive education at all educational levels, including the Education Pre-university (United Nations, 2018).

In Cuba, pre-university education assumes the social responsibility of graduating high school students with a broad and comprehensive general education. This goal entails equipping students with the essential theoretical and axiological tools to critically interpret the dynamics of the 21st century and actively participate in the nation's socioeconomic progress.

Within this educational framework, the teaching and learning of Geography occupies a hierarchical position. This school subject should not be limited to the rote memorization of geographical features or decontextualized statistical data; on the contrary, it requires a developmental approach that promotes geographical thinking and fosters a reflective and meaningful relationship with the surrounding environment. Hence the implicit need to develop students' local geographical knowledge, conceived as a fundamental pillar for strengthening their sense of belonging and civic responsibility.

Currently, the importance of perfecting the teaching and learning process of Geography in pre-university education under a developmental approach is evident, in accordance with the requirements of the Third Improvement of the National Education System. This stands as a primary task for the Cuban educational system (González-Ferrales, 2023).

In this regard, this education requires a cultural approach lived in and from the community, where everyone learns through participation and the recreation of their local culture, taking responsibility for the common project and cooperatively organizing the elements of collective life to promote the sphere of social action (Cuétara López, 2018). Consequently, the articulation between geographical science and school geography is essential to contribute to the widespread dissemination of contemporary culture in the educational context (Pérez-García *et al.*, 2021).

Although the current curriculum establishes levels of teaching where geographical subjects go through the preparatory, basic and advanced cycles in a linear and ascending manner - placing the center of analysis in the native country - the exercise of renewing practices and efficiently connecting the subject with the student's everyday environment continues to constitute a latent challenge for educators (Guamán-Gómez & Espinoza-Freire, 2022; Moreno-Hernández *et al.*, 2023).

The teaching of Geography in Cuba must be based on the link with practical life, with the locality where the school is located being the primary geographical space to encourage the student to be an active participant during their direct contact with the surrounding reality.

The country's historical and social context demands a pre-university model that broadens students' cultural horizons and prepares them to detect and address territorial problems, where the influence of geographical culture offers the basic knowledge to operate in understanding the complexities of the environment and the nature-society links.

Several authors have addressed geographical culture in their research, but they base it solely on the appropriation of knowledge as the foundation of its development; however, having knowledge about Geography from what is learned in school does not mean having geographical culture, as students lack the appropriation of feelings, ways of acting, behaviors, and even the essential interaction with nature and society.

The analysis of the foundations for strengthening this construct begins with a conceptual deepening, which allows us to formally define geographical culture as the integrated system of knowledge, skills, values and attitudes that allows the individual to understand, analyze and critically relate to geographical space in its multiple dimensions (physical, human, environmental), developing a spatial awareness that facilitates their active and transformative adaptation to the territory, in accordance with the principles of sustainability and spatial justice.

To achieve this goal, the didactic principle of studying the locality stands as an essential methodological requirement. Researchers in the field agree that the locality constitutes the territory that allows for the direct observation of objects, phenomena, and processes occurring around the school (Pérez-García *et al.*, 2021). However, an analysis of the literature reveals a historical lack of methodological and spatial uniformity regarding the delimitation of its conceptual boundaries.

On the one hand, the locality is conceptually defined as:

The territory of variable extension that, with the school institution as its center, enables the multilateral study of the objects, facts, phenomena and natural, economic and social processes that exist in it, with the purpose of contributing to the teaching and learning of the contents of the different subjects, based on the development of responsible attitudes and behaviors towards the environment, health and interpersonal relationships (Yera-Quintana *et al.*, 2020, p. 8).

On the other hand, Cuétara López (2018) specifies that this is limited to:

This territory allows for observations during student learning activities, either in the vicinity of the school or within a 1-kilometer radius, accessible on foot, with the school as its center of reference. It can extend to the limits of a province, but never to a country, however small (Cuétara López, 2018).

Although multiple Cuban authors have addressed this concept, agreeing that direct observation of the environment stimulates cognitive interest and anchors theoretical content related to nature, economics, history, and culture, the epistemological analysis of these definitions reveals that limitations regarding the fixed nature of territorial boundaries and their didactic role persist. For this reason, and considering the particularities of the Pre-University Vocational Institute of Exact Sciences (IPVCE) as a provincial institution where students from various municipalities coexist — and which was used as the universe in this research process—a more flexible and operational definition of locality is provided:

The territory of variable extension, which, taking as a reference the student's living environment, enables the multilateral study of the objects, facts, phenomena and natural, economic and social processes that exist in it, with the purpose of contributing to the teaching and learning of geographical content, based on the development of responsible attitudes and behaviors towards the environment and society.

Based on this systematization, and in accordance with the object of study, the process of development of the geographical culture of the locality is defined. as:

The gradual acquisition of capacities to analyze, interpret and transfer specific local knowledge, through the assimilation of ethical-environmental principles and the formation of attitudinal dispositions that materialize knowledge in sustainable contextualized practices, favoring an understanding of the locality as a dynamic reality that articulates its historical development, its current configuration and future projections, as well as its insertion in broader socio-territorial contexts.

Although the strategic value of this process is formally supported in the curriculum guidelines of the Third Improvement Program, its actual implementation in pre-university education is fragmented and unsystematic, with persistent cognitive dispersion and insufficient didactic use of local knowledge in high school classrooms. Based on these contradictions, this article aims to propose a structured didactic alternative, divided into methodological stages, that develops local geographical awareness in pre-university students, revitalizing the teaching-learning process through a theoretical-practical connection with their immediate environment.

MATERIALS AND METHODS

To achieve the research objective, a study was conducted using a mixed-methods (qualitative and quantitative) approach, of a descriptive and transformative nature. This methodological design made it possible to identify the regularities of the actual state of geographical culture in the locality within the pre-university context and, simultaneously, to project a viable and scientifically rigorous pedagogical intervention model.

The research was conducted at the Federico Engels Pre-University Vocational Institute of Exact Sciences (IPVCE) in the municipality and provincial capital of Pinar del Río, between November 2023 and July 2024. The intentionally selected pedagogical sample consisted of four experienced Geography teachers and a representative sample of 120 students from grades 10, 11, and 12. The sample inclusion criteria were based on the participants' willingness to participate, the institutional stability of the faculty, and the center's direct integration into the Third Improvement of the National Education System.

For the study of the object and the measurement of the variable, three fundamental dimensions were established with their respective indicators:

- **Cognitive dimension:** the progressive ability of students and teachers to analyze, interpret and transfer specific territorial knowledge of the locality (physical, economic, social, historical and cultural), integrating ethical-environmental principles those allow them to understand the environment as a complex system and act according to its sustainability.
 - Indicator I: Recognizes and interprets the physical-geographical elements of the locality in terms of their environmental and social impact.
 - Indicator II: analyzes local economic dynamics and their relationship with sustainable development.
 - Indicator III: Critically assesses the historical, social and cultural processes of the locality as a basis for territorial identity and responsible action.
- **Procedural dimension:** set of didactic and methodological actions that teachers carry out to guide and facilitate the contextualized appropriation of local geographical knowledge, promoting its application in sustainable practices and in the resolution of real problems in the environment.

- Indicator I: Designs and applies organizational forms (workshops, excursions, projects) that link geographical knowledge with local reality.
- Indicator II: employs methods that stimulate critical analysis and the transfer of knowledge to contextualized practices.
- Indicator III: Promotes interdisciplinary activities that integrate geographical culture with community action.
- Indicator IV: Promotes the active participation of students in projects that favor territorial sustainability.
- **Attitudinal dimension:** process of formation and internalization of attitudinal dispositions in students, which allow them to materialize geographical knowledge in ethical, responsible and sustainable practices, oriented towards caring for the environment, coexistence and commitment to the community.
 - Indicator I: demonstrates appreciation, sense of belonging and co-responsibility towards the local socio-natural environment.
 - Indicator II: Demonstrates willingness and active participation in activities that promote sustainability and community well-being.
 - Indicator III: argues and makes decisions based on ethical-environmental principles and local geographical knowledge.

An integrated system of interconnected scientific methods was selected:

- Theoretical methods: historical-logical, used to determine the antecedent trends of the treatment given at the beginning of the study of the locality in the Cuban school; analysis-synthesis and inductive-deductive, for the processing of the scientific literature and the systemic structuring of the phases that make up the proposal.
- Empirical methods: documentary analysis, rigorously applied to the study programs and methodological guidelines of the MINED; direct observation of Geography classes using structured guides; survey questionnaire for students, to explore the state of their knowledge; and interviews with teachers aimed at investigating their methodological preparation.
- Validation and data processing: to verify the viability of the didactic alternative, the expert criterion method was used, statistically complemented with Kendall's concordance coefficient.

To ensure internal validity, reliability, and interpretive rigor in accordance with current scientific evaluation standards, the principle of methodological triangulation was applied. This strategic

procedure consisted of comparing, cross-referencing, and complementing quantitative data from surveys with qualitative findings derived from interviews, classroom observation guides, and analysis of documentary evidence. The convergence of results obtained from the different instruments allowed for the structuring of a comprehensive and multifaceted diagnosis, mitigating individual biases and providing an objective empirical basis for the final design of the didactic alternative's phases.

RESULTS

The application of the described research methods and instruments allowed for a diagnosis of the current state of geographical culture in the locality within the studied sample. Through methodological triangulation of empirical data, it was identified that the development of geographical culture in the locality is fragmented and unsystematic, conditioned by a series of strengths and weaknesses, which are summarized below:

Strengths:

- Regulatory support: there are curricular objectives and methodological lines of work explicitly aimed at developing a comprehensive general culture in students.
- Pedagogical guidance: teachers are formally informed of the need to incorporate the study of local issues into their classroom practices.
- Student disposition: students recognize the importance of having an adequate geographical culture of the locality, directly associating it with the expansion of their cultural and geographical knowledge.

Weaknesses:

- Conceptual and methodological gap: difficulties are observed, both among teachers and students, in defining the term "local geographical culture." Furthermore, the development of this culture is not declared a priority social issue in regulatory documents.
- Breakdown of the local pedagogical principle: the dialectical relationship required by the subject to study the locality from the general to the particular and to the singular is not evident in the classes; the didactic process is usually limited to a general level.
- Deficiencies in content knowledge: there is a lack of (partial or total) understanding of the local physical, economic, historical, social, and cultural factors, with the gap being particularly

pronounced in the historical and cultural dimensions. This limits the development of responsible practices aligned with sustainability.

- Lack of teaching tools: teachers lack a structured pedagogical system and the necessary methodological tools to progressively foster geographical habits and skills throughout the pre-university level.
- Low impact on sociocultural practice: students show disorientation regarding local points of interest. As a result, they prioritize common recreational spaces (parks, cafes, or cinemas) to the detriment of cultural institutions such as museums, theaters, or art galleries, which restrict the achievement of the stated educational goals.

Proposed solution: didactic alternative

In response to the identified shortcomings, a flexible and developmental teaching alternative was designed. This proposal is not composed of isolated elements, but rather is articulated dialectically: teacher preparation guarantees the conditions for pedagogical intervention, the results of which contribute to the sustainability of the model, generating a cycle of continuous improvement.

The alternative is logically structured in three fundamental stages:

- **Stage 1.** Teacher Preparation: This is a prerequisite for implementing the model. Its objective is for teachers to become familiar with the methodological foundations and resources before working with students. It is organized into three sequential phases:
 - Phase I. Awareness and foundation.
 - Phase II. Methodological Appropriation.
 - Phase III. Planning and implementation of the teaching-learning process of Geography.
- **Stage 2.** System of actions with students: This represents the core of the educational process, designed to foster the progressive development of general language skills in a structured way throughout their high school years. It is divided into two phases:
 - Phase I. Progressive construction of the comprehensive characterization (10th and 11th grade).
 - Phase II. Action research and community outreach (12th grade).
- **Stage 3.** Institutionalization and sustainability: This cross-cutting and permanent approach seeks to guarantee the continuity of the model beyond the regular academic cycle through partnerships and organizational structures. It comprises four interrelated elements:

1. Establishment and promotion of the Geodisseminators Club.
2. Management and renewal of inter-institutional agreements.
3. Implementation of a certification system.
4. Maintenance of the institutional Local Geographic Archive.

The design of the teaching alternative underwent expert evaluation by 15 specialists. The analysis of their opinions, using Kendall's concordance coefficient, yielded a value of $\$W=0.84\$$ ($\$p<0.05\$$). This result demonstrates a highly significant and positive consensus among the experts, corroborating the scientific and pedagogical viability of the proposal for addressing the identified deficiencies.

DISCUSSION

The diagnostic results confirm the urgent need to update the didactic approach to local studies at the pre-university level, shifting from a purely descriptive approach to a critical-transformative model. The cognitive fragmentation detected — manifested in the partial or total lack of knowledge of the locality's physical, economic, historical, social, and cultural factors—along with the low level of attitudinal commitment evidenced by the prioritization of common recreational spaces over cultural institutions, demonstrates that general geographical knowledge taught in classrooms does not automatically translate into local geographical awareness if it lacks experiential grounding. This finding aligns with the observations of Yera-Quintana *et al.* (2020), who warn that the connection with the immediate environment cannot be relegated to curricular statements but requires systematic didactic implementation.

When comparing the proposed teaching approach with previous scientific literature, a clear convergence is observed with the postulates of Pérez-García *et al.* (2021) and Cuétara López (2018), who maintain that the teaching of Geography acquires true meaning when students interact directly with the problems and potential of their territory. However, the added value of this research lies in the formal structuring of this connection through phases differentiated by grade level (10th, 11th, and 12th), which allows for moving beyond the traditional static characterization and introducing a continuous pedagogical progression. This gradual approach directly addresses one of the identified weaknesses: the lack of teaching tools to progressively foster geographical skills throughout the pre-university level.

Hechavarría's theses *et al.* (2018) emphasize that local space is the fundamental building block for shaping individuals' identities. As these authors point out, "the formation of local cultural identity in the educational process cannot be a spontaneous act, but rather a planned process that leverages the axiological potential of the immediate geohistorical environment to connect knowledge with the student's feelings" (p. 45). In perfect alignment with this assertion, the designed teaching approach demonstrates that by guiding high school students from theoretical spatial characterization (Phase I of Stage 2) to real-world action research and community outreach (Phase II of Stage 2), the territory ceases to be an inert object of study and becomes a catalyst for civic responsibility. In this way, the approach addresses the attitudinal gap identified in the diagnostic assessment, where students showed disorientation regarding local sites of interest and limited community engagement.

Furthermore, the systemic progression of methodological stages finds solid support in Ausubel's theory of meaningful learning (1963) and in the regularities described by Moreira (2012), given that the immediate environment functions as the ideal advance organizer for anchoring highly abstract, universal geographical concepts. By mediating this relationship through the principles of Freire's critical pedagogy (1970), the proposal enables students to decode the territory in a glocal manner (Robertson, 1995), interpreting how global dynamics are particularized and manifested in their community in a unique way. This approach helps overcome the breakdown of the local pedagogical principle observed in classrooms, where the teaching process was often limited to a general level without addressing the specificities of the local area.

In conclusion, the high level of agreement achieved in the expert opinion ($W=0.84$, $p<0.05$) confirms that articulating collaborative school work around local action research is an effective and viable methodological approach. This result validates the effectiveness of the methodological triangulation design used in the study, which aligns with the classic perspectives of Denzin (2009) and the contemporary applications of Forni and De Grande (2020) on combining approaches to strengthen internal validity in the social sciences. Thus, the proposal directly addresses the curricular requirements of the Third Improvement of the National Education System in Cuba by symbiotically consolidating the cognitive, procedural, and axiological spheres of geographical culture in future graduates, thereby addressing the three dimensions established in the diagnostic assessment.

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Conflict of interest

Authors declare no conflict of interests.

Authors' contribution

The authors participated in the design and writing of the article, in the search and analysis of the information contained in the consulted bibliography.



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