

## **PHYSICAL GEOGRAPHY LESSONS IN SECONDARY SCHOOL TEXTBOOKS: COMPARING THE EFFECTS OF THREE MAJOR CHANGES TO SPAIN'S NATIONAL CURRICULUM**

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Physical geography has a long tradition in the field of education, given the importance of the content that it covers. This content acts as the base of Geography, fundamental for understanding the rest of the discipline, and to understanding the social sciences in general. Furthermore, its study permits its students to develop the skills and abilities necessary for both academic and social growth.

The main objective of this study is to determine the evolution of the treatment of physical geography in the three main periods of change to Spain's national curriculum over the past decades.

In order to do this, the study is based on what continues to be the main resource in the social studies classroom, the textbook. Today, textbooks are also used alongside new teaching resources (ICT), but remain highly valued for their functionality.

The textbooks were analyzed using a qualitative methodology based on content analysis. Specifically, we used two methods, firstly, a method designed by CUDICE order to examine the formal and substantive aspects of the text, and secondly, an adaptation of the method developed by Andreu (2002) was used for the content analysis.

The first year of obligatory secondary education was chosen for this study as all three curricular legislation periods assigned the greatest amount of physical geography content to this level. Furthermore, nine textbooks were selected based on their release date, three for each Spanish education law passed. The intent was to have the most representative sample possible.

Both analyzes have provided results that reveal the importance given to the study of physical geography and a number of specific aspects, both positive, favoring its teaching as well as some more negative aspects, that could make teaching the discipline more difficult. Therefore, it was possible follow the evolution of this discipline in the area of Social Sciences.

Specifically, it was possible to identify features similar to all the textbooks from the results, regardless of the curricular legislation in question. However, it was noted that textbooks pertaining to the same curricular legislation period shared common features, allowing for the generalization of results on the formal and substantive aspects of each, depending on the corresponding curricular legislation.

Generally, physical geography content occupied 10-20% of the total pages of the books examined. The contents were not greatly altered, merely slightly expanded, and are structured conserving the traditional order with some exceptions.

In all the textbooks analyzed, civic and ethical topics are covered transversely, as regarding current issues related to climate change. However, these issues are not addressed in sufficient depth so that students may understand and become aware of their magnitude. Moreover, not enough topics are covered, leading to a number of conceptual shortcomings.

In addition, little attention is paid to concepts that are included in the core curriculum, leading to inaccuracies regarding some of physical geography's fundamental concepts.

Overall, the trend was positive; errors and conceptual gaps have been corrected over the years, and physical geography has gradually acquired an increased presence in the Social Sciences curriculum [in Spain].