

## SUITABILITY OF GEOGRAPHY TEXTBOOKS FOR THE DEVELOPMENT OF CRITICAL THINKING OF LOWER SECONDARY SCHOOL STUDENTS, BASED ON BLOOM'S TAXONOMY

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**Abstract.** The Geography textbook for the 8th grade has been drawn up based on the program of the Ministry of Education, Science, Technology and Innovation, in different years, with the aim that the students acquire geographical knowledge, reinforces this knowledge in everyday life situations, integrating the cause-effect relationships of natural and human phenomena and processes with geographical research methods. According to the content of the curriculum, regional geography and other eco-continents will be taught in the eighth grade, as well as the submission of questions is covered at the end of each topic in the text. This text deals with interesting issues for several continents, countries, and we will analyse the approaches of the authors, the clearest elaboration for the student on the topics and the questions posed to the students with the goal; remembering, understanding, and applying. A special care and attention has been shown to preserve the right ratios between informative and non-formative material, theoretical and factual, historical and contemporary, respecting the scientific and didactic criteria. We will base the research on Bloom's taxonomy, beginning with knowledge, understanding, application, analysis, synthesis and evaluation, with the aim of better reflecting the state, analyse the revised taxonomy and we will also present the students' recollection, understanding and application in everyday life.

**Keywords:** nomadic life; tsunami; cape; oasis; taiga; flood; flood; colonialism; monarchy; plantations; biofuels; monsoon; plateau; steppe; gulf; isthmus; lithospheric plate; GIS

### Introduction

Kosovo is a young country that declared its independence in 2008 with the number of 1'708'538 inhabitants, where the majority of them are youth, about 60%<sup>1</sup>. According to the data, Kosovo is the country with the youngest population in Europe.

Education in the Republic of Kosovo is comprehensive and equal. Compulsory education represents levels one and two according to ISCED, primary education is classified as level 1 (grades 1st – 5th) and lower secondary education as level 2 (grades 6th – 9th). the level of lower secondary education covers from the sixth grade to the ninth grade (6th – 9th), the age group of students at this level is from 11 to 14 years old and operates in public and non-public lower secondary schools<sup>2</sup>.

Compulsory education at the country level operates in public and non-public education institutions, this level of education includes compulsory 9-year education<sup>3</sup>, which corresponds to levels 1 and 2 of the ISCED – UNESCO. The number of students in primary and lower secondary education is 223,908 in total, of which 115,377 are boys and 108,531 are girls<sup>4</sup>.

The analysis of the geography subject program for the eighth grade is built respecting the Curriculum Framework and Core Curricula of Pre-University Education<sup>5</sup> competence learning outcomes, field learning outcomes (RNF) of the learning area Society and Environment, and the curriculum of lower secondary education. in accordance with the vertical methodology (the roll-out over the years of learning the subject of Geography), respected over the decades in Kosovo, the curricular program of this subject comes after the fundamental geographical knowledge achieved by the students regarding the spatial, technical and orientational aspects, the physical knowledge – geographical and human – geographical knowledge achieved in the previous class.

Through this subject, the student will get to know other regions and continents, since in the seventh-grade students have acquired basic regional knowledge while studying the continent of Europe. In accordance with the applicable didactic and pedagogic standards and the methodology promoted by this curriculum document, treating the continents as wholes separate from each other as well as their specifics: students will understand the differences and similarities, the relationship between parts and the whole, the advantages and disadvantages shown in the respective regions, economic development and its lack in different regions as well as other political, social and cultural differences (orientations) between regions, peoples and states<sup>6</sup>.

### **Objectives of the research**

Such a research of Geography texts, grade 8 and other classes has been lacking in pre-university education in Kosovo. We think that it has a positive impact on increasing the quality at the country level, but it will also be a positive motivation for students, teachers, authors of texts and reviewers.

### **Presentation of the real situation**

The results published in local and international evaluations for students in one of the most specific fields such as geography, which intertwines nature with society, with advantages and disadvantages in the elements, geographic, climatic,

hydrographic, social and political factors. Furthermore, the knowledge acquired in this class, from this subject, aims to influence the development of students' critical and creative abilities, skills, values and attitudes, respecting the structure: national, religious, cultural, social and other which is present in the continents of the world, as a common value of all without any distinction.

The purpose of research in the subject of Geography, in this grade, is for the student to develop geographic knowledge and skills for continents other than Europe, for commonalities and differences, scope and limitations. Moreover, the knowledge acquired in this class, from this subject, aims to influence the development of students' abilities, skills, values and critical and creative attitudes respecting the structure: national, religious, cultural, social and other structure, which is present in the continents of the world, as a common value of all without any distinction<sup>7</sup>.

### **Methodology**

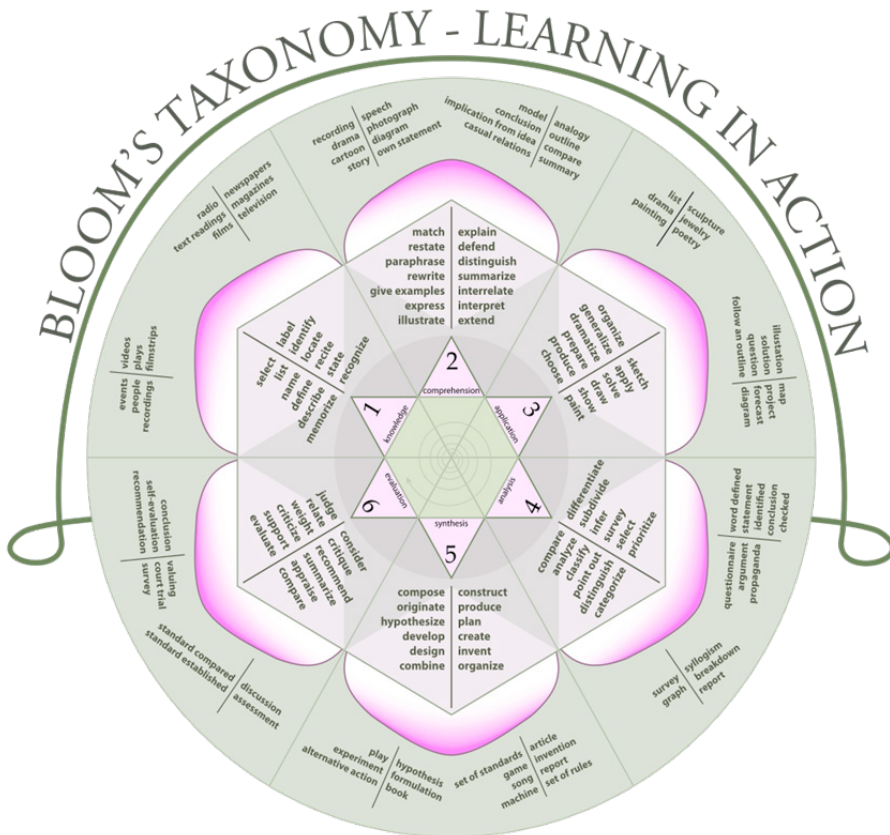
The research methodology contained the elements of analysing the primary and secondary documents of the competent bodies that allowed the publication of the text, the methodology of the selection of the authors, of the reviewers, and the use of the texts by the students. Asking questions and harmonizing them with the topics covered in the texts. Geography textbook of the 8th grade, school year 2022/2023. The Ministry of Education, Science, Technology and Innovation has allowed this textbook to be published and used for the eighth grade of lower secondary education<sup>8</sup>.

In the following, we will act according to the presented picture and we are going through the 6 levels of Bloom's taxonomy<sup>9</sup>, for eighth grade students in the subject of Geography.

The knowledge of the 8th grade students contained of the continents, their geographical position and were able to talk about them, but not all of them were able to count three continents. There was a lack of knowledge of their geographical extent, the types of climates that prevail in these continents, as well as their population, average life expectancy and other specifics.

Understanding: The students of the 8th grade in the subject of Geography, as much as they had the opportunity to understand the geographical aspects of the continents with all the physical, geographical, climatic, hydrographic, pedological, demographic elements and carry this information on the silent maps with the certain themes. Also the comparison of the continents with each other by comparing them by geographical size, their geographical position with climatic elements, flora and fauna, and other characteristics.

Applying the knowledge gained from solving different geographic problems in new situations by applying the new geographic knowledge, for example, to geographic systems, such as GIS. The student must be able to identify and relate the acquired knowledge to problems in everyday life, such as malaria, which affects the population of some areas and not the entire continent of Africa.



**Figure 1.** Blooms taxonomy

Geographical analysis in the 8th grade textbook – involves the student, who connects the parts of the continents, regions or countries, identifying and connecting the phenomena to each other based on motives or causes. As an example, you can use Alaska or the Eskimo people, who differ from their geographical position and from their life if compared to Ecuador and the Ecuadorians. Another analysis can be the food and their use, for example the food of the Chinese and the method of their food in relation to the way of eating of Italians or Europeans.

Synthesis in the 8th grade geography textbook – to include good communication links with all continents, the creation of development mechanisms on the globe, the sharing of good experiences of benefiting from solar energy, wind energy, hydro energy and up to common fronts of global treatments for various diseases. Environmental protection, production of organic and chlorine foods, and even common markets.

Assessment of geographic facts based on geographic criteria that can be internal criteria related to organization as well as external criteria related to purpose. In the hierarchy of cognitive objectives according to difficulty, the learning results in the analysis category are the highest, because they contain elements from other categories as well as personal judgments related to the formation and conviction of everyone. The student judges in terms of the logical consistency of the given material, the accuracy of the conclusions that emerge from the interpretation of the data.

### **Findings**

During the analysis of the 8th grade Geography text, were most of the continents without Europe elaborated in the textbook<sup>10</sup>. The text and the topics elaborated in it will be challenged with 239 questions specific to the relevant topics.

The textbook begins with the content, the preface, and continues with:

Asia-Geographical position, size and boundaries, relief of Asia, climate, hydrography, and plant and animal life. Asia – Population, economic development and regional division, in this chapter there are also 78 questions in the text, which begins with the content, the preface, and continues with a total of 136, maps, photographs, tables, graphs, etc. Following the research, the topics with the questions posed and the results achieved will be analysed<sup>11</sup>.

Africa - name, geographical position and size, relief of Africa, climate, hydrography and flora and fauna. Africa – Population, economic development and regional division. This continent is treated to the maximum and is also challenged with a maximum of 87 questions in the textbook, 142 maps, photographs, tables, graphs, etc.<sup>12</sup>.

America- General features, natural features of the American Continent, economic-social and political features of America. This chapter talks about three Americas, North, Central and South America. 58 questions are posed for the three Americas in the textbook, 142 maps, photographs, tables, graphs, etc.<sup>13</sup>.

Australia – name, Geographical position and natural features, population, economic development and regional division, where 8 questions are asked in total, and 20 maps, photographs, tables, graphs, etc.<sup>14</sup>.

Oceania – General geographic features, polar regions, Arctic, and Antarctic, where 8 questions are presented in total and 28 maps, photographs, tables, graphs, etc.<sup>15</sup>.

In accordance with the concepts presented by the authors in their texts, where the structures of the geographical environments of the continents and regions of the continents are explained, emphasizing natural resources, the provision of material goods, the extent of settlements and the treatment of demographic problems. Where special attention is paid to the analysis of demographic, economic and political factors that determine the spatial organization of human activity, the sustainable development of regions and the presentation of questions at the end of the topics and their matching with the elaborated topics.

**Table 1.** Number of questions posed in the textbook by continent

Number of questions on the topics covered	Topics with 3 questions	Topics with 4 questions	Topics with 5 questions	Topics with 6 questions	Topics with 7 questions	Total questions
Asia	-	6	6	4	-	78
Africa	-	5	11	2	-	87
America	3	5	2	2	1	58
Australia	-	2	-	-	-	8
Oceania	-	2	-	-	-	8
Total	3	20	19	8	1	239

The results of the research, which are placed in table 1. they show that the questions presented in the text are 239 in total, and the largest number of questions is presented in the topics with 4 questions in total 20, with 5 questions 19, with 6 questions 8, with 3 questions 3 and with 7 questions. The largest number of questions has been posed to the continent of Africa, where we have 87 questions presented, then comes Asia with 78 questions, followed by America with 58 questions and Australia with Oceania with 16 questions. Among the topics covered, we also have 16 questions posed to the students.

The understanding of the topics elaborated in the textbook was good, but in some topics we lacked information for students, some clarifications were also missing in the treated unit and in the glossary at the end of the textbook. Clarifications about endemic plants, extensive agriculture were missing in the textbook.

The application of the knowledge of the student who has achieved knowledge from reading, has understood, and has remembered or refreshed the information accumulated from the subject in the previous education but also from the information from daily life, which requires an answer at all levels of knowledge, starting from knowledge (where the student answers simple questions), application (where the student completes the answer, gives opinions, applying geographical knowledge in everyday life) and critical thinking (where the student will give a different opinion about geographical problems)<sup>16</sup>.

### **Recommendations**

After carrying out the research we will analyse the output with concrete results in 228 questions presented in the textbook, the knowledge about forests, the meaning of forests, the application in daily life, the analysis of forests, their synthesis and evaluation according to Bloom's taxonomy. Once we reach the final results, we

will give recommendations to the Minister of Education, Science, Technology and Innovation, Division for Curriculum and Textbooks in the Pre-University Department, to review the law on school textbooks, the administrative instructions for reviewers, authors, teachers and the subject curricula for the Geography subject for the 8th grade, because from the results of the research, we have disharmony in the functioning of the chain students-teachers, students-textbooks, or the lesson plan - reviewers -author. The non-functioning of all links in the process is leading to poor results of students in local and international assessments<sup>17</sup>.

Recommendation for the Ministry of Education, Science, Technology and Innovation, in the subject of Geography 8 and the curricular field Society and Environment, possibly to review it because the load is too high for the student who learns all the continents except Europe within the academic year.

#### NOTES

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