

**ACTIVE METHODS IN GEOGRAPHY CLASSES.
A COMPARATIVE ANALYSIS THROUGH PRACTICAL
ACTIVITIES**

**METODE ACTIVE ÎN CADRUL ORELOR DE GEOGRAFIE.
ANALIZĂ COMPARATIVĂ PRIN ACTIVITĂȚI PRACTICE**

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Abstract: Most scientific works define “method” as a “path towards” reaching the goals envisaged by teaching activities, for a more efficient educational process. The work focuses on the advantages and disadvantages of using the method “Gallery Tour”, a method included in the category of “collaboration-based learning techniques”, and the method “I know/I want to know/I have learned”, a method falling under “techniques for developing critical thinking” in teaching the informative content “Biopedoclimatic areas” included in the syllabus for the 9th grade, in the learning unit “Life and Soils on Earth”. Collaboration-based learning techniques determine competition-based learning experiences. The mechanical reproduction of information is avoided, but there is the disadvantage that some students may have a passive attitude and an unequal participation in solving work tasks. Such methods prevent monotony and boredom. Techniques for developing critical thinking imply understanding the information and the reasoning. Students analyse ideas logically, argue, ask, accept or reject information. They observe, judge, state judgments of value. Such techniques stimulate the students’ curiosity.

Within both methods, knowledge is acquired through personal effort, passed through their own experience, through the filter of their thinking. They understand and reproduce them according to their age specificities. “The Gallery Tour” and “I know/I want to know/I have learned that” stimulate the students’ curiosity and interest for finding out new information, as efficient, active learning methods.

Key-words: *learning, collaboration, critical thinking, biopedoclimatic areas*

Cuvinte cheie: *învățare, colaborare, gândire critică, zone biopedoclimatice*

I. INTRODUCTION

The educational process is based on a range of principles, such as the “principle of the students’ conscious and active participation”. Ilinca Nicolae, in “Didactica geografiei”, 2008, argues that “*the active participation refers to the fact that acquiring the knowledge is going to be made through the students’ own activities, through an optimum engagement of thought and other intellectual*

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processes opposite a passive attitude of mechanical learning and reproduction" (Ilinca, 2008, p. 19). The efficiency of the educational process is determined by the active and conscious involvement of students in the teaching activity. Students must understand the contents to be assimilated.

In the scientific works (Tomescu et al., 2011, p. 58; Ilinca, 2008, p. 43) we find the word "method", from the Greek "methodos", where "odos" means "way, road", and "metha" means "to, towards". By association, we deduce that a method is a way to be followed in order to reach goals. "*By method we understand, in a classical meaning, the way to the truth, and in an educational meaning, the way to a certain finality*" (Mândruț&Dan, 2014, p. 95). "*A method is an organized complex of procedures aimed at practically performing operations resulting in the achievement of the proposed goals*" (Ilinca, 2008, p. 43).

We may consider that a method is a way to know, to act for achieving new information. "Assets" are teaching methods resulting in the students' involvement in their own training. A student acts, looks for information, discovers, analyses, selects, concludes, actually takes part in the lesson. Active methods are stimulating methods. They stimulate the students' thinking, imagination, creativity and are also motivating, as students are intrinsically motivated to find out new information (Ciocan&Ionuș, 2016). These methods help students to "*talk and listen, write, read, and reflect on the content, ideas, issues, and concerns of an academic subject*" (Meyers&Jones, 1992, p. 6).

Some scientists compare learning geography with learning a foreign language: "*Learning geography, like studying a foreign language, involves using several cognitive abilities at the same time. Effective teaching of any subject must start with an understanding of how people learn*" (Gersmehl, 1996, p. 30). Others consider that "*students develop abilities to ask appropriate questions and identify relevant data needed to present a news event geographically*" (Klein, 2003, p. 154). Through the activities they are involved in, the students prepare themselves for life "*Learn how to learn or lifelong learning*", the methods used in the geography lessons having an important role in the "*development of personal skills (e.g., planning and organization)*" (Keegan, 1993, p. 21).

There are various studies showing that the active learning methods are successfully applied in class: "*classroom space has become a focus of interest, in the light that changing traditional classrooms into spaces that more readily accommodate the active learning pedagogy would effectively promote learning outcomes*" (Hyun et al., 2017, p. 109).

According to Hyun et al. "*active learning pedagogy activities are a significant factor in positively influencing students' satisfaction with their individual and group learning processes in both active learning classrooms and traditional classrooms*" (Hyun et al., 2017, p. 117).

Artvinli Eyüp argues that "*Geographic skills are a very important personal benefit from geography for the future generations*" (Artvinli, 2012, p. 45). The same author says that "*We must go beyond the content of geography in our efforts to help our students become geographically informed*" (Artvinli, 2012, p. 48).

Gibbs Graham shows in his studies that the students are involved in an active exploration through experience "*The experience must matter to the learner. Learners must be committed to the process of exploring and learning. There must be scope for the learner to exercise some independence from the teacher*" (Gibbs, 2013, p. 19). Harris Richard approaches in his works active learning referring to "*how that access can be achieved in relation to data skills, geographical teaching and the fostering of critical thinking*" (Harris, 2018, p. 12).

In teaching geography, through active learning methods, certain aspects must be followed: "*exposing students to a variety of approaches to the discipline; providing a basis for independent research by students; stimulation of independent thinking; development of the motivation and skills to learn autonomously; the enhancement of communication and presentation skills; development of group-work skills; development of leadership skills; stimulation and enhancement of enthusiasm for study; getting to know colleagues*" (Kent et al., 1997, p. 320).

"*Use of variety in learning activities*" and "*the interactivity*" are supported by researchers such as Moore-Cherry Niamh, Healy Ruth, Nicholson Dawn, Andrews Will (Moore-Cherry et al., 2016, pp. 84-103). Some authors argue that "*teaching geography works the best through active methods*" (Charrier&Ozouf, 1948, p. 620). "*The principle of active methods supposes facing the child with various stimuli which arouse in him interest and knowledge*" (Saint-Yves, 1976, p. 511). The same author explains that "*a principle of active pedagogy is stimulating the students' activity*".

"Collaboration-based learning techniques" and "critical thinking development techniques" are thought to intensify the students' activity.

II. MATERIALS AND METHODS

In order to emphasize the more efficient use of active methods in geography classes, we chose the "*Gallery Tour*" method from the collaboration-based methods and techniques and "*I know/I want to know/I have learned*" from the methods and techniques for developing critical thinking that we applied in the lesson "Biopedoclimatic areas", 9th grade, in the learning unit "Life and soils on Earth". The type of lesson is acquisition of new knowledge.

The principles of the conscious and active acquisition of knowledge, a systemic and continuous approach in education, respect for the students' age specificities were followed.

We aimed that at the end of the lesson the students should be able to define "biopedoclimatic areas"; mention the main biopedoclimatic areas in the warm, temperate and cold area; state the specific climate type of each biopedoclimatic area; briefly describe the vegetation in the equatorial forest area, the wet tropical area with two seasons, the dry tropical area (warm area), the subtropical area, the temperate-oceanic area, the temperate-continental area, the cold forest area (temperate area), the subpolar area, the area of continental glaciers (cold area); list the main species of plants and animals in each biopedoclimatic area; name at least one type of soil characteristic to each biopedoclimatic area; establish connections

among the climate, vegetation, fauna, soils; locate the main biopedoclimatic areas on the map and in geographical atlases; correctly interpret images in the handbook that imply causal correlations and result in learning accessibility; show curiosity for the new informative content; show interest for the study of biopedoclimatic areas. Thus, the students develop skills of knowledge and analysis, of a psychomotor nature and in terms of attitude aiming at forming specific competences: 1.1. The use of specific scientific and topic-related terminology (concepts, notions) to present relevant information; 1.2. Substantiating an explanatory approach; 3.2. Identifying a succession of natural phenomena and processes; 4.1. Reading and interpreting graphic and cartographic information.

The students have knowledge on “Biosphere and its organisation”, “The evolution of life on Earth” and “Pedosphere”. Connections are made with the informative content “Climates of the Earth” within the learning unit “The Earth’s atmosphere”, the 9th grade and cross-subject connections with Biology, to recognize the species of plants and animals in each biogeographical area.

At the 9th grade, I applied the “*Gallery Tour*” method using as material resources the video projector, handbook, A3 sheets of white paper, markers, the physical and geographical world map, the geographical atlas, assessment sheets and coloured chalk. The activity was organised in teams and individually, taking place in the geography laboratory.

In order to catch their attention I presented the “Bipedoclimatic areas” to the students by means of the projector.

Applying this method, the teacher is the one who presents the instructions. She/he proposes students to count to 3 so that the choice is objective, avoiding the risk that some students may not want to make a team with certain classmates. She sets up three teams: those saying the number 1 will form a team, those saying the number 2 another team, and those saying the number 3 another team. Larger sheets of paper, A3 format, and markers are distributed to each team. She/he assigns work tasks: characterizing a biogeographical area using the information in the handbook. Team 1 will characterize the biopedoclimatic areas in the warm area, team 2 - biopedoclimatic areas in the temperate area, and team 3 - biopedoclimatic areas in the cold area. Each group appoints a leader who will present the team work results. They can also call themselves a name, depending on the tasks and content of learning.

Students solve the tasks through collaboration. They look for information on the approached topic in the handbook, they communicate to extract essential ideas. The leader of each team writes down the ideas accepted as correct on the sheets of paper. The teacher makes sure that students talk in a low voice, so that they do not disturb the others. She/he monitors the activity, observes how work tasks are solved, directs, coordinates the activity, sets the rules and the work time. She/he solves possible conflicts.

The students post the A3 sheets of paper including the outcome of their work on the blackboard (they stick them on the blackboard), similarly to an art gallery, hence the name of the method. The students do the “gallery tour”. They visit products, make comments, possibly add something. The students assign a mark to

each product. They add the assessment marks on the bottom side, and the self-assessment marks on the upper side. An assessment sheet is distributed to each student, so as to provide feedback. At the end of the lesson, the teacher asks the students to write down on the blackboard, in coloured chalk, the advantages and disadvantages of using this method.

In another class, the 9th B, in order to teach the same informative content, I applied the method “*I know/I want to know/I have learned*”, using as material resources work sheets, handbook, geographical atlas and assessment sheets. The activity was organized frontally and individually.

According to this method, the teacher presents the topic of the lesson to the students: “biopedoclimatic areas”. The teacher hand each student a worksheet with a chart with three columns. In the first column, the students have the rubric “I know”. In the second one they have the rubric “I want to know” and in the third one they have the rubric “I have learnt”. I asked the students to fill in the section “I know” in the table on the work sheet (*What do you know about biopedoclimatic areas?*) and I drew the table on the blackboard. Each student wrote down the information she/he knows on the given topic on the work sheet. After asking the students what they have written down, I wrote the information they know on the blackboard. The students are proposed to fill in the section “I want to know” in the table (*What would you like to know about biopedoclimatic areas?*). As a teacher I asked every student, in turn, what they have written on the work sheet and I put down on the blackboard, in the corresponding section.

In order to find out the answer to their questions, the students are suggested to read the lesson in the handbook and to write down the new information on the presented informative content, under “I have learned”. The work time is specified.

When the time has expired, the teacher asks every student what she/he has written down and writes the new information in the table on the blackboard.

An assessment sheet is distributed to each student to provide feedback. At the end of the lesson, the teacher asks the students to write down on the blackboard, in coloured chalk, the advantages and disadvantages of using this method. The students’ homework will be to look for new information on “biopedoclimatic areas” in their personal library or online.

III. RESULTS AND DISCUSSIONS

The following were found after interpreting the questionnaires and the marks obtained in the assessment test:

- students in the 9th A grade, where the “*Gallery Tour*” was used, mentioned that this method has the following advantages: a relaxed work atmosphere, they were able to talk to one another on the given topic, the information was written down on the worksheet after having asked for the opinion of the other team mates who learned better, even shy students took part in drawing up the tasks, though they are usually nervous when talking to the teacher, they could assess both their own activity and the classmates’ activity;

- they also mentioned that there is a disadvantage: some students worked more than others, they may assign maximum marks to their team and low marks to other teams, sometimes the students spoke louder, bothering other groups;

- the assessment tests reflected the participation of each student in his/her own learning: 70% of the students obtained marks ranging from 8.50 to 10, and 30% from 6.50 to 8;

- students in the 9th B grade, where the “*I know/I want to know/I have learned*” method was used wrote that the method has the following advantages: they became aware of what they knew, they had to read the full text in the handbook to discover the answer to their own questions, all students worked individually, having the same requirements, the class was quiet;

- as for disadvantages, several students referred to it as tiresome and boring;

- most marks in the assessment tests ranged from 8.50 to 10, with a share of 60%; others marks ranged from 6.50 to 8.

We consider that the different results in the assessment tests are influenced not only by the teaching method, but by other factors as well, such as the level of the grade, the hour of the activity (beginning or end of class hours), which influences the students’ focus, the number of students in the class, the educational means used, as students are presented maps and images with the location of biogeographical areas, the vegetation, fauna and soils in each zone under the “Gallery Tour” method, with several senses (seeing, hearing) being involve in the learning process, and the images and representations help pleasantly assimilate new knowledge. They also raise the students’ interest and curiosity, which was seen when drawing some plants or animals on the worksheets corresponding to the biogeographical areas they had to characterize.

Both may be successfully applied in class, through alternation. Within the “*I know/I want to know/I have learned*” method, the video projector may be used to reinforce knowledge and to fill in the column “I have learned”.

The teacher may intervene at any time within both methods. She/he is the one who organizes and directs learning.

The functions of the following methods are very well reflected:

- cognitive, for the knowledge/discovery of new information;

- instrumental, helping students reach the new content;

- motivational, raising the students’ interest in the approached topic;

- formative-educational, with positive behaviour attitudes being developed along with the assimilation of new information: tolerance, acceptance, team spirit, communication, cooperation.

Learning tasks are presented differently in the “Gallery tour” method: they had to characterize distinct biogeographical areas - team no. 1 the warm area, team no. 2 the temperate area, team no. 3 the cold area. Students feel respected, appreciated, valued in their groups. Self-confidence and trust are developed. They ask for and receive support from their classmates when they do not understand certain definitions, names, processes or geographical phenomena. All students in a team have joint purposes. The setting is usually friendly and learning takes place at

one's own pace. Students have different qualities, which are brought together to increase the efficiency of the group's activities: some think creatively, others have communication skills presenting the essential ideas of the new informative content, others have abstract thinking, a student organizes information easily, another develops it, etc.

Within the "I know/I want to know/I have learned" method, the activity is frontal and individual. All students have the same work task, reading the lesson in the handbook and writing down what they have learned on biogeographical areas in general. Content may sometimes be difficult and boring. Learning takes place quietly and at the teacher's request, each student has the possibility to speak.

IV. CONCLUSIONS

The active methods used in geography classes are based on the principle of the conscious and active acquisition of knowledge, according to which "*an active process of data understanding and processing along previous intellectual schemas, as well as for the construction of new schemas, has to exist in learning*" (Mândruț&Dan, 2014, p. 90).

The compared analysis of the methods "*Gallery Tour*" and "*I know/I want to know/I have learned*" applied for the informative content "Biogeographical areas" in the 9th A and 9th B grade, respectively, has shown the following:

- As a collaboration-based learning method, the "*Gallery Tour*" method helps develop student-student communication. Students have to interact with one another, to share opinions, knowledge on the approached topics, to socialize, and newcomers or shy students easily integrate within the group atmosphere. It helps students develop their self-esteem, their creativity, take part in their own training. It is an attractive method that helps students learn logically. Students learn ones from others. However, there may be a risk that some students might become dominant in order to stand out and the contribution of each student in solving the work tasks is hard to assess. Moreover, conflicts may appear within some groups because of mismatches in opinions.

- The method "*I know/I want to know/I have learned*", a method for developing critical thinking, emphasizes the level of knowledge the student starts from at the beginning of the lesson and the amount of knowledge held at the end of the lesson, developing intrinsic motivation, what the student wants to know on the topic of the lesson. Thus, new knowledge is correlated with previous knowledge. The student actively participates in discovering information by studying the text in the textbook. Learning sources may be diverse. A library with scientific journals may be organized in the geography laboratory or they may go online. Mechanical memorizing is avoided and the students assimilate information accessible to their level of intellectual development.

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