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Interactivity and interactive methods and techniques in Geography and Economics education under the topic of „Number, Density and Population movement"

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Abstract: The aim of the present study is to trace and analyze the geographic content of the world in the 9th grade and specifically the topic unit „Number, density and population movement" and to interpret some didactic aspects of the interactivity and application of some interactive methods and techniques. The analysis of the leading idea, concepts, categories and basic characteristics related to the population of the world, dynamics in the number of population, density and types of movement is dyedically targeted. Considering the emergence and development of ideas of the origin of man, the emergence of world races, the dynamics in the number, density and movement of the world's population and the importance of overcoming some of the global human problems, namely the demographic and the food, approaches to their solution. Geographic education in the 9th grade presupposes the acquisition of knowledge, the formation of skills and the compilation of patterns of behavior and value attitude, leading to an objective perception and assessment of reality in a global, regional and local aspect. The new realities, which are laid down in the Law on Pre-school and School Education are as basic principles and objectives: orientation to the interest and to the motivation of the child and the pupil, to the age and social changes in his life, To apply the acquired skills in practice; Innovation and effectiveness in pedagogical practices and in organizing the learning process based on scientific substantiation and forecasting of innovation outcomes; Acquiring competencies to implement sustainable development principles; Acquiring skills to understand global processes, trends and their interrelations; The formation of tolerance and respect for the ethnic, national, cultural, linguistic and religious identities of every citizen to whom education must respond adequately.

Putting learners in the center of the learning process requires the development of effective methods and forms of teaching and learning such as interactive learning methods and techniques. How and how

they are reproduced in the study of Geography of the World is the subject of the research study in this report.

Keywords: *interactive methods, Geography and Economics*

Putting the learners in the center of the learning process requires developing effective methods and forms of teaching and learning such as interactive learning methods and techniques.

Modern technology of learning has its own theory, closely related to the achievements of both pedagogical and many other sciences. It aims scientifically building a learning process based on widespread use of technical means of training, advanced (audio - visual) teaching materials, activating teaching methods and teaching materials [1].

Constructivism as a methodology lies at the heart of productive educational technologies, some of which are related to the integration of information and communication technologies in education. In general, the enhanced interactivity unites these technologies.

Constructive cognitive psychology for interactive learning can be interpreted in a particular intermodal educational technology using interactive methods and techniques which can be applied in teaching geography and economy in line with the objectives set in the state educational requirements and expected knowledge, skills and attitudes in the „Population in the world", and the thematic unit „number, density and movement of the population"[10].

In the course of cooperative activity, pupils perform a common educational goal, the achievement of which generates collective energy. The end result of the learning activity depends on the contribution of each member of the group [6].

At the same time, goals and outcomes are significant for both the group and each member. This type of learning promotes cooperative relationships rather than competitive ones. Educational technologies include:

● Learning through firsthand experiences – by changing the traditional roles of the teachers and the pupils;

● Problem-based learning – this is linked with solving cognitive problems through studying the educational material.

Communication is internally intertwined in the activity, a form of co-ordination of actors' behavioral acts, and as such it is a part of the interaction. Communication is also a social psychological category in which three interrelated aspects are perceived: perceptive (the mutual perception of communicators and the establishment of mutual understanding); communicative (process of exchange of information between the communicating parties); interactive (referring to the organization of interactions between communicating individuals), i.e. to exchange interactions. An individual pursues certain goals which go beyond his or her individual capabilities. In this activity, others are present on many lines – as support for the achievement of own goals, as elements of the situation, and as a subject of broad nomenclature, public ideas regulating the activity. The individual develops a system of expectation and orientation towards others. There is a need for mutual adjustment and a public need for organization [9].

The psychological foundations of interactive methods were developed in the mid -1950's and developed further in the 1960's and 1970's. Their most extensive application is related to foreign language learning, but they have a significant presence in other subjects (civil education, history, geography, etc.). It is especially important that the centerpiece of the theoretical formulations is attributed to the learner's personal, cultural and social experience, as it gives some meaning to their surroundings [6].

„Interaction "derives from the English-speaking verb „interact", which means reciprocal action or influence.

It is important to underline, that the currently used terminology may differ from each other, e.g. besides the term "interaction", widely used are also "interactive methods"; "active methods", "activating techniques", "group strategies" etc. (Atego and others [4]).

Interactive technologies (system of methods) and interactive techniques (system of tools and techniques) are necessary and applicable at every stage of the learning process.

The very process of interaction means exercising mutual influence and interaction and is more than mutual help and mutual stimulation. Interaction is the identification of patterns of behavior, norms, roles, organizational structures. The intent is to achieve an organized interaction.

Interactive training is training that provides both conditions (what?) For increased indoor activity as the teacher and the learner in their interaction and opportunity (what?) To their outer appearance through flexible and dynamic methods (how?) And process of learning (where?) with the skillful and competent application of modern learning tools by the teacher (who?) in an appropriate learning environment (where?) [10].

The present work is related to some of the problems that need to be addressed in the implementation of modern geographic education in the secondary schools. This coincides with the period of discussion and implementation of the new school documentation in the Bulgarian schools, the new state educational standards and curricula in geography and economics.

Geography education in the 9th grade presupposes the acquisition of knowledge, the formation of skills and the compilation of behavioral models for objective perception and assessment of reality in a global, regional and local aspect. The emerging consumer and individualistic culture, snowballing globalization more actively affects global problems of the humankind; particularly natural disasters, demographic problems and feeding the population, depletion of raw materials, population movements and the refugee problems form new realities which the education must respond adequately to.

Theory and methodology

The purpose of the present study is to trace and analyze the content of geography curricular of the world in the 9th grade and specifically the topic „Number, density and population movement" and to interpret some didactic aspects of the interactivity and application of some interactive methods and techniques.

The objective consists in making analysis of the leading idea, concepts, categories and basic characteristics related to the population of the world, population dynamics, density and types of movement; considering the emergence and development of ideas about human origins, the emergence of the world races, fluctuations in the numbers, density and movement of the world's population and the importance of overcoming some of the global problems of mankind, namely demographic and food.

Putting students, the center of the learning process (student-centered approach) requires the development of effective interactive methods and techniques. This report aims to analyze how the above methods are reproduced in the studies related to the Geography of the World.

Objectives can be achieved by targeted analysis of the thematic unit, basic concepts and categories related to TTA opportunity to implement the interactive technologies (system of methods) and interactive techniques (a system of techniques and tools) applicable in the learning process.

It is particularly important to emphasize that the training methods are different modes of action undertaken by the teacher by which he or she is working or attracting students to self-study the material in order to achieve the learning outcomes determined by the educational requirements. The methods are divided into two groups according to the way of organizing the knowledge of the learners through which the teacher and the pupil interact in the learning process, such as below:

1) methods of exposition of the teaching material by the teacher: narrative, lecture, description, explanation;

2) methods by which to organize the activities of students handling of the material: interactive lecture, discussion, game, situational methods.

Such grouping of the methods allows the foreground of expressing their other basic features such as:

- the ways in which pupils and teachers work to acquire knowledge and skills;
- ways of organizing pupils' knowledge, the form of co-operation between the teacher and students.

Placing a second plan of „classical methods "is not an attempt to self-modernize the lessons. The new hierarchy of methods is a consequence of seeking consistency between the set objectives and the working technology for the purpose of the expected outcomes.

The above reasons result in increased interest in methods and technique such as games, interactive and situational methods etc.

It is therefore important to draw attention to the differences between the perceptions and the practice regarding the students' individual work and the forms of application of the interactive methods. In

both cases the learner is placed at the center of the learning process in a specific way. The organized activities allow individual or group participation and obtaining feedback. However, when the students work individually, the teacher always remains an „institution "that guides and supports the activities of the students (scaffolding). The interactive methods largely focus on a wide range of communications and interactions, as well as on individual experiences.

In the process of applying the interactive methods, interactions take place between:

- the student and the teacher;
- the student and the group;
- between groups.

The goal in the first case is to mainly understand the roles on the achievement of specified standards and the responsibilities of students in this regard. And secondly, to enable the learner to divert the interaction independently in order to solve problems without relying primarily on the teacher as a counselor. The best outcome of these interactions is that the student deliberately takes responsibility for acquiring new knowledge and skills. The role of the teacher is to be an organizer, a consultant, to evaluate the achievement and to make a diagnosis.

Within the relationship between the individual student and the group key issue is the role that student gets within the group. However, equally important is the role of the teacher when working with several groups. It is also essential that the individual goals of the learners are leading to the same outcome as the objectives of the group as whole. Under these circumstances pupils come closer to real life situations, seeking and finding ways of collective problem solving. This is one of the essential merits of interactive methods. Achieving co-operation, in which students are perceived as a homogeneous team with common goals and with the ability to make decisions, makes the group a team. Typically, in class, this means selecting and collecting information on a particular issue, which also involves generating ideas, assessing situations, making decisions, choosing funds, resolving conflicts. The idea should be therefore accompanied by own and others' commentaries. The final decision is often based on fewer ideas which are usually followed by deeper discussions and suggestions.

In terms of synergies within the group and between different groups the main emphasis lies on differentiating learners' roles within the group, e.g. an intellectual leader, a unifier of the final opinions, the designer of the idea, the presenter etc. The above elements contribute to enhancing students' communication skills via exchanging ideas between pupils, mastering techniques for finding common ground between extremely different points of view.

Another specific aspect of the interactive methods is the fact, that they are based on actions with physical objects (cards, posters, maps); they include activities (grouping, systematization, mapping, etc.). These tools enable the students to acquire new, usually more complex knowledge (of interactions, dependencies and conditionality). They also develop learners' skills for making use of different sources of information and demonstrate their attitudes and preferences to certain values.

Interactive methods put the participants in a situation of constant discussion by giving them opportunity to express their own opinions, suggestions, feedback etc., which allows them to build different strategies of behavior.

"Interactive" learning can be defined as a process of learning which enables the students to be proactive both internally and externally [14].

The interactive training methods are classified as:

- Methods to create a favorable atmosphere, organization of communication;
- Methods of exchange of activities;
- Methods of provoking thinking;
- Methods for creating a final product, creativity;
- Methods of reflexive activity;
- Integrative methods / interactive games [6].

There is a range of varieties of interactive practices such as role play, situational method, discussion, and brainstorming. The main role of the teacher is to encourage the students to be proactive via communicating and engaging actively; to provide opportunities to identify problems; to provide conditions for both, active and autonomous participation.

Based on the above information, the interactive methods can be defined as methods of learning which enable the students to acquire new knowledge, relying on their cognitive experiences in terms of different interactions between them or between the teacher and themselves.

The document „Interactive teaching methods" [12] examines the types of traditional and interactive learning. According to the author, the effectiveness of learning depends on many factors, one of which is the student's engagement in learning-related situations.

In theory, participatory and interactive (participatory, interactive) hands-on, learner-centered, outcome-based learning is encouraged, but these practices are not found often in real practices.

Table 1 (by Ivan Ivanov) [12]

Traditional Educational Model	Interactive Educational Model
Be able to pass the exam successfully based on acquired information.	Conscious need for information.
Be able to identify and solve problems in a structured and static environment.	Be able to identify and solve problems in an undefined and dynamic environment.
Be able to apply knowledge and skills to specific situations and circumstances.	Be able to adapt to information resources. Be able to process the information into a resource-friendly application.
Based on the "teacher-student" interaction.	It is based on the "peer-on-peer" interaction and teamwork.
The teacher makes individual assessments and attestations and provides feedback.	The teacher and pupils make join individual assessments and testimonials and provide feedback.

The "critical thinking" is also considered to belong to the modern educational technologies based on constructive concepts.

"Reading and Writing for Critical Thinking" [7] is a jointly developed program by experts in education from all around the world.

The aim of this collaboration is "to incorporate classrooms training methods that encourage the critical thinking of learners of all ages within different learning disciplines". The students form 'ability to solve difficult problems to investigate the circumstances, critical to weigh the different opinions, to take serious and informed decisions". In Bulgaria, this international program is popular and has its dissemination through the Bulgarian Reading Association and its body, called „Critical Thinking".

The training under this project is based on an understanding of active learning that promotes research and discovery. This model includes three phases of work:

- Evocation;
- Realization of Meaning;
- Reflection.

The awakening of interest in the students motivates them to carry out an active cognitive activity, use their prior knowledge on the subject over which they will be working. This phase requires that „the participants in the lesson have to be asked to think about what they already know about the subject; be questioned about the topic, and set learning goals".

Realization of the Meaning Understanding is conceptualizing the gained experience, its interiorizing in the minds of the students. Awareness of meaning is „a phase in the lesson when the participants explore and seek knowledge and as a result of this activity realize the meaning of the new information".

Reflection helps students to analyze and digest the experienced cognitive process, to present the result of the learning process. Reflection is „phase in the lesson when the students analyze the ideas, that they have encountered, and the meanings they have understood; the learners then ask, interpret, apply, debate, challenge and extend this value to new areas of knowledge, comparing it with their experience [7].

Interactive methods have varying degrees of complexity and different possibilities for use in the practice of training exercises and their implementation covers mainly three methods requiring strict compliance with the rules and have high cognitive and motivational potential: brainstorming, discussion, game methods.

Varieties of interactive practices:

1.   Discussion – based on the confrontation of different viewpoints. The discussion can be applied either as a primary or secondary method. Its application requires purposeful preconditioning of the selected sources, clearly defining and differentiating the argument and counter argument. Debaters are grouped by their common views and able to formulate their arguments and counterarguments through examples, authentic texts, research, and own issues, too. The teacher chooses his/her role during the discussion and only summarizes certain stages by directing the debate; he/she leads the discussion, ensuring compliance with free and equal expression and democratic values. But first and foremost – a significant commitment is the choice of the theme and the formulation of questions. Not only acceptable but also necessary in some situations. The students also learn to lead debates. This is significant as approach for the development of thinking and understanding of some aspects of the identity of the student.

2. Comment on the case. In essence this are descriptions of real life situations in relationships between individuals or groups. Featured are a light extraction of "hidden information" or on taking of decisions on the basis of complex set conditions. Therefore, media messages, scientific publications, and information from Internet are used as case studies in order to resolve existing conflicts and contradictions. They allow the students to make choices between different values. The specifics of the case are that they exclude the playing time. While the interpretation is done in small groups, preparing intellectual cards with pros and cons, the actual transition to discussion and decision making is usually done in large groups. The decisions are normally commented on and are either close/similar or alternative.

3. Game methods. The so called „shell "with didactic task presents a number of advantages of for learning in various subjects such as:
- to promote intellectual leaders and assignee roles in order to value the knowledge and skills;
- develop skills in teamwork and communication;
- students are united in a common goal and accustomed to observing certain rules [13].

Role-playing games and simulations are one of the main attributes of interactive methods. They are made up in accordance with the understanding that the learner interacts with the material, the teacher and the group. The goal is for the learners to be actively involved through their own thoughts, turning to the group or to the teacher. They are expected to apply and acquire new knowledge. In role-playing the student fits into the situation as if it is their own experience.

4. „Brainstorm" – it is seeking a reasoned decision or assessment of the problem. However, the participants in the procedure have clarity about the nature of the problem and in this sense they act as if they are experts. There are a few methods used in the process. Each learner generates couple of ideas, at the same time they are not allowed to comment on them from the position of participants. In the standard version of using posters, the ideas are recorded anonymously. Next step is grouping them in nests related to the similarities of the ideas; followed by detailed analysis of strengths and weaknesses of each idea. The final step is the selection of an idea common for the majority of participants.

5. Conducting debate [3]. The purpose of the structured conducting the dispute is to encourage participants to a deeper knowledge of the problems and development of communication skills. During the conduct of dispute participants explore different perspectives of looking at the problem, enabling them to solve it constructively. The debate consists of three phases: preparation, implementation and evaluation. Usually participants are divided into two groups during the debate. One of the groups protects the confirming argument, and the other group protects the – opposite opinion or counter argument. During the actual debate it is important to consider the time for the dispute which is strictly regulated, and to take into account the roles of the participants. The most important elements are: appropriate argumentation, strategy development, the use of arguments and counter argumentative skills; defend; asking questions, showing respect towards the opposing party in the dispute. The debate is evaluated by judges, taking into consideration elements such as the content of the form of argumentation, as well as the presentation of arguments. The course of the debate is in the following order:
- The facilitator introduces the aim of the dispute, his/her own role, both of the teams taking part in the dispute, and principles of the dispute, such as: each team member is entitled to active participation, focusing the discussion around the main idea, taken all opinions into account while decision making;

●the teams then introduce each other and start exposing their theses; each team usually consists of three team members who are given a few minutes to talk about their these, after which the participants are asked related questions about their opinions;

●finally, the facilitator summarizes the course of the debate, and the judges give their verdict.

6. Interview [3]. The role of the interview as a technique, is to benefit each participant taking part in it. It consists of the following steps:

- explaining the purpose of the interview to the participants or identifying the purpose of it by the participants;

- proposing the possible interview questions either individually, within the whole group or in small groups;

- inviting and discussing the nature and procedures of the interview with people who will be subjected to the interview;

- discussing the appropriate behavior boundaries of interviewers;

- summarizing the information gathered during the interview (as a discussion or chart or as a debate around the main topics);

- finally assessing the process of the interview by the participants.

7. Development Project [3]. The project is a series of planned activities which consist of: a purpose, techniques, time limits to be implemented, resources, individual or most often in group work by the participants in order to implement their ideas, existing criteria for evaluating the success. Participants learn making group decisions, resolve conflicts, searching and finding compromise, performing different social roles, conduct, evaluation of group work etc. as part of their project work. Some stages of the project may include: 1. Identifying the topic and defining project objectives. 2. Searching and analyzing the information. 3. Public presentation of the project.

8. Resolving- Problem solving [3]. This is one of the most commonly used interactive methods and it consists of the following basic steps: 1. Defining the problem- short and precise description of the existing problem and determining the position, which should be achieved after resolving it. 2. Identification of potential causes of the problem and identifying the one which is mostly likely for its cause 3. Identifying possible solutions, followed by preparing a list of the ones which are most likely to be applied. 4. Selecting the best decisions after agreeing on the criteria according to which these solutions will be evaluated. 5. Developing an action plan which specifies the different steps which need to be taken, deadlines, costs etc. 6. Implementation of the plan and assessing the progress.

The attention of the teachers, using interactive learning methods is usually focused mainly on two aspects:

• Identifying specific interactive methods described in the literature- heuristic conversation, brainstorming, visualization, discussion, problem solving, interview, role playing, simulation games, situational games, drama, debate, discussion, project, case study, cooperative learning, solving moral dilemmas (of values clarification), independent work, synectics.

• Analysis of terms used in interactive methods such as debate, discussion, case, incident, various play methods etc.

The discussion is a conversation aimed at analyzing and clarifying a topic, without a pronounced clash of views.

The discussion is a conversation in which there is a confrontation of views for a thorough analysis of a problem. It might as well be restricted to the analysis of the problem and result in the formulation of a final opinion and decision.

The debate is a variety of the discussion, in which there is a confrontation of two main points in order to highlight the more grounded one.

The case is a coincidence that deserves to be analyzed by cognitive and practical terms. The case is also coincidental, which causes certain contradictions and imposes a decision. The essay is a method identical to problem solving.

The incident is a description of a situation which is connected with the violation of certain norms and requires adequate response. Unlike the case, information is insufficient and the decision should be taken in terms of lack of time.

Play methods of learning can be defined as such methods in which the absorption of knowledge takes place in a conditional situation, the main feature of which is entertaining with funny nature of the rules of action.

Role-play games (RPGs) [3] – this is a strategy that engages participants on a personal level. Feelings and experiences with the implementation of a role in helping them understand the problem or concept studies. RPG creates conditions for in-depth study of a question, solving problems by imitating roles in real-life situations.

Simulation games are a kind of model of public processes where significant feature is rivalry.

The main interactive techniques for organizing interactions in class can be viewed in a broader plan, namely:

1. Working (learning) in small groups and in pairs. This technique can be used in different situations in most of the mentioned interactive teaching methods. Working in small groups and in pairs facilitates: the introduction of the participants in the discussion; sharing experience of confidential nature; performing specific tasks that are part of the more general work (for example, the discussion of specific parts of a global topics and issues that are to be considered by all); project development; improvising at playing role-playing games; rationalization of teaching time, etc.;

2. Coming to an agreement on rules for collaboration. It is necessary to reach an agreement regarding the rules of work in the group at the beginning of each training/learning process (treaty, convention). The Lead can offer fun ways that promote the participation and inform all parties that there will not be exemptions of the discussed rules. It is also practical to have visuals of the rules, such as list displayed on the wall etc.

Some of the rules may include:
- „Listen to each other!“;
- „Respect everyone's opinion!“;
- „Do not take offense and do not mock each other!“;
- „Everyone is entitled to their opinion!“;
- „Raise hand to express your opinion!“;
- „Everyone has the right to refuse to participate in any discussion whenever they want!“.

3. Circle of talks- for activities in which all work together, discussions, debates, role plays, etc., Participants and the facilitator need to be in a circle so that it is possible to maintain eye contact.

4. Working in „mobile groups“. This procedure combines the advantages of the group work and the discussion of all the participants. There are „True“, „False“ and „I do not know“ signs each fixed on different walls in the room. Each participants chooses to stand below the sign which reflects his/her opinion. This leads to forming temporary groups-those who accept the statement as true; those who think it is wrong and those who cannot judge. If a participant of a group changes its mind under the influence of the other group, he/she can join it and change his/her location [14].

5. Conducting a discussion/ debate with a ball of yarn. By setting the first question, the teacher holds the end of the thread and passes it to the student who wants to answer. This forms a connection between him and the teacher. The student then answers the question and unrolls the thread, then passes it to the next student who wants to participate in the discussion. [14].

6. Training Centers (working groups). Creating centers for learning is a method used in cooperative learning, which is a place in the classroom where participants can perform carefully selected tasks. The tasks can be performed either in short time, or over periods of weeks. The participants are divided into working groups. When ready, the appointed speakers represent group conclusions and achievements. The facilitator poses differentiated tasks to the members of the various groups, such as keeper of the rules, monitor, leader etc. Head [3].

7. Collaborative (joint) learning. The term is most general and includes all cases other than the individual and anterior forms of organizing learning. It is a group work in all its variations. This type of learning is carried out as learning in pairs and group learning. Learning pairs can be formed in two ways: learning partner, and training by tutors ("students learn how to learn"). Group learning is applied in 'checking bulky knowledge, criticize their own thoughts and ideas; selection of appropriate solutions; specifying a common approach; clarifying and structuring complex problems; stimulating a subject centered motivation [12].

8. Cooperative learning-social form of learning, connecting the acquisition of knowledge and skills by learning the forms of interpersonal relations. Form groups within the class (3 to 5-7 students) for joint learning that are independent and work on assigned tasks. The teacher is in the background and acts as moderator and consultant. In a later phase, results (decisions) are presented to all to be useful for the entire class [12].

Successful technique of group work and technology is „thinking with six hats". This is a method developed by Edward de Bono, which enables us to comprehensively assess the given situation or problem. Each participant selects one of the given hats (i.e. a certain way to address the issue) and enter into his role. Discussing the problem this way takes into account different perspectives and is a winning approach in terms of depth.

● White Hat: Facts- participants with a white hat support researchers, those who seek facts and data or measuring different phenomena, and the ones checking their true nature.

● Red hat: emotion-participants with red hats express their feelings in this situation, share what they like and dislike.

● Black Hat: pessimism – those wearing black hats criticize, express cautious, attitude and open concerns; they usually look for weaknesses and failed targets.

● Yellow hat: optimism- those wearing yellow hats see the world through pink glasses. They note the strengths of a decision and its positive consequences.

● Green hat: options – the ones in green hats explore emerging opportunities. For example, what possibilities are in different situation and various circumstances? Green hat is the hat of creative thinking.

● Blue hat: process –analysis. This is the color of the sky- participants in blue hats monitor the process problem solving from above. They detect which of the other colours dominate in the discussion; check if all colours have expressed their opinions and decide which colour's turn is [14].

The analysis of the leading idea, concepts, categories and key features associated with the world's population, dynamics in population, density and types of movements is didactically targeted. Considering the emergence and development of ideas about human origins, the emergence of the world races, fluctuations in the number, density and movement of the world's population and the importance of overcoming some of the global problems of mankind, namely demographic and food can be achieved thorough examination of the existing learning programs and DofE. Examining the possibility of applying interactive technology (system of methods) and interactive techniques (a system of techniques and tools) applicable in the learning process is monitored by the topic: „Number, density and population movements "in ninth grade.

The above topic is studied in Year 9 curriculum as:

Core 2: Geography of Population and Settlements

Standard 1: Explains geo-demographic characteristics of the population in The World

Theme 1: The population in The World

Standard 2: Expresses attitude towards the demographic problem and justifies the ways of its solution

Theme 2: Demography and Demographic Policy

Standard 3: Compares the demographic situation in various parts of The World

Theme 3: Demographic differences in The World

In the course of learning in ninth grade (second level) the topic for the number, density and movement of the population is studied in:

Core 2: Geography of Population and Settlements

Standard 1: identify the different types of reproduction and explains the migrations of population.

Theme 1: Basic types of population reproduction

Expected results: 1. reveals links between the types of reproduction and geographical, economic, cultural and psychological factors; 2. Tracks map types of the reproduction of the population; 3. Explain the causes of migration; 4. Formulate conclusions about the demographic situation in individual regions and countries within them.

Theme 2: Migration of population

Expected results: 1. Knows the development of migration processes; 2 explains the reasons for migration; 3. Tracks map migration of population; 4. Can rationalize the role of demographic policy of solving migration problems.

The present analytical report is based on textbooks and school kits that are used in the school system named Otto education for 2017/2018 school year, approved by Order № RD09-982 / 24.01.2017 of the Minister of Education and Science

There are various publishers approved in the compulsory and specialized program.

The topic of this analysis is also part of the Geography and Economy curriculum for Year 9 students, authors R. Penin and team ed. Bulvest 2000 (compulsory education). The theme is seen in „Social and economic geography "section and subsequently in „Population and settlements "subsection in three thematic units: number, density and movement of the population; types of structures; reading and analysis of gender-age pyramid.

This theme is also part of the textbook with authors St. Karastoyanov and colleagues, Anubis (compulsory education). It is seen in the third section, named „Geography of Population and Settlements in the World"in four thematic units monitored the dynamics of population, types of structures, migration and demographic problems and policies.

The topic is also discussed in the second section of the textbook written by R. Gaytandjieva and her colleagues, „Dr. Ivan Bogorov" Ltd. (compulsory education) under „Geography of population and settlements on Earth. Political organization of society". The number and distribution of population dynamics and structure is part of four thematic units.

The prime objectives of this analysis are gaining knowledge, acquiring skills, and modelling behavior patterns of objective perception and assessment of the reality in its global, regional and local aspect.

There are number of skills, formed throughout the whole process, e.g. intellectual and practical skills to work with different sources of information, working with maps; evaluating, comparing and conclusions; ways to overcome the global problems of mankind, particularly the demographic problem; enhancing the vocabulary related to geographic literacy; developing geographical culture and geographical competence as a leading component of the problems that must be solved in the implementation of modern geographic education in secondary school etc. [2].

This report also aims to share practical application and benefits of new educational technologies specifically probated and described in the conduct of thematic lesson under the topic of "Number density and population movements" (tutorial for new knowledge using interactive methods and techniques).

Objectives:

1. Knowledge:

1.1. To consolidate and summarize knowledge in order to characterize the world's population - number, natural movement, mechanical movement, demographic problems.

1.2. To achieve learning intentions regarding of the types of graphic images and their possible use.

2. Skills:

2.1. reading and analyzing graphic and picture images;

2.2. applying the acquired knowledge in order to characterize the population;

2.3. assessing the demographics;

2.4. formulating problems and offering solutions.

2.5. teamwork;

2.6. presenting multimedia presentations and posters;

2.7. interactive methods and techniques: playing method, brainstorming -graphic organizer „spray pattern", „web", case studies, interactive system for reading by marking - INSERT, the decision by the method of economization, design work - a multimedia presentation, survey and questionnaire.

3. Relations/ competencies:

3.1. To realize the relationship between the degree of economic development and characterization demographics;

3.2. To form competencies for teamwork in the implementation of educational and cognitive tasks, responsibility for their role in the team, positive competition against others;

3.3. To continue the formation of tolerant acceptance of differences in race, ethnicity and religious affiliation of the population;

3.4. To capitalize on the opportunity to use the knowledge and skills of students in need to take and justify solutions to practical application activity.

The activities that were developed in the lesson are described in the Appendix to this report.

In conclusion can be drawn and key moments in the application of relevant interactive methods and techniques in teaching geography and economics.

The advantages of interactive techniques are:

- Higher efficiency of education;
- Be reported somewhat cognitive activity of certain groups of students;
- Ability to differentiated approach to aid in control;
- They develop qualities such as conscientiousness, mutual assistance and mutual control;
- Ability to high involvement of students in groups;
- Mindset activity-learning and teamwork, which increases interest in learning;
- Develop communication skills and interpersonal skills;
- Teaches the tolerance is;
- Ability to exchange ideas and expand knowledge of the trainees;
- Establishment of autonomy and personal responsibility.

Deficiencies in interactive techniques are mostly related to that individual pupils can remain passive, taking advantage of the results obtained by the group. It is necessary to comply tolerant relationships. Nothing in the group should not be at the expense of the feelings and experiences of one of the participants, because it may lead to the development of a sense of misjudgment and neglect.

The training, which is based on learning through experience, requires the use of methods that lead to increased cognitive, social and emotional activity to students. Generally, these are training methods that are based on the game (teaching and role play, drama), dialogue (consultation, discussion, brainstorming), research (observation, experiment, work on the research topic and project) and practical activities (exercises, situational methods-case analysis of situations, work on social projects).

In modern Bulgarian school there are teachers who implement interactive strategies, although it found serious obstacle of non-interactive environment at school and "narrow" perspective that outlines academic documents (plans, programs and textbooks) in this regard.

Not infrequently efforts of teachers aimed at overcoming the usual for today's school organizational and technical obstacles at the expense of efforts that would put in consideration of good ideas for the realization of interactive learning.

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