

THE EDUCATION IN INTERACTIVE GEOGRAPHICAL ENVIRONMENT

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Abstract

The research has as its purpose on the basis of the achievements of psycho-pedagogical theories for interactive strategies, technologies, techniques, methods and of the methodical-geographical grounds to: reveal the possibilities of particular *educational content* in geography and economics in the Bulgarian secondary schools for successful using of interactive methods and techniques; develop and substantiate a concrete interactive didactic model for forming of *geographical literacy* and to examine its effectiveness; study the attitude to the developed interactive didactic model for forming of *geographical skills*. Geographical education with the using of interactive forms and methods proves to be successful in the development of geographical literacy in all of its components: knowledge, skills, emotions, activities.

The planning, organization and carrying out of contemporary education in interactive educational environment is a necessary choice, guaranteeing the effectiveness of the educational process. Possibilities for realization of interactive educational process gives the great variety of methods and means, which transform students from passive observers and consumers into active partners and creators of their own knowledge. The clarification of the nature and diversity of interactive strategies, methods and techniques and the development of a balanced theoretico-empirical model of interactive education in geography and economics will activate the cognitive activity for forming of geographical literacy with its key characteristics.

Keywords: geographic education, intellectual skills, geographic literacy, interaction, interactive methods.

Resumo

O presente capítulo tem como objetivo analisar as teorias psico-pedagógicas relacionadas com as estratégias, tecnologias, técnicas, métodos e fundamentos metódico-geográficos interativos no sentido de revelar as possibilidades de sucesso de conteúdos educacionais da geografia e da economia no ensino secundário búlgaro. Também tenta desenvolver e fundamentar um modelo didático-interactivo para a formação da alfabetização geográfica e aferir a sua eficácia. Importa reconhecer que tem sido bem sucedida a utilização de métodos interativos na educação geográfica em todas as suas componentes: conhecimento, competências, emoções e atividades.

O planeamento, a organização e a concretização da educação contemporânea, em ambiente educacional interativo, é uma escolha necessária, garantindo a efetividade do processo educacional. A possibilidade de realização do processo educativo interativo proporciona uma grande variedade de métodos e meios, que transformam estudantes de meros observadores passivos e consumidores em parceiros ativos e criadores do seu próprio conhecimento.

Palavras-chave: educação geográfica, competências educacionais, literacia geográfica, interação, métodos interativos.

1. Introduction

Because of the large integration potential of geography as a science and school subject, the place in the curriculum, the connections with school subjects from Cultural educational field (CEF) "Social sciences and civic education" and from CEF "Natural sciences and ecology" gives the grounds for development and approbation of interactive educational environment, based on constructive-cognitive conceptual framework, being a factor for building of geographical culture and literacy in students.

The constructive-cognitive psychology for interactive education can be successfully interpreted to the level of concrete variable educational technology with combination of interactive methods and techniques, which could be applied in the education in geography and economics by substantiating the following tasks:

- To be conceptualized the comprehensions about the nature and classification of the interactive methods in the context of purposeful formation of geographical literacy, in order models for interactive education to be constructed, accordingly the specificity of the geographical educational content.
- To be specified the conceptual apparatus in order a conceptual framework to be made stressing on cognitive, value, normative and activity dimensions of the geo-ecologic literacy in all components of the educational process in geography.
- To be developed variants of interactive didactic technologies in combination with interactive techniques, methods and with stress on cooperation and sharing in the cognitive activity, in order stimulated context of the educational content to be created, corresponding to the determined purposes in the national educational requirements in the fields: "Natural-geographical regions in Bulgaria" and "Population, settlements and polity in Bulgaria".

Today especially topical is the problem about the state and trends in the ecologization of education in the new conditions. The infiltration of the ecological criterion in every form of human activity as a new approach for resolving of ecological problems requires an adequate geographical culture.

The adoption of geoeological and ethical norms, values and attitudes is expedient because of the changes in the manner of interaction of the developing personality with the surrounding environment, because of the emergence and formation of ecological responsibility.

The idea about sustainable development – cultural, economic, ecological and social health and long life of society, for short time found approval and followers in 179 countries, whose representatives reached consensus about development that should meet the needs of the contemporary generation, without compromising with the capability of future generations to meet their needs; there is a need to be increased the receptivity of people and the extent of their participation in the search for resolutions of problems connected with the environment; the education in sustainable development is extremely important inseparable part of the system of measures for survival.

All these processes put the question about the nature of effective geographical education – purpose, structure, forms, instruments.

2. Action and Interaction

The planning, organization and realization of the contemporary education in interactive educational environment is necessary choice, guaranteeing effectiveness.

The revealing of the character of the interactive educational environment presumes clarification of the key concepts interaction, interactivity, interactive learning.

Activity and Interactivity introduce dialogue and interaction among the subjects that are so needed and useful for the purposes of effective education.

Teacher and student in interactive environment transform their functions and places in the educational process in directions and degree, guaranteeing real qualitative improvement of the results from education.

Interaction is a term, meaning a kind of activity or more specific – “interaction and mutual influence among people in the process of their communication”[6].

The concept interactivity may be examined as a composition of two words – “inter” (together, between) and “activity” (action, initiative), and is related to the interaction between student and teacher, as well as among students themselves.

Interaction is a mutual or reciprocal activity of two or more persons with particular effect on them and includes communication and cooperation in the process of fulfillment of one common task with mutual result from it.

Every participant in the educational process participates with own contribution to the development of the educational environment. Interaction helps for clarification of the views, for tolerance in the communication. It presumes the skill to listen, comprehend, discuss another point of view, opinion or attitude, different from the own one.

The interactive education is a complicated system, including interactive strategies, interactive technologies and interactive techniques. The purpose of interactive education is on first place to develop skills for communication in students.

The philosophical fundament of **interactive strategies** is built up by the socio-cultural theories about studying, in which constructivism, the research approach and cognitive reflexion are interrelated and have priority role.

The new paradigm, whose philosophical base appears to be constructivism and humanitarian education, determines the change in the educational environment, including argumentation of the educational purposes and tasks – methodology of education (from monologue to dialogue), change of the educational technologies (from stimulus reaction to interaction), change in the pedagogic dialogue and interaction between teacher and student.

The research approach determines the ways of collecting of information for solving of the cognitive problem and for determining of the effectiveness of the solution, typical for particular scientific field, in the context of which is developed creative and critical thinking. The reflexion determines the objectivity and value of research that has been made, and of the benefit from it

for the personal development of students and for the progressive evolution of geographical education.

The interactive learning is realized through interaction and dialogue between the sides in the process and between students.

The constructive-cognitive psychology for interactive education can be successfully interpreted to the level of educational technology with combination of interactive techniques, which can be applied in the education in Geography and Economics.

3. Educational Interactive Methods

The interactive educational process gives a great variety of methods and means, which transform students from passive observers and consumers to active partners and creators of their own knowledge.

The clarification of the nature and variety of interactive strategies, methods and techniques, and the creation of a balanced theoretic-empirical model of interactive education in geography and economics will activate the cognitive activity for formation of geographical literacy with its key characteristics.

The method as a way for achievement of the goal in the education process finds its brightest realization in the character of interaction between teacher and students. The most popular classification of the methods, used in the education in geography (explanatory-illustrative, reproductive, research) predetermines the character of the activity of the teacher (informer, organizer, leader). These methods are used in the education in geography. For example the reproductive method – in the studying of a series of objects of one type, and the research method – in the studying of the homeland.

The term “method” comes from the Greek word “metodos” – a way for studying, for cognition, for theory. The ways through which a particular purpose can be achieved, which are used for research or are applied in a particular type of activity, are defined as methods. The methods of education build the procedural side of the technology of education. Through them can be realized the connection between the educational content, the process of its learning by students and the organization and management of this process. The method is a concrete type of mutual activity of teachers with students.

One of the accents in teaching and studying realized in the education system in Bulgaria during the last years is the situating of the students in the center of the process of education. This requires development of effective methods and forms of teaching and studying, as well as of an environment for realization of studying during the whole life.

Interactive method means a **method of education, of teaching and studying**, which includes techniques for interaction of the communicators, among them and with the teacher.

The nature of interactive methods of education is based on getting of new cognitive experience during the process of active and well organized productive interaction among themselves, with teachers, with computers, with nature and with different sources of information regarding the geographic problems of the present day.

We consider interactive methods as **procedures, systematic manners**, containing the consistency of the common actions for achievement of particular purpose in a determined scientific field, in this case in geography.

Interactive methods require partner interrelations and a dialogue type of communication between all participants in the activity.

The usage of interactive forms, methods and means helps for overcoming of communication barriers, stimulates thinking, generation and exchange of ideas. Every participant in the educational process has own contribution to the development of the educational environment.

Interactive methods of education are ways for mutual cognitive activity, in which participants interact with one another, information is exchanged, situations are modeled, actions and behavior are assessed, they get into a real atmosphere of cooperation for common solving of real problems on local level in different types of educational activity, qualitative learning of the geographical educational content is provided.

Interaction helps for the clarification of the points of view, for tolerance in communication. It presumes the ability to hear, accept, talk over another point of view, opinion or attitude, different from the own.

Interactive techniques represent means for mutual participation in one separate action, that is to say skills and logical, technical, linguistic means for education, for example: asking of questions, rationalization and formulation of answers, using of worksheets, holding of the attention, application of what has been learned, memorizing and others.

Interactive technologies (system of methods) and interactive techniques (system of skills and means) are available and necessary on every stage of the educational process.

Interactive education is this education which creates in the same time conditions (**what?**) for increased internal activity of the teacher as well as of the student in their interaction and opportunity (**what?**) for their external expression through flexible and dynamic methods (**how?**) in the process of education (**where?**) with the skillful and competent application of contemporary dynamically developing means of education by the teacher (**who?**) in suitable educational environment (**where?**), in lesson and out of lesson forms. Interactive technologies are peculiar type of personally orientated technologies, which skillfully combine the activities, directed to "**what is learned**" (the content of the educational material) and "**how to be learned**".

The technology, the algorithm (**how to be learned**) takes **priority** as a personally orientated approach before the theoretical preparation for geographical literacy (**what is learned**).

Regarding the importance of interactive methods for creation of new educational environment we point out the following:

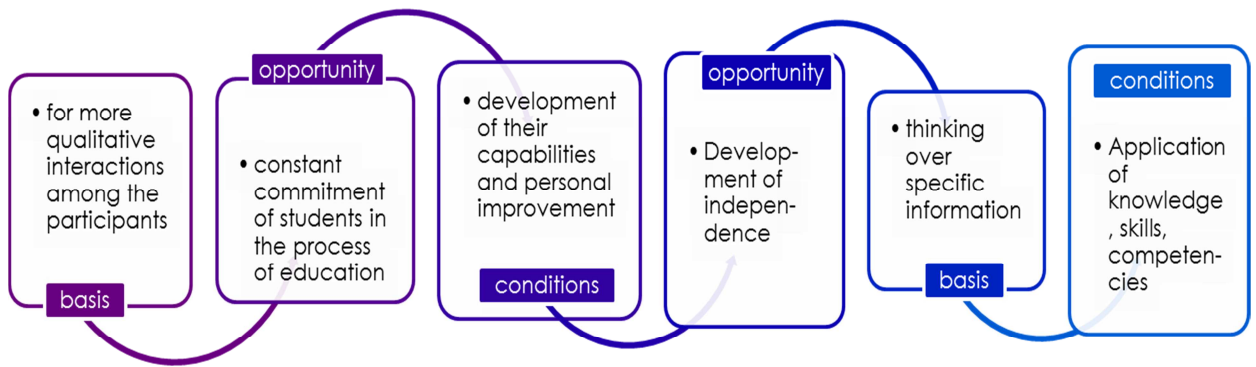


Figure 1. Significance of interactive methods

The application of interactive methods in the education in geography gives opportunity for increasing of knowledge of students, including theoretical, empirical and methodological knowledge for the world, the separate continents and the states in them.

From the already made analysis of literature sources of information is clear that still there is no qualitative classification of the interactive methods by clearly distinguished criteria. We can separate interactive methods in three groups: situation, discussion, experimental or empirical.

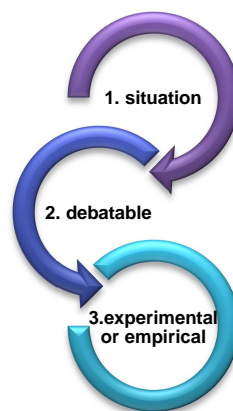


Figure 2. Groups of interactive methods

3.1. Situation Methods

The situation methods presume maximum approximation of the educational process to real life. Of particular importance is the choosing of a situation from reality, typical for specific type of human activity. The different aspects of analysis of this situation urge students to look for alternative solutions. Thus their thinking is stimulated and their knowledge and skills are

updated. Significant for the situation methods is that their application is not connected with the acquiring of new knowledge, as much as with consolidation and creative application of the already learned educational material. Stimulating is the transfer of knowledge to a new situation and in conditions of seeking of optimal solution.

The situation models represent introduction to a situation and analysis of the situation. Andreev [1996] discusses three variants:

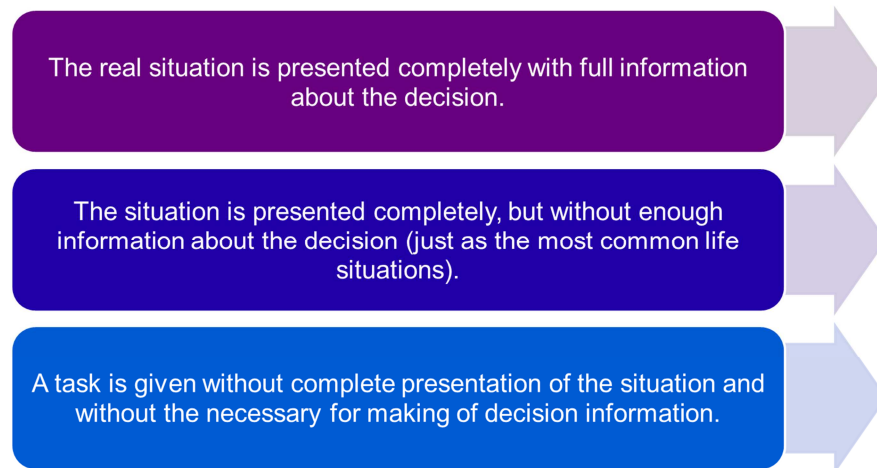


Figure 3. Variants of a situation

To the situation can be related:

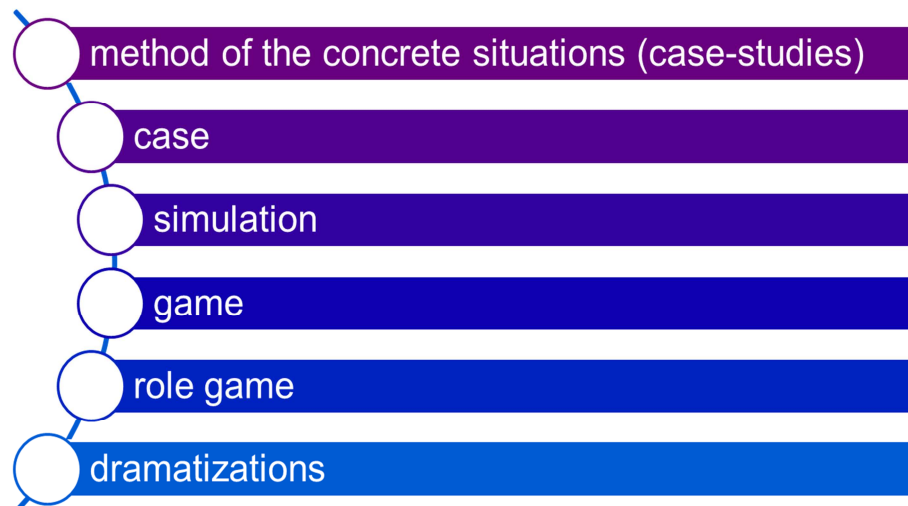


Figure 4. Situation methods

In the usage of the situation methods can be distinguished the following stages: the **purpose** that should be achieved by students is determined; the **content** of the situation is presented; the **activities** that should be accomplished by students are specified; the **groups** are formed – a person in charge is chosen, the **rules** for work are specified; a **situation** is discussed in the group, different **opinions** are given, one of them is chosen and some proofs for the defense are prepared; an intergroup **discussion** is held and the opinion of each of the groups are systematized and analyzed; conclusions are made and the results are evaluated.

The imitative methods are gaming. Special attention deserve role (simulation) games. They are constructed on the basis of real situations, that is to say they imitate reality.

Kostova [2000] determines **simulation and games** as situation methods. In them most frequently is used the method of **modeling**. It represents using of the method of analogy, in which the complicated original system is replaced by a simplified model. The most widespread classification of the simulations is according to the level of abstraction. Simulations are: **Case studies; Role playing; Game simulations; Machine simulations.**

The **case** is a method for modeling and solving of problematic situations. It can be used variatively in the education process. The effectiveness of using cases is determined by its relation to the educational content, the age peculiarities of the students, the skill of the author of the case to present the situation with introduction, exposition and assigning of a task, to be clear, laconic and not to direct to specific solving.

The cases are structured in the following way: **purpose** – description of the concrete case, providing complete **information** – practical **tasks**. The cases describe real situations from practice, they are based on experience and are product of the application of the approach for joint teaching. It is realized on the stage of making up of the cases and for the assessment of the results of individual and/or group work if necessary.

For example by using cases in the education in geography and economics students look for additional information to help them to solve a particular problem. Students reveal the cause-and-consequence relations between the objects, the processes and phenomena, i.e. the case is a factor for studying of Regularities in the geographical science.

3.2. Discussion Methods

Key moment in the application of cases in the course is discussion.

The discussion methods are:

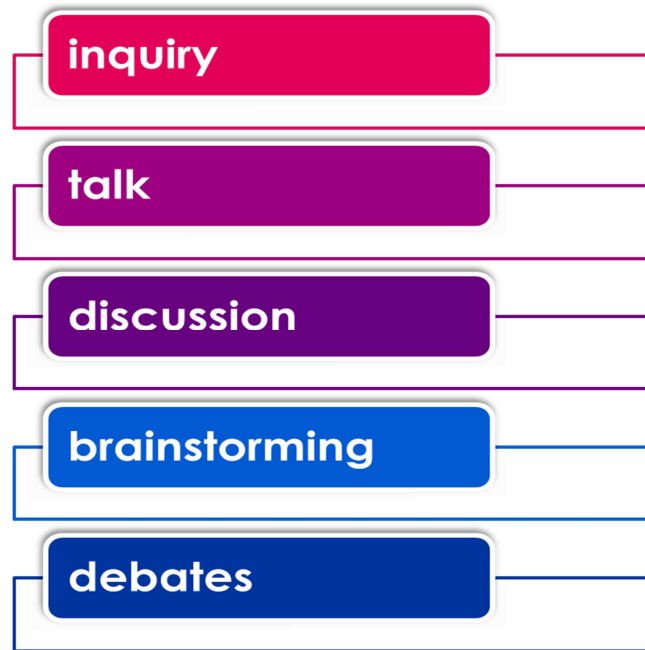


Figure 5. Discussion methods

The discussion is a method which during the last years takes new positions in the process of education. It is a peculiar type of exchange of ideas and opinions on concrete, clearly defined topic. It is not necessary the discussion to finish with taking of decision. Discussions require thorough preparation on the theme, skills for argumentation, analysis, comparison, generalization, transfer of knowledge. Usually they stimulate creative thinking, objectivity, courage to speak and defend positions. The discussion enriches and extends knowledge of students. It develops skills for exploration and gathering of information, reduction of knowledge according to the concreteness of the topic, presenting of the problem in different aspects. We cannot neglect the fact that it helps for the development of the speech culture of students, their skill fast, clearly, correctly and logically to build their answers. They develop communicative abilities and interpersonal relations.

Figure 6. presents schematically the ideas and requirements to a discussion.

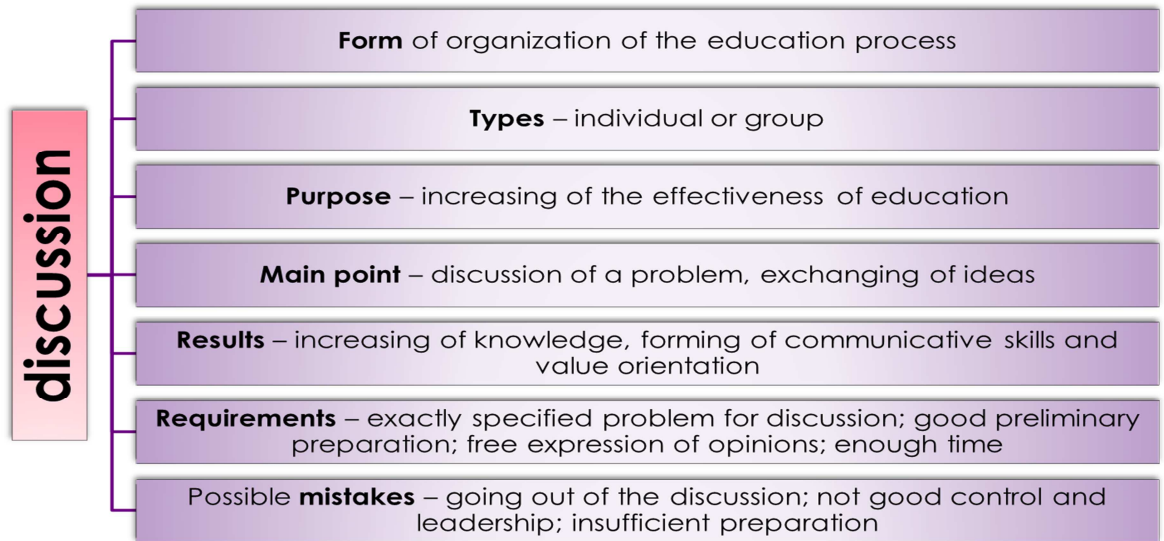


Figure 6. Discussion methods

The **brainstorming** method is used for stimulation of the creative activity of students on particular topic or question. The work is carried out with a group of students and includes: generating of ideas, analysis of a problematic situation, evaluation of ideas, and generating of contrary ideas. Joking, remarks and informality are encouraged. Students freely express ideas or opinions, which in that moment are not discussed or evaluated. The brainstorming continues until the group runs out of ideas or it finishes the task for the time given. From all of the ideas are chosen the most appropriate which correspond most correctly to the problem.

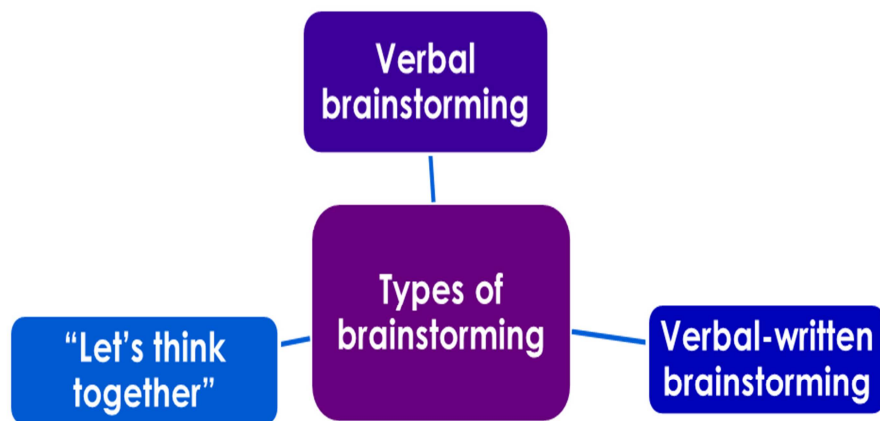


Figure 7. Types of brainstorming as procedures

Using of interactive methods (brainstorming, cases, role playing games, incident and case) is factor for formation and development of the empirical knowledge of students. The skills of the

students to extract geographical information, to interpret it, to present and generate information (according to the curriculum) are achieved through the usage of interactive methods for solving of particular problem.

3.3. Experimental Methods

The experimental (empirical) methods are:

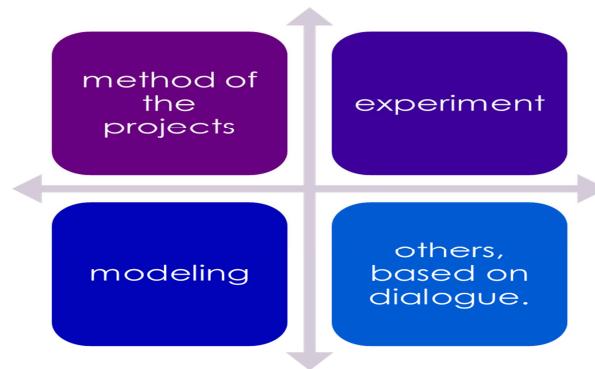


Figure 8. Experimental (empirical) methods

The main idea of the method of **project development** is learning through action. The base of a particular project is always “the live occupation with the experienced reality, by which with common efforts is reached one or several resolutions of particular problem, which finally fuse into one product, into a concrete result”, Andreev [1996].

This method is usually combined with other methods. In projects on one real task teachers and students work equally. The character of the projects is determined by the specificity of the educational content, the age peculiarities of the students and its coverage and theme. The project method goes through the following stages:

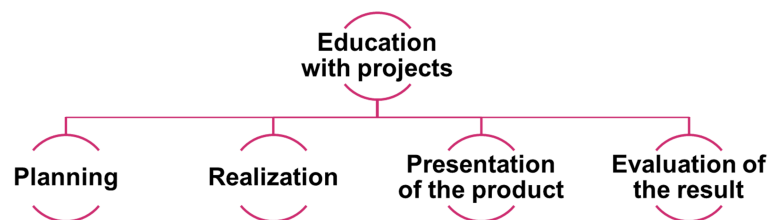


Figure 9. Stages of the project method

1. Planning of the project – a working group is formed, the sphere of participation and the topic are determined, the tasks are distributed. 2. Conduction – teachers and students work according to the working plan: collecting of information, making of interviews, creation of a

product, preparation of presentations and others; 3. Presentation of the product – presenting, posters and others; 4. Evaluation.

Products of projects with the using of the potential of information technologies can be: visual presentation of a lesson – presenting of some topics from the educational content in the class activity; system of on-line education – preparation of materials, designed for the Internet.

Information and communication technologies provide diversity of methods and means which show possibilities the educational process to be assisted as individual needs of students are took into consideration and important digital competencies to be built in them, necessary for the achievement of economy “based on knowledge”.

The already made analysis of the separate methods of education from the point of view of their advantages, limitations, possibilities for using of interactive techniques and of questions about reflexion gave us the opportunity to select the most appropriate of them for the purposes of geographical education.

4. Interactive Methods and Expert Learning

Expert learning is an interactive form of education, which stimulates not only communication, interaction and cooperation, but also development of personal qualities such as responsibility, tolerance. It helps for the development of independent strategy for studying and skills for transferring of conceptions to the others, for socialization and integration in the community.

Expert learning may be successfully realized in geographical education through the following steps:

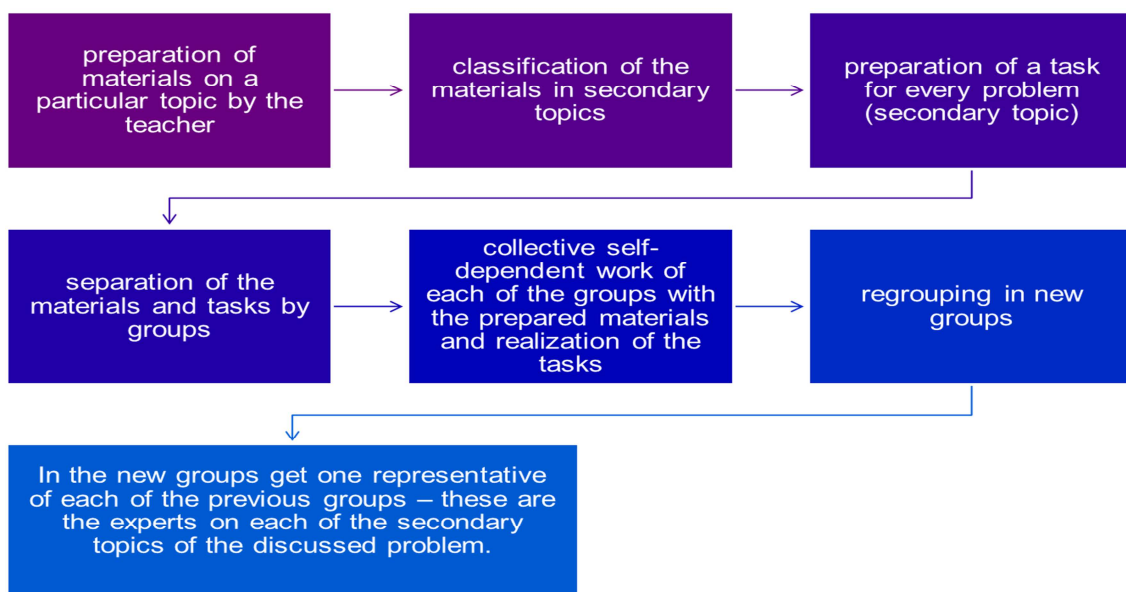


Figure 10. Consecutive steps in expert learning

Interactive methods could be classified also according to the main function as follows:



Figure 11. Classification according to the main function

The main conditions for using of interactive methods of teaching include: orientation to team work, realization of projects, preparation of posters, construction of conceptual maps, reflexive evaluation of the results, solving of tasks of interdisciplinary character, increasing of the independence of students in the cognitive activity.

The forming of geographical culture of students is result of the application of contemporary educational strategies, whose basic component are the interactive methods of education. They are one of the possible ways for increasing of the quality of geographical education and for achievement of its purpose, because their application leads to the formation of: new type of reciprocal action, based on interaction; new competencies and personal skills – capability for independent studying, adoption of new methods of studying (including interactive), critical thinking; creativity; lifelong learning; capability for reflexion; new skills - for work with constantly changing information, for defending of own opinion, for teamwork and others.

Geographical education with the using of interactive forms and methods proves to be successful in the development of geographical literacy in all of its components:

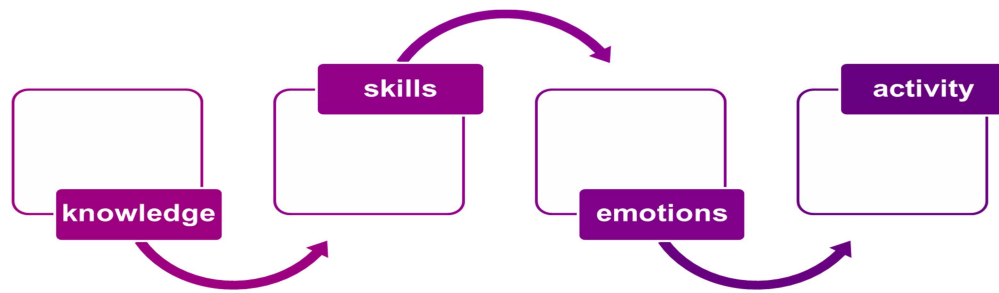


Figure 12. Components of geographical literacy

The reasons for using of interactive methods in the education in geography and economics are based on:

- Requirements of society to geographical knowledge, determined by the national education policy in Bulgarian secondary schools for transition to a new type of education.
- The opportunity through them to be achieved geographic culture, competencies and skills.
- The age and personal peculiarities of students – interactive methods can be used in junior high school and high school education.

The application of **information technologies and interactive methods** of education contributes to the activation and increasing of the quality of skills; stimulates critical and self-critical thinking; the formation of positive motivation and cognitive interests; positive attitude to studying and the school subject.

1. The problem of formation of skills is not new, but it is presented in a new way from the point of view of information technologies.

2. It is a novelty from the point of view of the individual cognitive activity of students – to look for information, to interpret it and to present it.

3. In the present diagnostic research methodical resolutions for using of interactive methods are provided – case studies, development and defending of projects. In the realization of these methods is applied the specific for them consequence of activities.

4. The realization of interactive methods of education is most successful in the group form of organization of work. It contributes to the formation of some important educational-cognitive skills, stimulates competition among students and groups and helps for the development of organizational and performance skills.

5. Creative individual work contributes to the opening of power and capabilities of young people, increases their self-confidence and makes them desired partners for teachers.

This motivates us to direct to changing of practices of teaching for improvement of geographical education and ecologic literacy and responsibility with the hope that the using of interactive methods of education which reveal the social aspects of scientific achievements and include

actions for improving of the quality of the environment on local level, can change their global thinking.

5. Forming of Skills

Methodical literature shows diversity of the conceptions of skills and their classification. We accept and use for the needs of this research the definition of skills for making of geographical characterizations for the most specific intellectual skills in the educational work in geography. The process of forming of skills includes:

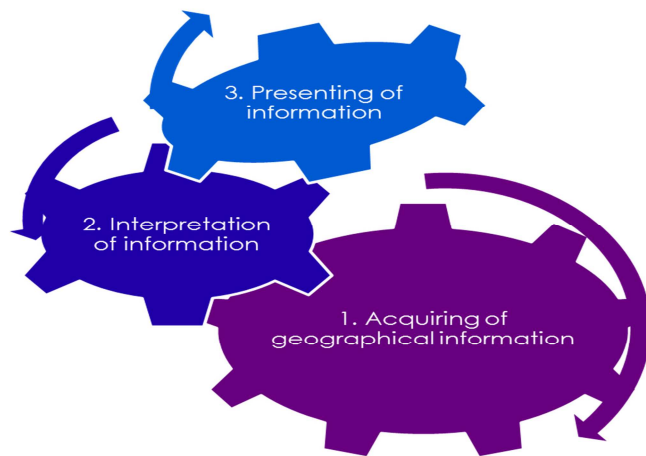


Figure 13. Process of forming of skills

The criteria and indicators in this research refer to the accepted three groups of skills for receiving, interpretation and presentation of information in the process of studying of Geography and economics in Bulgaria in 10th grade.

We show their essential characteristics with the corresponding indicators. In the process of studying of section “Natural Regions of Bulgaria”, as concrete criteria and indicators are determined those in the following table.

Table I. **Criteria and indicators for forming of skills in making of geographical characterization of natural region**

Criteria	Indicators	Level of formation
1. Skill for collecting of information	1. Selection of photos and pictures, through which best visualness is achieved.	can select partially cannot select
	2. Selection of optimal graphs for presentation of particular problem.	can select partially cannot select
		low satisfactory

	3. Selectiveness in the gathering of information from the Internet.	average high
2. Skill for interpretation of information	1. Characterization of a natural region by algorithm.	very low low average high very high
	2. Economic evaluation of conditions and resources in a natural region.	very low low average high very high
3. Skill for presenting of information	1. Esthetical appearance	satisfactory good very good
	2. Using of optimal volume of text	uses optimal volume doesn't use optimal volume
	3. Personal commitment to the problem	presenting partial absent

Source: authors' adaptation of criteria and indicators

In section *“Population, settlements and polity in Bulgaria”* the topic *“Number and movement of the population”* presumes the determining of other criteria and indicators. The difference is in the indicators regarding the second group of skills – for interpretation of information.

Table II. **Criteria and indicators for forming of skills in “Number and movement of the population in Bulgaria”**

Criteria	Indicators	Level of formation
1. Skill for collecting of information	1. Selection of photos and pictures, through which is achieved best visualness.	can select partially cannot select
	2. Selection of optimal graphs for presentation of particular problem.	can select partially cannot select
	3. Selectiveness in the gathering of information from the Internet.	low satisfactory average high
2. Skill for interpretation of information	1. Characterization of the movement of population.	very low low average high very high
	2. Evaluation of the demographic potential as a factor for economic	very low low

	development.	average high very high
3. Skill for presenting of information	1. Esthetical appearance	satisfactory good very good
	2. Using of optimal volume of text	uses optimal volume doesn't use optimal volume
	3. Personal commitment to the problem	presenting partial absent

Source: authors' adaptation of criteria and indicators

The interactive methods and forms of education we have preferred, the selected criteria and indicators for registering of the results from their using, we combine with appropriate instruments for making of the empirical research. For registration of the results is used suitable level scale and corresponding quantitative assessment.

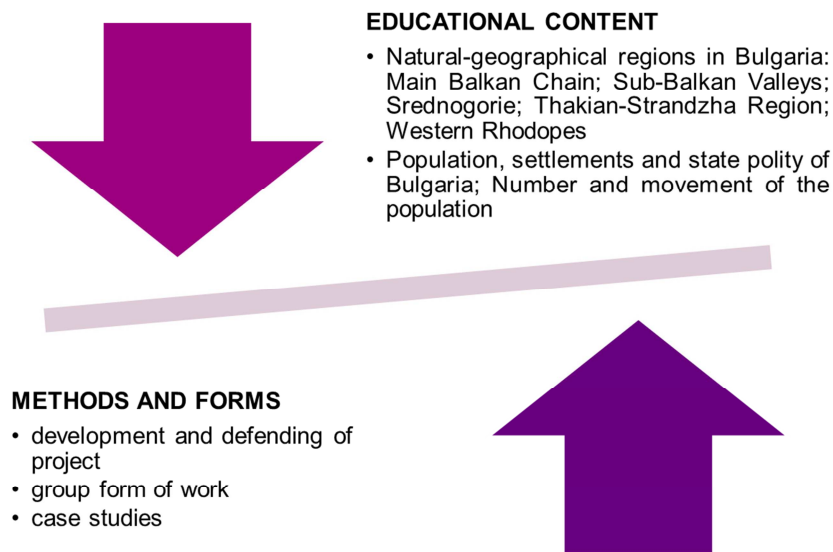


Figure 14. Selected methods and forms for the educational content

The skills for making up of posters, PowerPoint presentations and intellectual maps can be assessed by 5 indicators:

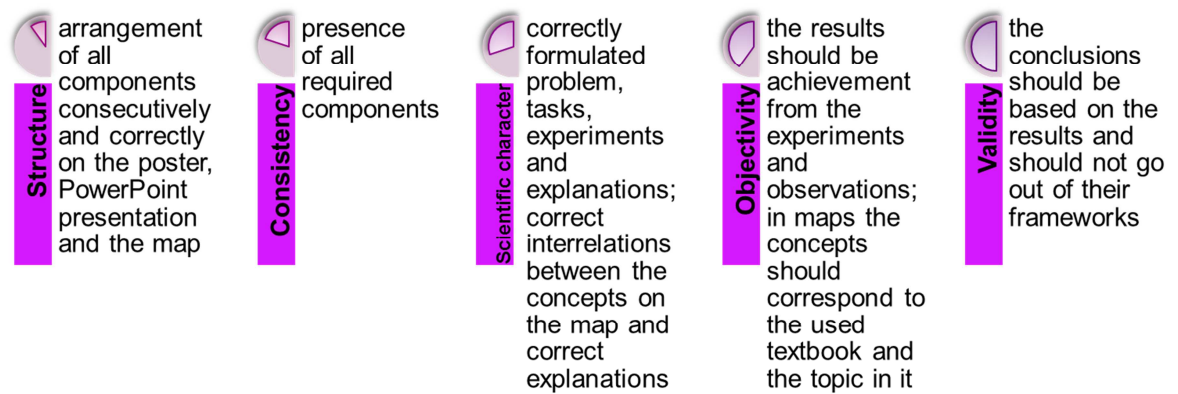


Figure 15. Indicators for assessment

With the application of the selected interactive methods the formation of these skills can be realized also during lessons for new knowledge. Important role for that have multimedia presentations through which the already learned material can be synthesized, visualized, acquired faster, thought over and applied.

The experimental work that has been done in order skills for using of interactive methods in the education in geography to be formed, gives us ground to make some conclusions:

1. The using of interactive methods in the process of education is not a novelty, but it gets more and more topical and they prove to be applicable in the education in Geography and economy. The reason for this is that their application increases the interest and the cognitive activity, and helps the process of formation of skills.

2. The introduction of innovative educational technologies and methods in the educational process such as the making and defending of projects and case studies, allow rationalization of planning, projecting, realization, evaluation of pedagogic activities, provokes creative thinking and independence.

3. The realization of the present research faces some problems mainly of technical character – access to technics and lack of laboratory in geography. Another problem is the relatively small number of classes in curriculums, provided for studying of Geography in secondary schools.

4. The application of interactivity gives more opportunities to be formed the complex geographical skill – making of geographical characterization. This is confirmed by statistical processing and analyzing of the results of the empirical research. The process of formation of this skill can be controlled as the consequence of activities is applied, which are included in that skill: skill for collecting, interpretation and presentation of information.

5. The making and defending of project – the multimedia presentation increases the interest and motivation of students, because they are more sure and enthusiastic when they are partners or get into a role in the presentation of the project;

6. The application of the project method requires the following of specific educational technology: Planning of the project; Realization; Presentation of the product; Assessment and analysis of the results.

7. Using of similar methods in the education in geography and economics stimulates creative and analytic thinking, helps for the formation and improvement of skills. In contrast to more of the interactive methods increasing cognitive activity of students, multimedia presentations don't take a lot of time for presenting in class. On the contrary, the systematized information is acquired faster and there is some free time for solving of additional tasks.

All these facts motivate us to focus on the changing of the practices of teaching for improvement of geographic education and ecological literacy and responsibility with the hope that the using of interactive methods of teaching can change students' global thinking.

The character of interactive methods of education is based on the acquiring of new cognitive experience in the process of interaction among students, with the teacher, with computer, with nature, and with different sources of information regarding the geographical problems of the present.

After the experimental work that has been done, the reported results and the conclusions, some recommendations can be made.

1. Because of the increased interest of students and the results from project work, definitely it can be concluded that they, just like interactive methods, have place in the education in geography. Real opportunities for their realization give almost all of the topics of the core "Geography of Bulgaria". Having in mind the already made conclusion about the organization of the work on project and the large share of independent activity of students, it is advisable the teacher to give very accurately the tasks for independent work and to perform constant control.

2. Because the preparation of a project is connected with securing of additional information, good knowledge of the capacity of different software and the Internet, the integration or consultation with teachers in Informatics and Information technologies is advisable.

3. Advisable is also the using of interactive methods and forms for organization of the education, but it requires a lot of work from both of the sides. In spite of the registered high results their application shouldn't be overdone.

Conclusion

Interactive methods of education as manners for mutual cognitive activity of students, in which they interact with each other, exchange information, model situations, evaluate their own actions and behavior, get into a real atmosphere of cooperation for joint resolving of real problems on local level in different types of educational activity, provide qualitative studying of the geographical educational content.

The nature of interactive methods of education is based on the gaining of new cognitive experience by students in the process of active and well organized productive interaction among them, with the teacher, with computer, with the environment and with different sources of information regarding the geo-ecological problems of contemporaneity.

Interactive education realizes in practice the philosophy of constructivism and of cognitive psychology as it structures the educational process around the needs of student and social nature of knowledge, as it creates conditions for social democratic communication and creative interaction and in the same time constructing knowledge and developing skills and competencies.

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