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CUBE "JENA" – NEW POSSIBILITIES FOR SUCCESSFUL GEOGRAPHY EDUCATION

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Abstract: Geography education in Bulgaria is currently at a new stage of development. Although the main priority guidelines for problematization, socializing, humanizing and technology provision of geography education were set in 2000 (in Strategy for geography education), they are not entirely put into practice yet. The reasons for that are quite different and have theoretical and empirical origin. There is a huge demand for new and modern concepts, theories and methods to be applied in practice and they will support and justify the mentioned-above priorities in geography education. As our educational system is part of European one, we could derive experience from it and especially from German speaking countries with advanced educational system.

A fruitful concept for geography education is the concept "Cube Jena". It is represented as a "simple" geometric shape – the cube – which allows the objects to be observed, studied and assessed in their different perspectives and dimensions. The object is located in the centre of the cube and the cube rotation (and respectively exploring each cube side) allows us to comprehend purposefully the entity and versatility of the studied object. So the first side of "Cube Jena" presents scale, the second – time, the third – observer, the fourth – self-reflexivity, the fifth – communication and the sixth side – "blind spots". The main goal is to study the object (while rotating the cube) and to answer the following questions:

- What is the research scale?
- What are the time frames of the research?
- Who is the observer?
- What is the personal attitude to analyzed object?
- How is discussed the object?
- What is left "hidden"?

Finding answers of above-mentioned questions is especially valuable for geography education considering its contemporary philosophy which is multi-perspective and is searching for visions, systematization and problem-centered training. Thus the main aim of paper is to analyze the concept "Cube Jena" which adaptation and implementation in Bulgaria will be useful in two main areas:

1. In didactical and methodological aspect the concept can be used as basis for the introduction of "key problems" of contemporary society in geography curriculum and they are the main research object (and goal) of geography education in secondary schools and universities.
2. The concept proposes the steps for planning and implementation of problem-centered educational process in geography training.

Keywords: geography education, cube "Jena", perspectives for geography education.

The contemporary society requires more and more from education including the geographic one. Nowadays it is not enough to study and interpret only the established facts and statements in training and educational process. To a great extent current education is targeted at searching, exploring and studying the processes, interrelations and potentials. But it is quite hard to be done as people actually prefer knowledge and security instead of "unclear" search for possibilities and visions. In recent years (in relation to global problems and challenges of the world) the attention is drawn to excessive accumulation and overload of education with generally accepted facts and "monopoly of truth" (e.g. "it is wrong or right"). Almost all we know today is result of our lifelong experience, from what we have learned from mass media or internet. And that's why it is needed a toolbox which will be helpful to form one's opinion about "things", to take decisions and to interact socially.

And if we intend to search the appropriate toolbox, we should examine very carefully some fundamental assumptions and go through several steps:

First step – it should be made difference between what we observe and describe from the "outside" and what we experience and learn from "inside" (or to formulate question – "How is made the observation – from "inside" or from "outside"?). In the first situation we are using terms and facts and in the second – "to experience constant concentration and balanced attitude to natural laws and particular ways of behavior" ([1], pp. 2). Facts and real/experienced stories – they are both "truth". But they are result of quite different type of observation. This is of crucial importance if we want to work in multi-perspective geography training, to apply scenarios or use role games.

Every possible training scenario should origin from an available way of thinking otherwise it will be defined as untypical or even illogical. If we use a traditional for geography training lesson task – "if you were a mayor" or "if you were a refugee" - it is easily to prove that such roles are related to different perspectives and their elucidation cannot go beyond the limits of empathy. It should be also investigated and reconsidered the subjective affiliation and social features/marks of individual's way of thinking and living.

Second step – we should take into account not only the different aspects of observation but to ask the following questions – "Who is speaking?" and "In what interrelation?". The initial assumptions are that there are different perspectives for the studied object, process, value (the image form "inside" and "outside") and the observation is made in "a reduced and fragmented way of thinking" [1].

So only after previous steps we can continue with *third step* – versatility of the object. Typically, we look at the object as something possessing important characteristics/features for us i.e. we might give the wrong impression that these are the only features object has.

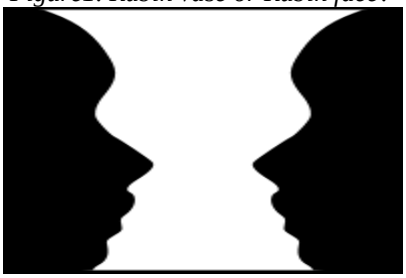
Current scientific research is directed to analysis of objects in their versatility. Let's examine the well-known example of the table of Husserl. At first glance the table is relatively unique object both in its form and its purpose. That's why Husserl says: "Rotate me all around my sides!" ([2], pp. 5). Then we will observe a lot of unseen (e.g. the inner side of table's top). And it means that unseen and invisible might turn into "known" and it is another characteristic and feature which table has. And more over, one can perceive and study the table as carpenter, physicist, chemist, salesman, product designer and the table will always appear in different way and be determined as something diverse. Hence we can't state one-sided: "Describe the table!" because it is correct to say: "Describe the table according to perspective X and objective feature Y".

Firstly, we observe the objects from a particular perspective, and secondly as a specific characteristic (one of many). The various perspectives give us all that we can't perceive and think over at the same time and even – that the objects have different characteristics although we can't see them simultaneously. So the object is real in its entity.

This example is a metaphor for the restricted viewpoint on things which is also very typical for geography science. And that is the reason when we say "It is it!" at least to ask the feedback questions "Is it still true?", "Will it be true in the future?" and "Should it stay the same forever?". The current and future state of the world can be perceived as material-objective one with lots of casual interrelations and being in equilibrium and evolution. The world can be seen as object developing in creative and relatively chaotic way and influenced by natural laws, historical experience, political and economic interests. And we can compare the process of living with the process of walking: "dynamic and stable change from one instability to another which allows progress of any type" ([3], pp. 106).

The *fourth step* is related to "blind spots" or "deadlocks" of dichotomy thinking. We will use the well-known picture of psychologist Edgar Rubin and according to it "the truth stands more clearly if it is clarified using assumption: like…as well as…" [1]. What do we see on figure 1 – a vase or two faces?!

Figure1. Rubin vase or Rubin face?



Source: http://www.newworldencyclopedia.org/entry/Rubin_vase

We can't answer this question definitely. We can't agree with first statement to be true while at the same time the opposite is also true. Dichotomy thinking does not allow understanding of contradiction. Actually, there is no contradiction in the picture because it depicts two contents, two different viewpoints, two meanings. One can see what he sees but he can't see the both meanings simultaneously. We examine this picture (this reality) as something "categorical" different and it is not only an image but it activates the creativity and imagination. Perceiving the image as a vase is a certain way of explanation and interpretation: "This is a vase! That's it! And we are talking about vases now". That's the common manner of working considering many tasks traditionally applied in geography training. It is very hard to find a task which is searching for alternative solution, for the "opposite side of the image" and for what isn't shown yet.[1]

"Cube Jena"- a model which encompasses all above-mentioned in it!

The objects integrate in themselves different dimensions, characteristics, forms and kinds. It is already clear that the object research is done from different individual perspective and it is inevitable. All that can be summarized in a "simple" geometric shape – a cube – a concept which is commonly used in geography didactics in countries with advanced educational systems for a long time e.g. for consulting and improvement of geographic training planning. Generally speaking, the main aim is to find and reveal the various dimensions and perspectives by which the objects are observed. The concept "Cube Jena" is very useful for practice because we can present deliberately and in a very simple way the different object dimensions as the cube is rotated and analyzed from its six sides. The cube represents the objects in their entity but using cube rotation "the all hidden aspects become obvious" ([3], pp. 118).

"Cube Jena" plays important role for geography didactics as it allows incorporation of: viewpoints and opinions for objects; characteristics and features of objects and observation perspectives of objects. If we cite the example with Husserl table again – "the object is rotated all around its sides" ([2], pp. 5).

So it is time to pay attention to the principle assumptions in the concept "Cube Jena".

The observed object is located always in the cube's centre. The object could be any topic which is in research focus of geography science. But the object is analyzed always in problematic context so the unsolved or required a solution problem is ours "research object". And as we already have the object, we have to explain the six sides of the "Cube Jena" consequently.[4]

First side: Scale – The problem is like that because we observe it in particular scale!

It is very important to define the scale of our research when we study the problem. We see certain features and aspects of the problem when we use a smaller scale and it is quite different picture of it when we apply a larger scale. So the key question is: "What is the scale used in problem observation?"[5].

Second side: Time – The problem is such because we observe it in particular time!

The observation of the problem can be made from different time perspective. It can be studied in short, medium and long term periods. Using different time limits we can witness the emerging of various aspects of the problem. So the main question here is: "What time frames do we use when we observe the problem?"[4]

Third side: Observer – The problem is like that because it is observed in specific way and no other!

At this side we can distinguish different observers involved in specific way in the problem (related to the problem in a certain way). The observation could be made from individual standpoint but at the same time could be made from observing system like policy, education, economy and science. Every observer has its own point of view and position which defines him.[5]

Fourth side: Self-reflexivity – The problem is such because I see it in that way and not in any other!

At fourth side the observer himself understands how he actually looks at the problem. And it helps to gain an understanding of individual's assumptions, interests, attitudes and intentions – all that influences one's observation. Thus it becomes evident that the cube guides in particular way the research direction and introduces order in observation. So if we watch using the cube, than we have a "second glance" and examine the problem comprehensively, critically and reflexively. The most important question here is: "How am I doing the observation of the problem?"[4]

Fifth side: Communication – The problem is like that because it is discussed in this way and not in another!

Standing at this cube side we observe the problem in disputable and conventional way of discussing it in society. And it is obvious that the problem doesn't exist until it is not mentioned - for example in media sources. It also important to point out that the problem maintains its shape and importance only in the process of discussion. The headline question for this side is: "How do we speak about the problem?"[5]

Sixth side:"Blind spots"/"Deadlocks"- The problem is such and is observed in specific way and that's why it is not seen in different perspective!

If we analyze the cube from sixth side we understand how the problem is observed in reality. It is evident that the observations make many aspects of the object visible but at the same time others remain unseen (hidden). At this side it can be stated that a final and overall viewpoint of the problem do not exist. And, of course, there are numerous other possibilities for description and study of the objects. The most appropriate slogan for this side is: "Think critically!". And as consequence it is true that every observation has its own "blind spots".[4]

Finding answers of listed above questions is especially valuable for geography education considering its contemporary philosophy which is multi-perspective and is searching for visions, systematization and problem-centered learning. Thus the main aim of paper is to analyze the concept "Cube Jena" which adaptation and implementation in Bulgaria will be useful in two main areas:

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In relation to this future scientific research in these two areas will be of great importance and significance for both theory and practice of geography training and didactics.

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