CLASSIFICATION OF COGNITIVE AREAS IN TEACHING GEOGRAPHY

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Review paper

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ABSTRACT

The issue of assessment was studied in the past. In particular, evaluation, testing and evaluation of students' knowledge and achievements are as old as schools. With the improvement and advancement of society – the school has progressed and got improved, and these changes have caused the changes in the grading system, so that today in different parts of society we have different grading systems. The problem of evaluation is studied today, even more than ever before, because it is required by the contemporary social trends and needs of society, who set complex and responsible tasks and goals to the school, which in turn requires solid scientific, pedagogical and didactic foundations. More intensive study of problems of evaluation have emerged during the thirties of this century, and have emerged as a result of the need to obtain a more complete picture of the student's personality.

Key words: *Knowledge, understanding, analysis, synthesis, evaluation*

1. COGNITIVE AREAS IN TEACHING GEOGRAPHY

After months of extensive study and theoretical treatment of the problem, as well as after recording conditions in teaching geography in two primary schools in Prizren, I have decided, on the model of Bloom taxonomy, create a classification MODEL of cognitive areas in teaching geography, in order for the checking to include all the COGNITIVE areas, and the evaluation to be more extensive and complete, which is a certain guarantee for its objectivity, accuracy, precision, validity, etc.

We chose the subject of Geography in the sixth grade of lower secondary school. Selected teaching content is the Earth's Crust - Lithosphere (total of six lessons, four processing of new materials and learning, two for repetition, training, testing and evaluation; four units: 1. Structure and composition of the Earth, internal forces of the Earth, the origin of mountains and basins, 3. Volcanoes and earthquakes and 4. External forces of the Earth and their impact on the lithosphere (Čavoli, 2004).

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Table 1. Classification model of cognitive area

Serial nr.	Cognitive area	Example of a lesson: The Earth's crust - Litosphere	Note
1	KNOWLEDGE Knowledge is understood as the ability of students to recall and express some facts and general concepts or generalizations. This is a reproduction of the material, based on memory as a psychological process.	1.Knowledge of details -structure of the Earth and its composition. -Earth's core, -core's layer, -Earth's crust, -magnetic rocks, -sedimental rocks, -metamorphic rocks, -relief, -orogenic movements, -enormous mountains, -volcanoes, -earthquakes, -decomposition of rocks, -denudation, -abrasion, -glacial erosion, -river valleys, -river islands. 2.Knwoledge of terminology, definitions: structure of the Earth, what are rocks; tectonic or orogenic movements; volcanic eruptions and earthquakes; erosion ets. 3.Separation of specific facts: - core, - the core layer, - earth's crust, - hydrosphere, -biosphere, -atmosphere, - rocks, - the internal force, - earthquake, - volcano, - external forces, - relief, etc. 4.Knowledge of principles and generalizations- understanding the principles of earth cooling, effects of internal and external forces.	Usage of: films, film strips, images, models, drawings. Preparations: images, drawings, models. Degrees of learning: teachers' presentation, reading,thought processing (activity), activity of expressing: oral, written, graphics, extracting key facts, application in practice.

2	COMPREHENSION Comprehension is here taken as the lowest level of understanding in which the student knows what the lesson is about and is able to use the material.	1.Translating–the possibility of re-telling (narrating) with students' own words, and not strictly how the teacher said or is written in the book. 2.Interpretation-possibility of explanation and summary of statements.	Methods of testing:oral, written, through free essays, imaginary trips such as „Journey to the center of Earth" „I saw the volcano" etc. -Usage of lexicons, encyclopedias.
3	APPLICATION	1.Usage of apstraction in certain specific situations (excursion by the river's side, on the old crater, recognition of rocks, etc.)	-excursions, trips.
4	ANALYSIS Statements disassembly on their constituent elements. Extraction of the main elements. Sorting of elements in order of importance (classification) or in their logical order.	1.Recognition of self constituent elements; detection of something that was not said, or brought out; Segregation of concreteness, details of objective reality (FACTS) 2.Analysis of relations. Determination of interdependencies and impacts (effects) between elements. 3.Creation of structure (sequence of elements).	

5	SYNTHESIS The preparation of the whole statement of component parts, their classification and combining the appropriate structure	1. Develompent of an original and independent statement; skills of telling the lesson or a written composition; presentation based on personal experience according to the spotting in nature 2.Creation of the presentation plan.	Oral or written form. -On the board in the form of „nodal points“ or in their notebooks.
6	EVALUATION Judging the value of approved teaching materials. Quantitative and qualitative assessment of the level of acquired knowledge, acquired skills and habits. The use of established standards for evaluation, testing and evaluation. Evaluation by the teacher, student collectives (departments) self-assessment (Blum,1981)	1.Evaluation in relation to the determination of standards: -accuracy, -used evidence, -the possibility of verification, -precision and so on. -Detection of defects (logical and argumental). 2.Comparison of given answers (each-others', according to various sources) 3. Establishment of evaluation: -proposal of teachers; students' collective-proposal (classes); student-proposal (self-assessment)	Verification of the sources of knowledge. Each participant in the formation of the grade comes with the independent proposal without consulting. The final grade is taken as a result of three factors (teacher, class, student) or as the arithmetic mean.

Our Classification MODEL of Cognitive Areas and „implementation“ of the whole teaching plan has ADVANTAGES but certain LACKS, which we are going to try to deliver.

2. ADVANTAGES OF USING THE MODEL CAN BE EXPRESSED THROUGH THE FOLLOWING

Our model, largely taken from Bloom's taxonomy and methodology of pedagogical research (Mužić,1981) is based on established criteria and standards for determining accuracy, efficiency, economy and other units of measurement of student's knowledge and achievement. Testing and assessment is carried out quantitative and qualitative, and the criteria are set and must be clear to the teacher and the students' collective and each student individually (Prosvetni savet, 1979). The evaluation, respectively testing and assessment comes at the end, as a logical sequence, following the capture of knowledge, understanding, application, analysis and synthesis. It is, therefore, not only the final process of cognitive behavior, but a connection with the affective sphere which is based on the assessment. However, this does not necessarily mean that the evaluation must be the last step, respectively last COGNITIVE AREA. In some cases evaluation will be a prelude to acquiring new knowledge, in a new attempt at understanding or application, or an introduction to a new analysis or synthesis.

It is man's immanent feature to VALUE, WEIGH, AND ASSES everything (or almost everything), that he encounters. However, the main lack of every evaluation is the self-assessment. Hence, the evaluation and assessment is self-centered.

Many teachers value in a quick way, ie. "at first glance" without looking any deeper. These are, in fact, first impressions. It is therefore necessary to find ways to make ratings based on clearer criteria, and such evaluation is possible only if based on a high awareness, understanding and analysis of the phenomenon that are reviewed.

This way of assessing develops desirable behaviour at students, that is, seems educational. This way of assessing and evaluating indicates the students to observe the phenomenons, and that means quality and quantity of acquirement of the material, in a systematic way and based on clear criteria. Among other things, this way of assessment and evaluation develop accuracy, consistency and logical preciseness and completeness.

This way of assessing and evaluating awakens awareness of the need (for life) of acquired course content, identifying the purpose and importance of studying a specific learning material.

Disadvantages of our model are in the increased demand for systematic and methodical work of teachers, which is directed towards a clear goal. This requires changing habits, exit from the established range of trails for generations and generations of teachers.

3. DISADVANTAGES OF USING THE MODEL CAN BE EXPRESSED THROUGH THE FOLLOWING

This way of assessing and evaluating requires a new teacher; teacher-leader, director, creator, animator... That means, the rejection of certain teachers roles, in which he used to be autocrat, 'the boss', order giver and rigid assessor.

New school, the time in which we live and the time which is still to come will favour these ways of evaluation and assessment over classic ways, which have survived largely and are a thing of schools history.

CONCLUSION

Based on studies and research, we came to the conclusion that it is necessary to change the existing practice in the field of testing and evaluation in teaching geography. To this end we have compiled a classification model of cognitive areas, on a specific topic, "The Earth's crust - lithosphere," in sixth grade of primary school. If the teacher would develop these, or similar models for every lesson, that would be a guarantee of a far larger quantum (quantity) as well as the quality of acquired contents. Special emphasis, in our model, is given to the evaluation, ie. Assessment. With such mode of assessment and evaluation are removed and eliminated many weaknesses and lacks of the classic testing and evaluation.

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