

Acta Pedagogica Naturalis

Former Annual of Konstantin Preslavsky University

Journal homepage: <http://acta-pedagogica.shu.bg>

Received: 05.12.2019

Accepted: 25.01.2020

Establishing test tasks for current verification and evaluation of the results of geographic and economic learning – areas of competence "Nature geography" – of 8 classes

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Abstract: *The purpose of this study is to develop a model of test evaluation through various didactic tests, as a tool that takes into account the level of students' acquired knowledge, skills and competences, their psychophysiological and personality characteristics.*

The subject of the model is the content of Geography and Economics in grade 8, the field of competence "Geography of nature". Some didactic aspects and requirements for the development and selection of test tasks and their testing have been interpreted. The research is also experimental and practical in nature, through the developed procedures, rules and criteria for evaluating the type of learning activity by cognitive levels, indicators and assessment indicators.

The following basic characteristics of the test have been observed – validity, reliability, objectivity, relevance and specificity. Test control is consistent with the following basic principles: goal compliance; measuring clearly defined learning outcomes; measuring a representative sample of the curriculum content included in the curriculum; contain such tasks as are most appropriate to measure the relevant learning outcome; serve to improve the outcomes of geography and economics training.

Keywords: *test tasks, geography and economics, evaluation by test tasks*

Introduction

The relevance of the issues of control, assessment and test verification is in the context of the new legislation in Bulgarian education. Control is a type of activity, a process in a technological cycle, related to the analysis of results. The requirements for this activity are justified by individual character, systematic, objective, diverse, comprehensive process.

Assessment of students' learning outcomes, in the form of test written assignments, is of great importance for the application of control in the modern geography and economics teaching process and the related assessment and assessment directly related to it.

The theoretical and methodological analysis of the test evaluation and the theoretical analysis and synthesis of the current methodological literature substantiates the theoretical foundations of the investigated problems.

Materials and methods

The methodology and tools of the study include a theoretical analysis of the literature on the problem; analysis of the educational documentation on the topic, the activity of the teacher and the students; system-structural analysis of the educational content on the topic; testing method to determine students' learning levels of the main elements of the content; pedagogical experiment – ascertaining and educating; statistical methods for processing and presenting the results obtained.

The results of the study are presented in the following ways: tabulated – through frequency tables with charts according to accepted criteria and indicators; by calculating the relative share and correlating the number of students with the corresponding indicators for the individual criteria.

Results and discussion

At present, the use of test questions and variants in checking and evaluating students' results is widespread in practice. The reasons are not yet scientifically and methodologically fully proven. The test is standardized with the introduction of National external evaluation and State Matriculation Exams in Bulgarian Education. Another leading reason is the change in the curriculum and the number of classes in the subjects, and as a leading subject with reduced hours, the general education subject is geography and economics. More and more universities are taking entrance examinations in the form of tests/paper or electronic. Tests such as assessment and measurement procedures are not a new form and traditionally take place and function in training.

According to St. Dermendzhieva, different test and non-test task in teaching geography.

The geography and economics test includes:

- the educational objectives described;
- is part of a test variant through which to test empirical, theoretical and methodological knowledge;
- is a tool for assessing and measuring skills;
- check and evaluate the student's achievement at a certain cognitive level;
- meets the requirements for the course;
- meets testological requirements such as reliability, validity and difficulty;
- scale to measure made;
- is subject to standardization and digitization [2].

According to A. Ivanov, the term geographical test is a systematic set of tasks:

- with geographical content and specific form;
- relevant to this content;
- allowing to effectively measure the level of preparation (knowledge, skills, habits, ideas) by geography.

The specificity of geographical tests is determined by the specificity of the subject of study in geography, the specificity of the content of geography and the studied geographical discipline [6].

In this study, the focus is to develop a model of test evaluation through various didactic tests, as a tool that takes into account the level of students' acquired knowledge, skills and competences, their psychophysiological and personality characteristics. The ability to apply test tasks and questions to diagnose and evaluate students' knowledge and skills, as well as the level of quality of knowledge and skills, and the ability to apply them in solving test tasks.

On this basis, test variants are developed to test, diagnose and analyze students' knowledge, skills and competencies after learning certain lessons. The basic characteristics of the test, the stages of creation of tests and test tasks are observed. Depending on the objectives of the particular study, the approach for analyzing the results is determined.

The objectives of this study are:

1) Analysis of national standards, curricula for general education with regard to the requirements for checking and evaluating the achievements of students in geography and economics.

2) To track and analyze the educational content in geography and economics in 8th grade, the area of competence "Geography of nature" and the attempt for didactic placement of test variants for checking, diagnosis and analysis of the knowledge, skills and competences of the students after studying of certain lesson units.

3) To interpret some didactic aspects of the development and selection of test tasks and their application.

4) Diagnosing the student's individual achievement and progress and identifying his/her learning needs and areas in need of support.

5) Identify the causes and necessary measures to overcome the negative results;

6) Marking opportunities for synchronization and harmonization of types of test tasks applicable in all types of schools in the country.

The **subject of the model** is the content of Geography and Economics in 8th grade, area of competence "Geography of nature".

The **subject of the study** are test variants such as forms of assessment in geography and economics (general education in grade 8 in a targeted, meaningful and procedural plan, which allow to diagnose and evaluate the knowledge and skills of students, as well as the level of quality of knowledge and the skills and ability to apply them in solving test tasks.

Research methodology and tools.

- theoretical analysis of the literature on the problem;
- analysis of the educational documentation on the topic, the activity of the teacher and the students;
- system-structural analysis of the educational content on the topic;
- a testing method to determine students' levels of mastery of the main elements of the content;
- pedagogical experiment - ascertainment and trainer;
- statistical methods for processing and presenting the results obtained.

The results of the study are presented in the following ways:

- Tables - through frequency charts with charts according to accepted criteria and indicators;
- by calculating the relative share and correlating the number of students with the relevant indicators for the different criteria.

The pedagogical experiment as a ascertaining and teaching sub-stage on the topic is realized with students in four classes of 8th grade/8a – humanities with advanced foreign language learning; 8b and 8c – natural sciences without advanced foreign language learning; 8 years – Software and hardware sciences with advanced language learning at Vasil Levski Secondary School in Dulovo, Silistra area.

The main criteria for evaluating the quality of tests and test tasks are: objectivity; reliability; validity; comparability; economy; utility; impartiality; relevance, significance, balance and specificity. Modern characteristics of the tests – fairness, impartiality, decency, morality, non-discrimination through tendency or misuse of test data.

In this study, the main characteristics of the test are considered – validity, reliability, objectivity, relevance and specificity.

1. **Validity** – shows the degree of accuracy with which the test measures what it is supposed to measure. Specifically measured results are compared with a predetermined external criterion, which may be a regulatory requirement, curriculum, study results. Such an external criterion for didactic tests accepts the requirements of the curriculum in the relevant subject. There are three types of validity: substantive, constructive and criterion validity.

2. **Reliability** – the accuracy of the test being created or used. Each measurement is associated with specific errors. Therefore, when creating a test and evaluating its performance, the magnitude of the error with which the test is measured should also be specified. The quantitative expression of the accuracy, reliability of the test is presented by a reliability coefficient, which is a correlation coefficient between the scores of at least two independent experts.

3. **Objectivity** – means the degree of independence of the conduct and the results of their author. A test is completely objective if different researchers arrive at the same results for an individual.

4. **Relevance/Significance** – The extent to which the test is designed to measure precisely the desired learning outcomes and not anything else. The relevance of the test is directly dependent on the goal setting. The better, more precisely and more precisely the learning objectives are defined in the relevant test, the more fully operationalized the test will be, the more relevant it will be [7].

5. **Specificity of the test** – the extent to which such specific knowledge is required to solve the test tasks, which is not possessed by the so-called. "Smart novice", ie a person who has not completed the relevant training course but can decide the test correctly due to his/her general intelligence [7].

The didactic tests are designed to measure students' understanding of some of their knowledge. Most tests created by classroom teachers are didactic. Each didactic test consists of a series of questions and tasks to check the level and degree of fulfillment of the requirements of the curriculum regarding the knowledge and skills of students in a particular field.

The didactic tests are diverse and can be divided into:

- ▶ Depending on the purpose, the tests are for preliminary, ongoing, final control;
- ▶ Depending on the degree of applicability - non-standardized and standardized;
- ▶ In the manner of performance - written, oral, motor;
- ▶ According to the standard - normative and criterion (oriented towards the purpose of the curriculum);
- ▶ In the way of conducting - individual and collective;
- ▶ According to the nature and difficulty of the tasks in the test: reproductive, reflexive and reproductive-reflexive;
- ▶ According to the answer coding method: with a graphic code, with a numeric code, with an alphabetic code;
- ▶ According to answer: structured, unstructured and mixed;
- ▶ According to their design, the tests can be: simple (with the same type of tasks) and complex (combined), traditional and non-traditional;
- ▶ According to its structure - ordinary and test system. Test systems are of two types - test battery and test ladder;
- ▶ In terms of content, tests are about achievement, speed and attitude. Achievement tests diagnose the level of learning, speed tests not only account for proper performance, but also the timing of it, attitude tests reveal the relationship of research to knowledge, own work and success;
- ▶ Adapted and computer-based tests [1];

According to Ruther, tests contain types of questions and tasks, depending on their form, namely:

- Free-writing questions and tasks – open-ended questions and tasks;
- Interpretation questions and tasks;
- Association questions and tasks;
- Semi-open questions and tasks;
- Frequently Asked Questions and Tasks;
- Semi-open association questions and tasks;
- Semi-open supplement tasks;
- Semi-open replacement tasks;
- Semi-open tasks for self-construction;
- Semi-open transformation tasks;
- Open questions and tasks;
- Identification tasks;
- Tasks with alternative answers;
- Tasks with optional answers;
- Tasks with associative choice answers;
- Tasks with associative answers to complement;
- Tasks with optional replacement answers;
- Tasks with optional answers to expand;
- Tasks with optional matching answers;
- Tasks with optional conversion answers;
- Tasks – substitutes [1].

The didactic aspects and requirements for the development and selection of test tasks and their testing are interpreted by leading authors. A good knowledge of the main characteristics of the different types of questions and tasks, their strengths and weaknesses, as well as the basic rules that must be followed in their construction, allows each case to select precisely this type of task in order to maximize the effect of advantages and minimize the impact of disadvantages.

According to St. Dermendzhieva forms the most applicable in geography training four basic forms of geographical tests - closed, open, tasks for establishing correspondences and establishing causality.

1. A closed form of formulating questions in the test. Question: What determines/Who are?
Answer: Circle the correct answer (s);

2. An open form of asking questions. Complete the claim;

3. Compliance. Confirm, confirm or reject claim...;

4. Establishing cause and effect relationships. Complete..., compare..., grade..., sort..., in what order... [2].

A. Ivanov, (2012) develops four main types of test tasks:

1. According to the nature of the assignment itself and the order for execution:

1.1. completing (supplementing) a statement – associative in nature for revealing patterns; association by similarity, contrast, location, cause-effect; test tasks for drawing, image reproduction, image reading; these types of tasks are used in both semi-open and closed test tasks;

1.2. test question answer – used in semi-open tasks; meaningful and functional questions are used; the test questions are in question form;

1.3. answer to a test task – mathematical problems; classification tasks; description tasks; cognitive tasks; tasks for recognizing and analyzing images and images; spatial orientation tasks; test tasks of this type are in mandatory form.

2. According to the form of performance of the test tasks:

2.1. open test tasks – free writing questions and tasks; written answer to a question; questions and tasks for interpretation; association questions and tasks; create standalone text;

2.2. semi-open (semi-closed) test tasks – completion of a statement; a short answer to a question;

2.3. test tasks for completing, replacing and correcting text - replacing words, data, facts, editing text; multiple replenishment; complementing geographical text with more than two words; consistent addition; supplementing by choice; filling in missing data; adjusting and editing geographical text; formulating a geographical title;

2.4. closed test tasks – multiple choice tasks; selecting the correct performance (one, two or more correct answers); choice of wrong execution, wrong answer;

2.5. test assignments with the choice of an alternative answer – on the principle of dichotomy (division into groups of exclusionary parts); marking only correct answers; marking true statements with a plus and false statements with a minus;

2.6. multiple-choice test tasks – tasks with one, two, or more true answers; completing a claim; Answer to a question; test task solution; test tasks with the choice of one correct answer; test tasks with the choice of two correct answers; test tasks with the choice of an unspecified number of correct answers from a variety of possible answers; test tasks with the choice of the right answer from the many possible correct answers;

2.7. test tasks for detecting (establishing) conformity – establishing full compliance; establishing incomplete conformity; arrangement of groups of objects, phenomena and activities in groups; belonging to a group or regrouping;

2.8. test assignments to determine the sequence – type of closed test assignments (with answer choice); to determine the quantitative sequence; to determine spatial consistency (directions of the world, change of natural zones); to determine the time sequence; to determine the procedural sequence / algorithm;

2.9. test tasks for recognizing and analyzing images and working with a geographical map – for recognizing images and images – (photographs, computer images, diagrams, graphs, diagrams).

3. According to the level of learning content:

3.1. Knowledge (knowledge reproduction) – Reproduction of facts (knowledge of geographical features, location of geographical features, place of occurrence of geographical phenomena, location next

to the border, geographical coordinates, establishing the direction, form and direction of extension of geographical objects knowledge of quantitative dimensions, presence or absence of specificity in a geographical object):

3.1.1. knowledge of geographical names – spatial position of objects, connection of names with a certain type of geographical objects, contemporary meaning of geographical names, correspondence of past and present geographical name;

3.1.2. geographical description (feature) – determining the correspondence of a geographical object, territory, phenomenon, process by geographical feature; recognition of an object, phenomenon, process, territory by geographical description; distinguishing by description between several objects; determining the geographical affiliation of both object, phenomenon to a certain group of objects, phenomena, activities;

3.1.3. knowledge of geographical concepts – matching a concept to a definition; tasks to find the correspondence between definition and concept;

3.1.4. knowledge of geographical patterns – a manifestation of geographical patterns: integrity, rhythm, latitude, zonality, altitude, zoning, differences in the natural environment, climate, waters, soils, flora and fauna.

3.2. Understanding and explanation:

3.2.1. understanding geographical knowledge – to transform one type of knowledge into another; to discover the association between individual knowledge; to discover and understand the genesis of geographical objects, phenomena and processes; to understand the peculiarities of the functioning of objects, phenomena, processes and systems; to understand geographical concepts; to understand schematics, charts, tables and graphs;

3.2.2. explanation (interpretation, interpretation) of geographical knowledge – tasks for structural explanation, functional explanation, for causal explanation; test assignments to understand the nature, manifestation and explanation of geographical patterns.

3.3. Use (application) of knowledge and skills:

3.3.1. test calculation tasks – number determination, distance determination, scale setting, height difference determination, amplitude calculation, relative proportion calculation, demographic calculation and demographic characterization;

3.3.2. test classification tasks – ordering facts, phenomena and processes by a specific feature;

3.3.3. grouping test tasks – to establish consistency between two groups of concepts;

3.3.4. test tasks for determining the place among elements or a range of quantitative characteristics;

3.3.5. Geographic Orientation Testing Tasks – Landscape Orientation, Geographic Map Orientation, Geographic Map Orientation;

3.3.6. test tasks for the geographical characterization of certain sites, processes and territories;

3.3.7. test tasks for the use of technological knowledge and skills.

3.4. Cognitive knowledge and skills:

3.4.1. for analysis;

3.4.2. for analysis of geographical text;

3.4.3. for comparison;

3.4.5. for synthesis;

3.4.6. for generalization;

3.4.7. for conclusions and evaluation;

3.4.8. test tasks for discovering the skills of anticipating and predicting the consequences and results [6].

The content of the tests is formed by the test tasks included in them. A test sheet or test book, scroll is prepared. State educational standards, approved curricula, course content, and the approach of the test taker are the main elements on which each test depends. The subject of pedagogical control and assessment are the knowledge, skills, habits and ideas that are formed during the education of the respective educational level, class and course. The test assignment is the main component of the tests. They are forms of recommendation to those tested: a question to be answered or to choose the correct answer; a test task that requires a specific action – calculation, location; continuation of the claim. The

basic requirement for all assignments in the geographical test is the choice of a single correct answer. The test uses the same or different types of assignments. A one-answer geographical test of four possible answers or a one, two or more choice answer geographical test.

The answers to the assignments meet the requirements: to reflect the content of the course; be directly related to it; no factual errors; the answers to the test tasks are related to the previous knowledge; text responses (correct and distractors) in alphabetical order, worldwide, in order of origin. The Scale is used to translate the quantitative results of the measurement of knowledge and skills into qualitative assessments. It is prepared together with the formulation and determination of the set of test assignments. Specific evaluation criteria are drawn up for open-ended test assignments, with each item having a different number of points. For semi-open test assignments for adding a single word, words and expressions, two points are defined, but if one word is added, one point is defined. In closed test items with the choice of correct answer, a scale is applied and the correct answer is evaluated by one point. The higher the number of points is assigned to the compliance tests. For test jobs with graphic images and the use of a map – for recognizing an image, an image, determining a direction, a geographical position, a minimum number of points is determined.

The quality of geographical tests is determined by the evaluation of three main indicators – difficulty of the test; reliability of the test; validity of the test.

The methodological principles in constructing the test assignments include:

- Organizational and methodological requirements;
- What and what part of the content will be tested;
- Choosing the form of questions, continuing the assertion and task;
- Compliance with principles of composition: the principle of contradiction; the principle of the opposite of answers; the principle of uniformity; principle of cumulation; principle of combination; principle of grading; principle of implication; principle of grading the correctness of the answers; the principle of brevity of assignments and answers; the principle of logical determination; the principle of double opposition; the principle of non-negligence [6].

Some suggestions for testing rules:

Rule 1. Use a task format that has only one true or best answer (correct, complete answer).

Rule 2. Look for the shortest possible phrases, avoiding the verbosity and phrases of the textbook.

Rule 3. The problem that the task is focused on must be posed in its condition. Include the basic idea and most of the phrases in the condition.

Rule 4. The tasks must be independent of each other.

Rule 5. Avoid negative phrases and negative judgments in the condition of the task.

Rule 6. The question form when formulating the condition is preferable to the unfinished sentence.

Rule 7. Avoid trivial tasks. (Questions that measure knowledge that are not essential in training are considered here).

Rule 8. When arranging the answers, follow their logical sequence (For example, they can be arranged in chronological order or in alphabetical order. There should be an ascending or descending order when answering the quantity indication.).

Rule 9. The answers must be approximately the same length and homogeneous in nature.

Rule 10. The position of the correct answer must vary on the principle of randomness.

Rule 11. Avoid words or phrases that may play a key role in finding the right answer.

Rule 12. Use attractive distractors (distractor – Latin *distraho*, *distractum* – stretch, stretch) – false, distracting alternative among a group of possible answers; incorrect test answer. The "none of the above" and "all of the above" types should be used with great caution because they are not considered effective distractors.

Rule 13. Use multiple-answer tasks only when other types of tasks are more inappropriate.

Rule 14. The visual layout of a task should facilitate its faster and easier perception.

- By marking using bold font, capital letters, underline, etc.;
- Alternatives use letters, not numbers;
- The list of alternatives is arranged vertically, not horizontally;

- The task is not to "tear" into two pages.

Criterion-reference tests are designed to test how well students are aware of the main goals of the learning segments. Normal reference tests are designed to compare students with each other, to determine the individual level [6].

In today's conditions of quality education, the basics of computer testing are being developed and developed. This allows for more accurate pedagogical measurement, verification, control and assessment at the level of training. The application of ICT diversifies the forms of testing and processes the testing process, allowing for self-assessment at the level of preparedness [6].

This research study also highlights several important directions that result from the theoretical analysis and synthesis of current methodological literature in order to justify the theoretical foundations for preparing, applying a test form to evaluate and analyze student achievement after learning certain units of instruction, specifically through the field of competence "Geography of nature" in 8th grade. Comprehensive analysis presents as a "white" field in the theory and practice of teaching geography and economics the lack of a system of thematic assessment of students.

Practice – application

In education in geography and economics in the first high school class 8th grade – 10th grade in the 2019/2020 school year, the students' supervision and assessment is in accordance with the Law on vocational education; Ordinance No. 5 of November 30, 2015 on General Education Preparation and the State Educational Standard for Assessing the Results of Student Education under Ordinance No. 11 of September 1, 2016, on Evaluation of the Results of Student Education, effective 20.09. 2016.

The control at the high school stage is carried out by traditional methods - oral and written examination.

Both standardized tests of study aids approved by the Ministry of Education and Science and educational sites specialized in the Geographic Portal are applied; Geography Magazine, 21; Geoscience; I'm learning; Bg School; Books for the teacher of geography and economics and more and more often test assignments prepared by geography and economics teachers as their own resources.

There are four main forms of testing in geography and economics education – closed, open, mapping and causation.

Content – analysis of educational content in geography and economics in 8th grade

Education in geography and economics in 8th grade is aimed at acquiring key competences by mastering knowledge, skills and relationships related to the nature of the Earth, its natural resource potential and the sustainable development of the geographical space. The formation of the geographical culture of the students continues.

The curriculum in geography and economics for 8th grade (general education) includes as a content of the course of study: three areas of competence: Planet Earth; Geography of nature; Geographic information that is implemented through two leading topics and twenty-one sub-topics.

Purposeful analysis of the main topics, concepts and categories related to the achievement of key competences by mastering knowledge, skills and relationships related to the nature of the Earth, its natural resource potential and the sustainable development of the geographical space can be achieved through a comprehensive review of the existing syllabuses and DOS for educational content, as well as textbooks and teaching aids approved by the Ministry of Education and Science.

The research study conducted in this report analyzes the textbooks and training kits used in the school education system in the 2018/2019 academic year, according to Appendix No. 1 approved by Order No. RD 09-39/16.01.2018 of the Minister of Education and Science.

The research study conducted in this report analyzes the textbooks and training kits used in the school system during the 2018/2019 school year.

1. Geography and Economics (electronic version).

- 1.1. Popov, A. and the collective, "Anubis" Ltd., 2017.
- 1.2. Rusev, M. and the collective, "Archimedes 2" Ltd., 2017
- 1.3. Penin R., and collective, "Bulvest 2000" Ltd., 2017
- 1.4. Dermendzhieva S., and the collective, "Prosveta-Sofia" AD, 2017.

In the textbook of the publishing house "Anubis" with authors A. Popov and staff the content is covered in 36 thematic units. Planet Earth is covered in three sub-topics. The topic of Geography of

Nature is covered in twenty-nine sub-topics. Lessons are provided for initial and annual negotiations, activities and controls.

In the textbook of the Archimedes Publishing House with authors M. Rusev and the staff the content is covered in 36 thematic units. Planet Earth is covered in four sub-topics. The topic of Geography of Nature is covered in twenty-seven sub-topics. Lessons are provided for initial and annual negotiations, activities and controls.

In the textbook of "Bulvest 2000" publishing house with authors R. Penin and the staff the content is covered in 29 thematic units. Planet Earth is covered in three sub-topics. The topic of Geography of Nature is covered in twenty-four sub-topics. Lessons are provided for initial and annual negotiations, activities and self-checking controls/tests.

In the textbook of the publishing house "Prosveta" with authors S. Dermendzhieva and the staff, the content is covered in 32 thematic units. Planet Earth is covered in two sub-topics. The topic of Geography of Nature is covered in twenty-seven sub-topics. Lessons are provided for initial and annual negotiations, activities.

Organization and methodology of empirical pedagogical research in geography and economics in 8th grade – a model for test evaluation through various didactic tests, as a tool that takes into account the level of students' acquired knowledge, skills and competences.

The main purpose of this development is to develop a test evaluation model through various didactic tests, as a tool that takes into account the level of students' acquired knowledge, skills and competences, their psychophysiological and personality characteristics.

The test evaluation in the model is the content of Geography and Economics in 8th grade, area of competence "Geography of nature".

The didactic situation justifies the test options for checking, diagnosis and analysis of students' knowledge, skills and competences after learning certain units. They serve to diagnose the student's individual achievement and progress, and to identify his or her learning needs and areas in need of support. Different test variants have been developed on this basis. The basic characteristics of the test, the stages of creation of tests and test tasks are observed.

The pedagogical experiment as a ascertaining and teaching sub-stage on the topic is carried out with students in four classes of 8th grade/8a – humanities with advanced foreign language learning; 8b and 8c – natural sciences without advanced foreign language learning; 8 years – Software and hardware sciences with advanced language learning at Vasil Levski Secondary School in Dulovo, Silistra District /in the application/.

In this study didactic tests were selected to seek to cover the goals and objectives set by the curriculum for all students. Control is carried out by the test method. The tools are the tests.

For objective evaluation we used the following criteria and indicators.

First criterion. Inwardness

Indicator on the first criterion: Awareness of the essential links between the studied objects, processes and phenomena – thematic test.

The second criterion. Specificity

Indicator under criterion two: It reveals the specific manifestations of geographical patterns – a thematic test.

The third criterion. Responsiveness and flexibility

Criterion 3 criterion: ability to use regularities in similar situations. Quickly find alternative ways to apply them in new situations.

In the search for the most appropriate method for accomplishing the purpose and tasks of our diagnostic procedure, we came to the opinion that the following methods should be applied:

1. A study of the literature on the problem of didactic and criterion-oriented tests;
2. Testing;

3. Mathematical-statistical analysis and methods for tabular and graphical presentation of results (this method is part of the dissertation, where it will be thoroughly considered).

Of the above methods, diagnostic testing is the main test and the rest are ancillary diagnostic methods. We relied on the test because it limits the subjective factors in the test and assessment of knowledge. In addition to ensuring the objectivity of the information, it unifies the requirements for

students and the conditions under which they work. Provides quick access to necessary information (data). Geographic and economics training goals and objectives serve as a starting point for the preparation of the diagnostic toolkit.

We apply variants of tests for the Earth's geospheres according to the model of the educational content in the textbook of "Prosveta" publishing house with authors S. Dermendzhieva and a collective.

Atmosphere test – thematic control – two options. The number of tasks in both options is 15, including the learned content of seven lesson units for the Atmosphere – composition, construction and processes. The task types are open-ended type 11 tasks for highlighting, supplementing, defining and creating short text and image and closed-ended tasks with four answers given, one of which is true – 4 tasks.

Hydrosphere test – thematic control – three options. The number of tasks in all three options is 15, including the learned content of seven lesson units for the Hydrosphere – composition, construction and processes. The task types are open-type 7 tasks for highlighting, supplementing, defining and creating short text and image and closed-type tasks with four answers given, one of which is correct – 8 tasks.

Test/Written control work Lithosphere, Pedosphere and Biosphere – thematic control – two options. The number of tasks in both options is 10, including the learning content of nine lesson units for the Lithosphere, Pedosphere and Biosphere – composition, construction and processes. Task types are all open-ended tasks for highlighting, supplementing, defining, and creating short text and image work [3, 5].

We evaluated students' tests on the scoring system. For each task in a given test, the maximum number of points for a correctly solved task is indicated.

The scale for the assessment of the test results is compiled on the basis of the number of points and their transformation into an assessment [4].

The diagnostic examination is conducted in the regular Geography and Economics classes of the curriculum within one academic hour. The thematic tests are carried out within one class hour. The greatest difficulty was the shortage of hours of thematic control hours and a test check took place in the hours provided for activities and summaries.

The results of the research work on the diagnostic procedure are the subject of development in the dissertation work on the topic "Structural-content analysis of the test tasks in education in geography and economics in the first high school stage" and is discussed in Chapter IV "Empirical and diagnostic study of geographical tests in the first high school stage /8th - 10th grade/.

Conclusion

The development, selection and application of test questions and questions in geography and economics in the 8th grade for the specific subject matter as the subject of the research study in this report draws the following conclusions:

1. Possibilities for application of test tasks and questions, which allow to diagnose and evaluate students' knowledge and skills through thematic control, as well as the level of quality of knowledge and skills, as well as their ability to apply them when solving test tasks.

2. Theoretical and methodological analysis of test evaluation and theoretical analysis and synthesis of current methodological literature substantiates the need for theoretical and methodological models of the investigated problems.

3. In developing didactic tests, each teacher must respect the basic characteristics of the test – validity, reliability, objectivity, relevance and specificity, in order to successfully apply the tests as a tool for assessing student achievement.

4. If the thematic test control is in accordance with the basic principles: compliance with the objectives; measuring clearly defined learning outcomes; measuring a representative sample of the curriculum content included in the curriculum; contain such tasks as are most appropriate to measure the relevant learning outcome; to serve to improve the results of geography and economics training, then the measured and achieved student outcomes will satisfy all stakeholders – teachers, students and parents.

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