

## **Linguodidactic Testology: An Assessment Methodology of Professional Competencies Formation of Foreign Languages Faculty Bachelor Students**

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**Abstract:** In the conditions of the transition to the two-tier higher education system and development of curricula in accordance with new education standards it is necessary to improve test and evaluation materials. The main purpose of funds of assessment tools (matrix of competences, competence passport, tests) is that the student is involved into active thinking and is to make decisions when problems occur. The research work is relevant due to contradiction between the necessity to control the level of different competences formation and insufficient development of techniques for their assessment. This involves an analysis of criteria for the selection of adequate methodological tools that can provide methodological assistance in assessing the formation of professional competencies of Bachelor students of the Faculty of Foreign Languages. The main objective is the selection and introduction in educational process modern educational technologies for the formation of students' required competencies as well as the creation of the funds of assessment tools, providing an objective comprehensive assessment of formed professional competencies. These educational technologies are considered a method of developing competencies and forming funds of assessment tools in linguistic disciplines. This study deals with the problem of creating a system of assessment of the level of competences formation and learning outcomes. The lack of knowledge in the field of testology leads to violation of the requirements for the structure, content and design of test tasks in accordance with the international standard IMS QTI and quality management system in relation to the development, production and realization of test products. Special attention is paid to the possibilities of the educational platform LMS Moodle in the control of competencies formation of the bachelor students of the faculty of foreign languages.

**Key words:** Assessment, test, competence, involves, analysis

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### **INTRODUCTION**

In accordance with the concept of long-term socio-economic development of the Russian Federation for the period until 2020 "strategic goal of the state policy in the field of education is to increase access to quality education corresponding to requirements of innovative development of economy, modern society and every citizen".

The realization of this goal involves the solution of one of the priority tasks the creation of mechanisms to assess the quality and relevance of educational services with participation of consumers, participation in international comparative studies. One of the most important tasks of the Federal program of education development for 2016-2020 is the formation of a marketable quality assessment system of education

and educational outcomes. The program provides project-oriented approach in contrast to the classical program-target approach of the Federal Program of education development for 2011-2015. In connection with this problem it seems promising and relevant to use of the principles of science that studies the possibility to evaluate different properties using specially developed test methods and their interpretation-testology.

The assessment of the quality of professional training of bachelors of linguistic specialties and the informatization of the process of assessment of competences are of great current importance. First of all, it is supposed to have a definite set of methodic instruments enabling to assess objectively the procedure of diagnostics of the level of main professional competences of students getting the bachelor's degree in "foreign languages" in the area of "teacher training

education". It is the set of forming competences that further determines the status of a bachelor not only as a person owning professional competences but also as an active subject of professional activity.

It is important to resolve the contradiction between the necessity to control the level of formation of different competences and insufficient development of techniques for their assessment.

Competence is a personal property of the person, the potential ability and willingness of the individual to cope with different tasks, formed in activity and integrating value-semantic attitude towards it. There are the following components in the structure of competence:

- "Knowledge component" (knowledge of an academic field, the ability to know and understand)
- "Values component" (values of the personality and motivation to the solution of professional tasks)
- "The activity component" (practical and operational application of knowledge to a specific situation) (Maltseva *et al.*, 2015)

Formation of a competence can not always be directly correlated with the mastering of one particular discipline or disciplines group. Competences are developed in parallel and collectively in all forms of educational work of the student the mastering of the individual disciplines and groups of disciplines, practical training, performing research and independent work.

Competence model of a graduate is an agreement between consumers (employers, students) and the University (developer educational program) on the objectives and expected results of mastering of educational program (Zaburdaeva *et al.*, 2015).

In accordance with the Federal State Education Standards competencies are divided into: general cultural, general professional, professional, professionally applied. Student, mastering undergraduate program in "teacher training education" (profile: foreign languages), must possess, first of all, professional competences, according to the form/type of professional activity on which bachelor degree program is focused.

Professional competence is the ability to act successfully in performing the task, solving the task in a particular professional activity. The levels of mastering of competencies for each implemented profile of the training are determined by the types of professional activity (core, non-core) and type of competencies. For each type of professional activity the levels of mastering of competences are determined. Competencies can be formed at different levels: basic and height.

To describe the competence the passport of competence is used. Passport of competence is a reasonable set of regulations of the state standard and high school requirements for the formation of competence at the end of the mastering of the educational program. It includes:

- The Federal specification requirements taking into account regional and institutional specificity
- Clarifying the wording of competence in accordance with the implemented profile or training program
- Clarification or simplification of the wording of competencies
- Structuring competencies into levels, indicators and descriptors

Assessment of achievement of planned in the educational program learning outcomes and the required level of formation of competences is carried out in particular by means of the test tasks.

Nowadays in the practice of using testing techniques in the system of higher education there are contradictions between:

- The demand for reliable and current information about the quality of educational results of the students and the impossibility to get it because of the lack standardized funds of assessment techniques
- The necessity to improve the quality of tests and methods of assessment which are used but don't give the objective assessment of their quality
- The purpose of the assessment and impossibility of their full realization because of the absence of integrated approach to the use of relevant methods of assessment of the quality of tests
- The demand for the technology of complex assessment of the quality of tests using which will enable to control with the help of reliable and valid tests and the absence of such a technology

The lack of knowledge in the field of testology leads to violation of the requirements for the structure, content and design of test tasks in accordance with the international standard IMS QTI and quality management system in relation to the development, production and realization of test and software products. Traditionally, the main quality criteria of the test materials are their validity and reliability, the calculation of the quantitative values by using experimental and statistical methods based on empirical data obtained from test results. One possible way of solving this task is to assess the

readability of the content of the test materials, based on the analysis of quantitative indicators of the wording of the test tasks, describing the style of presentation, the degree of its understanding by the target audience, assessment of results. One of the most important tasks of the application of test technologies for control in the learning process is the development and improvement of educational tests as the most objective and accurate measuring tool (Zaburdaeva *et al.*, 2015; Kazantseva *et al.*, 2015).

Linguodidactic testology includes the introduction of modern forms of competencies formation control of students according to the demands of the Federal State Educational Standart in particular distance learning platform. One of these platforms is «Moodle» is an abbreviation for «Modular Object-Oriented Dynamic Learning Environment», it represents Learning Management System (LMS), based on computer and internet technologies for guiding educational process.

Educational possibilities of this platform are quite enormous its pedagogical tools allow not just to pass knowledge but also to monitor the results of education with the help of tests and specially prepared tasks. Built-in Web 2.0 components help to the control of students' competences formation via special rating system by collecting and analyzing the information about completed work. We obtain data from graphs, charts and diagrams constructed by the system itself on the basis of FAT. Besides, Moodle system allows to work out and to put forward complex research tasks which require further demonstration of students' knowledge and skills in the audit area. Sets of tests and assessment tools for each discipline include control and assessment materials to assess the knowledge, skills and level of acquired competencies according to the common European framework, allowing to assess the level of foreign language according to the European grading scale (A1-C2).

The ideas of competence-based approach has been developing in the system of education, the essence of which is discussed in the works of V.I. Baidenko, E.F. Zeer, I.A. Zimnaya, R.P. Milrud, Y.G. Tatur, A.V. Khutorskoy, J. Raven, W. Hutmacher and others.

In psychological-pedagogical literature the concept of "competence" and "competence" has become wide spread since the mid 60s of the last century, becoming the basis for the development of the competence approach in education (N. Chomsky, R. White, J. Raven, J. Delors, W. Hutmacher, T. Hoffmann).

In Russia this issue in relation to various kinds of activity is studied by V.I. Baidenko,

I.A. Zimnaya, A. Kasprzhak V. Landsheer, A.K. Markova, N.S. Sakharova, Y.G. Tatur, A.V. Khutorskoy and others.

I.A. Zimnyaya in her research of the problems of competence-based approach in the education denotes that competence-based education was forming in the 70s in the USA according to the way N. Chomsky (1965, Massachusetts University) employs the term "competence" as applied to linguistics and grammar. At the same period in the work of R. White «Motivation reconsidered: the concept of competence» (White, 1959) the content of the category of competence is filled with person-oriented components, motivation included (White, 1959).

The development of the competence-based approach is characterized in the study of UNESCO with the definition of key competences that should be considered as the result of education. In the summary written by walo hutmacher it was pointed out that the notion "competence" is not clearly defined though it is used in some other notions such as skill, competency, ability, mastery, craftsmanship. After N. Chomsky W. Hutmacher gives the definition of five key competences which were chosen by the Council of Europe and underlines that "the use is competence in action".

The practice of test technologies identified critical issue: the use of low-quality tests for quality control of teacher training. As a possible solution to this problem the Ministry of education of Russia signed the order "about certification of quality of pedagogical test materials" (17. 04. 2000 No. 1122). At the same time an active research and development of models of quality evaluation of test materials and procedures for the certification of tests from various positions started: on the basis of formal rules for constructing tests (N.A. Gulyukina, V. Y. Pereverzev, S. V. Klishina), formal and substantive rules (M.B. Chelyshkova, V.S. Avanesov, E.L. Mikhalychev, V.I. Vasil'ev, A.V. Nikitin) and methodological bases (E.D. Popova, D.M. Uzdenov). Despite the accumulated scientific and educational experience in the field of didactic testology, the question of the quality of the test material is still relevant (Zaburdaeva, 2013).

In this study, the term "test material" is used in relation to pedagogical tests which have not gone through the procedure of standardization and certification. Technology is defined as "a system of conditions, forms, methods, means and criteria for the solution of pedagogical problems".

Each researcher can have different attitude to testology. Many researchers condemn the use of tests in research and teaching but in spite of this, many

institutions of higher education of the Russian Federation use computer testing actively. The sharp negative attitude to the tests develops more often due to the very poor quality of the banks of test tasks which are the result of the work of the originator in accordance with the formed socio-psycho-pedagogical principles. Such tasks are fairly sharply criticized not only by specialists in the field of the subject in which the test was made up but also by specialists in other fields, who find the obvious mistakes and inaccuracies in making the test.

Scientists who have studied this area for several decades have come to the conclusion that the most correct solution for testology to overcome the crisis is the development and application by the developers the methodological rules in making the tests, examination and certification of test materials and the creation of qualitative methods of processing test results (Weir, 2005).

The advantageous properties of pedagogical tests over other means of pedagogical control are described in scientific research of foreign (K. Ingenkamp, B. Nemerco, K. Denek, J. Cattell, V. Okon, B. Bloom and others) and Russian (by V.S. Avanesov, V.P. Bepalko, N.F. Efremova, M.V. Klarin, G.S. Kovaleva, A.N. Mayorov, A.O. Tatur, V.S. Cherepanov, M.B. Chelyshkova, etc.) scientists, especially such properties as processability, flexibility, objectivity, systematicity, complexity, multifunctionality, versatility.

In the system of vocational education didactic tests are the primary means of assessing and monitoring the quality of vocational training in the procedures of assessment of results of educational activity, accreditation of educational institutions, etc.

In recent decades when the test technology has become an integral part of the control and assessment activities of different levels of education it became necessary to form of the fund of assessment tools. In this context, the important problem is to form these funds with the tasks of a high degree of reliability and validity. An example of creation of funds of assessment tools can be the bank of control and assessment materials for unified state test of graduates of general educational institutions, the bank of tasks for the Federal examination in the field of higher professional education, the bank of test tasks of the adaptive environment of testing, etc. There was a need to provide uniform requirements to the form and content of the test. The first attempt to unify requirements for the national testing system was the order of the Ministry of Education to establish the certification system of quality of teaching materials. The most important researches in this field are:

- Theory and methodology of professional education (V.I. Baidenko, V.I. Blinov, A.T. Glazunov, A.N. Leibowitz, M.V. Nikitin, A.M. Novikov, P.N. Novikov, E.A. Rykova, D.V. Chernilevsky, etc.)
- Methodology of system analysis (F.P. Tarasenko, F.I. Peregoudov, I.V. Prangishvili, Y. Takahara)
- General, educational and pedagogical qualimetry (G.G. Azgaldov, S.I. Arkhangelsky, V.I. Baidenko, K. Ingenkamp, A.N. Mayorov, E.A. Mikhalychev, V.I. Ogorelkov, S.A. Safontsev, A.I. Subetto and others)
- In the form of quality assessment system of educational achievements of students (V.P. Bepal'ko, V.I. Blinov, K. Ingenkamp, A.N. Leibowitz, A.N. Mayorov, A.M. Novikov, O.E. Permyakov, A.I. Subetto and others)
- Development of technologies of computer-based testing (V.I. Vasiliev, T.N. Tyagunova, etc.)
- Taxonomy of levels of learning (V.P. Bepalko, G.K. Selevko, D. Tollingerova, K. Denek)
- Theory and technology of learning (S.I. Arkhangelsky, Yu. K. Babanskiy, V.P. Bepalko, etc.)
- Didactic testology (V.S. Avanesov, T.M. Balykhina, N.A. Gulyukina, N.F. Efremova, S.V. Kllishina, V.Y. Pereverzev, M.B. Chelyshkova, etc.)
- Works in the field of expert assessment (A.I. Orlov, B.G. Litvak, V.S. Cherepanov)

## **MATERIALS AND METHODS**

The research is complex. So, to achieve the goal of the research and to solve the above mentioned tasks several methods are used. Theoretical methods include information theoretical analysis of scientific literature, definition and terminological analysis of philosophical and educational resources, designing and modeling technological processes of comprehensive expert examination with the help of software. Empirical methods involve surveys, testing, data acquisition and processing. Methods of mathematical statistics are used in processing experimental data. Quality assessment of test options is based on their eligibility for the following criteria:

- Completeness of the coverage of requirements to the level of graduates' training by each test option and by all the options together
- correct test content proportions
- Eligibility of the reviewed task system for the test specification

According to the ways (methods) of collecting primary information researches can be divided into the following groups:

- Quantitative
- Qualitative

Practical researches require multi-methodology a number of qualitative and quantitative methods taken as a whole.

Quantitative researches are the main ways of gaining the information which is necessary for planning and making decisions. Methods of qualitative researches are always based on some definite mathematical and statistic models which allows to get accurate quantitative (numeric) items of the characteristics studied (parts of the specifications for the source texts-input and tests output, proportions of subtests). The main advantage of quantitative researches is that they mitigate the risk of making the wrong decisions and choosing inadequate criteria of planning and quality assessment. Quantitative researches are the most adequate means of numeric assessment of:

- Prospects of the development of test task model
- Effectiveness of different activity areas of the university aiming at the support and promotion of test task model
- Directions of the model development and the constituent parts of the test tasks
- Reaction of those who are tested to the actions of those who conduct tests

Unlike quantitative researches qualitative ones are not focused on statistic measurements they are based on understanding, explaining and interpreting empiric data, besides they are the source of hypothesis formation and fruitful ideas. Project and stimulating techniques are widely used in qualitative researches they help the researcher to explain the motives, preferences and values of respondents concerning the contents of test tasks. Using qualitative researches on the stage of strategic development of test task models enables the following:

- Generation of ideas concerning the model
- Assessment of the model
- Assessment of the model elements

Qualitative methodology can be used in tactic researches to choose the best option of a test task model. Alternative options of the elements of the existing test task bank can be offered in each individual case of testing. The main resources of gaining information are:

- Registration (observation)
- Experiment
- Expert assessment

Experiment means researching the influence of one factor on another one and simultaneous controlling outside factors. Expert assessment is the assessment of the processes researched by qualified experts. This assessment is necessary particularly in the cases when it is impossible to gain mediated information about a process or phenomenon.

## **RESULTS AND DISCUSSION**

The study describes a comprehensive approach to developing methodological tools for forming funds of standardized assessment means to control and estimate students' progress in the field of foreign languages to define the peculiarities of test materials for the system of professional training as testing tools for assessing the quality of bachelor training. The achievement of the goal presupposes its realization according to some stages.

Generalization of the world and domestic experience in developing and evaluating tests in foreign languages (English and German) in bachelor training at higher educational establishments.

Description of the sequence of actions aimed at defining the expected percentage of fulfilling the test by those who participate in the experiment. Finding out and developing the criteria of diagnosing test tasks in English and German. Adapting the tools that were found to the process of bachelor training at the faculty of foreign languages.

Development of assessment tool funds in English and German for the disciplines of the curriculum that was worked out in accordance with Higher Education State Standard in the field of teacher training (specialization: Foreign Languages). Hosting the funds in the learning environment e-Learning.marsu.ru.

Development of the program of foreign language teachers' certification "training instructors-moderators in active methods of teaching foreign languages".

## **CONCLUSION**

The quality of test materials includes their content, formal, functional and structural-logical characteristics which determine the reliability of students' progress assessment.

The model of test materials quality assessment is to be presented as a system including four main subsystems-preliminary, formal content-related, testological and integral expertise which have cause and effect relationship defined by logics of achieving expertise goals. Comprehensive approach to the development of methodological tools for forming funds of standardized assessment means, defining the peculiarity of test

materials for the system of professional training guarantee reliable assessment of bachelor-students' progress at the institutions of higher education.

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