

Año: VINúmero: Edición EspecialArtículo no.:4Período: Diciembre 2018.

**TÍTULO:** Modelando la organización del trabajo independiente en la Educación Superior basado en el Enfoque por Competencias.

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**RESUMEN.** En la actualidad, el papel del trabajo independiente, sus formas y contenido han cambiado debido a las tendencias en la educación superior basadas en el enfoque por competencias. El término "trabajo independiente" se considera como un proceso educativo planificado, motivado internamente y llevado a cabo por los alumnos en el aula y extramuro. Las etapas del autoestudio están determinadas en el artículo. El artículo presenta un modelo de organización del trabajo independiente en la educación superior, basado en el enfoque por competencia y sus componentes estructurales. Se define la relación entre todos los componentes. El resultado del modelo desarrollado proporciona un alto nivel de autocapacitación y puede utilizarse para organizar sistemas educativos similares de organización de trabajo independiente.

PALABRAS CLAVES: trabajo independiente, modelos, escuela superior, enfoque de competencia

**TITLE:** Modeling the organization of independent work in Higher Education based on the Competence Approach.

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**ABSTRACT:** Currently, the role of independent work, its forms and content have changed due to trends in higher education based on the competency approach. The term "independent work" is considered as a planned educational process, internally motivated and carried out by the students in the classroom and extramural. The stages of the self-study are determined in the article. The article presents a model of organization of independent work in higher education, based on the competence approach and its structural components. The relationship between all the components is defined. The result of the developed model provides a high level of self-training and can be used to organize similar educational systems of independent work organization.

KEY WORDS: independent work, modeling, higher school, competence approach

# INTRODUCTION.

In terms of competence-based approach, the role of independent work and its forms, its content are changing, which requires intensive enrichment of the process of self-training of future professionals with new content, methods, as well as revision of the principles, and stages of self-organization. Therefore, it is necessary to have an adequate pedagogical model of organization of independent work of students that meets the modern trends of higher education and the requirements of educational standards.

The authors of the article consider 'independent work' as a planned education process, internally motivated and purposefully carried out by the trainees in classroom and extramural forms.

From the point of view of the authors, there are three stages of self-study: the cognitive stage; the activity stage; and the contextual stage which determines the ability of students to use the tools mastered in their professional activities [Kasatkina, E.A., 2012; Kasatkina, E.A., 2012].

There are five components of the developed model, according to the authors: target, theoreticalmethodological, structural-content, instrumental-technological and diagnostic components. All of them are interconnected, which allow to correct or update the process of organizing independent work at its various stages, and determine the effective independent work organization in higher education on the basis of competence-based approach.

The developed model of organization of independent work in higher education on the basis of competence approach provides a high level of self-training and can be used to organize similar educational systems of independent work organization.

## **DEVELOPMENT.**

### Methods.

When modeling the organization of independent work in higher education on the basis of competence-based approach, we were guided by the conceptual provisions of pedagogical design and modeling, the experience of leading Russian and foreign universities in the organization of independent work of students, as well as personal experience as a teacher [Bagateeva, A.O., 2017; Bagateeva, A.O., 2014; Bagateeva, A.O., 2015].

In the study of independent work of students, the following research methods were used:

- Analysis of scientific and theoretical studies on the problem of organization of independent work in higher education, which allowed to determine the degree of study of the problem.
- Modeling, involving the use of the model as a means of research.
- Synthesis, which reasons the connection of individual components in a single, holistic model.
- Abstraction, providing a mental distraction from insignificant properties, relationships in the development of the model and the allocation of several parties of interest to the researcher [Kasatkina, E.A., 2012].

Different methodological approaches are used such as: systematic, which perform as a theoretical and methodological strategy for the organization of independent work; competence-based, which allows to determine the set of professional competencies formed in the process of self-training; personal and activity, determining the need for individualization of training and involving subjectsubject interaction of the teacher and students; contextual, providing modeling of the content of future professional activity, as well as the basic principles of organization of independent work: accessibility, consistency, scientific, the relationship of theory with practice, differentiated approach to students, clarity, and strength of knowledge.

### **Results.**

The authors of the article consider 'independent work' as the planned organized education process, internally motivated and purposefully carried out by the trainees in classroom and extracurricular time during the implementation of the educational, industrial and research objectives in the context of gradually reducing direct or indirect methodological assistance of the teacher, the result of which is the gradual acquisition of cognitive learner, activity and context experience. From the point of view of the authors, there are three stages of self-study:

- The cognitive stage, which involves the acquisition of knowledge in relevant disciplines.
- The activity stage, which implies the formation of students' skills to apply the accumulated knowledge in the application of learning tasks.
- The contextual stage which determines the ability of students to use the tools mastered in their professional activities.

As to the components of the developed model, the authors distinguish the target, theoreticalmethodological, structural-content, instrumental-technological and diagnostic components which are interconnected and together determine the achieved result – the effective independent work organization in higher education on the basis of competence-based approach.

It should be noted that the effective diagnostic component should have the feedback with the target, theoretical-methodological, structural-content, instrumental-technological and diagnostic components, which allows correcting or updating the process of organizing independent work at its various stages due to the obtained results.

#### **Discussion.**

From the authors' point of view, the components of the developed model of the organization of independent work in higher education, created on the competence-based approach, are the following: target, theoretical-methodological, structural-content, instrumental-technological and diagnostic ones [Akhmetzyanova, G.N., 2010; Akhmetzyanova, G.N., 2011].

The target component of the independent work organization model, taking into account the necessities of the environment, the requirements of the Federal State Educational Standard of Higher Education (FSES) for the appropriate direction/profile of education, creates the preconditions for the integration of all components of the model and presents the unity of purpose, tasks of independent work.

The purpose of the developed model is to improve the efficiency of independent work organization. The components of the strategic goal of the model are the following: academic goals, involving a system of knowledge and skills; professional goals, implying professional thinking of students; personal goals, involving the ability to self-organization and self-education.

Achievement of the set goals is caused by a complex of tasks of independent work: formation of knowledge and abilities on studied disciplines; development of abilities of application of the received knowledge in professional activity; selective use of knowledge and creative manifestation of abilities at the solution of professional tasks; development of activity, logical thinking, and abilities to implementation of independent work as well as abilities to self-organization and self-education.

The theoretical-methodological component includes different methodological approaches and the basic principles of organization of independent work.

The structural-content component represents the step-by-step organization of independent work and includes:

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- The structural and logical scheme of training to disciplines, their interrelation.
- The structural elements of professional competences of FSES of Higher Education which are the result of the organization of independent work of students on cognitive, activity and contextual stages.
- The types of independent work distinguished by the authors of this article (cognitive and algorithmic, search and heuristic, creative research).
- The developed educational and methodical support of the model.

The instrumental-technological component concretizes the used pedagogical technologies of training, forms and means of organization of independent work.

The following technologies were used: problem solving, project, differentiated contextual learning, and intersubject integration.

Learning technologies are in close relationship with the forms of organization of independent work of students. Due to the place of independent work organization in higher school, there are classroom form (lecture, practical and laboratory classes) and extramural form (preparation for lectures, homework, preparation and extramural of control work, carrying-out of graphic calculated work (GCW), preparation of abstracts or participation in scientific conferences). As for the tools, there are educational and methodical complexes of disciplines, presentation material, manuals, application packages, and distance learning tools.

The diagnostic component characterizes the effectiveness of the developed model and is considered as a set of diagnostic tools used for monitoring and evaluating independent work. The means of diagnostics of independent work are the following: the bank of tasks, including tasks to accomplishment of control, graphic or laboratory works, individual homework, etc., corresponding on levels of complexity to criteria of structural elements formation of professional competences on cognitive, activity and contextual stages. Together all components of the model determine the achieved result that is the improving of the efficiency of independent work organization in higher education on the basis of competence-based approach.

## CONCLUSIONS.

The developed model of organization of independent work in higher education on the basis of competence approach provides a high level of self-training. Moreover, the model is universal, thus, it can be used to organize similar educational systems and similar type systems, and be a basis for the development of methods and technologies of organization of independent work.

## Acknowledgements.

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

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**RECIBIDO**: 5 de noviembre del 2018. **APROBADO**: 18 de noviembre del 2018.