

ORGANIZATION OF SELF-DIRECTED LEARNING IN TEACHING ENGLISH IN UNIVER-SITIES

ORGANIZACIÓN DEL APRENDIZAJE AUTODIRIGIDO EN LA ENSEÑAN-ZA DE INGLÉS EN LAS UNIVERSIDADES

Firuza Rzayeva¹ E-mail: firuza-rzayeva@mail.ru ORCID: https://orcid.org/0000-0002-0705-5878 ¹University of Languages. Baku, Azerbaijan.

Suggested citation (APA, 7th edition):

Rzayeva, F. (2022). Organization of self-directed learning in teaching english in universities. *Revista Conrado, 18(86)*, 360-366.

ABSTRACT

The article discusses in detail the factors influencing the self directed workof future linguists and the benefits of this work. It also analyzes the reasons for the emergence of a new modern method for organizing free labor. Various classifications of self directed workof language learners are also shown. The specific features and various factors that promote the development of students' freedom of action, ways to improve work and self directed work are analyzed by classification. The article provides analyzes aimed at testing the effectiveness of the model designed for university students to master their professional language skills. In the future, the impact of students' free intellectual activities on the prospects of a high level of professional autonomy is confirmed by reference to experimental research. The study also looks at the factors that improve students' language skills in terms of implementing a perfect approach to the organization of academic education and independent study.

Keywords:

Student, teacher, university, self directed work, independent study

RESUMEN

El artículo analiza en detalle los factores que influyen en el trabajo autodirigido de los futuros lingüistas y los beneficios de este trabajo. También analiza las razones del surgimiento de un nuevo método moderno para organizar el trabajo libre. También se muestran varias clasificaciones del trabajo autodirigido de los estudiantes de idiomas. Se analizan por clasificación las características específicas y diversos factores que favorecen el desarrollo de la libertad de acción de los estudiantes, las formas de mejorar el trabajo y el trabajo autodirigido. El artículo proporciona análisis destinados a probar la efectividad del modelo diseñado para que los estudiantes universitarios dominen sus habilidades lingüísticas profesionales. En el futuro, el impacto de las actividades intelectuales libres de los estudiantes en las perspectivas de un alto nivel de autonomía profesional se confirma por referencia a la investigación experimental. El estudio también analiza los factores que mejoran las habilidades lingüísticas de los estudiantes en términos de implementar un enfoque perfecto para la organización de la educación académica y el estudio independiente.

Palabras clave:

Estudiante, docente, universidad, trabajo autodirigido, estudio independiente.

INTRODUCTION

The practice of teaching English at the academic level change so rapidly that it is essential that students go on to acquire throughout their professional career. However, it is necessary to test new practices in English language teaching, to link traditional teaching methods with new innovations, and to constantly monitor innovations in this context. Self directed learning requires that both the teacher and the learner do these important things. Self directed work is viewed, on the one hand, as a system of events or pedagogical conditions that provide guidance for students' independent activities, and on the other, as a type of activity that stimulates the activity, independence, and cognitive interest of students.

METHODOLOGY

At a time when Azerbaijan is successfully developing comprehensive relations with the world, the problem of teaching English, which has gained the status of "lingua branca", ie the main language of communication, in a globalized world, is of particular importance. One of the main tasks of foreign language universities is to have linguistic literacy, to be able to organize student-student relations in accordance with modern requirements, and to be able to direct students outside the classroom. is the training of professionals who are able to successfully achieve their communicative goals by using their skills and competencies independently, freely, creatively and adequately.

However, observations made in senior courses of language faculties and surveys conducted among students studying here and teachers who teach English as a specialty language show that there are serious problems and difficulties in this field. One of the most pressing problems in the study of both theoretical and practical aspects is the teaching of listening comprehension to senior students in higher education. Hearing English in the language of the profession for students studying for professional purposes - instilling understanding skills and abilities at the level of today's requirements is one of the most important and pending issues of modern methodology. When talking about the development and improvement of communicative skills in students learning English as a specialty language, it is important to emphasize the importance of inculcating in students at all levels of education - comprehension skills and skills required by modern times. At the same time, it should be noted that by organizing the process of listening comprehension in the communicative-oriented, interactive way in senior courses, it is possible to create an effective environment that allows students to develop the ability to use language correctly and adequately for communicative purposes. One of the main criteria for training specialists to meet the requirements of the globalization era is the organization and implementation of the process of teaching oral speech, listening comprehension, reading and writing in the language faculty in an integrative way, in the concept of communicative competence. Interactive training of the main types of speech activities is successfully implemented in both higher and secondary educational institutions of Europe as a very promising and fully in line with today's requirements. Today, it is especially important to carry out purposeful, systematic, consistent activities aimed at improving the ability to communicate in a formal format, such as "lingua franca". The object of research is the process of teaching listening comprehension in English in the upper (III-IV) courses of language faculties. The subject of the research is the theoretical and practical research of the method of teaching listening comprehension in English in senior courses and the identification of a system of factors that directly affect the learning process.

Research methods

Theoretical analysis method, experimental method and mathematical-statistical method were used in the research. Scientific novelty of the research. It is conditioned by the study of the factors that significantly increase the level of listening comprehension in English for students of III-IV courses of universities with a specialization in language, both qualitatively and quantitatively. The article describes the methodology of purposeful, systematic, gradual, consistent development and improvement of listening comprehension skills. The development of a new didactic model and a system of motivational exercises based on scientific principles can be considered a scientific novelty of the research. Theoretical significance of the research. The article examines the methodological, psychological, linguistic and didactic bases of the communicativeoriented teaching of listening comprehension in English by III-IV year students of language faculties. The results obtained can be used effectively in the process of teaching listening comprehension in foreign languages, especially in English, both in high school and in high school. The results obtained in the process of studying the theoretical foundations of listening comprehension in English can contribute to the development of theoretical ideas in the study of the problem of hearing comprehension in the senior courses. The comparatively studied and generalized theoretical approaches in the article can be used as a source for research in other aspects of foreign language teaching, especially English. Theoretical significance of the research. The study of the methodological, psychological, linguistic and didactic bases of communicativeoriented teaching of listening comprehension in English by III-IV year students of language faculties in the article determines the theoretical significance of the work. The results obtained can be used effectively in the process of teaching listening comprehension in foreign languages, especially in English, both in high school and in high school. The results obtained in the process of studying the theoretical foundations of listening comprehension in English can contribute to the development of theoretical ideas in the study of the problem of hearing comprehension in the senior courses. The comparatively studied and generalized theoretical approaches in the article can be used as a source for research in other aspects of foreign language teaching, especially English. Practical significance of research work. Məqalədə əldə edilən nəticələrdən, işlənib-hazırlanmış tədris materiallarından, yuxarı kurs tələbələrinin ixtisas dili olan ingilis dilində eşidib-anlama vərdişlərinin təkmilləşdirilməsi üçün təklif edilən didaktik modeldən və kommunikativyönümlü çalışmalar sistemindən xarici dillərin tədrisi prosesində, xarici dillərin tədrisi metodikası üzrə mühazirə və seminar məşğələlərində, müxtəlif elmi - can be used in the preparation of methodological work.

Self-directed learning is a form of learning used to actively grasp, comprehend, process, and reinforce student knowledge and information. The power and value of independently acquired knowledge is invaluable. Self-directed learning is a student's own activity with a goal, task, form of expression and checking the outcome. Students have the desire and ability to learn self-directed learning. It is the teacher's duty and responsibility to help organizing and stimulating this type of activity. Only one teacher can take into account the age of the student, his/her personal qualities, evenly distribute the load on the memory and attention of students, help to shape their intellect, their abilities in their post-graduate work. The concept of "selfdirected learning" is multifaceted, and despite its large number, there is still no unified approach to the essence and content of this didactic process. Different interpretations depend, first of all, on the meaning of the word "self directed". Basically, this concept has three meanings:

- the student must do the work himself/herself without the direct participation of the teacher;
- the student is required to have independent mental operations, independent orientation in the teaching material;
- the performance of the work is not strictly regulated, the student is given the freedom to choose the content and methods of the task.

According to Professor Pidkasisty P.I. "Self-directed learning is a specific pedagogical tool." (Pidkasisty, 1980) The diversity and frequent intertwining of self-directed learning types leads to uncertainty in the basic choice for their classification. The methods, techniques and tools of selfdirected learning are not always stable. Organizational forms and methods vary depending on the individual characteristics and level of training of students. Independent tasks, first of all, should create the necessary conditions for the formation of a student's need for knowledge, to accelerate the process of acquisition, to promote from illiteracy to knowledge. The primary task of self-directed learning is to learn. As a result, during self-directed learning, knowledge, skills, and cognitive experience acquire an effective, flexible character, which in practice leads to the optimization of students' mental activity.

Self-directed learning is an important tool in the formation of freedom, which is a key factor in the development of personality. Self-directed learning requires students to have independence of thought, creativity, perseverance and initiative. Students' independence at different stages of self-directed learning manifests itself in a variety of ways, from simple reproduction, to imitation, to creativity. (Pedagogical Psychology, 2003, p. 18-20) As the complexity of the tasks performed increases. The effectiveness of a student's self-directed learning in various subjects depends primarily on personal qualities, discipline, motivational attitudes, memory, attention, volitional qualities, mental qualities.

Therefore, not only pedagogical principles, but also a number of important sociological, psychological and physiological principles must be followed in the organization of self-directed learning of students. The role of the right choice of methods to guide the student to self-directed learning is great in ensuring the effectiveness of student self-directed learning. Special methods are used to guide students to self-directed learning. Methods of directing the student to Self-directed learning are the methods used by the teacher. These include teacher counseling, correctional counseling, guidance counseling, various forms of teacher-student collaboration, introductions, final and guiding interviews, and feedback. The organization of self-directed learning goes through several stages. The first stage of self-directed learning is usually carried out in the teaching process, and the second stage is carried out mainly outside the classroom.(Smirnova, 2008, p. 37) When organizing self-directed learning, their interaction with other forms of higher education should be ensured.

Self-directed learning of students is based on the following principles: independence, goal planning, personal approach.

Self-directed learning of students is carried out for the following purposes:

- systematization and consolidation of acquired theoretical knowledge and students' practical skills;
- deepening and expanding theoretical knowledge;
- development of skills in the use of regulatory, legal, reference documents and special literature;
- development of students' cognitive abilities and activities: creative initiative, independence, responsibility and organization;
- formation of independence of thought, ability to selfdevelopment, self-development and self-awareness;
- development of research skills.

Students practice two types of self-directed learning:

- in the classroom;
- out of class.

Self-directed learning in the subject is carried out in the classroom under the direct supervision and instruction of the teacher. In this case, students are provided with the necessary teaching literature, didactic material by the teacher, including teaching aids and methodological developments. Extracurricular self-directed learning is carried out by the student under the guidance of the teacher, but without his/her direct participation. (Berestneva, 2005, p.154)

The effectiveness of students' self-directed learning is largely determined by the availability of active control methods. (Kozlova, 2006:230) There are the following types of controls:

- access control of students' knowledge and skills at the beginning of the study of the next subject;
- current control, ie regular monitoring of the level of mastering the material in lectures, practical and laboratory classes;
- intermediate control at the end of the study of a part or module of the course;
- self-management of the student in the process of learning discipline in preparation for the control activity;
- control in the form of a test or exam;
- monitoring of residual knowledge and skills after a certain period of time after completing the discipline study.

DISCUSSION

Self directed work of students is not only an integral part of the educational process, but also requires appropriate conditions for organization and effective implementation. According to researchers, the constant rationalization of students' self directed work leads to the activation of the intellectual process and the discovery of new ways of student maturity. Naturally, it is important to begin the research with a detailed analysis of the criteria for concepts such as "self directed work" and "freedom" by analyzing the numerous approaches and points of view based on a variety of progressive approaches.(Berestneva, Maruxina, 2004) Finally, the New Glossary of Terms and Approaches states that self directed work is an indivisible important link in the educational process that reflects the individual work of the teacher or textbook, the student's individual work in accordance with the essence of the curriculum. (Gerasimenko, 2010, p.160) Tasks intended for self directed work must be active and creative. Acquiring the necessary skills is an absolute requirement for the expansion of self-education, but also encourages the development of free decision-making.

In the glossary of terms that reflect social and general pedagogy, self directed work is defined as "a model of teaching in which the student accepts as much freedom as possible in all components of pedagogy, from raising an important issue to the implementation of inspection, selfexamination and transformation." (Management of self directed learning students) By moving from the lightest fields of study to the more complex ones, which reflect the research specificity of the history of pedagogy, self directed work should be directed to regular mastery as a means of shaping the student's mental level. The term independent study is understood in teaching methods as individual and group work of a wide range of students in the process of classroom and extracurricular activities. The concept of self directed work, according to researchers, is the search for and discovery of important information, knowledge and its application to the solution of educational, scientific and professional tasks. In the Dictionary of Experience Psychology, the discovery of the concept is described as the ability to take the initiative, generalized individual quality, adequacy, self-esteem and a sense of personal responsibility for the behaviors and behaviors that arise in a tense situation. It is closely connected with the active work of skills, emotions and wills. (Buryak, 2004, p.125) This connection has two components: (1) the dynamics of coagulative and crazy-volitional processes, a component necessary for free decision-making and behavior; (2) the accordion - adopted during free exercise decisions and actions are increased, and the ability to not only agree on well-thought-out actions, but also to ensure the successful implementation of decisions made on the spot, despite the expected complexities, is growing.

When the importance of the concept is widely discussed in the published scientific literature, we find that the concept of freedom is interpreted in a variety of ways: some scientists define it in a comprehensive way - as an integrative transfer of various personality competencies; other scholars in the field are more specific about freedom. We do not deny that freedom is an integrative level of personality after the first group of scientists, but in general, such a view does not reflect all the working qualities of such an intellect. (Towle, Cottrel, 1996, p.358) The second group of researchers explains in detail this intelligence, which allows us to reveal the stages of cultivation of this feature, to take into account its specific images in a particular study. Based on the generalization and analysis of the main concepts placed in the scientific literature, it can be concluded that freedom is the basis of independent cognitive creativity. Finally, the process of organizing students' self directed work in language teaching should be aimed primarily at revealing the creative freedom that leads to the acquisition of thoughtful language.

We have to agree that there are four types of self directed work that can stimulate students' ability to speak fluently, based on research by English language scholars:

- reproduction formation of habits, mastering creative methods in certain situations;
- propensity for reconstructive-renewal to pave the way for the deliberate transfer of knowledge in specific situations, to create a favorable environment for the development of cognitive work and mental work;
- heuristics to help students to develop an intellectually qualified individual, to generalize and program the acquired knowledge, to mature in non-standard situations;
- skillful to allow students to master radically new skills, to concentrate their skills on gaining free knowledge.

When organizing self directed work in English language teaching, it is necessary to pay attention to the gradual implementation of the inclusion of students in independent activities. According to professionals in this field, there are three stages, each of which is characterized by specific goals and objectives. The first stage is to further expand the desire of students to work independently, to understand the essence of self-formation skills, positive tendencies in the analysis of self-formation methods (Buryak, 2004). The second stage focuses on the formation of self directed workskills and is based on raising the intellectual level of students to acquire foreign language skills, to mobilize and apply students' intellectual resources, to present them in a thoughtful and expedient manner, and to subjectively acquire additional knowledge. The third stage is the strengthening of creative and practical skills aimed at strengthening individual learning skills as one of the factors in the expansion of individual learning and selfdevelopment. If we talk about the types and structure of work of students studying linguistics, we must emphasize that the sustainability, nature and scale of the application of students' self directed work has a variety of components, taking into account. (Petrova, 2013, p.28)

Classes and self directed work done in preparation for them and similar works have an additional character, personal enthusiasm and these activities are performed separately depending on the student's skills. These include classic homework assignments performed by students to master a particular task: more time-consuming preparation and creative assignments. Self directed work, which is of great importance and is carried out in preparation for the final exams, takes more time and requires more understanding, because it contains a large number of tasks and organizes the time from one half to the next half. These are: mathematical operation model, project types, computational and functional tasks, course work, course projects, individual creative tasks. (Kozlova, 2006, p. 232)

It should be noted that in the process of higher education there is a classic classification of three components, depending on the place and time of self directed work: self directed work in the classroom (lectures, seminars, workshops, practical work, laboratory work); a free study under pedagogical supervision in the form of intended consultation, creative communication, tests and examinations; extracurricular self directed work while teaching and creative homework by the student. Undoubtedly, the freedom of the previous types of work is quite conditional, and as we know, in the process of real education, these types overlap. We have to agree that scientists should study the well-designed auditorium activities of the student's self directed work, expand, strengthen and continue the mental activity outside of class time. (Management of self directed learning students) It is important to emphasize the educational work organized by students as a guiding factor for the discipline of self-development education. That is, it embodies that the usefulness of mastering language discipline is closely linked with the pedagogue, the program design of educational activities, along with all this, the positive results of the development of students' learning process through the application of a number of modern advanced technologies. (Pidkasisty, 1980, p. 220) It should be noted with confidence that the student's self directed work should be understood as an internally motivated creative activity that reflects the following steps: to be fully aware of goals and objectives; self-direction in the appointment of timely educational activities; selfgovernment in the implementation.

According to the above parameters, it is possible to conclude that the traditional forms of self directed workare in the form of the following classification: reports; semi-annual

assignments; term documents; course projects by specialty; certification of bachelor's, specialist's and master's degrees. As it is known, the process of acquiring the ability to freely acquire new scientific knowledge is carried out through the student's performance of various creative tasks, tasks of analytical origin, work on paper. (Serikov, 1992, p. 210) One of the studies we have listed is a project activity that is widespread and closely related to project competence resulting from the synthesis of the humanities and sciences in education. Project competence, programming, invention, successful results obtained through the application of mastery, demonstration of exceptional skills and intellectual talent is a shared formula applied in the art of design. Having mastered the project skills, the student learns to put forward creative ideas, to program their activities, to make the mastered devices and tools available, to predict solutions that can be applied to problem solving. Design skills are in the practice of many educational institutions in modern times and are implemented in the form of project mastering technologies and design methods. The technology of application of design works is actively involved in the teaching of language subjects. The importance of this type of work is that students see the real results of the work they do; have the opportunity to choose their own project topic. (Vadutova, Shevelev, & Berestneva, 2014, p. 130) Design work is a freely programmed and implemented activity that teaches students to think creatively, program their actions, and predict possible solutions to overcome obstacles.

Another aspect of the organization of self directed work of language learners in higher education institutions is the holding of Olympiads and competitions. In the process of applying the acquired knowledge, students gain new experience, improve their oratory skills, become acquainted with the basic norms of scientific debate and exchange of ideas, create an interlocutor based on ethical aspects, develop communication skills and the culture of public speaking and reasoning skills. (Vadutova, Shevelev, & Berestneva, 2014, p. 131) At the same time, the exchange of ideas develops ethical interpersonal communication skills. Students' mental activity is instilled with the ability to present knowledge in a thoughtful way and a professionally inclined feature.

Teaching self directed work with methodological literature is part of the organization of scientific work for students on the one hand, and teachers on the other. It includes certain requirements for the quality of professional literature used and requirements for the methodological organization of the educational process. First of all, it is provided by careful separation of the text material taught for self-formation. The second involves the development of a set of tasks and skills for self directed work with specialized literature. These include the following competencies: the ability to identify important sources of information, the identification and direction of material in identified sources; ability to place and use the material, noting the main sources of information; to compile a second text. (Berestneva, Maruxina, 2004, p. 86)

Analyzing the work of linguists, we can conclude that the usefulness of self directed work depends on the development of students' mental activity and creative abilities, previously acquired knowledge, proportionally structured knowledge process, the variety of forms and elements of innovation. Curricula for language teaching in universities should focus on the formation of a free-spirited professional with a comprehensive personality and a sense of responsibility in order to enhance the useful results of language teaching for future linguists. The main directions of the development of such literacy and skills are the formation of freedom of thought, which depends on the comprehensive elite development of the individual, the perception of planning, inspection and interview subtleties, as well as the ability to use the achievements of high information technology. According to a number of researchers, the ability of students to realize the criteria of self-education and thoughtful responsibilities of important knowledge and skills is inevitable. (Management of self directed learning students)

The experience of enlightenment shows that the formation of creative freedom of technical university students in the process of language learning implies the consistent and proportional use of intensity, which embodies a program of regular efforts to organize students' mental activity in language acquisition. I think that the developed model will create the basis for students to achieve language skills to the maximum within the self-educational activities of students through thinking activities. Naturally, the effectiveness of self directed work in the learning process usually depends on the conditions of organization, the essence and origin of tasks, the intensity of their compilation, the source of knowledge, the interdependence of classical and modern knowledge in tasks, the level of results and other factors. (Gerasimenko, 2010, p. 162)

It should be noted that according to the analysis of students' work in universities, most of them fully understand the goal setting, are aware of the situation, have a good idea of the topic, try to be creative. Students focus on the syntactic organization of a number of language standards, the logical-compositional nature of the content, the need to respect the integrity, openness, maturity, expressiveness and other characteristics of the content. Experience allows us to think in this direction. On the other hand, most students do not understand the situation well enough, do not have a clear idea of how to eliminate any problems that arise, and do not know at what level they will be able to present the material with confidence.

RESULTS

To conclude, the organization of students' self directed work depends on understanding the intentions, mastering the rules of various interview arrangements and rules of conduct in different situations, the ability to set the plot line and take it as a basis. The knowledge and skills they possess contribute to the productivity and efficiency of self directed work, to the discovery of a thoughtful and responsible sense of free labor in comparison with others, as well as to the character of the individual as self-government in the exercise of this talent. Based on the analysis of scientific sources and applied experience in the teaching process on the explained topic, the program of free knowledge activity as a process aimed at more comprehensive expansion of the active, free use of intellectual base in practice. develops. The student's activity in learning languages fluently is characterized by the regularity of the interaction with the information base through the application of modern technologies, as well as its capacity.

From the point of view of the current modern reality, the society needs highly qualified specialists who can not only adapt to the global world, but also have a leading position, active professional and vital position. Higher education has a special role to play in the emergence of future professionals who have both professional and cultural skills, as well as a desire to mature and improve themselves. Of course, in order to achieve this, it is impossible to reconsider the methodological approaches based on the teaching process and the application of modern technologies in higher education. In order to solve this nuance, it is important to update the conceptual principles of teaching in the first place. Because the emergence of creative features is impossible with the teaching of classical knowledge. A student from a literate consumer who is not active in the modern education paradigm must find an effective way to overcome obstacles and change to an active topic. In the current state of the educational process in higher education, the self directed workof students becomes not only a part of the educational process, but also an integral part of it. For this reason, a comprehensive analysis and research is important, as it is time-consuming to look at the nature and content of self directed work in universities, to form a way of thinking in students' language learning. It should be noted that the study of the topic under discussion has been adapted to modern requirements: globalization trends, integration in the modern world today, the need for skilled and confident personnel around the world. In order to cultivate the creative freedom of future professionals, we have tried to develop a model of organizing the free educational process of students, to help them master the language in higher education. The aim was to define the objectives of further research; to reveal the essence and structure of self directed work; to introduce the concept of organizing the self directed workof students in the teaching of languages in higher education. Self directed learning techniques that stimulate these abilities are being submitted extensively and have been expressed to be as effective as traditional methods of education while inciting more joy and interest among both lecturers and students.

BIBLIOGRAPHIC REFERENCES

- Berestneva, O.G. (2005). Modeling the development of students' intellectual competence. *Bulletin of Tomsk Polytechnic University*, *308(2)*, 152–156.
- Berestneva, O.G., Maruxina O.V. (2004). Criteria of quality of education in higher education. *Standards and quality*, (8), 84–86.
- Buryak, V. K. (2004). *Self-directed learning of students*. Moscow, Education
- Kozlova, N. V., Berestneva, O. G. (2006). Modern conditions of higher technical school and engineering education. Psychological-acmeological approach. *Bulletin* of *Tomsk Polytechnic University*, 309(2), 229–233.
- Gerasimenko, K.M. (2010). Organisation of the external students' self directed learning of pedogogical disciplines. *Yaroslavl Pedagogical Bulletin, 4(2).*
- Pedagogical Psychology (2003). Moscow, Logos.
- Petrova, L. A., Noskova N. V. (2013), *Pedagogy: Instruc*tions on the organization of extracurricular self-directed learning of bachelor students in the direction of teaching "Teacher education", "Psychological and pedagogical education." MGOGI.
- Pidkasisty, P.I. (1980). *Independent cognitive activity of students in teaching: Theoretical and experimental research*. Moscow, Pedagogy.
- Serikov, G. N. (1992). Self-education: Improving student readiness. G.N. Serikov. Irkutsk.
- Smirnova, N.M. (2008). *Development of students' independent activity skills*. Moscow, Education
- Towle A., Cottrel D. (1996). Self directed learning. *Archives of Disease in Childhood, 43(74)*, 357-359
- Vadutova F.A., Shevelev G.E., & Berestneva O.G. (2014). National research Improving master's degree at Tomsk Polytechnic University. *Contemporary problems of science and education*, *2(4).*