

The Specificity of Autonomous Work Organization on the Moodle Platform

By

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Abstract

Specific features of organizing students' autonomous work and the usage of modern information technologies are closely interrelated and mutually supportive. The given research is focused on testing the developed e-learning course of the lexicography discipline and identifying its potential and effectiveness in the formation of students' offline skills. The fourth-year students of the branch of the Department of Philology in Kazan Federal University were taken as the experimental base of the given research. The analysis of pedagogical experiment results confirmed that forming offline learning skills is possible with the introduction of the developed e-learning course and implementation of pedagogical conditions necessary for its successful functioning. During the experimental work, there were used research methods such as monitoring students' activities, testing, statistical and mathematical processing, analysis and interpretation of the results. Thus, it is concluded that using the e-learning course for forming offline learning skills and following necessary pedagogical conditions have a positive effect on offline skills formation for students majoring in languages.

Keywords: technology, offline skills, training, e-learning course, Moodle platform.

1. Introduction

Much attention is given to issues of offline learning skills in the process of professional training in higher education due to current orientation on competitiveness of specialists in the global intellectual labor market, high speed of dissemination of scientific and technical information, pace of practical implementation of scientific and technological achievements, and the focus on humanization and democratization of all spheres of life.

Nowadays, the problem of developing offline skills in teaching a foreign language is of great interest to domestic and foreign researchers (Mideros, 2018; Hsieh, 2019; Glas, 2019; Cooke, 2016; Juan, 2017; Ren, 2016; Min, 2016; Kaskova, 2018; Holec, 1981; Dickinson, 1995; Little, 1991). In research studies various aspects of the formation offline learning skills were examined: the study of autonomous behavior of students in the aspect of extracurricular education (D.Mideros; H.C. Hsieh, H.L. Hsieh), motivation for offline learning skills (K. Glas, P.T. Carrasco, M.M. Vergara; Simon D. Cooke), offline system development for teaching English in the networked multimedia environment (L. Juan; H.H. Ren, C. Ma; Z.H. Min), development of students' educational independence (M. Kaskova, T. Dugina, A. Zabolotskikh), etc.

The main aim of the given research is to test the developed e-learning course of the lexicography discipline and to identify its potential and effectiveness in the formation of students' offline skills.

The following tasks were set within the framework of the study: 1) the analysis of psychological, pedagogical, linguistic and scientific and methodological literature on the problem being studied, 2) there was studied and generalized experience in the formation of students' offline learning skills, 3) there was developed the e-learning course on the LMS Moodle system in Kazan Federal University, 4) there was carried out approbation of methodology for forming students' offline learning skills with the subsequent processing of experimental results.

2. Theoretical Framework

Theoretical and practical features of forming offline skills by e-learning course for students majoring in languages

2.1.1 The essence of forming offline learning skills and pedagogical conditions

The concept of offline learning has philosophical and psychological justification confirmed by the latest data of neuropsychology: learning is an active process; the role of the student is not passive in perception, processing, and preservation of acquiring information. The concept of "offline learning" is used in linguodidactics. However, currently, there is no single definition. In 1981 A. Holek in his work defined offline learning as "the ability to take charge of one's learning" (Holec, 1981).

D. Dickinson, who made a significant contribution to the study of offline learning, supports his opinion that students who take the initiative in learning are more successful than those who are passive. The definition of D. Dickinson on offline learning can be considered as the learner's responsibility for studying the material and sharing responsibility in the studying process. Having total responsibility for making and implementing all of the decisions concerned with its learning (Dickinson, 1995).

In contrast to opinions described above, the Irish scientist D. Little considers offline learning not only as responsibility for its learning process but also the ability to step back, make decisions independently and evaluate the results of his work (Kaskova, Dugina, 2018). In David Little's terms, learner autonomy is "essentially a matter of the learner's psychological relation to the process and content of learning - a capacity for detachment, critical reflection, decision-making, and independent action" (Little, 1991).

In the domestic methodology of teaching foreign languages some works of Z. Anikina, E. Golianskaia (Anikina, Golianskaia, 2014), E. Yaroslavova, M. Fedotova (Yaroslavova, Fedotova, 2017), S. Blinova, T. Dugina, A. Zabolotskikh, M. Kaskova (Blinova, Dugina, Zabolotskikh, Kaskova, 2018) and other researchers are devoted to offline learning issues. E. Yaroslavova and M. Fedotova notice that "Learning foreign languages is a lifelong process. To make it more efficient, the learner should obtain skills and knowledge that could provide autonomous learning after formal courses have ended in the long run" (Yaroslavova, Fedotova, 2017). Summarizing the above-mentioned term, "off-line learning" can mean the student's productive educational activities organized and managed together with the teacher, aimed at the conscious acquisition of knowledge, skills, including reflection on their activities. Currently, scientists have proposed the description of the essence of the concept "offline learning" and the necessity of its formation. Nevertheless, at the present stage, the question of how to form, develop offline learning in the process of teaching a foreign language is not adequately addressed.

To identify pedagogical conditions for effective formation of offline learning skills we have identified the following ways: consideration of the essence of offline learning skills for students majoring in languages; identification of features of offline learning skills. There were identified pedagogical conditions that can contribute to the effective formation of offline learning skills for students majoring in languages: 1. Formation of positive motivation to carry out autonomous activities for students; 2. The inclusion of students in autonomous activities, ensuring student's transition from an objective to a subjective position; 3. Organizing pedagogical management with an increasing degree of student's self-rule autonomous activity. The given pedagogical conditions are focused on implementing the following tasks: development of motives for forming offline learning skills; the necessity for continuous educational activity among students; development of student's personality as an active subject of activity; improving the system of offline learning skills. Thus, we believe that the analyzed conditions, the process of forming offline learning skills for students majoring in languages will be more effective.

Let's analyze each pedagogical condition. The first pedagogical condition (the formation of a student's positive motivation for offline educational activities) is dictated by the fact that the process of forming offline learning skills is of an individual nature, since it involves the active participation of the student and his interest. In the psychological and pedagogical literature, much attention is paid to issues of teaching motivation. The category "motivation" is understood as the unity of all motives of a person that stimulate and direct his activity (Dickinson, 1995). To regulate the process of formation of positive motivation for offline educational activities among students, it is necessary to know their motives for learning.

The formation of conscious and stable internal motives of offline educational activities among students, encouraging them to systematic autonomous learning, is the key to the effectiveness of the process of forming offline learning skills. Some authors note that in offline activity, external motives usually act as motives for actions and lead to the formation of deep internal motives (Dickinson, 1995). Systematic involvement of students in active offline activity will help to realize the importance of autonomous learning, their acceptance of offline activity not only as an object of cognition, but also as a means of satisfying cognitive needs, which explains the formation of positive motivation and leads to conscious activity of students during the formation of offline learning skills. Indicators of the effective impact of this pedagogical condition are students' interest in offline educational activities, the dynamics of the development of the level of offline learning, satisfaction with offline educational activity, increasing the level of self-esteem.

The second pedagogical condition is the inclusion of the student in an offline activity that ensures the student's switching from an object to a subject position. The formation of offline learning skills can be carried out only in the autonomous activity of the student as his increasing independence. An important premise of the student's awareness of the position of the subject of activity is interpersonal subject-subject interaction. In this case, there is a change of emphasis from the student's objective position to the subject's initiative position. The student becomes the central figure of the educational process. In this regard, the teacher acquires a different role and function in the educational process.

Let us characterize the next pedagogical condition for the formation of offline learning skills among students - the organization of pedagogical management with an increasing degree of student self-management by autonomous activity. The gradual increase in the degree of autonomy of the student is facilitated by the creation of such interaction

between the teacher and the student, in which the transformation of externally controlled learning takes place into the process of self-education in the field of a foreign language, i.e. the student's activity is organized and implemented initially under the guidance of the teacher; at a higher quality level – in the management interaction; then in conditions of equal governance, and only then – in the regime of self-government (Min, 2016).

2.2.1 Features of the e-learning course created on the virtual learning Moodle environment

Modular Object-Oriented Dynamic Learning Environment is a content management system specifically designed for teachers to create online courses. This system is focused primarily on the organization of interaction between the teacher and students, suitable for organizing independent work of students (Blinova, Dugina, Zabolotskikh, Kaskova, 2018). A rich set of module components for courses are Chat, Poll, Forum, Glossary, Workbook, Lesson, Test, Questionnaire, Scorm, Survey, Wiki, Seminar, Resource (as a text or web page or as a catalog) that can draw the attention of students to individual fragments (elements) of the stated content. It consolidates the proposed content, informs the student about the difficulties in mastering the material, and controls comprehension of the educational material. As a rule, the educational material is accompanied by tasks, exercises, and surveys, which make it possible to “dilute” the monotonous presentation of the material by activities, asking questions for understanding, and help to consolidate the presented material. Well-planned tasks and exercises help students to update the information they receive. Here are some capabilities of individual interactive modules:

Resource Module. Various software systems and editors are used to create course content. For example, the presentation of new material in Microsoft PowerPoint or an audio or video file, a book. Alternatively, you can simply link to another site or web page.

Test Module. The teacher can create a database in the web-based interface containing questions in various tests; tests are automatically evaluated. Testing can be carried out either during classes according to the schedule, or out-of-lesson time as a kind of independent work of students.

The Glossary Module in the Moodle system is a powerful learning tool. The glossary has many features that make it easier for the teacher and student to learn: it adds comments to the definitions and automatically matches words in the course with its definition.

Task Module. There can be determined the deadline, the maximum score and the response format for the tasks; students can upload answers to the task (in the specified format) to the server, where the response time is automatically recorded (the teacher sees what work has been submitted after the deadline); you can set aside a forum for each assignment, in which all students will participate (give marks and a comment).

Forum Module. It is a powerful tool for teacher communication with students, students with each other.

For monitoring performance and evaluating students' work, the system has a tool that facilitates the process of assessing knowledge. All grades (from Forums, Workbooks, Tests and Tasks) can be collected on one page (or as a file). A full report is available on the user's entry into the system and work, with graphs and details of work on various modules (last login, number of attempts when performing tests, messages, writing in notebooks). Students receive feedback on the results of their activities.

Thus, the use of the Moodle virtual learning environment for organizing students' independent work provides a number of advantages over traditional methods and forms of organization, namely the ability to implement the principle of individualization; the presence of quick feedback; great opportunities for visual presentation of material; variable nature of independent work; activity, independence (Estrada-Lizárraga, Zaldívar-Colado, Peraza-Garzón, Nava-Pérez, Cobián-Campos, Orozco-Cárdenas, 2012). This learning environment allows students to organize autonomous activities, optimize it, increase the amount of information reported in the lesson, and increase interest in learning (Bazarova, Gilyazeva, 2017).

3. Methodology

A set of scientific research methods was used to solve tasks within the given scientific research: theoretical analysis, generalizing provisions of psychological and pedagogical science and methodical literature on the problem of research; pedagogical experiment (stating, formation and generalizing), quiz, testing, surveys, observation, methods of mathematical statistics.

The branch of Kazan Federal University in Naberezhnye Chelny city, the Department of Philology, the fourth-year students were taken as the experimental base of the given research.

Main stages of the research. At the first stage (August - December 2018) there was determined a plan for forming students' offline learning skills, clear and definite topics and assignments on the discipline; there was developed the e-learning course in the LMS Moodle system (KFU).

The second stage (February - May 2019) was characterized by testing the e-learning course as a part of forming offline learning skills as well as the implementation of proposed pedagogical conditions; the choice of experimental and control groups of students; conducting the pedagogical experiment which includes the diagnostic complex; analysis of results obtained at the end of the pedagogical experiment.

On the third stage (August - September 2020) there was made a comparison of results of offline learning skills formation on students of experimental and control groups; analysis of the results; concluding the effectiveness of testing the e-learning course of the discipline "Lexicography".

4. Results

The main results of the study and their scientific novelty are as follows:

- the theoretical and methodological basis for solving the problem of formation of offline learning skills among students of the Department of Philology of Kazan Federal University is determined;
- a model for the formation of offline learning skills among students has been developed, presented in the form of an integral set of interrelated and coordinated structural components: academic motivation, academic autonomy, competence, reflexivity.

- the pedagogical conditions for the functioning of the proposed model for the formation of offline learning skills among students of the Department of Philology of Kazan Federal University have been determined, scientifically substantiated and implemented when teaching a foreign language.

The results of the pedagogical experiment showed that indicators of forming offline learning skills of the experimental and control groups have differences. In the experimental group after the formative experiment students have a higher level of offline learning skills than students in the control group, where classes were held according to the standard program.

The analysis of the pedagogical experiment results confirmed that forming offline learning skills is possible with the introduction of the developed e-learning course and the implementation of pedagogical conditions necessary for its successful functioning.

The theoretical significance of the study lies in the fact that the concept of “autonomous learning” was clarified; there was identified the structure of offline learning within the framework of the developed e-learning course in the LMS Moodle system (KFU), there was tested the methodology of work on the formation of students’ offline learning skills, followed by the processing of the results of experimental work; there was carried out the analysis of the problem of the formation of offline learning skills of students and its current state in the theory and practice of pedagogy.

The practical significance of the study lies in the fact that its conclusions serve to create prerequisites for ensuring the quality of training of competitive university graduates. Also, the practical significance of the study is determined by the development of a model for the formation of offline learning skills of students and its implementation within the framework of the developed e-learning course in the LMS Moodle system (KFU); the definition and confirmation of the effectiveness of the pedagogical conditions for the functioning of the developed model.

5. Discussion

5.1 Pilot work on forming offline learning skills by using the e-learning course for students majoring in languages

5.1.1 The context and methods

The purpose of the experimental work was to form skills of offline learning in fourth-year students of the Department of Philology with the help of the developed e-learning course on the discipline “Lexicography” in the LMS Moodle system of KFU. In accordance with the purpose of the study, the following tasks were set: 1) to carry out the experiment aimed at the initial assessment of the level of forming offline skills of the control and experimental groups; 2) to conduct a formative stage of experiment aimed at introducing the developed electronic educational course in practical training; 3) to conduct a generalizing stage of the experiment aimed at a control assessment of the level of forming offline skills with subsequent analysis and processing of the results, concluding and summarizing. During the experimental work, there were used research methods such as monitoring students' activities during training, testing, statistical and mathematical processing of the results, analysis and interpretation of the results.

The pedagogical experiment was conducted among fourth-year students of the Department of Philology of Kazan Federal University. The total number of students involved in a pedagogical experiment is 31 students (16 students from the experimental group; 15 students from the control group). The e-learning course was implemented with students of the experimental group as well as the pedagogical conditions necessary for the successful formation of off-line learning skills. Students in the control group continued their studies according to the standard program.

The given experiment was divided into three stages: ascertaining, formative and generalizing. The first stage is ascertaining. At this stage of the study, there were studied the formation and development of the problem in the theory and practice of education, there was determined the goal, object, subject, and tasks. The goal of the ascertaining stage of the experiment was to identify the initial level of formation of off-line learning skills for students of the experimental and control groups. The second stage is formative. The content of this stage was the implementation of training on the basis of the e-learning course for forming students' offline learning skills and the introduction of pedagogical conditions for its effective functioning. The purpose of the formative stage was to test the developed e-learning course of the discipline "Lexicography". The third stage (generalizing) consisted in processing the results of testing the e-learning course. The purpose of the generalizing stage of the experiment is to assess the degree of forming off-line learning skills after training students using the e-learning course. At the initial stage (ascertaining experiment), questionnaires and tests were conducted in order to identify the pre-experimental level of forming off-line learning skills.

Criteria and levels of forming offline learning skills, methods for its diagnosis

As the criteria for forming offline learning skills, we identified the following components: academic motivation (interest in acquiring knowledge to learn a foreign language), academic autonomy (possession of educational strategies; management of educational activities: planning, choice of teaching aids and methods, self-organization), competence (knowledge, skills formed during the study of this discipline) and reflexivity (the ability to evaluate the results of their activities). Based on the results of the analysis of special literature, we have identified three levels of forming offline learning skills among students of the faculty of foreign languages: low level, intermediate level, high level. Depending on the degree of formation of each component, it is possible to determine the level of offline learning skills formation. The levels of forming offline learning skills among students majoring in languages are presented in Figure 1.

	academic motivation	academic autonomy	competence	reflexivity
A (low)	Necessity for autonomous learning, the prevalence of external motivation, negative judgment about their own language competence; lack of initiative.	The student can plan and organize his autonomous activities only with the help of a supervisor.	The student found significant gaps in knowledge of the main educational program material, made fundamental mistakes in the implementation of the tasks stipulated by the program.	Low ability to evaluate the results of activities.
B (intermediate)	Sufficiently formed motives of autonomous activity; the prevalence of external motivation, doubts about their own linguistic competence; manifestation of initiative in individual cases, fragmented activity.	The student knows how to plan and organize his autonomous work independently. He has sufficient knowledge of methods of searching, collecting and processing information	The student found knowledge of the main educational program material necessary for further study and upcoming work in the profession.	The student has sufficient skills in self-control and self-improvement.
C (high)	High necessity for personal results through autonomous work; the prevalence of internal motivation, the use of positive judgments about their own linguistic competence; manifestation of initiative in educational activities, high activity.	The student successfully plans and organizes his autonomous work; fully owns the methods of searching, collecting and processing information; formed the ability to set goals and find ways to solve self-educational problems.	The student found comprehensive, systematic and in-depth knowledge of the educational program material, the ability to perform tasks provided by the program.	The student makes high demands on the results of actions, he is able to analyze, critically evaluate himself.

Figure 1. Levels of forming students' offline learning skills

To assess the criterion of “academic motivation” there was used diagnostics “Focus on the acquisition of knowledge” developed and adapted for university students by E.P. Ilyin and N.A. Kurdyukova. In this diagnosis it is proposed to choose the answer (“a” or “b”) to the statement-question. Each answer corresponds to a certain number of points (in accordance with the key). Based on the accumulated points, the conclusion is drawn on students' motivation to acquire knowledge.

To assess the criterion of “academic autonomy” in forming e-learning skills, there was suggested a questionnaire to evaluate students’ academic activity on a ten-point scale. This questionnaire made it possible to assess the ability of students to plan and organize their academic training.

The level of "competence" was studied by the final test in discipline and analysis of the results of intermediate tests and control works. The final test consisted of 30 tasks with the choice of the correct answer out of 4.

When assessing reflexivity, there was used the reflexivity questionnaire by A.V. Karpova. This questionnaire allows giving a comprehensive assessment of the level of development of promising, retrospective and situational types of reflexivity.

The points were interpreted as follows: a high level corresponds to a score of 70-50, an average score of 50-30 and a low score of 30-0.

5.1.2 Concluding Remarks

The results are shown in the diagrams below (Diagrams 1-2).

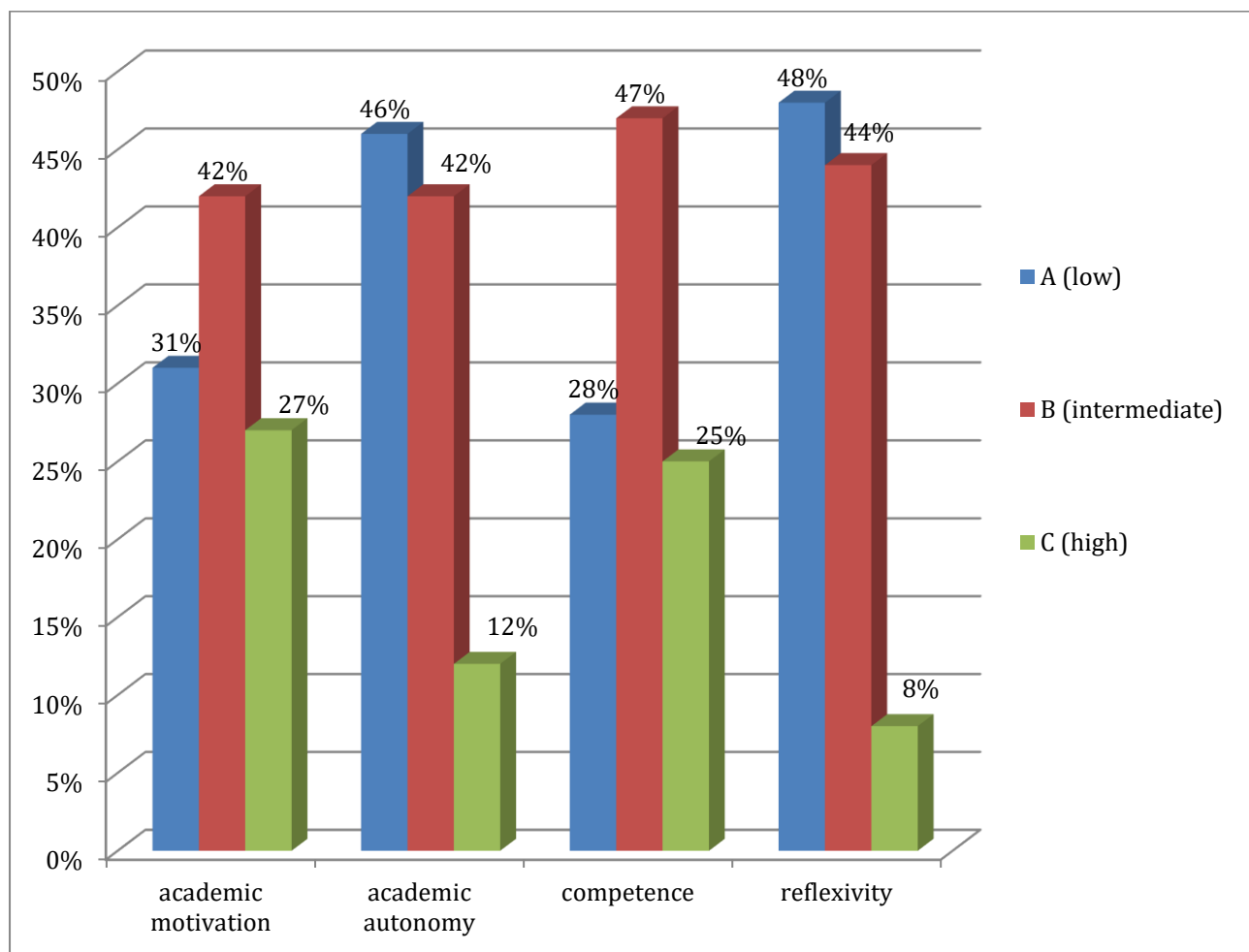


Diagram 1. Initial assessment of the level of e-learning skills formation among students in the control group according to the selected criteria (ascertaining experiment)

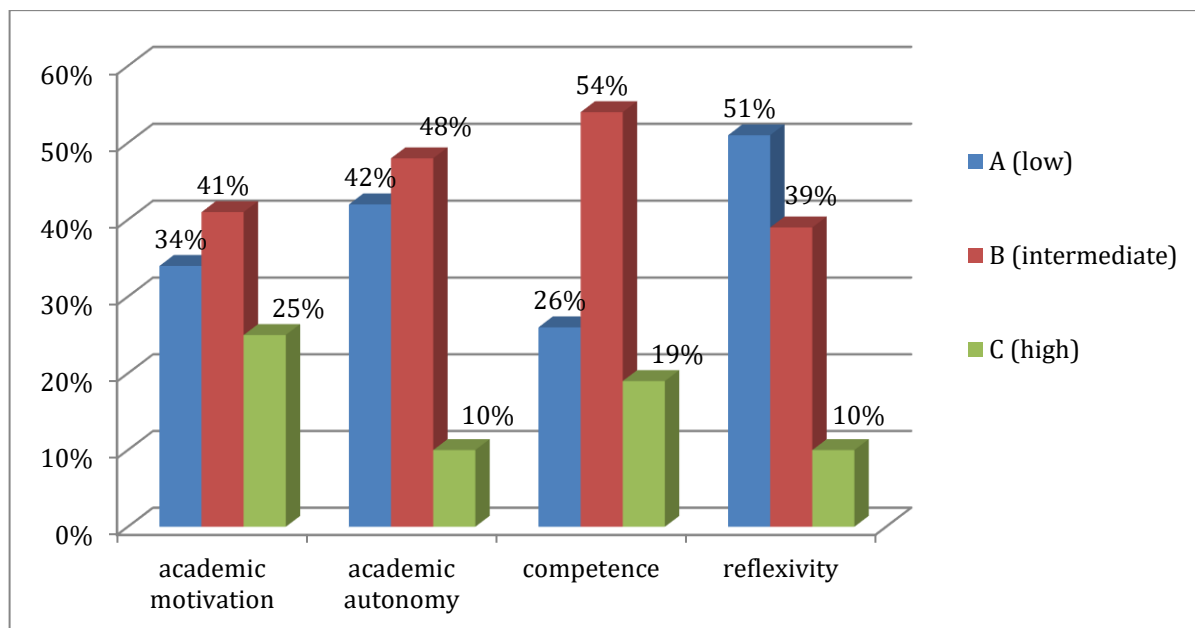


Diagram 2. Initial assessment of the level of e-learning skills formation among students of the experimental group according to the selected criteria (ascertaining experiment)

Based on the results of the diagnostic complex of the ascertaining experiment, we revealed the levels of formation of each of the four components of the skills of e-learning for students of the experimental and control group. To diagnose the criterion of "Competency" at the stage of the ascertaining experiment, students of both groups were offered entrance testing, which included questions on retained knowledge along with other linguistic disciplines that were associated with the discipline "Lexicography". Analyzing the results of the diagnosis of the criterion of "Competency", we can conclude that in the experimental group half of the students have an intermediate level of formation of this component, the rest are either low or high. The situation is similar in the control group. We also see a predominantly low level of formation of the reflective component of e-learning skills both among students in the experimental group and the control group.

As for the diagnosis of the motivational component during the ascertaining experiment, there were identified the main motives of students for organizing e-learning: career growth, advanced training, maintaining a high level of competitiveness. Most students called the lack of free time, laziness, lack of self-discipline and external control as the reasons that complicate the organization of e-learning.

Analyzing the results, we can conclude that the level of formation of e-learning skills among students of both the control and the experimental group according to the selected criteria during the ascertaining experiment is average for most students, which indicates an insufficient level of formation of e-learning skills.

At the formative stage of the pedagogical experiment, the training of the experimental group was carried out on the basis of the e-learning course developed on the discipline "Lexicography" in compliance with the pedagogical conditions indicated in paragraph 1. Training in the control group was conducted in a common way. At the final stage of the experiment students of the experimental and control groups were diagnosed with the formation of the components of e-learning skills. The results are shown in the diagrams below (Diagrams 3-4).

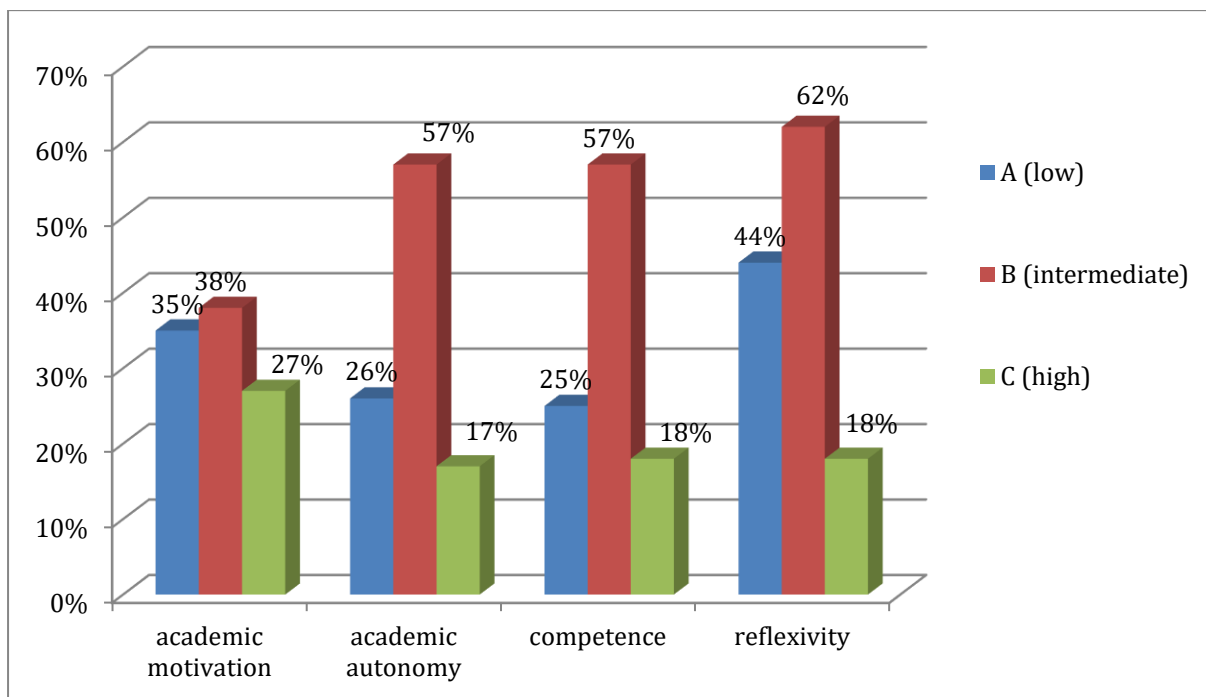


Diagram 3. The final diagnosis of the level of e-learning skills formation among students of the control group according to the selected criteria

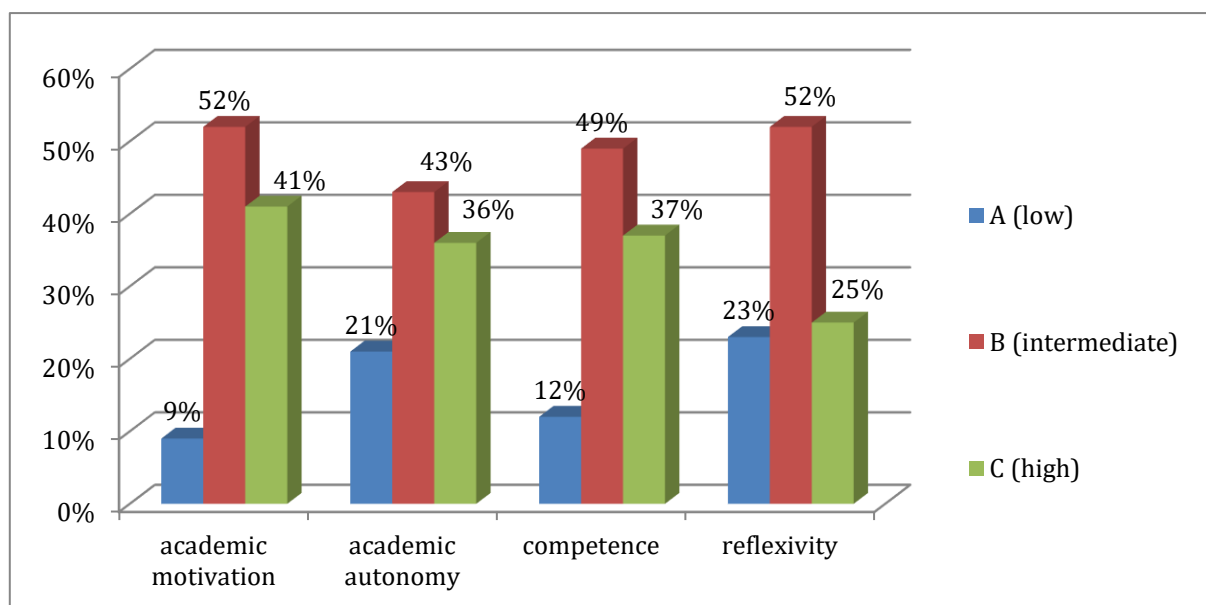


Diagram 4. Final diagnostics of the level of forming e-learning skills among students of the experimental group according to the selected criteria

From the given diagrams we can see that the students of the experimental group after the pedagogical experiment increased the level of e-learning skills. Here are the following results: the number of students with a low level in the experimental group decreased from 38% to 16%, the number of students with an intermediate level in the experimental group changed from 45% to 49%, the number of students with a high level in the experimental group increased from 15% to 34%. No significant changes were detected in the control group: a low level decreased to 6%, an intermediate level increased to 9%, a high level increased to 2%.

Thus, we may conclude that using the e-learning course for forming offline learning skills and following necessary pedagogical conditions have a positive effect on offline skills formation for students majoring in languages.

6. Conclusions

By conducting the pedagogical experiment, there was noted the necessity for further self-education in mastering a foreign language and increasing interest in learning activities among students of the experimental group. The results of the pedagogical experiment prove that the usage of an e-learning course in the context of forming offline learning skills contributes to success of teaching foreign languages to students majoring in languages.

It should be noted that features of organizing students' autonomous work and the usage of modern information technologies are closely interrelated and are mutually supportive, i.e. the use of information technology requires more independence from students, and the process of autonomous work needs more efficient and modern organization.

Thus, the organization of students' autonomous work can be considered as the most important means of increasing the professional and cognitive activity of future specialists. Here are manifested student's motivation, individual styles of educational activity as well as self-organization, self-control and other personal qualities.

During the process of working with e-learning courses, students receive a diverse range of opportunities to realize their own cognitive needs and develop e-learning skills. The teacher's task is to organize classes on the basis of pedagogical cooperation, involving students in the process of managing educational and cognitive activities and gradually transferring part of the responsibility for learning results.

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