

# METHODICAL POTENTIAL OF E-COURSES IN DISTANCE EDUCATION

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**ABSTRACT:** *This article deals with the effectiveness of distance education for students which depends on: real time of education, the level of cognitive interests, the level of motivation for education, the establishment of the education system effective to each student and elaboration of e-courses. Special e-course “New tendencies in linguistics” elaborated on LMS MOODLE of Kherson State University «KSU Online» for first year students obtaining Master degree, aims at expanding their knowledge in Cognitive Linguistics, Semiotics and Pragmatics, presents learning material in a methodically unified form and creates conditions of its content usage in any place and at any time apart from the form of students’ education. The level of development of individual skills, students’ motivation in acquiring practical skills in Cognitive linguistics, Semiotics and Pragmatics were evaluated by means of monitoring method and method of examination. According to the results of investigation, the level of students’ autonomy while doing given tasks is increasing significantly as well as the amount of educational web-pages visits on open platforms. In experimental group students became more motivated and ready to do creative tasks of professional nature. According to questionnaire results, the majority of students (87%) wish to continue studying of the given course, and to improve knowledge and skills with the help of e-course that proves their satisfaction with the possibilities provided by LMS MOODLE.*

## **I. INTRODUCTION**

In modern world distance education is gaining popularity. Current challenges connected with pandemic has put it into high-priority area in education in Ukraine and the whole world.

## II. LITERATURE REVIEW

Distance education issues were in focus of attention of both national and foreign scientists and different directions in their researches. Theoretical aspects of implementation distance education in Ukraine were investigated by H. Synyavska, V. Yablochnikova, L. Gavrylova, Zh. Katasonova, V. Varava, V. Kukharenko, O. Rybalko, N. Syrotenko. Psychological and pedagogical aspects of distance education are highlighted in works by L. Tkachuk, I. Lukashenko, O. Lutsenko, M. Smulson, Yu. Mashbyts, M. Zhaldak, L. Koretska, I. Makarenko. Requirements to distance education teacher's knowledge and skills are explored by A. Trotsko, L. Rybalko, O. Kyrylenko, H. Trush, L. Kaidalova, N. Tverdokhlebova, N. Yevtushenko, N. Nosovets. Practical recommendations for teachers concerning the organization of distance education are given in handbooks and training guides of such researchers: H. Kolomoyets, O. Mel'nyk, S. Hrutsai, A. Voznyuk, K. Osadcha, V. Osadchyi, V. Isayenko, H. Kashyna, K. Nikolayeva, L. Pavlyuchenko, S. Strilets, T. Zaporozhchenko, Yu. Trius, I. Herasumenko, V. Franchuk, N. Morze, O. Buinytska, L. Varchenko-Trotsenko.

Michael E. Krauss, the author of the course "Integrating the Internet into the classroom" and a web-laboratory for English self-study, states that the main difficulty in students' distance education lies not only in the lack of time and technical misunderstandings, but in the absence of direct communication as sometimes "it's easier and faster to show than to explain what to do" [Krauss, 2005].

Concerning the effectiveness of distance education we support Yu. Mashbyts's opinion [Mashbys, 2009] who supposes that it can be defined due to consideration of: real time of education, the level of cognitive interests, the level of motivation for education, the establishment of the education system effective to each student [Mashbyts, 2009].

### **III. PROPOSED METHODOLOGY**

To achieve the purpose of this article, a complex of general scientific and specific research methods were used. When studying the degree of elaboration of the given problem, they are the methods of analysis, synthesis and generalization. We used both theoretical and practical analyses of psychological and pedagogical experience in the viewpoint of the research in order to substantiate the scientific and methodology support for our investigation.

In the course of confirmatory stage of the experiment, the methods for questioning and investigating respondents were used. Questioning, testing, interviewing were conducted at Kherson State University at the Faculty of Ukrainian and Foreign Languages and Journalistic during two semesters of 2019-2020 academic year.

The quantitative analysis facilitated establishing an appropriate ratio of the outcomes within the pre-experimental and post-experimental stages of the above-mentioned training.

The pedagogical experiment consisted of 3 stages: 1) pre-testing of the students (in order to determine the level of their basic knowledge in linguistics); 2) training course intended for the future foreign language teachers according to combined (interactive and traditional) author's teaching methods; 3) post-experimental testing. The integrity of the assessment process was provided by the control methods.

### **IV. RESULT ANALYSIS**

The effectiveness of pedagogical impact while providing distance education with the help of computer telecommunication networks is impossible to comprehend without taking into account the peculiarities in communication between a teacher and a student. It is significant here to find the ways of tackling the problem caused by the following factors: the material in the process of

communication is not only transmitted, but also formed, specified, developed; verbal communication is realized by means of dialogues and debates; natural addition to language is the usage of non-verbal means of communication, such as: gestures, mimic, pantomimic; the quality of voice, vocal range, tone, inclusion of pauses, laughter, coughing, etc. into speech; visual communication (eye contact); interactive aspect of communication is realized in collaborative activities; in the process of communication there must be mutual understanding between its participants [11].

However, among the advantages of distance form of education not only the possibility of providing immediate feedback between the student and teacher within network and the increasing of “the level of freedom” in the choice of learning rate seem to be attractive, regular actualization of education material with less efforts. In contrast to traditional education where a student is considered simultaneously both the subject and the object of the educational process, in distance education he serves as the subject only due to the usage of computer [11].

The peculiarities of organization of students’ educational activities in the system of distance education lies in shifting of the focus on students’ self-education: compulsory mastering of definite levels of digital competences among teachers and students, in particular, skills of qualified of computer, communicative technologies and various services in the Internet; in the change of the ways of interaction between the subjects of education cause by the appearance of the corresponding informative and communicative technologies, flexibility in the place of location of each subject and time of classes.

One of the forms distance education realization is e-courses. Our e-course “New tendencies in linguistics” elaborated on LMS MOODLE of Kherson State University «KSU Online» for first year students obtaining Master degree, aims at expanding their knowledge in Cognitive Linguistics, Semiotics and Pragmatics. This course on LMS MOODLE is comfortable and easy in usage, as

it is available at any time and place in the world. Fig.1 contains characteristics of the course, which also includes annotation.

The screenshot shows the MOODLE LMS interface for the course 'New tendencies in linguistics'. The top navigation bar includes 'KSU Online' and various menu items like 'Факультети', 'Відеолекції', 'Додаткові ресурси', 'Інформаційні технології', 'Вибіркова освітня компонента за фахом', 'Дисципліни вільного вибору', 'Загальноуніверситетські профорієнтаційні заходи', 'Довідка', and 'Українська (uk)'. The user 'Ольга Заблоцкая' is logged in.

The main content area is divided into two sections: 'Загальне' (General) and 'Опис' (Description). The 'Загальне' section contains the following fields:

- Повна назва курсу: Новітні досягнення в галузі лінгвістики
- Коротка назва курсу: Новітні досягнення
- Категорія курсу: Курси розроблені студентами
- Видимість курсу: Сховати
- Дата початку навчання: 23 November 2017 00:00
- Дата завершення курсу: 26 June 2020 14:30
- Ідентифікатор курсу: (empty)

The 'Опис' section contains the 'Анотація курсу' (Course description) field, which includes a rich text editor toolbar and the following text:

курс призначений для студентів -магістрів першого року навчання для розширення знань з когнітивної лінгвістики, семіотики та прагматики

*Fig. 1 Characteristics of the e-course “New tendencies in linguistics” on LMS MOODLE«KSU Online»*

At the beginning of the e-course there is section News where tutor demonstrates the list of events which will take place in the nearest future. All course users are subscribed to the News in mandatory mode. These events are also listed in sections Recent news and Soon. A user-friendly interface of LMS MOODLE helps to browse through above mentioned sections and stay focused on the course content. The course includes such feedback elements as Forum and Chat. Using Forum, tutor can ask questions or answer users' questions, students can communicate with each other or with the tutor, etc. It is this element of LMS MOODLE that allows the participants to implement asynchronous debates, i.e. discussions which proceed during a long period of time that is extremely useful at lockdown caused by COVID-19 pandemic. Participants can subscribe to Forum to get notifications about new messages. However, the usage of Chat helps participants to discuss things online in a synchronous textual mode. Chat sessions are preserved and are open to browse

through. In Chat high education students gather to discuss their experience with each other and their tutor. In Fig. 2 you can see the beginning of the e-course: News, Forum, Chat and parts of the first topic.

The screenshot shows the KSU Online website interface. At the top, there is a navigation bar with various menu items like 'Факультети', 'Відеолекції', 'Додаткові ресурси', etc. The main content area is titled 'Новітні досягнення в галузі лінгвістики'. Below this, there is a navigation sidebar on the left with options like 'На головну', 'Інформаційна сторінка', 'Мої курси', etc. The main content area displays 'Topic 1' with a list of lecture points: 'Lecture 1. Cognitive deixis in cognitive poetics', '1. Links with literary critical concepts.', '2. Deixis: Perceptual deixis, spatial deixis, temporal deixis, relational deixis, textual deixis, compositional deixis. Deictic shift theory.', and '3. Push and Pop.' On the right side, there are additional widgets for 'Пошук на форумах', 'Останні новини', and 'Незабаром'.

*Fig. 2 The beginning of the e-course with feedback elements*

To the advantages of e-course we also refer different types of tasks: reference to lectures of different format, textual references to seminars and lectures, multiple choice tests. Diversity and interactivity of tasks in e-course encourage users to the study of Cognitive linguistics, Semiotics and Pragmatics.

## Topic 6

### Lecture 6. Scripts and schemas

1. Precondition headers, instrumental headers, local headers, internal conceptualisation headers. Fleeting script.
2. Props; participants; entry conditions; results; and sequence of events.
3. Literary schemas accretion: tuning, restructuring.
4. Schema preserving, schema reinforcing, schema disruption, schema adding, schema refreshment, knowledge restructuring, schema preservation, schema reinforcement, schema accretion, schema disruption, schema refreshment, world schemas, text schemas, and language schemas constitutive schema.
5. First-order informativity, second-order informativity, third-order informativity, downgrading.
6. Cognitive poetic analysis.

**Анотація:** precondition headers, instrumental headers, local headers, internal conceptualisation headers. Fleeting script. Props; participants; entry conditions; results; and sequence of events. Literary schemas accretion: tuning, restructuring. Schema preserving, schema reinforcing, schema disruption, schema adding, schema refreshment, knowledge restructuring, schema preservation, schema reinforcement, schema accretion, schema disruption, schema refreshment, world schemas, text schemas, and language schemas constitutive schema. First-order informativity, second-order informativity, third-order informativity, downgrading, Cognitive poetic analysis.

### Seminar 6. Scripts and schemas.

### Test 6. Script and Schemas

*Fig. 3 The samples of references and tests to topics*

As it was stated above, lectures are of different formats, but have unified structure that includes annotation and several topics (from 2 to 8). References used during lectures contain material from training guides, textbooks, articles of modern foreign and national scientists as well as materials elaborated by the tutor himself.

Final tests are also worth considering. These elements of summarizing evaluation help to check users' total knowledge of the topic material. Test Script and Schemas demonstrated in Fig. 4., is taken as an example.

The screenshot displays the user interface of an e-course. On the left, there is a navigation menu with sections: 'Навігація' (Navigation), 'Керування' (Management), and 'Перехід по тесту' (Transition to test). The 'Навігація' section includes 'На головну' (Home), 'Інформаційна сторінка' (Information page), 'Мой курси' (My courses), 'Основне меню' (Main menu), 'Додаткові ресурси' (Additional resources), 'Курси розроблені студентами' (Courses developed by students), 'Новітні досягнення' (Latest achievements), 'Учасники' (Participants), 'Відзнаки' (Badges), 'Компетентності' (Competencies), 'Журнал оцінок' (Assessment journal), 'Топік 6' (Topic 6), and 'Test 6.Script and Schemas'. The 'Керування' section includes 'Керування тестом' (Test management), 'Редагувати параметри' (Edit parameters), and 'Перевизначення для групи' (Reassign for group). The 'Перехід по тесту' section shows a grid of test questions (1-18) and buttons 'Завершити спробу...' (End attempt...) and 'Розпочати нову спробу' (Start new attempt). The main content area shows three test questions (Питання 1, 2, 3) with their respective questions and multiple-choice answers. Question 1 asks about word selection in a sentence, with options: a. slot, b. headers, c. conceptual dependency. Question 2 asks about a schema in the linguistic field, with options: a. world theory, b. text schemas, c. a script. Question 3 asks about the main kinds of script, with options: a. instrumental and textual, b. situational, personal, instrumental, c. situational and personal.

*Fig. 4 Test samples in the e-course “New tendencies in linguistics”*

Test is of multiple choice type, where a student should choose one or several answers from the list. Questions and answers are constantly mixed that complicates students' work. Each test attempt is evaluated automatically and has passing grade. LMS MOODLE gives chance to choose for each group of students in the course their individual time for test and set time limits. Just after the attempt students can estimate their results – right and wrong answers. Analysis of the wrong answers and collection of statistics enable to form individual educational strategy both for a separate student and groups of students. Certain tests can have definite restrictions provided by the tutor according to the demands of the group. To these restrictions we refer

compulsory browsing of lectures, passing of preliminary tests etc. In Fig. 5 you can see the example of a completed test that clearly shows: when the attempt was begun and completed; the amount of time spent to pass the test; the amount of scores the student got; the grade obtained by the student and the highest possible test grade; right and wrong answers.

The screenshot displays a Moodle test interface. On the left, there is a navigation menu with options like 'На головну', 'Інформаційна сторінка', and 'Мои курси'. The main content area shows a test progress indicator with 16 questions, where questions 1-16 are marked with green checkmarks. Below this, there is a table with test statistics:

Розпочато	Tuesday 19 February 2019 1:36 PM
Стан	Завершено
Завершено	Tuesday 19 February 2019 1:36 PM
Витрачено часу	47 сек
Бали	9.00/16.00
Оцінка	5.63 з можливих 10.00 (56%)

Below the statistics, two questions are shown:

**Питання 1**  
Неправильно  
Бали 0.00 з 1.00

What is the selection of words in a sentence, and the meanings derived from sentences, depend not on a dictionary-like denotation of these strings of words but on the sets of ideas and other associations that the words suggest in the minds of speakers and hearers.

Виберіть одну відповідь:

- a. slot ✘
- b. conceptual dependency
- c. headers

Ваша відповідь: правильна  
Правильна відповідь: conceptual dependency

**Питання 2**  
Правильно  
Бали 1.00 з 1.00

In the linguistic field, the conceptual structure drawn from memory to assist in understanding utterances is a schema that was first called:

Виберіть одну відповідь:

- a. a script ✔
- b. text schemas
- c. world theory

Ваша відповідь: правильна  
Правильна відповідь: a script

*Fig. 5 The sample of a completed test*

LMS MOODLE gives possibility to browse and edit a full list of questions used in all tests of the e-course. Question storage enables to form special categories and subcategories, browse through old questions that are preserved even after test deletion. Some of the questions from the storage of the course are depicted in Fig. 6. We consider question storage being useful for tests to create occasional questions with different level of complexity.



KSU Online

На головну / Мої курси / Основне меню / Додаткові ресурси / Курси розроблені студентами / Новітні досягнення / Топіс 6 / Test 6.Script and Schemas / Банк питань / Питання

Навігація

- На головну
- Інформаційна сторінка
- Мої курси
- Основне меню
- Додаткові ресурси
  - Курси розроблені студентами
    - Новітні досягнення
      - Учасники
      - Відзнаки
      - Компетентності
      - Журнал оцінок
      - Топіс 6
      - Test 6.Script and Schemas**

- Керування
- Керування тестом
  - Редагувати параметри
  - Перевизначення для групи
  - Перевизначення для користувача
  - Редагувати тест
  - Перегляд
  - Результати
  - Локально призначені ролі
  - Права
  - Перевірити права
  - Фільтри

Питання Категорії Імпорт Експорт

Банк питань

Виберіть категорію: За замовчуванням для Новітні досягнення (35)

Категорія за замовчуванням для питань пов'язана з контекстом 'Новітні досягнення'.

No tag filters applied

Filter by tags...

Показувати текст питань у списку питань

Параметри пошуку

Показувати питання з підкатегорій

Показувати старі питання (що залишилися у тестах після видалення)

Створити нове питання ...

Питання	Створив Ін'я / Прізвище / Дата	Виправив останнім Ін'я / Прізвище / Дата
4.1.	Ольга Заболоцкая 20 February 2018, 4:00 PM	Ольга Заболоцкая 20 February 2018, 4:00 PM
4.2.	Ольга Заболоцкая 20 February 2018, 4:07 PM	Ольга Заболоцкая 20 February 2018, 4:07 PM
4.3.	Ольга Заболоцкая 20 February 2018, 4:23 PM	Ольга Заболоцкая 20 February 2018, 4:23 PM
4.4.	Ольга Заболоцкая 20 February 2018, 4:30 PM	Ольга Заболоцкая 20 February 2018, 4:30 PM
4.4.	Ольга Заболоцкая 20 February 2018, 4:30 PM	Ольга Заболоцкая 20 February 2018, 4:30 PM
Question 1	Ольга Заболоцкая 19 February 2019, 11:38 AM	Ольга Заболоцкая 19 February 2019, 11:38 AM
Question 1	Ольга Заболоцкая 19 February 2019, 1:40 PM	Ольга Заболоцкая 19 February 2019, 1:40 PM

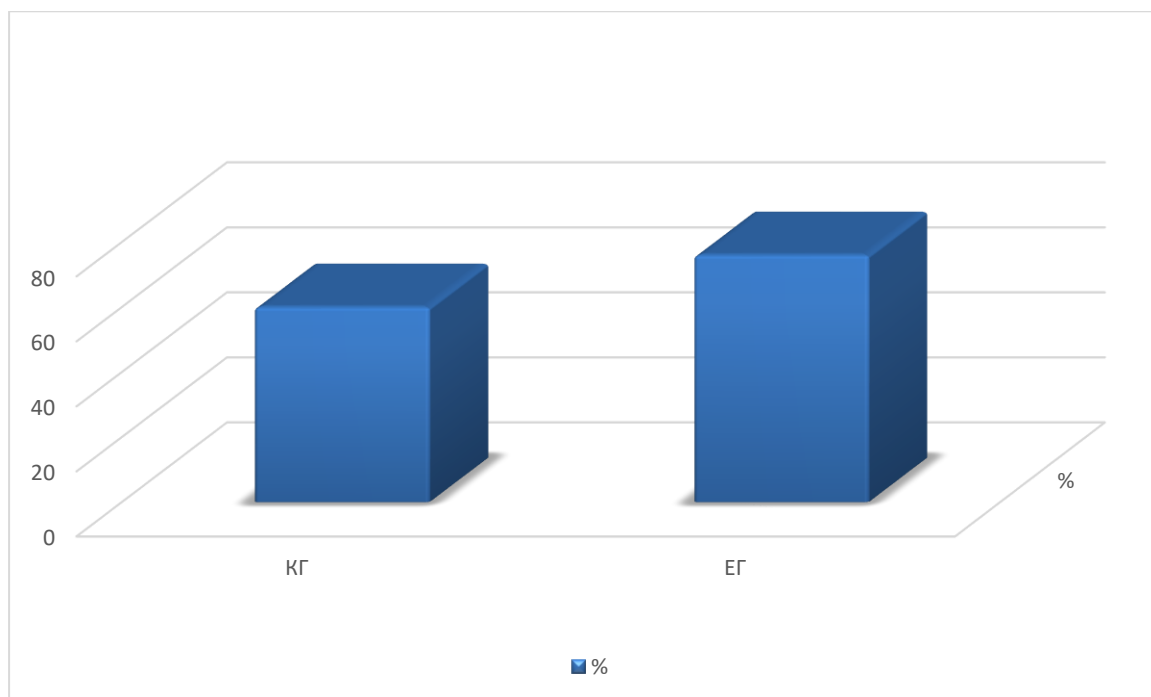
*Fig. 6 The start of the question storage in the e-course “New tendencies in linguistics”*

Section Statistics is very easy to use and allows to calculate automatically statistical data from all completed attempts of a certain test. This helps to define complicated and extremely easy questions for students.

LMS MOODLE uses also e-register to evaluate students. All test grades are automatically transferred by the system into the register that tutor can easily download in Open Document, Microsoft Word, Excel або XML format. E-register shows all users logged into the course, their e-mails, test results, grades put manually by the tutor and calculates overall score in e-course. Tutor can set up e-register according to his/her needs, he can change the value of each separate test, use various formulas to count the average grade for the course.

Author’s course “New tendencies in linguistics” elaborated on LMS MOODLE of Kherson State University «KSU Online» presents learning material in a methodically unified form and creates conditions of its content usage in any place and at any time apart from the form of students’ education. Pedagogical experiment of forming professional students’ competence by means of the given course have been taking place in Department of Foreign Languages

in Kherson State University during 3 years and recorded positive changes in the level of development of professional competences and students' individual skills. 1<sup>st</sup> year students, specialty "Foreign language", 90 students in all, participated in the experiment. Control group (CG) and experimental group (EG) had access to this e-course on LMS MOODLE «KSU Online». Experimental group had additional recommended learning materials in Cognitive linguistics, Semiotics and Pragmatics, represented as links on the Internet (handbooks, guides, articles, etc.). In CG and EG the results of academic performance were caused by test results, and the level of development of individual skills, students' motivation in acquiring practical skills in Cognitive linguistics, Semiotics and Pragmatics were evaluated by means of monitoring method and method of examination. According to the results of investigation, the level of students' autonomy while doing given tasks is increasing significantly as well as the amount of educational web-pages visits on open platforms. In experimental group students became more motivated and ready to do creative tasks of professional nature. In comparison with control group, experimental group showed the rise of a qualitative indicator of academic performance of 16 %, that is demonstrated in Fig. 7.



*Fig. 7 Comparison of the results of pedagogical experiment in CG and EG*

Qualitative indicator of academic performance was calculated according to end-of-semester exams' results. Thus, each group got grades for seminars including e-course grades in such topics: Cognitive grammar, Discourse world, Text world theory, Poetic text, Images in ballads, Pragmatics, etc. (20 hours in general).

Graphical representation of grades in the separate subgroup in the given course is shown in Fig. 9.



*Fig.9. Graphical representation of end-of-semester grades of a separate experimental subgroup in course "New tendencies in professional subjects"*

## V. CONCLUSION

Google questionnaire consisting of 8 questions was elaborated to determine the effectiveness of acquiring professional skills by students. According to questionnaire results, we conclude that the majority of students (87%) wish to

continue studying of Cognitive linguistics, Semiotics and Pragmatics, and to improve knowledge and skills with the help of e-course. 77 % of 1<sup>st</sup> year students getting Master Degree are satisfied with the possibility to use LMS MOODLE. Experimental group students demonstrated better skills in practical exercises in Cognitive linguistics, Semiotics and Pragmatics.

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