



Students' Readiness to Distance Learning: Results of Research in the Institutions of Higher Education

Olga Banit¹ , Alla Shtepura² , Marina Rostoka³ ,
Gennadii Cherevychnyi⁴ , and Oleksandr Dyma⁵ 

¹ Ivan Ziazui Institute of Pedagogical and Adult Education,
National Academy of Pedagogical Sciences of Ukraine,
9/of. 533 M.Berlynskoho Street, Kyiv 04060, Ukraine

² Nizhyn Gogol State University, 2 Grafka Street, Nizhyn 16600, Ukraine

³ V. O. Sukhomlynskyi State Scientific and Pedagogical Library of Ukraine,
National Academy of Pedagogical Sciences of Ukraine,
9/of.31 M.Berlynskoho Street, Kyiv 04060, Ukraine

⁴ Taras Shevchenko National University of Kyiv, 60 Volodymyrska Street,
Kyiv 01601, Ukraine

⁵ Kiev National Economic University named after Vadym Hetman,
54 /1 k.131 Peremoge Avenue, Kyiv 03680, Ukraine

Abstract. Assessing the readiness of students for distance learning is one of the main factors in the planning and implementation of distance learning. The purpose of this study was to identify and analyze the readiness of students to implement distance learning tools while learning English. The authors consider the students' readiness to implement distance learning as a complex of cognitive, motivational, technological, and reflexive components. The paper analyzes various forms of diagnosing readiness levels, including surveys, questionnaires, interviews, and observations used in the study. The research demonstrated that distance learning presented some challenges to students on the one hand, and offered them new opportunities on the other hand. A list of factors that impeded English distance learning and benefits of distance learning were identified by students in this survey. The most notable is the growth of the high-level category of technological component. 83% of respondents indicated that they mastered new distance learning tools they had not previously used or used partially. On the plus side within the cognitive component we can admit gaining of new experience by students. Changes in the motivational and reflexive components were less noticeable.

Keywords: Distance learning · Students' readiness · Higher education

1 Problem Statement

The dynamics of civilization progress, economic, social and cultural processes taking place in the modern society. Dramatic change in the ways of dissemination and use of information require a qualitatively new provision of the education system. An important

place in this process is given to the active introduction of remote technologies as one of the areas of reform and strategic development of the educational system. This issue is especially relevant when educational institutions around the world are closing because of the pandemic. A lot of schools, colleges, universities and other educational institutions are forced to implement distance learning (DL).

Hence, the need for online learning and digitalization of the education system is growing as never before. The concept of distance education which is progressively developed as part of the tertiary education reform provides for the development of various technologies, including DL technologies. Distance learning provides students with access to new sources of information, increases the efficiency of independent work, offers completely new opportunities for creative self-expression, consolidating various professional skills, and allows teachers to implement completely new forms and methods of teaching.

2 Analysis of Recent Research and Publications

Nowadays researchers point out that DL has a number of both advantages – they can be following categories:

1. Pedagogical – remote telecommunications keep students motivated, make learning more interactive, increases the number of potential participants, who quickly interact with each other through electronic networks, individual and creative learning, new approaches to the learning process [1–4];
2. Psychological – providing more comfortable, compared to traditional, emotional and psychological conditions for students self-expression, removing psychological barriers and problems, eliminating errors of oral communication, strengthening students' motivation (multimedia strengthen users' motivation by their diversity of web-based DL courses) [1–5];
3. Informational – increasing the availability of educational information stored on specialized servers and delivered to the student through interactive web channels, published on Internet, including teleconferences, emailing and other means of the Internet, increasing accessibility of high-quality education and information, modern technology and integrated media [1–5];
4. Ergonomic – students and teachers have the opportunity to distribute the time of classes at a convenient schedule and pace, choose and use the most suitable computer equipment, combine convenience and flexibility of educational process (freedom and flexibility of this mode of education implies new possibilities for choosing a course of study, ways, time, tools of study) [1, 3, 4].

However, despite the numerous advantages, DL has its disadvantages: technical (infrastructure, tools), organizational (standards, rules regulations) and educational (didactic-methodical, psychological). Technical problems are mostly because of costly and complex technology.

Although we are living in the age of the Internet, the age of generation Z, many students and educators still find it difficult to use IT and have no access to the Internet. The disadvantages of organizational and educational components of DL are follows:

indirect contact with teachers and students, lack of face-to-face interaction (oral communication), out-of-date programs, not enough (or even no) practical training, social isolation, low motivation, reputation of diploma [1, 6].

Institutions higher education which provide DL should take into account both the advantages and disadvantages, their technological and methodological potential and the needs of students and teachers in the educational process.

3 Basic Material and the Substantiation of the Obtained Results

This study is based on our previous research on training of future English teachers with distance learning tools. And now we focus on the effectiveness of the distance learning tools. The effectiveness of distance learning depends on quality of future English teachers' professional training and their progress in mastering distance technologies as students.

The past academic year revealed significant gaps in the readiness of students and teachers for DL. The sudden transition to distance learning for both students and teachers became a forced measure. The distance learning format to which educators had to transfer their classes on a rush basis was very much different from their properly planned traditional educational activities. Not all universities were ready for this radical rebuilding of the educational process because of objectively different levels of information infrastructure development, provision of disciplines with electronic educational resources and readiness of teachers and students to use digital platforms and services. This situation is stressful for all participants and it cannot but affect the attitude towards online learning and other DL technologies. Therefore, the purpose of the research was to analyse the readiness of students to DL.

The methodology of research covers triangulation: research methods, techniques, samples and theories. Diversified readiness diagnostics, readiness scales, the qualitative analysis of the obtained results, the level of readiness were built, tested and determined. A 20 question survey was developed and applied for respondents. The students' able to rate their opinions on a 5-point Likert scale, which ranged from strong disagreement (1) to firm agreement (5). The results of the survey were obtained in a sample of the study, which included 158 randomly selected future teachers of English.

We consider the students' readiness to implement DL as a unity of cognitive, motivational, technological and reflexive components [7]. Each component is revealed through the relevant indicators, which can determine the level of its formation. Thus, the cognitive component of students' readiness for DL involves knowledge and understanding of the processes necessary for the implementation of DL: principles of operation of a personal computer and peripheral devices and work on the Internet; opportunities of the main educational resources of the Internet; basic types and general principles of functioning of telecommunication systems; features of the process of knowledge acquisition in DL; telecommunication etiquette.

As far as technological component of students' readiness of implementation of remote learning is concerned, it includes the ability of students to use modern information technology, correlate pedagogical tasks with available online educational

resource, use e-mail and various telecommunications (teleconferences, real-time communication, etc.) to exchange information with other users, work with network information resources, to maintain a dialogue with other network users, work with modern hypertext and hypermedia systems, search the Internet for the information resources the most adequate to the learning objectives, prepare information for transmission over the network using various applications and the necessary utilities (archives, encoders, etc.).

The motivational component has a big impact on DL. As practice shows, students differ from each other by the level of motivation rather than cognitive abilities. Learning activity and success depend significantly on the strength and structure of motivation. Hence, the principle of motivational support of the DL process is formed.

The attitude and reflection on DL is reflexive and evaluative component. It includes the ability to organize their learning activities, develop an effective control system, and self-access their learning activities. In 2019, surveys and interviews with students were conducted according to the methodology described above. Table 1 summarizes the findings.

Table 1. Components of students' readiness to implement distance learning

Components levels	Cognitive	Motivational	Technological	Reflexive
High	8%	5%	45%	5%
Medium	32%	20%	35%	65%
Low	60%	75%	20%	30%

As part of the cognitive component, we asked future English teachers whether they had had any DL experience. We were guided by the assertion that at the current stage of rapid scientific and technological progress, students are making extensive use of information and communication technologies, and probably could be interested in DL English, which would significantly help them to effectively master the language. We found that about 60% of the respondents had not taken any distance courses before. The motivational component included the question of necessity of DL of English in a higher education institutions (HEI). 75% of respondents appeared to show no interest in distance English learning in a HEI, 20% of respondents displayed interest in DL but only in combination with traditional forms of instruction (lectures, practical, seminars), i.e. blended learning, and only 5% showed a keen interest in this form of education. Respondents were also asked how much they would be interested in taking distance courses themselves. Given that 60% had no DL experience, it was natural that they were partially interested in distance English learning, as they didn't actually understand how DL occurs. Taking into accounts the above consideration, we asked the respondents what impeded their use of new learning formats. Table 2 presents the respondents' opinions on the obstacles that prevent tertiary institution from using DL tools when training future English teachers.

Table 2. Obstacles in the introduction of distance learning of English

Obstacles	%
Absence of distance learning of English courses in university	40
Poor motivation for independent learning/self-study	30
Poor Internet access	15
Lack of personal contact with other students and the teacher	25
Advantage of traditional methods of instruction at university	65
Inaccessibility of use distance learning tools (computer, smartphone, tablet)	0
Difficulties of learning on the Moodle platform	10

The analysis of the data contained in Table 2 clearly indicates that, according to the respondents, the main obstacle to the introduction of distance education is “human factor” associated primarily with low motivation for self-study, rather than the technological factor (inaccessibility of DL tools (computer, laptop, smartphone, tablet). It should be noted that one in ten respondents experienced difficulties with using the Moodle platform. Anytime, the new and completely incomprehensible causes difficulties. This seems strange, because today’s students are a young generation of “digital natives” who easily master digital technology.

It is noteworthy that more than half of respondents considered traditional forms and methods of instruction dominant in today’s HEI of Ukraine. We can assume that these are the 60% who did not take any distance course before. Traditional forms and methods of teaching in educational institutions have been controlled and managed by teachers for many years. Educational institutions were focused on a high level of control over students success and “observation” of their studies, aimed at memorizing and reproducing specific content. Thus, students are used to learning under the guidance and control. Unfortunately, this does not stimulate the independence, responsibility and autonomy needed for distance learning. The technological component is primarily due to the fact that there has been little use of DL tools in the training of future English teachers in the vast majority of HEI in Ukraine. Another obstacle, or rather a shortcoming, which is most respondents noticed was the lack of personal contact with other students and teachers. Although respondents are “digital natives”, the young people born in the age of information technology, they cannot imagine learning without direct contact with a group of students and a teacher.

As to the forms of DL of English, the students’ opinions divided. Most of them (65%) considered distance courses of English as the most appropriate form. 55% of them preferred games and chats, 40% choose webinars and language laboratories, and 35% liked video conferencing. Distance education, in addition to the above limitations, has many advantages. As part of the reflective component, respondents were asked to point out the greatest benefits of distance learning. The results were predictable, as the opportunity to study at any time and in any place is currently considered the greatest advantage of DL – 80%. It is important to individualize the pace and method of learning, as well as the combination of learning and work – 70%. It is worth to note that distance learning of English gives an opportunity to acquire and develop IT competences, however, only 5% of those surveyed consider distance learning to be an

extra opportunity to earn more degrees. But none of the respondents considered distance learning of English more effective than traditional learning. We cannot either confirm or deny the validity of this hypothesis, but we can assume that a large number of respondents have never taken any distance course (60%), so they cannot compare the results of distance learning in English with traditional learning in the absence of experience. The opportunity to gain new experience and use IT as well as save time, confirms the hypothesis that digital natives prefer distance learning. The results are presented in Table 3.

Table 3. Benefits of distance learning

Advantages of distance learning of English in HEI	%
Possibility to study anywhere and anytime	80
Individual way and tempo of learning	70
Possibility to combine learning with work	75
Lower tuition fees	20
Opportunity to use up-to-date learning tools to facilitate learning	50
Time saving	50
More effective than traditional learning	0
Facilitates contact with the teacher	10
Opportunity to acquire IT skills	35
Opportunity to earn several degrees	5
Possibility to gain new experience	55

In the first half of 2020, students had to start studying remotely and complete the academic year in such a way. Right after the lockdown was imposed, the Ministry of Education and Science of Ukraine announced that it committed universities to organize distance learning. We observed the learning process, students' successes and difficulties, their attitude towards distance learning. In September 2020, we conducted a follow-up survey and interviews using the same methodology. We found that the results have changed significantly. The results are presented in comparative Table 4.

Table 4. Comparative table of 2019–2020 survey results

Components Levels	Cognitive		Motivational		Technological		Reflexive	
	2019	2020	2019	2020	2019	2020	2019	2020
Years								
High	8%	17%	5%	9%	45%	61%	5%	6%
Medium	32%	56%	20%	31%	35%	36%	65%	69%
Low	60%	27%	75%	60%	20%	3%	30%	25%

On the one hand, students had some difficulties, and on the other hand, they discovered new opportunities during distance learning. As we can see, the most notable is the growth in the high-level category of technological component. 83% of respondents indicated that they had mastered the new distance learning tools that they had never used before or partially. Within the cognitive component, the medium and high levels increased significantly (from 32% to 56% and from 8% to 17%) respectively due to a decrease in low-level category (from 60% to 27%). The majority of students (56%) noted significant progress in using distance technology. On the plus side, without any doubt, we can admit gaining of new experience by students. Some students embraced the new format with enthusiasm, as online learning freed up time for them to engage in other activities, allowed them to complete tasks at a convenient time and change the intensity of work to deadlines. In addition, students became more active in involving other resources in the process of learning English. The most popular were Quizlet, Kahoot, Answer Garden, Popplet, and Learningapps.

Changes in the motivational and reflexive components were less noticeable. This was due to psychological problems, among which students noted the lack of live communication, a significant increase in home assignment, lack of time to complete tasks, the family responsibilities, limited access to the computer in their family because each family member had to work remotely. In addition, respondents noted the lack of individual counseling, increased time for correspondence with teachers, as online courses provide a more detailed description of homework than usual in classes. We used Fisher’s multifunctional criterion to compare statistically the results of the identified levels of readiness of future English teachers for the introduction of distance learning tools. To calculate this criterion, we used the formula to determine the value of φ^* in accordance with the percentage parts of the “effect” of each component (Table 5).

Table 5. Dynamics of readiness levels for each component

Components Levels	Cognitive		Motivational		Technological		Reflexive	
	2019	2020	2019	2020	2019	2020	2019	2020
High	+ 9%		+ 4%		+ 16%		+ 1%	
Medium	+ 24%		+ 11%		+ 1%		+ 4%	
Low	-33		-15		-17		-5	

As we can see from the table, the percentage of respondents with medium and high levels of readiness has a positive trend, each component of readiness has increased in comparison with 2019. The results of 2020 study show that the students’ level of readiness is generally medium. But considering the low level of the motivational component, we can state that students have unformed needs and interests, and the minimum amount of knowledge, skills and abilities needed to implement distance learning. Students in this group found it difficult to produce individual critical judgments about the distance learning system. They do not have the techniques to set their own distance learning goals. The creative aspect of this activity is poorly developed. Therefore, it is necessary to increase the creative activity of students, the way of

gaining new knowledge by means of distance learning, developing their system of needs and interests for the level to become sufficient.

4 Conclusions

Having analyzed the results of the research, we came to the conclusion that in order to increase the motivational and cognitive components of students' readiness, it is necessary to create the following pedagogical conditions:

1. Motivate the future English teacher to implement distance learning.
2. Involve the future teacher in distance learning activities as a student to understand the difficulties experienced by those taught at a distance.
3. Together with future English teachers, organize distance English courses to master the process of creating courses.
4. Organize distance educational activities for future English teachers as trainees to practice basic skills, enable them gain experience and then as a teacher develop their own style of creating and delivering distance learning courses.
5. Evaluate the result. To obtain an objective answer, it is necessary to conduct both an internal assessment of the results of distance learning activities (carried out by the teacher) and external (students' answers to questions and reflection).
6. Encourage cooperation between tertiary institutions and IT-companies to improve the IT infrastructure of universities and develop students' digital skills more effectively. It is important to note that there are a lot of examples of partnerships between higher educational institutions and IT companies in Ukraine [8].

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