Revista Românească pentru Educație Multidimensională

ISSN: 2066-7329 | e-ISSN: 2067-9270 Covered in: Web of Science (WOS); EBSCO; ERIH+; Google Scholar; Index Copernicus; Ideas RePeC; Econpapers; Socionet; CEEOL; Ulrich ProQuest; Cabell, Journalseek; Scipio; Philpapers; SHERPA/RoMEO repositories; KVK; WorldCat; CrossRef; CrossCheck

2021, Volume 13, Issue 3, pages: 73-94 | https://doi.org/10.18662/rrem/13.3/441

Fostering Students' Responsibility and Learner Autonomy by Using Google Educational Tools

Tetiana BOROVA¹, Olena CHEKHRATOVA², Alisa MARCHUK³, Tetiana POHORIELOVA⁴, Anna ZAKHAROVA⁵

¹Doctor of Science (Pedagogy), Professor, Simon Kuznetz Kharkiv National University of Economics, Kharkiv, Ukraine, <u>tetyana.borova@hneu.net</u> ²Lecturer of the department of Pedagogy,

² Lecturer of the department of Pedagogy, Foreign Philology and Translation, Simon Kuznetz Kharkiv National University of Economics, Kharkiv, Ukraine, <u>olena.chekhratova@hneu.net</u>

³ Lecturer of the department of Pedagogy, Foreign Philology and Translation, Simon Kuznetz Kharkiv National University of Economics, Kharkiv, Ukraine, marchukalice27@gmail.com

⁴ Lecturer of the department of Pedagogy, Foreign Philology and Translation, Simon Kuznetz Kharkiv National University of Economics, Kharkiv, Ukraine, tatyana.pogorelova@hneu.net

⁵ PhD (Pedagogy), Senior Lecturer of the department of Pedagogy, Foreign Philology and Translation, Simon Kuznetz Kharkiv National University of Economics, Kharkiv, Ukraine,

annatkach2311@gmail.com

Abstract: The introduction of innovative technologies into the educational process has become an integral part of modern educational systems development. Information-communication technologies vary the teaching and learning process by making it more entertaining for the students and more beneficial for the teachers. It allows using more resources and a wider range of exercises to form and develop students' skills. In this regard, the article analyzes the advantages of using Google educational tools for fostering students' learner autonomy, responsibility, and promoting pedagogical interaction. The article hypothesizes that future foreign language teachers' and managers' learner autonomy and responsibility along with learning outcomes can be enhanced by implementing ICT into the educational process. The article reviews the notion of the information and communications environment of higher educational institutions; analyzes the ways to introduce Google educational tools, namely Google Forms and Google Classroom into the daily learning routines of university students. It also provides evidence-based instructional practices along with illustrative examples of its use when introducing new material, giving assignments, initiating reflection, conducting tests, and setting deadlines. The questionnaire surveys conducted at higher educational institutions reveal that students exhibit higher levels of responsibility and motivation and display better academic achievements when being educated with the help of Google educational tools. The prospects for further investigation may include substantiation of organizational and pedagogical conditions for training future foreign language teachers and managers.

Keywords: Information and educational environment; student motivation; learner autonomy; student responsibility; pedagogical interaction; Google educational tools.

How to cite: Borova, T., Chekhratova, O., Marchuk, A., Pohorielova, T., & Zakharova, A. (2021). Fostering Students' Responsibility and Learner Autonomy by Using Google Educational Tools. *Revista Romaneasca pentru Educatie Multidimensionala, 13*(3), 73-94. <u>https://doi.org/10.18662/rrem/13.3/441</u>

1. Introduction

1.1. Using ICT in a student-centered classroom

When all the social and economic processes in a country are developing at a rapid pace, it is vital to introduce and implement innovative technologies in the system of education. We face times when cyber technologies are spreading in every sphere of everyday life and regulate most of our activities.

Thus, it is obvious that using information and communication technologies varies the teaching and learning process and increases pedagogical interaction. It also makes the educational process not only more entertaining for the students but also more beneficial for the teachers. It allows using more resources and a wider range of exercises to form and develop students' skills. Moreover, it enables students to complete the task anytime and anywhere as they may easily access the assignment (for example, while commuting as they only need a phone and Internet access).

The modern world gives many opportunities for educating young adults. And the task of a teacher is to empower students with tools for knowledge acquisition. By using ICT they can easily access any resource they need, communicate with foreign colleagues, and eagerly study aiming at getting a job in an international company with offices all over the world and the promise to travel. Moreover, extensive use of ICT is globally essential due to some global issues like the spread of COVID-19. That is why nowadays a higher educational institution aims at providing all the possible facilities and opportunities for the students to educate a competitive specialist.

Researchers (Little, n.d.; Mccombs, 2003; Ushioda et al., 2011) argue that motivation is a kind of a tool that makes the students decide on academic questions, thus granting them learner autonomy. And this allows students to feel empowered, makes them motivated and eager to learn, thus, making them autonomous (Little, n.d.; Ushioda et al., 2011), which means the ability to take responsibility for their own learning (Nunan, 2003). Motivation is also recognized as a set of opportunities to revalue students' academic choices and meet their educational needs and goals; thus, they become more conscious about the elective components of the study program (Tuchina et al., 2020). All the above-mentioned helps sustain a perception of responsibility and self-motivation. Students' academic achievements evaluation is becoming more personalized with the increasing of ICT application in higher educational institutions (Mccombs, 2003). Using the ICT helps to activate student's self-study, to individualize and to differentiate their learning process, to choose their own pace of studying, to acquire new means of exploring the world; it enables global communicating to erase the borders and geographical locations (Trotsko et al., 2019).

In student-centered learning one of the main tasks of a teacher is to help the students acquire the principles of life-long learning. Thus, modern educational systems prioritize implementing computer systems into the educational process to make it more accessible, creative, and easily estimated.

1.2. The importance of using ICT at HEI

Apart from acquiring practical and academic skills, University Degree presupposes developing research skills (the ability to make plans, find logical connections, and interpret ideas and findings) (Stepashko, 2014); soft skills (communication, self-organization, decision-making, adaptability); and hard (professional) skills (Ivashko, 2012). And the use of ICT helps to develop the creative potential of the student.

Another key factor of excessive use of ICT is not only intense competition of professionals in a labour market (Volfovska, 2001), but the necessity for students' choice of a personal educational pathway and participating in programs of student mobility.

Despite all the above-mentioned facts, educators' pedagogical failures while guiding non-motivated students have increased in recent years. What educators don't take into account is the interconnection between student motivation and the use of ICT. Working online motivates students, boosts their confidence, enables them to be more autonomous, and influences their study abilities. It provides quick and informative feedback as well as tips for improving.

1.3. The purpose of the research

Given these the purpose of the article is to substantiate the effectiveness of ICT application in the educational process, namely the use of Google educational services to foster students' learner autonomy and responsibility, thus increasing pedagogical interaction. The study pursues the following objectives: to analyze the definition of "information and communications environment of higher educational institutions to describe the conditions of using ICT in language learning; to reveal the peculiarities of the future foreign language teachers and manager training in conditions of information and educational environment of higher educational institutions;

Revista Românească pentru	September, 2021
Educație Multidimensională	Volume 13, Issue 3

to define which competences should a future teacher and manager have via using Google services; to practically verify the effectiveness of the use of Google educational services, namely Google forms and Google Classroom to foster students' learner autonomy and responsibility. The research hypothesis is that by using Google educational tools the effectiveness of the teaching and learning process will increase along with the improvement of students' responsibility and autonomy levels and study motivation in general.

2. The theoretical background

2.1. Analysis of recent studies and publications

The academic achievements in the field of language teaching and ICT implementation provide the theoretical background for the research.

Scholars highlight that the efficient use of information technologies not only helps both a teacher and the student but allows the participants of the educational processes to be more various in the interaction: it reduces the time to search and access the relevant educational and scientific information, accelerates the educational content renovation, adds time for students' individual work (Gurevych et al., 2019, p. 94).

Problems of the development and the use of ICT in the educational process are reflected in the scientific works of both domestic and foreign scholars (Bond et al., 2018; Bykov & Shyshkina, 2018; Redecker & Punie, 2017; Mainaiev & Rybalko, 2018).

Prominent scholars also research the topics of language learning via ICT, the issues of Internet-based assessment, and the problems connected with ICT technologies in the educational process (Bihych, 2009; Borysko, 2019; Gurevych et al., 2019; Gurevych & Kademiya, 2016; Gurzhiy & Ovcharuk, 2013).

The introduction of the new information and educational environment into the learning process is meant to move from individual projects to a systematic studying process that covers all activities. The new information and educational environment significantly enhances teachers' capabilities and optimizes management processes; forms students' technological competences that are crucial for our century (Gurevych et al., 2019, p. 94).

The information and educational environment of a higher educational institution performs the following functions: informational, providing open access to information and creating conditions for information exchange; interactive, which allows implementing internal system connections; communicative, allowing communication within "internal" as well as "external" information space; coordinating, creating and representing the interaction between the content of different subjects; developmental, enabling intellectual growth and formation of personal creative qualities; professionally-oriented, focused on the profile of future professional activities (Kucheruk et al., 2019).

2.2. The outline of the problem

Considering the nature of student autonomy, motivation, and selfregulated learning, scholars admit that using ICT is crucial for education in general, and for achieving academic success. Foregrounding of students' responsibility and autonomy is a priority in distance learning, when students have an opportunity to follow courses of different universities all over the world without leaving their own country, thus acquiring international academic experience in the field and sharing their ideas with the peers. From a theoretical point of view, this is proved by the self-determination theory of motivation advanced by Deci and Ryan (Deci & Ryan, 2002). This expresses the idea that if learners are encouraged to fulfil their basic needs for competency, autonomy, and self-significance in the learning environment, they are apt to mature into autonomous and enthusiastic learners. Moreover, profound research on Deci and Ryan's (2002) theory outlined that in peculiar circumstances, autonomy-supportive environment integrated in the educational process affect beneficially on students' personal responsibility and motivation. The author highlights that autonomy-supportive environment enables students to comprehend their academic prospects, to express their thoughts and feelings, and to be inspired to make choices and boost leadership in the learning context (Gurevych et al., 2019, p. 94). Supporting this point of view, we can add that using ICT in such an environment is beneficial as it brings new opportunities for the globalization of the learning process.

Highlighting the importance of personal responsibility, acquiring motivation, and emphasizing the role of autonomous students in the learning environment, teachers help the students identify what kind of learners they are. If teachers want their students to be autonomous and responsible, they are to shape and nourish an educational mindset (Mccombs, 2003). In real-life situations, learners explore what they need to learn, establish and strive for their own objectives, and are in charge of every learning decision they make. Despite the students' age, they have always been good at making excuses for expired dates in submitting their assignments or unsatisfactory academic performance, so highlighting the role of self-responsibility will direct the students towards reaching learning objectives (Borova et al., 2019).

To teach this skill, such scholars as Bykov & Shyshkina, 2018; Gurevych et al., 2019; Mccombs, 2003 recommend holding students accountable for their work. Nowadays, it has become possible because of the spread of modern technologies which allows boosting students' academic curiosity by giving them a choice of the learning content.

Furthermore, ICT helps to benefit the most out of distance learning in modern realia, helping students and teachers both create the assignments, carry them out, control and self-control the process of completing the tasks and work according to their own preferred schedule (Kryshtanovych et al., 2020, p. 354).

Students' learning outcomes hugely depend on the level of responsibility they have. Thus, the goal of a teacher is to enhance it by reorienting the learning process. This necessitates emphasizing responsibility of future specialists in any professional sphere to address sustainable challenges via balancing specialized expertise, inter-disciplinary competence, value orientation, and social engagement to produce a competitive professional (Borova et al., 2019).

A key to students' autonomy and motivation is recognition and understanding of students' responsibility for their own learning. The use of ICT helps to attribute the learning environment to individual goals and interests; facilitates teamwork for achieving learning goals; encourages evaluating students' progress by completing self-assessment tables and charts, so they can monitor the academic achievements (Borova et al., 2019). By learning to track their own progress, students are empowered with their successes and become liable for the learning process.

Furthermore, in higher educational institutions professional competence formation and development have to be completed with the help of information communication technologies (Bykov & Shyshkina, 2018).

Thus, we emphasize the necessity to make educational tasks and exercises more various and entertaining. The amount of time for learning in classroom decreases that is why using ICT gives more opportunities and challenges for the teacher. Moreover, quite often students reject oldfashioned types of assignments as sometimes they are boring, difficult, and quite time-consuming.

On the other hand, we cannot make the students do all the assignments on-line as they still need a guide and a mentor in their studying, and not all of them are ready, without specific preparation, to understand that learning via ICT is not a game. Moreover, if the students lack learner autonomy, they may not be ready to take responsibility for the learning in this way. Though an autonomous learner may make the wrong choices, waste a lot of time and energy, but at the end can get disappointed because of the unpredicted outcome (Vilson, 1994, p. 7).

3. Methodology

3.1. Participants

The participants were selected from the groups of students of the following majors: 014 Secondary Education (The English Language and Literature) at H.S. Skovoroda Kharkiv National Pedagogical University (KhNPU); and 073 Management at Simon Kuznets Kharkiv National University of Economics (KhNEU). The participants are currently acquiring the Bachelor's Degree, enrolled in 2019, and are mastering English as their Major (114 persons) and a non-elective subject (108 persons).

The sampling consisted of 56 students of the experimental group (EG) and 58 students of the control group (CG) at KhNPU; 55 students of EG and 53 students of CG at KhNEU.

One EG was educated with the occasional use of Google forms; the other was trained via Google Classroom. On the contrary, in both CGs Google forms and Google Classroom were not implemented.

All the participants were aware of the study and agreed to provide their personal data. The age and gender of the students were not taken into account. The authors adhered to ethical norms while conducting the survey.

3.2. Research Instruments and Procedure

To fulfill the tasks of the research, various scientific methods have been used, namely, theoretical methods (generalization and comparative analysis of relevant literature), empirical methods (surveys and questionaries), and statistical analysis of the findings (criterion χ^2) needed to substantiate quantitative and qualitative results obtained. The data were analyzed via Microsoft Excel 2010.

To prove the assumed idea that Google services positively affect students' academic results and increase their motivation and responsibility, we have issued a questionnaire to analyze the findings. A survey was conducted among the above-listed students. The items of the questionary are presented in Table 1. $\label{eq:table_table} \textbf{Table 1.} The items of the questionary conducted at HEIs (Source: Authors' own conception).$

	Possible answer	Score
1.	Do you feel responsible for choosing materials/tas for the lessons?	ks/content
a)	yes	1
b)	no	0
c)	not sure	0
2.	What is an ideal lesson for you?	
a)	doing tasks in the book, preferably one by one, no additional tasks are offered;	0
b)	following no plan at all, talking about anything which comes into your mind, preferably no assessment;	0
c)	discussing the lesson plan with the teacher, choosing topics, the tasks order, and the way of doing them.	1
3.	Do you take part in assessing the results of your lear	ming?
a)	yes	1
b)	no	0
c)	not sure	0
4	. Is it easier to be informed about the learning outco lesson while using Google Forms/Classroo	
a)	yes	1
b)	no	0
c)	not sure	0
5.	How can your academic results be improved university environment?	within the
a)	The learning environment should be improved (studying facilities, the curriculum, teaching staff, etc.) which is the responsibility of the school / the university / the country.	0
b)	Everything depends on the learners and the	1

c)	goal they set. not sure	0
6.	You agree with the following statement:	
a)	The whole process of studying is a waste of time; we do it because our society makes us study; if it weren't for the public opinion, I wouldn't go to college / university.	0
b)	It's a trend to have a University Degree, and I need to be on the same wave with people of my own age.	0
c)	I know that without a good education and a Degree I won't find a good job/earn a lot of money/start my own business/travel abroad, etc.	1
7.	What is the worst problem you face while university?	studying at the
a)	my parents / teachers make me study although I do not like it.	0
b)	I cannot learn without a specific purpose, just because I need to learn. When I see that it will be useful for my future life, career, travelling I will easily learn everything.	1
c)	sometimes I feel that I do not want to do it and see that my results are getting worse.	0
8.	What is the best stimulus for your studying?	
a)	a goal;	1
b)	money, presents, a promise to get something;	0
c)	your own desire.	0
9.	Are you interested in learning strategies that m lesson?	nay improve the
a)	Yes, I want to understand why I do certain types of activities and in a specific order;	1
b)	I agree with whatever the teacher suggests;	0
c)	I do not think I need any additional strategies	0

to learn new material.	
10. Why do you study at the university?	
a) your parents promised to present you a car (a	0
trip/money, etc.) if you do well;b) you like the learning process; the teachers are	1
good; studying means having fun;	1
c) you will be able to get a better job if you study well.	0

Source: Authors' own conception

4. Results and discussion

One of the effective tools which may contribute to the creation of the information-communication environment is Google with its free educational services.

For example, Google Classroom is an online learning platform created for educational institutions. It handles the day-to-day assignments, sets deadlines, improves communication between a teacher and all the learners, and keeps records of academic progress. Using this tool, it is possible to distribute files and assignments with learners, provide critical comments, and evaluate submitted papers. To enter the site, you have to log in, as all the classes are secured, and the uploaded information can only be viewed by course followers.

One more benefit, it is quite simple to launch a classroom as the guidelines are provided for non-mature users. It also reduces paperwork and using a photocopier since it is possible to create a collection of data (plans, assignments, channels of communications, progress records, etc.) that can be reused.

The work submission process is effective within Google Classroom system. Teachers upload assignments, set deadlines, and share individual documents with each student. When the work is completed, the process of automatic submission takes place. This way of pedagogical interaction has the potential to foster students` autonomy and responsibility for learning which may project future responsible professional activity.

Another way of conducting lessons is using Google Forms platform, which is a form of conducting surveys designed for getting and analyzing the answers. Here you can share documents; there is a function of editing in documents, tables, and other forms. It is very useful if the teacher wants to find out how effective the methods used in the classroom is. You create a test and the system will analyze the percentage of the answers. It is highly beneficial for peer assessment and getting feedback from the students. Moreover, when completing the form, students concentrate on what they have already accomplished, thus reflecting on the teaching and learning process and becoming more autonomous, responsible for their learning.

It is convenient to use the above-mentioned resources. Students get the link to their assignments via e-mail or messages. They only need to follow the link and are ready to complete the task. They may start answering the questions at one time and proceed with finishing the task later when they either have free time or are ready with the answers. In some cases, they need a specific period of time to observe their learning process, and only after that they can complete the task (Fig. 1).



Figure 1. Task assignment via Google Classroom (Source: Authors' own conception)

This procedure gives the student freedom of choice (when to do the task) and helps take responsibility for the learning. They are not reminded to complete the task by the teacher, and have to choose the order and the time for doing the task, and are helped to plan their learning for a week, a semester, and a studying year (Fig. 2).



Figure 2. Teaching students to plan their study via Google Forms (Source: Authors' own conception)

Studying in the age of electronic systems and gadgets, working via Google motivates the students as this kind of activity is closer to their understanding and interests. When using Moodle systems, the educator can monitor the number of students' tries. On the contrary, Google instruments don't provide such a setting and are less stressful for the learner.

After getting a Degree, students identify their own learning objectives, search for opportunities for professional development, and strive to be motivated. Students who can identify their strengths and weaknesses need to acquire approaches for studying. That's why while completing educational tasks they have to be able to reflect on the learning.

Think about the presentation you prepared. What did you want to achieve? Did you achieve you * aim? Do you think you presentation was interesting, gripping, engaging, interactive? What would you change in it?

Long-answer text

Figure 3. Making the students partners in education (Source: Authors' own conception)

For example, a popular American educator Amber Chandler's teaching experience shows that teachers utilize both educational technology and personalized learning to assist students in controlling their learning. Subsequently, this fosters students' project management skills. The scholar explains the advantages of using Google Calendar and pre-set reminders to help students monitor their learning process. Furthermore, the educator designs the classroom in a similar way to adult workspace: assignments should be submitted according to the due date. In such a classroom, students find themselves in an independent, flexible classroom environment. It prepares the learners for adult life challenges (Chandler, n.d.). Thus, the

use of Google Classroom may target students` ability to pursue goals within certain time limits, make them feel more responsible for their own progress (Fig. 4).

1	Cr	eate)				GMT+03	2	
Sei	otem	her	2020		<	>	GMT+03		
s	м	т	w	τ	F	S	12 PM		
10	31	8	2	3	4	5	1 PM		
1	7	8	9	10		12	1 PM		
	14	15	16	17	18	19	2 PM		
	21	22	23	24	25	26			
	28	29	30	1	2	3	3 PM		
	5	6	7	8	9	10	4 PM		
00	3. 5	Searcl	n for j	реор	е		5 PM		
	cale	ndar	e.			~	6 P		
ĺv							78	(No title)	
y	Birt	hday						Wednesday, September 2 · 10:00 – 11:00pm)
		EVER	RCISIN	NG FI	NAN	CIA	8=		
		EXER						3 C EXERCISING FINANCIAL CONTROL	
	3 C	hday	S				0.2		
	3 C Birt						9 P		

Figure 4. Setting deadlines in Google Classroom (Source: Authors' own conception)

It is a good idea to motivate and engage the teacher to use modern information and communication technologies not only at the lessons but for giving the home tasks or doing different kinds of tests (Fig. 5). Although it may take a lot of time at the beginning, they are easy to edit and check, and overall, it takes less time and is more effective for studying the subject.

≡	3 C EXERCISIN	NG FINANCIAL	Stream	Classwork	People	Grades		
		+ Create			ē G	oogle Calendar	Ċ c	lass Drive folder
		Financial Contro Posted Apr 13 (Edited Apr 1		>		\langle		Due Apr 17
						1 Turn	ed in	1 Assigned
			e Forms					

Figure 5. Conducting a test via Google Classroom (Source: Authors' own conception)

Most textbook publishers offer the teachers not only studying materials but also ready-made electronic tasks. Generally, it helps the teacher, making the lessons more interactive without too much effort. But such software or programs may also have drawbacks: either they are distributed on optional disks or you need to buy access, or they require special programs or applications to work with the site (Dolvna, 2019). But in most cases, it works for the school teachers, as the university students quite often have the books, published by the university itself and are quite rarely equipped with the e-version of the tasks. In this way, entertaining the student at the university obviously requires more time to prepare, but can be more beneficial. When we create such tasks, we take into account the level of the group, their Major, and interest. Moreover, Google forms can be easily adapted, each educator can add some information within seconds, which means, with little changes you can use the forms in different groups even for several years. And both students and teachers do not require any additional software to create and complete the tasks.

Sometimes it is difficult for the teachers to adapt to new technological realities of the world. Students are more eager to respond and answer, complete the tasks and do the assignments when they are allowed to use their smartphones and the Internet. Teachers, in their turn, need to adapt to these changes, do more complicated tasks, and spend more time preparing the assignments and making them interactive. And they can also ask their students to help in offering the tasks (Fig.6).

What othe	r form of a creative task would you suggest for this topic? *	
what othe	From of a creative task would you suggest for this topic:	
Long-answe	r text	

Figure 6. Teaching students to plan (Source: Authors' own conception)

One of the drawbacks of using such technologies is that students don't have direct feedback and can't see on the spot that they have done something wrong. Although while preparing the task, a teacher can also add the section "Question to the teacher" where students are able to express the difficulties they faced when they were completing the test. During the next lesson, a teacher discusses all the problem points. It can also help teachers improve the questions, as they may have some misunderstanding or mistakes (Fig.7).

8) Do your experience any constant problems connected with language learning? If so, name them.	*
Long-answer text	

Figure 7. Fostering students' self-reflection (Source: Authors' own conception)

The student can see or read a lecture, get the notes to the practical lesson, complete the tests, a lab, or a course paper, as it is possible to do it online.

The problems of pedagogical interaction in general, fostering learner autonomy, and encouraging students' responsibility are currently becoming a topical issue. Requirements for the professional training of future teachers and managers and modern realities indicate a number of contradictions, namely: between the low level of students' autonomy, responsibility, and motivation for professional education and the high level of requirements for the professional training of graduates; sufficient level of theoretical and practical knowledge and low level of skills in work with modern information and communications technology; the substantial level of professional training and a low level of motivation and readiness to use computer technology in future professional activity, etc. These contradictions

Revista Românească pentru	September, 2021
Educație Multidimensională	Volume 13, Issue 3

mainstream the problem of the creation of "the information and communications environment of higher educational institutions".

According to many scholars "information and communications environment of higher educational institutions" is a unified information and educational space, built by integrating information and communications technologies into the educational process. It may include virtual libraries and databases, structured teaching aids, and an expanded apparatus of didactic means, which promote interaction between students, teachers, and means of new information communications technologies. The effective information communications environment opens up new possibilities in the educational process for all its participants and their interaction. Furthermore, it reduces the time to search for and access to relevant educational and scientific information by all the participants; accelerates the educational content renovation (extra time for teachers to develop new educational and methodological literature); provides additional time for the students' individual work.

The conducted research presupposed completing a questionary to measure the levels of responsibility/autonomy (questions 1-5 with the possibility to score 0-5 points) and study motivation (questions 6-10 with the possibility to score 0-5 points). The results of students' academic achievements were retrieved from grade reports.

The statistical results of the survey are presented in the tables below.

		Goog	gle forms			
	Academic achievements		Level of responsibility		Study motivation	
	EG	CG	EG	CG	EG	CG
September 2019	68%	69%	32%	35%	61%	63%
January 2020	75%	72%	38%	35%	71%	64%
Effectiveness	7%	3%	6%	0	10%	1%
		Source An	thore' concet	tion		

Table 2. The result of the survey conducted among the students ofH.S. Skovoroda Kharkiv National Pedagogical University

Source: Authors' conception

As we can see from Table 1, there was a slight increase in all the parameters under consideration. It is important to note that for the group that used Google forms, the highest growth rate is in study motivation -10% (in comparison with academic achievements -7% and responsibility level -6%). It is due to the fact that future teachers used the resource not only for studying and completing the tasks but also considered it as a motivating factor in enriching their professional tool kit with modern technologies systems for a successful future career.

Table 3. The result of the survey conducted among the students ofSimon Kuznets Kharkiv National University of Economics

Google Classroom								
	Academic achievements		Level of responsibility		Study motivation			
	EG	CG	CG EG CG		EG	CG		
September 2019	70%	71%	34%	37%	59%	62%		
January 2020	79%	75%	41%	38%	68%	62%		
Effectiveness	9%	4%	7%	1%	9%	0		

Source: Authors' own conception

As for the other group, which has been working with the help of Google Classroom (Table 2), the results are not strikingly different, as they also have a considerable increase in study motivation - 9 %, as well as in their academic achievements - 9 % (comparing with responsibility level of 7 %). It can be explained, yet again, that using modern technologies resources allows getting better results in a shorter period of time. Moreover, the increase of the level of students' responsibility, though slight, suggests that we have chosen the right path towards making the students more autonomous and responsible.

To prove the homogeneity of the surveyed groups, the criterion χ^2 was applied. The calculated value comprises 5 degrees of freedom as 6 levels are distinguished (0 points – lack of responsibility/motivation; 1 – extremely poor level of responsibility/motivation; 2 – poor level of responsibility/motivation; 3 – medium level of responsibility/motivation; 4 – good level of responsibility/motivation; 5 – excellent level of responsibility/motivation), with a significance level $\alpha = 0.05$: $\chi^2_{0.05}=11.07$.

The empirical value of the criterion $\chi^2 = 6.89 \le 11,07$ (before the experiment) and $\chi^2 = 5,07 \ge 11,07$ that proves the homogeneity of the surveyed groups.

Thus, the results of the survey have proved that using ICT is beneficial for the student and their academic achievements. Using a more interactive and entertaining form of doing the assignments increases their involvement in the teaching and learning process and makes them liable for their learning. They realize, that they are not partially responsible for achieving the results, and, although there is still a probability of cheating while completing the tasks, the students are more engaging in making and creating the tasks, especially when they are encouraged to offer their ideas for planning.

As the level of responsibility rises, the academic achievements improve as well. It can be explained by the fact, that by being engaged in the learning process, students pay more attention to the topic. On the other hand, doing tasks on a phone or a computer is a more usual and common way for the young generation than writing the tasks in a copybook.

We may also see a slight increase in students' study motivation. The results prove that there are a lot of factors that influence students' engagement in the learning process. In most cases, these factors are connected with the world outside the classroom.

Furthermore, we emphasize the fact that while using Google educational tools we work on all the core students' competences, such as critical thinking, problem-solving, creativity, and collaboration.

Learning foreign languages is a long and hard process that involves not only the desire for studying but also hard work and motivation. For students all over the world, it is vital to understand their learning objectives and expected practical results they will have after completing the course; foreign language acquisition provides a great number of opportunities and prospects for young people.

5. Conclusions and Prospect for further research

Having analyzed the problems that the teachers face while preparing ICT-based tasks and the results they obtain, we may conclude that students' study motivation and academic results can be increased and the teacher's job may be done easier and a lot more effectively.

The effectiveness of implementing ICT into the teaching and learning process has already proved to be quite beneficial, although the experiment will continue in order to get more accurate data for discussion. We have practically verified the effectiveness of using Google educational services to foster students' learner autonomy and responsibility by conducting statistical analysis. Thus, we have confirmed the hypothesis that by using Google Classroom and Google Forms the effectiveness of the teaching and learning process increases along with the improvement of students' responsibility and autonomy levels and study motivation in general.

We see the prospects for further investigation in the substantiation of organizational and pedagogical conditions for training future foreign language teachers and managers.

Moreover, we are teaching via computer technologies not for the sake of teaching but because it is an aspect of everyday life, such as communication, banking, retailing, health care, and management. The more we involve these in our everyday life, the easier it is for us to transform to this new kind of modern realia. Using the technologies enables us to make the educational process more varied and engaging, creates more opportunities for teacher-student development, helps to take into account the individual interests, goals, and objectives, allows using different forms and methods of evaluating the work, enriches the learning environment.

References

- Bihych, O. B. (2010). Informatsiino-komunikatsiinyi portfel yak zasib profesiinoi avtonomii vykladacha [Lecturer's information and communication portfolio as the means of his professional autonomy]. V.N.Karazin Kharkiv National University Bulletin, 897 (62), 162-168.
- Bond, M., Marín, V. I., Dolch, C., Bedenlier, S., & Zawacki-Richter, O. (2018).
 Digital Transformation in German Higher Education: Student and Teacher Perceptions and Usage of Digital Media. *International Journal of Educational Technology in Higher Education*, 15(1), 48. <u>https://doi.org/10.1186/s41239-018-0130-1</u>
- Borova, T., & Pohorielova, T. (2019). Leadership for Sustainability as a Reflection of Students' Professional Responsibility. *Annales Universitatis Paedagogicae Cracoviensis. Studia Ad Didacticam Biologiae Pertinentia, 9,* 30-34. <u>http://yadda.icm.edu.pl/yadda/element/bwmeta1.element.desklight-</u> 29318436-8516-4b80-9f3e-9b87fade841d/c/5.pdf
- Borova, T., Pohorielova, T., Petrenko, V., & Boroday, G. (2019). Future Manager's Responsibility Enhancement in the Framework of Education for Sustainable Development. *Espacios, 40*(31), 2. <u>https://www.revistaespacios.com/a19v40n31/a19v40n31p02.pdf</u>
- Borysko, N. F. (2019). Veb-sajt uchenika po inostrannym yazykam: rol', osobennosti i trebovaniya [Foreign Language Coursebook Website: Its Role, Peculiarities And Requirements]. *Information Technologies and Learning Tools, 70*(2), 180-193. <u>https://doi.org/10.33407/itlt.v70i2.2355</u>

- Bykov, V. Y., & Shyshkina, M. P. (2018). The Conceptual Basis of the University Cloud-Based Learning and Research Environment Formation and Development in View of the Open Science Priorities. *Information Technologies* and Learning Tools, 68(6), 1-19. <u>https://doi.org/10.33407/itlt.v68i6.2609</u>
- Chandler, A. (n.d.) How to Create a Classroom Culture of Responsibility. *Lexialearning.com*. <u>https://www.lexialearning.com/blog/how-to-create-a-</u> <u>classroom-culture-of-responsibility</u>
- Deci, E. L., & Ryan, R. M. (2002). Overview of Self-Determination Theory: An Organismic Dialectical Perspective. <u>https://www.semanticscholar.org/paper/Overview-of-self-determination-theory%3A-An-Ryan-Deci/530b3aa97f6e3937c529e14e8165820cbf50d601</u>
- Dolyna, A. V. (2019). Vykorystannia systemy MOODLE dlia vdoskonalennia fonetychnoi kompetentnosti maibutnikh uchyteliv anhliiskoi movy [Improving Pre-Service Foreign Language Teachers' Phonological Competency with Moodle]. *Information Technologies and Learning Tools*, 70(2), 205-215. <u>https://doi.org/10.33407/itlt.v70i2.2382</u>
- Gurevych, R. S., & Kadamiya M. (2016). Smart-osvita nova paradyhma suchasnoi systemy osvity [Smart-Education a New Paradigm of Modern Education System]. *Ttheory and Practice of Managing Social Aspects: Philosophy, Psychology, Pedagogy, Sociology.* NTU KhPI', 4, 71–78. <u>http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=Tipuss_2016_4_9
 </u>
- Gurevych, R. S., Rogulska, O. O., Tarasova, O. V., & Magdiuk, O. V. (2019). A Model of Foreign Language Teachers Training in the Information-Educational Environment of Higher Educational Institutions. *Information Technologies and Learning Tools, 72*(4), 91-105. <u>https://doi.org/10.33407/itlt.v72i4.2784</u>
- Gurzhiy, A. B., & Ovcharuk, O. V. (2013). Dyskusiini aspekty informatsiinokomunikatsinoi kompetentnosti: mizhnarodni pidkhody ta ukrainski perspektyvy [Discussion Aspects of Information and Communication Technologies Competencies: International Approaches and Ukrainian Prospects]. *Information Technologies in Education*, 15, 38–43. <u>https://doi.org/10.33407/itlt.v51i1.1372</u>
- Ivashko, L. M. (2012). Vykorystannia informatsiino-komunikatsiinykh tekhnolohii dlia otsiniuvannia kompetentsii pry pidhotovtsi ekonomistiv [The Use of ICT for Competence Assessment in the Training of Economists]. Bulletin of Social-Economic Studies, 1, 196–201. <u>http://www.irbis-nbuv.gov.ua/cgibin/irbis_nbuv/cgiirbis_64.exe?C21COM=2&I21DBN=UJRN&P21DBN =UJRN&IMAGE_FILE_DOWNLOAD=1&Image_file_name=PDF/Vs ed_2012_1_30.pdf</u>

- Kryshtanovych, M., Gavrysh, I., Kholtobina, O., Melnychuk, I., & Salnikova, N. (2020). Prospects, Problems and Ways to Improve Distance Learning of Students of Higher Educational Institutions. *Revista Romaneasca Pentru Educatie Multidimensionala*, 12(2), 348-364. https://doi.org/10.18662/rrem/12.2/282
- Kucheruk, O. A., Karaman, S. A., Karaman, O. V., & Vinnikova, N. M. (2019). Vykorystannia IKT dlia formuvannia fakhovykh kompetentnostei u maibutnikh uchyteliv ukrainskoi movy i literatury [Using ICT Tools for Forming Professional Competences of Future Teachers of the Ukrainian Language and Literature]. *Information Technologies and Learning Tools, 71*(3), 196-214. <u>https://doi.org/10.33407/itlt.v71i3.2814</u>
- Little, D. (n.d.). Learner Autonomy: Drawing Together the Threads of Self-Assessment, Goal-Setting and Reflection'. 3. <u>https://www.ecml.at/Portals/1/resources/Articles%20and%20publication</u> <u>s%20on%20the%20ECML/Little_Learner%20autonomy.pdf</u>
- Mainaiev, F. Ya., & Rybalko, L. S. (2018). Dydaktychni materiały do zastosuvannia informatsiino-komunikatsiinykh tekhnolohii u navchanni studentiv suspilnohumanitarnoho profiliu v zakladakh vyshchoi osvity [Didactic materials to implementing ICT in teaching students of social and humanitarian sciences at HEI]. H. S. Skovoroda Kharkiv National Pedagogical University. <u>http://dspace.hnpu.edu.ua/handle/123456789/1926</u>
- Mccombs, B. (2003). Defining Tools for Teacher Reflection: The Assessment of Learner-Centered Practices (ALCP). <u>https://www.researchgate.net/publication/234758185 Defining Tools fo</u> <u>r Teacher Reflection The Assessment of Learner-Centered Practices ALCP</u>
- Nunan, D. (2003). Nine Steps to Learner Autonomy. *Dokumen*, 193–204. <u>https://www.andrasprak.su.se/polopoly_fs/1.84007.1333707257!/menu/s_tandard/file/2003_11_Nunan_eng.pdf</u>
- Redecker, C., & Punie, Y. (2017). European Framework for the Digital Competence of Educators: DigCompEdu. Publications Office of the European Union. <u>https://op.europa.eu/en/publication-detail/-/publication/fcc33b68-d581-11e7-a5b9-01aa75ed71a1/language-en</u>
- Stepashko, V. O. (2014). Teoriia i praktyka upravlinnia naukovo-doslidnytskoiu diialnistiu studentiv vyshchykh navchalnykh zakladiv ekonomichnoho profiliu [Theory and Practice of Managing Scientific and Research Activities of Students of Higher Educational Institutions in Economics] [PhD. Thesis]. National Academy of Pedagogical Sciences of Ukraine, Pedagogy Institute, Kyiv. <u>http://irbis-nbuv.gov.ua/cgi-</u> <u>bin/irbis_nbuv/cgiirbis_64.exe?&I21DBN=EC&P21DBN=EC&S21STN</u> =1&S21REF=10&S21FMT=fullwebr&C21COM=S&S21CNR=20&S21P

<u>01=0&S21P02=0&S21P03=I=&S21COLORTERMS=0&S21STR=%D0</u> %A0%D0%90412710

- Trotsko, A. V., Rybalko, L. S., Kirilenko, O. H., & Trush, H. O. (2019). Profesiine samovdoskonalennia vykladachiv v umovakh uprovadzhennia dystantsiinoho navchannia v zakladakh vyshchoi osvity [Professional Self-Improvement in the Conditions of Distance Learning Implementation in Higher Education Institutions]. *Information Technologies and Learning Tools*, 72(4), 258–272. <u>https://doi.org/10.33407/itlt.v72i4.3088</u>
- Tuchina, N., Borysov, V., Podhurska, I., Kupina, I., & Borysenko, N. (2020).
 Developing Learner Autonomy via Choosing a Person's Educational Pathway. *Revista Romaneasca Pentru Educatie Multidimensionala*, 12(1), 209-225.
 <u>https://doi.org/10.18662/rrem/210</u>
- Ushioda, E., Smith, R., Mann, S., & Brown, P. (2011). Promoting Teacher–Learner Autonomy through and beyond Initial Language Teacher Education: Centre for Applied Linguistics, University of Warwick. *Language Teaching*, 44(1), 118–121. <u>https://doi.org/10.1017/S026144481000039X</u>

Vilson, J. L. (1994). Autonomy in Language Learning. UFRGS. Ed. Universidade.

Volfovska, T. O. (2001). Komunikatyvna kompetentnist molodi yak odna z peredumov dosiahnennia zhyttievoi mety [Youth Communicative Competence as one of the prerequisites of life goal achievement]. *Educational Path, 3*, 13–16. http://91.217.179.134:9100/libr/DocDescription?doc_id=1841032