

Learning through Collaboration Technology: A Networked Approach in Language Teaching

By

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Abstract

This study is devoted to the specifics of the implementation of the Collaboration Technology in the contemporary digital educational space. The Collaboration Technology is aimed at creating conditions for educational interaction of a certain number of students in order to jointly assimilate educational material. This pedagogical approach is based on the idea of mutual learning, in which students take on not only individual, but also collective responsibility for solving educational tasks, help each other and bear collective responsibility for the success of each student. The article considers approaches to the organization of collaboration in the conditions of digitalization of the educational process. The purpose of the study is to check the developed tasks for students to work together on projects based on the Google Slides service and analyze the results. The article contains the results of a pedagogical experiment, which reflects the advantages of using this service in the context of pedagogical Collaboration Technology, as well as identify the difficulties that students face when working together. The authors conclude that the linguodidactic properties of the technology of cooperation based on the Google Slides service increase the effectiveness of teaching a foreign language, stimulate students' mental activity, reveal personal qualities, abilities, talents, and contribute to the development of teamwork skills.

Keywords: Collaboration technology, Digital educational environment, Google Slides, Teaching foreign languages

1. Introduction

In the modern educational process of a higher educational institution, a student is not a

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passive learning object, but a subject who studies purposefully, independently, realizing himself, his inclinations and abilities and being a co-author and equal partner of a teacher in the educational process (Gonzalez-Lloret, 2020). In this regard, the transformation of a student into a subject of educational activity is facilitated by the introduction of interactive technologies in the educational process. One such interactive technology is collaborative learning technology.

The purpose of this study is to analyze the capabilities of the network information and educational environment for the implementation of teaching technology in collaboration in teaching a foreign language (using the Google Slides service as an example).

We consider this topic to be relevant, because today, in the context of education informatization, new modern innovative technologies are emerging. They open up new opportunities for organizing effective interaction between the subjects of the educational process.

The rapid development of information and communication technologies leads to a significant restructuring of the information environment of modern society, creating new opportunities for social progress, which is primarily reflected in the field of education. Knowledge and skills as units of the educational outcome, characteristic of traditional education are now necessary, but not sufficient to be successful in the information society. Such human qualities as the ability to formulate, analyze, and solve problems are becoming more and more popular; critical thinking; effective communication skills; skill to work in a team; information technology literacy. Modern Internet technologies of the second generation (Web 2.0) allow users not only to find and download information but also to work together and post new information on the network, create an open, interactive educational information environment in which information available to the student becomes a means of developing his personality (Naylor A. & Gibbs J., 2018).

2. Review of literature

Training in collaboration has been used in pedagogy for a long time. It is an important element of the pragmatic approach to education in the philosophy of J. Dewey. Small group training was used in West Germany, the Netherlands, the UK, Australia, Israel, and Japan. But basically, collaborative learning technology was developed in detail by three groups of American educators from Johns Hopkins University (R. Slavin), University of Minnesota (Rogers Johnson and David Johnson), and a group of J. Aronson, California.

Training in cooperation is a joint (divided, distributed) training, as a result of which students work together, collectively constructing, producing new knowledge, and not consuming them in a ready-made form (Park & Weng, 2020; Tarun, 2019; Tillman, 2020; Yao, 2018). The potential of such collaborations provides an alternative to the traditional graduate recruitment and development model: 'on-the-job training' (Borah et al., 2019).

Learning technology in collaboration has emerged as an alternative to the traditional system. The work of students in a group of two to five people on one task, the work on one project of students united by one idea, is much more productive than explanatory, illustrative and reproductive methods - this is the conclusion made by scientific teachers (Chen et al., 2019; DeWitt et al., 2014; Maican et al., 2019; Mouri et al., 2018). The authors of the learning technology in cooperation combined three ideas in a single process:

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- team training.
- mutual assessment.
- training in small group.

The problem of training in collaboration today continues to cause interest among domestic and foreign researchers (Balchin & Wild, 2020; Caniglia et al., 2018; Garcia-Martinez et al., 2020; Mitchell et al., 2019; Murthy et al., 2015; Naylor & Gibbs, 2018; Phan, 2020). In scientific studies, various aspects of the technology of teaching in collaboration were examined: the study of the theoretical and practical foundations of this technology (J.M. Dirkx, R.O. Smith; Marjan Laal, S. M. Ghodsi; Mozhgan Laal; M. Bower, D. Richards; J.M. Baker etc.), study of the impact of this technology on the motivation of students (M. Boekaerts), development of joint projects in a multimedia environment (Stefanos Nikiforos, Tzanavaris Spyros, Kermanidis Katia-Lida; Neus Capdeferro, Margarida Romero), design and structuring of students' joint activities (M. Koivuniemi, H. Jarvenoja, S. Jarvela; R.M. Gillies; E.G. Cohen), study of the effectiveness of this technology in teaching different subjects (A. Ameri-Golestan, M. Nezakat-Alhossaini; A. Fernandez Dobao; Youjin Kim; H. Nassaji, J. Tian) and others.

Strategic directions for the development of education in many countries confirm the relevance of using information technology and networking opportunities (Bolshakova et al., 2020; Bugden et al., 2018; Di Blas & Paolini 2014; Khtere & Yousef, 2021; Passey et al., 2016).

Network services in the modern conditions of informatization of the educational process are promising in terms of the implementation of educational activities of students. However, for the teacher, the important thing is not the very method of creating this or that service, not its moderation, but the functional orientation of the content and the possibility of its use for effective educational activities of students (Wen & Song, 2021). The use of digital technologies for teacher collaboration (in professional learning activities and in implementing cross-curricular projects) can have great potential and importance in the digital age, both for teachers and learners (Munoz et al. 2021; Jammeh, 2022; Janacek, 2021).

The analysis of scientific literature shows that the modern stage of the development of pedagogical science is characterized by continuous lifelong learning, fragmentation of educational units for rapid introduction, development, consolidation and control; great socialization in the learning process; the use of interactive technologies to "enrich" educational interaction with the real world.

In this regard, in the teaching of foreign languages, in our opinion, the following trends are emerging today:

- 1. Development and popularization of new interactive forms of educational activities that comprehensively and systematically develop all communicative competencies (speech, language, socio-cultural, strategic and political). Such tasks will be distributed both in training using the Internet and in full-time work in the classroom. Gradual reduction of the role of language processing of educational material in favor of more problematic and personality-oriented forms of work.
- 2. A greater choice of educational material corresponding to the interests and preferences of the student. The same didactic goals will be equally well fulfilled when working with the educational content of any thematic direction. Students will have the opportunity to read, watch, listen and interact with multimedia material that is interesting to them, performing educational tasks in interactive interaction.

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3. Full automation of the process of controlling language skills and abilities: the teacher finally stops checking test tasks.

4. Integration of foreign language teaching with other academic disciplines.

Today, various means are used to implement the information educational environment. One of the promising directions of using modern information technologies in the field of teaching foreign languages is software products from Google.

The Google environment contains many tools that can be useful and helpful for individual and collaborative activities. Google services are focused on the network interaction of people. The opportunities for communication and collaboration are important for education in this environment. The Google Network Service environment has many tools that can be used effectively to organize individual and collaborative student work. All of them are focused on networking and are important for educational opportunities for communication and collaboration.

The main advantages of using Google services in education are the following:

- 1. The possibility of individual work with information (search, access, classification, processing, analysis, transmission, publication): increasing the information content of training, greater independence of students, building individual learning strategies.
- 2. Interactivity: increased motivation and intensity of training, introduction of new interactive forms of work.
- 3. Multimedia: development of all types of speech activity, increased attention, emotional involvement.
- 4. Non-linearity: increasing the informativeness of teaching, implementing problem-based teaching methods, conducting research projects, forming information and communication competence.
- 5. Collective authorship: development of social and communicative competence, organization of interactive learning in cooperation, collective projects.
- 6. Minimum hardware requirements (the main requirement is access to the Internet).
- 7. Google-technologies do not require expenses for the purchase and maintenance of special software (access to applications can be obtained through a web browser window).
- 8. Google supports all operating systems and client programs used by students.
- 9. All Google tools are free.

3. Methods

In order to solve the tasks, the following methods were used:

- theoretical (study and analysis of linguistic, methodological and psychological-pedagogical literature in order to determine the scientific basis of the study);
- empirical (monitoring of educational activities of students in the process of teaching the second foreign language, conducting surveys, questionnaires, testing students);
- organizational (conducting a pedagogical experiment);
- methods of data processing (analysis and processing of data obtained during the study);
- interpretation (presentation of the research results).

The experimental basis of the research was Naberezhnye Chelny Institute of Kazan Federal University, Department of Philology, 2nd year students.

The study was carried out in several stages.

Stage 1. Theoretical analysis of sources on the research problem, definition and refinement of the object, goals, objectives, methodology and research methods. A theoretical model has been

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developed for using the Google Slides service to implement collaboration technology.

- Stage 2. A stating experiment.
- Stage 3. Formative experiment. Experimental work.
- Stage 4. Generalization of the results of theoretical and empirical research (in more detail, the structure and course of each of the stages are disclosed in Section 3.3).

4. Results and Discussion

4.1. Didactic principles of using Google Slides in the context of collaborative learning technology

Let us dwell in more detail on the technical characteristics and possibilities of using the Google Slides service in the context of training technology in collaboration.

Google Slides is a convenient tool for creating and editing presentations on the Internet, as well as collaborating on them.

What are the benefits of using Google Slides:

- 1) there is access to materials in any place where there is Internet.
- 2) the ability to collaborate or edit the text of slides on-line in the classroom without moving around the classroom.
- 3) the possibility of interactive assessment and the progress of tasks without the need to distract the student. The teacher can check in the form of comments.
- 4) all changes are saved to disk, that is, it is possible to track the work of each student or each group.
- 5) you can export the created presentation on a Google drive to a presentation in PowerPoint.
- The presentation may (by your permission) be used, edited and commented by other users. The service has options for adding and using animation effects, embed videos, pictures, Google Maps and others. To start working in the service, it is enough to have a Google account.

4.1.1 The main stages of implementing the collaboration technology (on the example of using Google Slides)

When implementing the technology of learning in collaboration, we recommend the following three key steps presented below:

- 1. Preparatory stage
- a. Determination of participants' readiness for project activities.
- b. Creation of working groups, formulation and clarification of the topic.
- c. Regulation of work and planning.
- 2. Main stage
- a. Collection, organization and analysis of project materials.
- b. Development of a solution to the problem posed.
- c. Creation of the final product.
- 3. Final stage.
- a. Publication and presentation of the results of the work.
- b. Evaluation.
- c. Reflection.

4.1.2 Stages of task implementation within the collaborative learning technology (on the example of using Google Slides)

When performing joint work (for example, a joint project), it is important to consistently and fully fulfill all the proposed tasks. The teacher needs to control and, if necessary, help in

working with the new service when preparing the results of the study.

When working on a project in the Google Slides service, the following steps are distinguished:

- 1. 1 Stage. Definition of a problem. A discussion of the problem or topic of the upcoming project work is organized by all students in the class.
- 2. Stage. Hypothesis. A work plan is being drawn up, hypotheses are determined that are to be confirmed or refuted. The teacher comments on all stages of the work, develops and acquaints the students with the criteria for evaluating the presentation (through a Google document), divides the students (if necessary) into groups or pairs.
- 3. 3 Stage. Conducting research. Work with information, independent search for facts, generalization and making the conclusions.

4 Stage. Presentation of the results of the study. The work of students in compiling the full text of the presentation, the selection and placement of photos, illustrations.

The teacher's work on introducing students to the new service (or a reminder of the basic rules for using the application), creating the first title slide of the presentation, setting up editing access for all students in the class, posting links to Google Docs "Criteria for evaluating the finished work", "Cliche for comments", Google Table "Evaluation and Self-Assessment Table".

The presentation of the results can be carried out in class when using a mobile interactive class in the mode of joint editing of slides on-line. 5 Stage. Presentation of research results. Defence of work, the creation of comments on a slide presentation, the assessment of their work and the work of classmates.

The main tasks of the teacher and students at each stage are presented in the table 1:

Table 1: The main tasks of the teacher and students when implementing the technology of learning in collaboration

Stage	The main tasks of the teacher	The main tasks of students
a. Determination of participants' readiness for project activities. b. Creation of working groups, formulation and clarification of the topic.	1. Preparatory stage Identify the readiness of students to work together; to teach the missing skills and abilities to work with Google Slides. Help students to form groups and reveal the topic of the project.	Learn the missing skills and abilities to work with Google Slides. Define and clarify the project topic, form project teams and assign roles.
c. Regulation of work and planning.	Help in drawing up a work plan for the project. Describe the main stages of the work and explain their practical significance; familiarize students with the evaluation criteria. 2. Main stage	Form a work plan, formalize roles in the team.
 a. Collection, organization and analysis of project materials. b. Development of a solution to the problem posed. c. Creation of the final product. 	Check the timeliness of the work on these stages. eliminate potential problems in the work, monitoring. demonstrate the capabilities of potentially useful Google tools to perform research work.	Draw up the problems of the project and collect the necessary materials; select and prepare the relevant material. Develop a practically meaningful decision or conclusion about the work done. Develop the final product in accordance with the selected format; formalize the result.
a. Publication and presentation of the results of the work.b. Evaluation.	3. Final stage Organize the presentation of the project, provide technical support for the presentation and documentation. Evaluate the work according to the criteria given earlier.	project to the colleagues.
c. Reflection.	Check the performance of introspection.	Summarize the collaborative project activities.

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4.1.3 Conditions for the implementation of the collaboration technology when working on a project and criteria for evaluating the final product

In order to increase the effectiveness of students' further work in the project, the teacher needs to demonstrate various management technologies and project activities. To do this, it is recommended to use the developments of Jason Fried David Heinemeier Hansson (Fried & Hansson, 2010). The principles of project management described by them are suitable for creating short-term projects in small teams that do not require the creation of a multi-level hierarchy and a system of subordination. Focused on small "flat" teams with predominantly horizontal connections, the approach of Fried and Hansson is recommended for dissemination as a management concept.

Let's list the main relevant theses of this concept:

- The project is done in short iterations, as a result of each the product is ready as a whole and requires further clarification.
- Each new iteration is a refinement of the product in the previous state.
- The project manager is personally responsible for the product and manages the team.
- The principle of professional hierarchy: specialists are responsible for the quality of their work and make the final decision on the state of the product within their area of responsibility. The manager can make a remark to the designer about the deadlines but cannot interfere with the design.
- The principle of undeliverable deadlines: the final deadline for the completion and presentation of the project is not shifted or postponed under any circumstances.

When describing the formal results of the project, the teacher must provide the students with the minimum requirements for the content and structure of the document.

The structure of information and communication competencies presented below can serve as a basis for determining the knowledge and practical skills that students must possess in order to fully complete tasks within the framework of using Google slides.

Knowledge about: means and methods of searching for information on the Internet, thematic and specialized search and reference resources; criteria for the reliability of the sources used; copyright on the Internet; methods of reorganization, processing, categorization and transformation of material depending on the objectives of the project. Practical skills of finding information on the Internet on topics and keywords, critical evaluation of the found material, screening out unreliable and identifying reliable sources; correct citation and creative transformation of information protected by copyright law; creatively transform the source material in accordance with genre, stylistic, structural and technical requirements; embed existing videos, images and interactive objects from multimedia content storage services.

By identifying requirements and criteria and showing students successful examples of other projects, the teacher sets them a direction for activity and helps them maximize their creative potential.

The evaluation of the work takes place at the final stage. Criteria assessment is determined by the following indicators (Table 2).



Table 2: *Indicators of the criteria assessment*

Criteria	0-10 points (max. 40 p.)
Informative	The content of the work fully corresponds to the research topic and is presented consistently. The stylistic unity and expressiveness of the text have been achieved.
	There are no factual errors. Informational links are reliable and correctly designed.
	The language means are selected adequately and correctly, the rules of grammar and
Language	style are observed. The work is distinguished by the richness of the dictionary, syntactic
	constructions and the accuracy of word usage. There are no lexical, grammatical and
	stylistic errors.
Presentation	Correct design of the title page. The presence of clear navigation. Logical sequence of
	information on slides. Using of animated objects. Correctness and consistency of the
	presentation of the text. The presentation was derivered energetically, clearly and
	confidently, all members of the working group participated.
Procedural	Students interact with each other during the presentation. The final product appears to be
	a single whole.

The proposed structural organization of the project can be supplemented and expanded. Using google presentations allows us not to limit the creative possibilities of the most powerful and interested students, but to stimulate them.

5.1 Pilot work on the implementation of teaching technology in collaboration with the Google Slides network service in teaching a foreign language

The purpose of the pilot work was to test a series of developed tasks for students to collaborate on projects based on the Google presentation service. In accordance with the purpose of the experimental work, the following tasks were set:

Conduct an ascertained stage of the experiment, aimed at identifying the level of familiarity with Google-applications, assessing the attitude of students to work in a network of educational and informational environment.

Conduct a developing stage of the experiment aimed at testing a series of tasks for students to collaborate on projects based on the Google Slides service in practical training.

Conduct a summarizing stage of the experiment aimed at assessing the attitude of students to using network tools in training, in particular the Google Slides service, and also conduct a conversation to identify difficulties encountered in working with the service, followed by analysis and processing of the results, drawing conclusions and summing up results. During the experimental work, along with the experiment, research methods such as monitoring students' activities during training, testing, statistical and mathematical processing of the results, analysis and interpretation of the results were used.

A pedagogical experiment was conducted among second-year students of the Department of Philology of Naberezhnye Chelny Institute of Kazan Federal University. The total number of students involved in the pedagogical experiment is 34 people. Testing was carried out during the 2018-2019 academic year in the discipline "Practical English language course".

The testing consisted in the implementation of the tasks we developed for joint projects of students on six topics-modules covered in this discipline throughout the academic year according to the curriculum of the university and the work program of the discipline. Joint activity during the work on the project was carried out in compliance with all the stages specified in paragraph 2 above. A prerequisite was work in the Google Slides network service, the tasks involved searching for information, images, audio and video on the Internet, so training was implemented in collaboration through a network of educational information environment. We did not limit students to the requirement to work only in classroom time, their joint work on the topic and in extracurricular time was welcomed.

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Students were divided into microgroups of 5-6 people, each of the students received an individual task, the implementation of which was supposed only in cooperation with the rest of the group. It is important that the composition of microgroups during the work on the subsequent joint project changed, so students got the opportunity to gain more experience in developing the skills of teamwork and cooperation. Students shared the information they found, worked together on the content and structure of the presentation in the Google Slides service. The result was the presentation of jointly prepared presentation work to other students and the teacher, joint discussion and evaluation. Within the framework of the topic module, various projects were implemented and presentations on various topics were presented: for example, after passing through the topic module "London. Acquaintance with the capital of Great Britain" joint presentations on topics were created «Transport of London», «Famous Londoners», «Mysteries of Royal residencies», «Interesting historical facts about London», «Parliament», «What is a typical Londoner?».

The purpose of this training activity was: generalization of knowledge gained on the topic covered and their expansion; the development of search skills, skills for working with information; the ability to plan team work, to determine methods of action within the framework of the proposed requirements; the development of ICT competencies.

Assessment of students' attitude to the introduction of network tools, in particular the Google Slides service, into the educational process was carried out using a questionnaire. The developed questionnaire included 5 questions, which were compiled using the Likert scale.

5.2 Results obtained in the course of experimental work and their analysis

At the initial stage (ascertaining experiment), questionnaires and tests were conducted in order to identify students' pre-experimental level of willingness to work together, their desire and ability to work in a networked educational and information environment, as well as to identify the level of familiarity with Google-applications.

The survey showed that 96% of students use the Internet every day, while 77% of respondents spend 3 to 8 hours on the Web on weekdays and 23% on weekends. The main activities of students on the Web are the search for interesting information, the search for information for study, communication. So, we can conclude that adolescents spend most of their free time on the Internet, using it to solve a wide range of tasks, in particular educational ones.

To identify the level of familiarity with Google-applications, a survey was conducted among students, the results of which are presented in the diagram below (Figure 1).

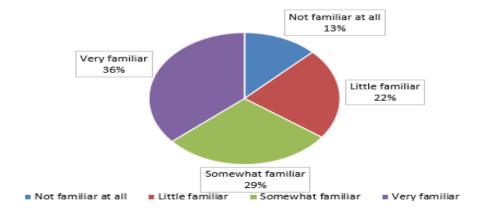


Figure1: The level of familiarity with Google-applications among the students

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The Diagram clearly shows that most students are familiar with the applications provided by Google.

The following Diagram (Figure 2) shows which Google applications students are able to work with.

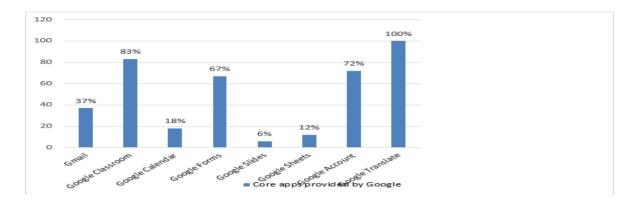


Figure 2: Kinds of Google applications students are already familiar with

As we can see, all students are familiar with Google Translate (since everyone learns foreign languages), most students have Google account and use Google mail, many of them are familiar with the Google Forms application (that creates online surveys and quizzes), some students use Google Calendar, many of them have experience working on the Google Classroom platform (since this platform was tested when teaching a second foreign language). Students are least familiar with the Google Slides and Google Sheets applications. Thus the results clearly demonstrate the need for students to familiarize themselves with the still relatively new for them Google Slides application in terms of the use of this application in educational activities, in particular when studying foreign languages.

Next, a forming stage of the experiment was conducted. The aim of this stage was to test a series of the tasks for students for collaboration on projects using the Google Slides service in practical training.

Let's present and analyze the data obtained as a result of working on the topic module "London. Acquaintance with the capital of Great Britain". Let's present the data obtained according to the 4 criteria described in clause 4.1.3 in the form of a diagram (Figure 3).

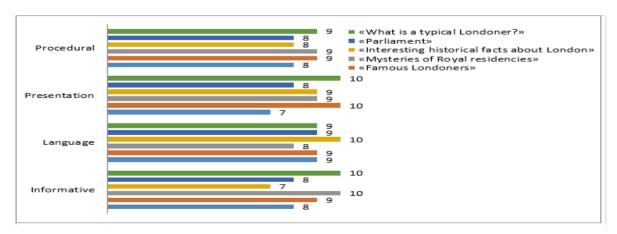


Figure 3: Data obtained as a result of work on the topic-module "London. Acquaintance with the capital of Great Britain"

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The diagram shows that students of all microgroups successfully coped with all components of the project activity (the indicator in points is above average).

A significant difference in the results of the project can be traced in some quantitative and qualitative characteristics of the projects.

The results obtained prove that the approbation of the task-project within the framework of experimental work confirms its effectiveness and allows us to draw conclusions about the applicability of this form of tasks in the organization of collaboration technology through digital educational environment.

At the generalizing stage of the experiment, an assessment of the students' attitude to the use of network tools in training, in particular the Google Slides service, was carried out as described in paragraph "Methods". The results are presented below (Figure 4).

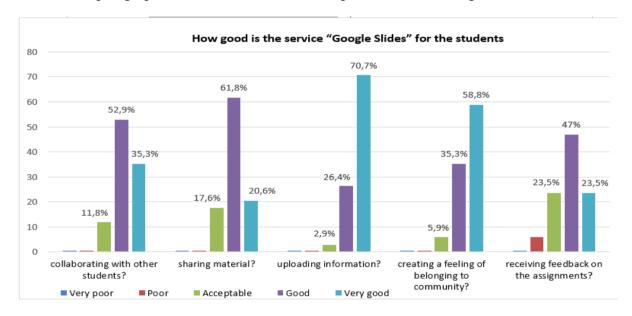


Figure 4: The attitude of students to the use of network tools in training, in particular the Google Slides service

As you can see from the Figure 4, students have a positive attitude to the Google Slides service, thus we can state that the majority of students were very positive about the integration of this service into the learning process. Students stated that they mostly enjoyed sharing their opinions using "Comments". Students also positively noticed the fact that Google Slides were accessible on mobile devices. They also highlighted the fact that the collaborative work was encouraged, and the lesson was more exciting and pleasant with the use of this kind of service. The most of students (87.6%) responded positively to the question whether they wished to use the same service in the future or not.

In addition it is necessary to note that the interviews with students also revealed the main difficulties encountered in working with Google Slides: 1) it was difficult to get used to the fact that the presentation does not need to save because it saves automatically; 2) it can be difficult to access because you need a good and uninterrupted Internet; 3) the presentation itself lacks animation features; 4) not all students like group work.

The teacher identified these difficulties, tried to deal with them by communicating with the students and providing extra help to the students that requested it.

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6. Conclusion

The present study was devoted to the peculiarities of the implementation of learning technology in cooperation through modern network information and communication technologies, in particular, the study of the possibilities of the Google Slides network service when teaching students, a foreign language. The purpose of the study was to test a series of developed tasks for students to work together on projects based on the Google Slides service and analyze the results. The reliability and validity of the results of the study are provided by the scientific and methodological reasoning of the initial theoretical positions, the duration of experimental work, statistical analysis of the reliability of the results and personal participation of the authors in experimental and practical work.

The analysis of the didactic properties of the considered technology, its special model of interactivity and the results of testing tasks showed that this technology contributes to the optimization of interactive teaching of foreign languages in collaboration.

The model of training proposed by the authors also seems appropriate for the organization of independent work of students, because it provides a system of control of independent activity of students, as well as a system of self-assessment and mutual evaluation.

It should be noted that the successful application of the Google tools, particularly Google Slides, is possible with the following necessary conditions:

- the availability of teachers and students the necessary information and communication competencies, including knowledge about the tools and methods for searching and processing of information on the Internet, the ability of estimating the reliability and validity of sources of knowledge about copyright and network etiquette, the ability of the organization and categorization of information, knowledge about the tools of the publication of multimedia information, etc;
- mastering the skills of students and teachers to use Google tools.
- the ability of the teacher to provide prompt feedback.

The approbation of project assignments showed a positive impact of collaboration technology on the ability to plan and organize independent activities of students, the quality of completed project assignments and their quantitative characteristics: the volume of analyzed material, the number of sources used, etc.

Collaboration technology using Google Slides is an effective tool for students' mutual assessment of works, as well as self-assessment and reflection.

There are many advantages to using Google Slides in the educational process:

- First of all, it is an opportunity to organize joint productive activities of students, their cooperation, collaboration and co-creation.
- Learning becomes person oriented. Working with collective presentations allows you
 to include each student in the activity, make his contribution significant, which, of
 course, affects the student's self-esteem.
- Serves as a motive for self-development, because it significantly increases the motivation of participants in the educational process. This is due to the active involvement of the student in the activity.
- Using Google services, in particular Google Slides saves time in the classroom, allows you to create an information and educational environment outside the classroom. It

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helps the teacher to implement interaction and exchange of information during the educational process and self-development of its participants, as well as meet the requirements of standards.

We thus should conclude that the Internet becomes not only a sphere of entertainment and games, but a tool for the acquisition of professional skills, which can define educational goals and guidelines for the student, while giving him the right to choose an educational route.

Due to its scientific novelty and interdisciplinary nature, the research topic remains extremely relevant and requires further focused research. The disclosure of the linguodidactic potential of using the information and educational environment in teaching foreign languages should become one of the most priority tasks of the methodology of teaching foreign languages in the future.

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References

- Balchin, K., & Wild, C. Exploring the role of context and collaboration in normalising technology use in English language teaching in secondary schools in Malaysia.

 Computer Assisted Language Learning.

 https://doi.org/10.1080/09588221.2020.1803360
- Bolshakova, V., Besancon, F., Guerriero, A., & Hahn, G. (2020). Use of a Digital Collaboration Tool for Project Review A pedagogical experiment with multidisciplinary teams. In L. C. Werner & D. Koering (Eds.), *Ecaade 2020: Anthropologic Architecture and Fabrication in the Cognitive Age, Vol 2* (pp. 651-660).
- Borah, D., Malik, K., & Massini, S. (2019). Are engineering graduates ready for R&D jobs in emerging countries? Teaching-focused industry-academia collaboration strategies. *Research Policy*, 48(9), Article 103837. https://doi.org/10.1016/j.respol.2019.103837
- Bugden, L., Redmond, P., & Greaney, J. (2018). Online collaboration as a pedagogical approach to learning and teaching undergraduate legal education. *Law Teacher*, 52(1), 85-99. https://doi.org/10.1080/03069400.2017.1332951
- Caniglia, G., John, B., Bellina, L., Lang, D. J., Wiek, A., Cohmer, S., & Laubichler, M. D. (2018). The glocal curriculum: A model for transnational collaboration in higher education for sustainable development. *Journal of Cleaner Production*, *171*, 368-376. https://doi.org/10.1016/j.jclepro.2017.09.207
- Chen, X. L., Yu, G. X., Cheng, G., & Hao, T. Y. (2019). Research topics, author profiles, and collaboration networks in the top-ranked journal on educational technology over the past 40 years: a bibliometric analysis. *Journal of Computers in Education*, *6*(4), 563-585. https://doi.org/10.1007/s40692-019-00149-1
- DeWitt, D., Siraj, S., & Alias, N. (2014). Collaborative mLearning: A Module for Learning Secondary School Science. Educational Technology & Society, 17 (1), 89–101
- Di Blas, N., & Paolini, P. (2014). Multi-User Virtual Environments Fostering Collaboration in Formal Education. Educational Technology & Society, 17 (1), 54–69.
- Fried, J., & Hansson, D.H. (2010). Rework: change the way you work forever. Print book: English: 1. ed. London: Vermilion, 2010. 279 p.
- Garcia-Martinez, I., Tadeu, P., Montenegro-Rueda, M., & Fernandez-Batanero, J. M.

Social Science Journal

- Networking for online teacher collaboration. *Interactive Learning Environments*. https://doi.org/10.1080/10494820.2020.1764057
- Gonzalez-Lloret, M. (2020). Collaborative tasks for online language teaching. *Foreign Language Annals*, *53*(2), 260-269. https://doi.org/10.1111/flan.12466
- Jammeh, I. Y. (2022). The Relationship between Domestic Credit, Financial Development and Economic Growth in the Gambia. *International Journal of Social Sciences Perspectives*, 10(2), 43-60. https://doi.org/10.33094/ijssp.v10i2.598
- Janacek, J. (2021). What Really Matters: The Effect of Covid-19 on the Factors of Life Satisfaction. *International Journal of Emerging Trends in Social Sciences*, 11(2), 18-27. https://doi.org/10.20448/2001.112.18.27
- Khtere, A. R., & Yousef, A. M. F. (2021). The Professionalism of Online Teaching in Arab Universities: Validation of
- Faculty Readiness. Educational Technology & Society, 24 (3), 1–12.
- Maican, C. I., Cazan, A. M., Lixandroiu, R. C., & Dovleac, L. (2019). A study on academic staff personality and technology acceptance: The case of communication and collaboration applications. *Computers & Education*, *128*, 113-131. https://doi.org/10.1016/j.compedu.2018.09.010
- Mitchell, C., Friedrich, L., & Appleget, C. (2019). Preservice teachers' blogging: collaboration across universities for meaningful technology integration. *Teaching Education*, *30*(4), 356-372. https://doi.org/10.1080/10476210.2018.1486815
- Mouri, K., Uosaki, N., & Ogata, H. (2018). Learning analytics for supporting seamless language learning using e-book with ubiquitous learning system. Educational Technology & Society, 21(2), 150–163.
- Munoz, J. C., Vuorikari, R., Costa, P., Hippe, R., & Kampylis, P. Teacher collaboration and students' digital competence-evidence from the SELFIE tool. *European Journal of Teacher Education*. https://doi.org/10.1080/02619768.2021.1938535
- Murthy, S., Iyer, S., & Warriem, J. (2015). ET4ET: A Large-scale faculty professional development program on effective integration of educational technology. Educational Technology & Society, 18(3), 16-28.
- Naylor, A., & Gibbs, J. (2018). Deep Learning: Enriching Teacher Training through Mobile Technology and International Collaboration. *International Journal of Mobile and Blended Learning*, 10(1), 62-77. https://doi.org/10.4018/ijmbl.2018010105
- Park, S., & Weng, W. (2020). The Relationship Between ICT-Related Factors and Student Academic Achievement and the Moderating Effect of Country Economic Indexes Across 39 Countries: Using Multilevel Structural Equation Modelling. Educational Technology & Society, 23 (3), 1–15.
- Phan, T. (2020). Exercises of voice, choice, and collaboration in a personalized learning initiative. *Educational Media International*, 57(1), 73-85. https://doi.org/10.1080/09523987.2020.1744859
- Passey, D., Laferrière, T., Ahmad, M. Y. A., Bhowmik, M., Gross, D., Price, J., Resta, P., & Shonfeld, M. (2016). Educational digital technologies in developing countries challenge third party providers. Educational Technology & Society, 19(3), 121-133.
- Tarun, I. M. (2019). THE EFFECTIVENESS OF A CUSTOMIZED ONLINE COLLABORATION TOOL FOR TEACHING AND LEARNING. *Journal of Information Technology Education-Research*, 18, 275-292. https://doi.org/10.28945/4367
- Tillman, S. (2020). Collaboration Models for Teaching Design Within Specialized Contexts. In C. S. Shin (Ed.), *Advances in Interdisciplinary Practice in Industrial Design* (Vol. 968, pp. 220-229). https://doi.org/10.1007/978-3-030-20470-9_24
- Yao, N. (2018). Research on Application of Collaboration Ability in Kindergarten Game-based



Education. *Educational Sciences-Theory & Practice*, 18(5), 2470-2477. https://doi.org/10.12738/estp.2018.5.147

Wen, Y., & Song, Y. (2021). Learning Analytics for Collaborative Language Learning in Classrooms: From the Holistic Perspective of Learning Analytics, Learning Design and Teacher Inquiry. Educational Technology & Society, 24 (1), 1-15.