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EDITORS

Serhiy Semerikov
Viacheslav Osadchyi
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Cloud Service Blogger as Effective Communication Tool of Teacher and Students at the University

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Keywords: Cloud Service, Blogger, Communication, Educational Process, University Environment.

Abstract: The article outlines the important problem of communication between teachers and students in a mixed form of education. The Blogger cloud service is considered as a mean of communication. Based on the analysis of the service functions and the available definitions, the own interpretation of the cloud service Blogger is presented. Its advantages and disadvantages are highlighted. We developed the strategy of creation of the block in Blogger cloud service, consisting of 7 stages: formulation of the name, choice of design, selection of topics, determining the frequency of publications and target audience, building a scheme of blog creation, testing. Fisher's test proves the effectiveness of the Blogger cloud service in the educational process, in particular in the learning process of the discipline "Methods of teaching linguistic disciplines". As a result of the survey, it was found that the systematic work of the blog has a positive effect on the formation of a conscious and active student movement.

1 INTRODUCTION

The implementation of the educational process in terms of social distancing encourages the search for alternative forms and methods of communicative interaction between teachers and students. Effective means of communication aimed at minimizing gaps in communication between participants in the educational process become especially relevant. One of such tool is a blog – a notable cultural and social phenomenon that, due to its popularity, ease of use and creation, has a significant impact on today's youth. The advantages of the blog, which are especially important in a mixed form of education, include: the ability to work on an Internet project of several peo-ple; openness and availability of information; interactivity, providing feedback and reviews from users – students, applicants and teachers. Therefore, we consider it appropriate to analyze the features of the blog as a means of communication on the example cloud service Blogger, who does not require additional software; to explore the practical application of the Blogger cloud service in a university environment.

Today, the research of many scientists is devoted to the creation of information educational environment. In particular, Burov et al. (Burov et al., 2020) studied the effectiveness of teaching individuals with the use of electronic education resources. Zhaldak et al. (Zhaldak et al., 2021) believed that by using cloud services in the work, users can use those resources that are on remote servers. Kukharenko et al. (Kukharenko et al., 2022) was inclined to think that it is important for both students and teachers to develop their competencies, which are related to modern ICT. Popel and Shyshkina (Popel and Shyshkina, 2019) believed that in the modern environment of information and educational technologies there are new models of educational activities organization, which

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are primarily based on innovative solutions for the organization of technological infrastructure of the environment, to which we can also include cloud-oriented. Bodnenko et al. (Bodnenko et al., 2022) revealed the importance of using the Yammer cloud service to organize project-based learning methods. Bodnenko (Bodnenko, 2013) revealed the role and the impact of informatization on the professional teacher competences.

The problem of the "blog" integration and its features have been studied in the works of many scholars. Thus, Nosenko and Bogdan (Nosenko and Bogdan, 2015), Ifinedo (Ifinedo, 2018), Dovzhik et al. (Dovzhik et al., 2021), Winster and Swamynathan (Winster and Swamynathan, 2010), Garcia et al. (Garcia et al., 2019) considered issues highlighting the definition of "blog", on the features of using cloud services to create blogs. Tsetsos and Prentzas (Tsetsos and Prentzas, 2021) focused on a survey of approaches integrating blogs in school education. Bondarchuk (Bondarchuk, 2013) emphasized the compatibility of Blogger with other Google subsidiaries and support for "drag and drop when setting up a page".

We consider interesting the scientific achievements in which it is revealed methodological aspects of the implementation of the educational blog "Development of a creative child. ICT" as part of educational course "Database Management System Microsoft Access" (Pokryshen et al., 2019).

2 THE OBJECTIVE OF RESEARCH

The object of the study is a cloud service from Google Corporation – Blogger. The subject of the research is the use of Blogger to organize communication between teachers and students at the university. The aim of the study is to reveal the relevance and expediency of using the cloud service Blogger for communication of students and professors of the university.

To achieve this goal next tasks were performed: analyze the main definitions of the study; highlight the advantages and disadvantages of using the Blogger cloud service; explore the strategy of creating a blog on the cloud service Blogger; to test the developed blog among university students

3 RESEARCH METHODOLOGY

The following research methods were used to implement the outlined tasks:

1) comparative and analytical, which became leading in the study of the basic terms "blog" and "Blogger" and the study of their features;

2) structural, through which the advantages and disadvantages of cloud service Blogger were identified;

3) descriptive, which presents all the main stages of creating and filling the blog "Students IF";

4) statistical (Fisher's method) to prove the importance of using the Blogger cloud service as a communication tool for teachers and students at the university.

The study was conducted based on Borys Grinchenko Kyiv University during September – December 2021. The survey involved 1324 students and 358 teachers of Grinchenko University.

4 RESULTS AND DISCUSSION

4.1 Theoretical Framework

The dynamic development of technology creates new challenges for society, but at the same time, it is driven by a desire to meet the growing needs of society. One of the important needs is communication, the range of means of providing which has significantly expanded due to the rapid improvement of information technology. Forms of communication are changing in the context of globalization, and one such form is the blog. The blog acquires special significance for the implementation of communication between teachers and students at the university, especially in the conditions of distance learning.

Let's define the definition of "blog". For our study, seems to be an acceptable definition proposed by Nosenko and Bogdan (Nosenko and Bogdan, 2015): blog (from "weblog", "online journal or event diary") is a website whose content is regularly accompanied by entries with text, images or multimedia. We agree with the authors that the key feature of the blog is short posts, placed in reverse chronological order, which are public, i.e. available to all Internet users who have the opportunity to view and comment on them.

There are several classifications of blog features. Herring identifies three main social goals of the blog: "Get information; to impress others; have fun" (Herring, 2007). Følstad et al. (Følstad et al., 2021) identifies five functions: "Maintaining contact with relatives and friends; getting information; entertainment; public opinion monitoring; socialization". In

turn, Polyuzhin and Vrábely (Polyuzhin and Vrábely, 2005) give a more detailed classification of blog functions, he singles out "Communicative function, self-presentation function, entertainment function, function of cohesion and maintenance of social ties, function of memoirs, function of self-development and reflection, psychotherapeutic function". The last classification will be used in our study.

It should be noted that the use of blogs in online education implies a clear definition of didactic goals and tasks:

- actualization of basic knowledge and skills;

- understanding the essence of concepts, methods of activity;

- consolidation of acquired knowledge;

- solving problem situations, control and assessment of knowledge, level of satisfaction with classes, etc.

Applying blogs during online education to fulfill set didactic tasks creates

- a creative nature of educational and cognitive activity;

- elements of competition, game nature of the lesson are introduced;

- intergroup and group interaction of students is organized;

- constant monitoring of their satisfaction, emotional comfort, etc. is carried out.

Therefore, the communication of teachers and students at the university with the help of a blog as a digital tool promotes cooperation, understanding, tolerance and benevolence, enables the implementation of personally oriented learning. Given that the mentioned communication in the blog is implemented mainly in the conditions of cooperative learning, when each student contributes to joint achievements, it is worth considering the availability of the necessary technical equipment and the availability of digital tools and services.

Their selection was based on the following requirements for the implementation of communication between teachers and students:

1) understanding that the collective way of organizing learning, joint educational activity is an effective form of the educational process;

2) creation of conditions for group interaction;

3) activation of independent assimilation of educational material in the course of subject-subject dialogue;

4) processing of educational information in different forms and at different levels of complexity;

5) mandatory reflexive activity in the process of group work.

To find out if blog as a form of communication meets the needs of society, the service Blogger was chosen. Because many people are users of Google Mail, which allows free access to all of Google's cloud applications. "Blogger is a leader in the means of publishing materials on the Internet – the creation of so-called web blogs or blogs" (Pyatak, 2012). Scientific papers provide various definitions of this service, for example, the most succinct of which is the definition that "Blogger is a website whose main content is recordings, images or multimedia that are regularly added" (Alekseienko and Usata, 2019). Pyatak (Pyatak, 2012) gives a more detailed definition: "Blogger is a blogging platform, formerly known as Pyra Labs, which Google acquired in February 2003, a web tool that allows you to quickly and easily post messages on the Web".

After analyzing and summarizing the definitions offered by scientists, the following definition was derived: Blogger is a free blogging service that allows you to freely blog, meet and communicate with new people without resorting to programming and without worrying about installing and configuring software.

The blog creation algorithm is easily accessible to most PC users, as "there is no need to create program code or install any server software or scripts" (Pyatak, 2012), as the process involves three important steps to start filling your blog: "Choose a profile, name a blog, choose a template, then the user will be given a domain like name.blogspot.com" (Bondarchuk, 2013). Posting a blog post is done by filling out a simple form on the Blogger cloud site. An important feature of Blogger is "freedom of speech", because censorship contradicts the concept of this service. Bondarchuk et al. (Bondarchuk et al., 2020) also noted an interesting detail that "Blogger, as a division of Google, allows you to place Google Adsense ad units and thus earn money from traffic (which is impossible in LJ). Also, the service is fully compatible with other Google products – Picasa Web Albums, Google Data API support, supports drag and drop when setting up the page".

Systematic and long-term work with Blogger service allows analyzing its advantages and disadvantages. The study focused on aspects such as accessibility, administration, appearance, functionality and interaction of the blog with other platforms. The Blogger cloud service allows one user to create several blogs at the same time (about a hundred for one user), which, in turn, indicates a number of additional

benefits: a wider range of problems coverage; mutual advertising between blogs; more audience coverage. Instead, the service has an imperfect procedure for moving files between blogs, as it is not possible to share images.

The next attractive aspect of using Blogger is its accessibility and that it is free: its construction is as simple as possible, so any PC user can manage and populate the blog, and the usage policy provides free access to Google Account holders.

A significant bonus for users is the ability to share one blog. This allows the team of authors to co-create content and maintain the collaboration. Users share many services, and it is Blogger that can allow a niche to be hosted by several people. However, even this advantage does not extend the range of available features. The toolkit offered in the free version is a template and cannot be expanded, but the number of designs is sufficient to create an original blog. A preview feature is also available.

Another important feature is backup: all users can save their own data and thus secure it. This option is possible because Blogger is a subsidiary of Google. However, this can be seen as a disadvantage of this service. Google bought Blogger in the early 2000s, and during that time the site has been advanced and improved, but the company has not released an update recently and seems to be shutting down the service (as has happened with Google Reader, AdSense).

When creating its own blog, the user should understand that a company that provides a free service may suddenly terminate it or switch to paid mode. However, the cooperation of the cloud service with such a large corporation provides several nice bonuses, free subscriptions among them. In addition, the service distributes news, adds a blog to the newsletter, shows a panel and a chart of visits. The site is actively promoted in the Google search engine. The author can add his blog to the search engine and thus facilitate the promotion process and avoid problems associated with indexing new pages. Plus for users – all those who are already registered in the system and have a Google account can subscribe to a blog.

So, the Blogger cloud service is the best platform for those who want to start promoting their own blog. Despite the limited number of templates, the service has enough tools to implement own ideas. In addition, working with Google provides the site with a number of features: availability, backup feature, access to other services, etc. So, the site is easy to use, which deserves its audience.

4.2 Development of a Blog of the University Structural Unit

In order to implement communication between teachers and students with the help of a blog, we have highlighted a number of approaches to ensuring this communication.

The systematic approach. It ensures the integrity, unity and interconnectedness of communication between teachers and students. The value of the mentioned approach is that it allows you to outline the communicative process as a unity of theory and practice, goals, tasks, forms and methods, etc.

The systematic approach makes it possible to consider the use of blogs in the learning process from the point of view of integrity, mutual enrichment, and interdependence.

The competency-based approach is one of the leading in the modern educational process, the most relevant in the modern paradigm of education, defines the list of competencies of teachers and students to ensure communication.

The activity approach is aimed at developing the skills of using blogs for communicative interaction. The educational process is based on the internal motives of the specified activity, which allows it to be perceived as personally meaningful.

This approach promotes the development of research skills, initiative, and the disclosure of creative potential. This will contribute to the formation of a valuable attitude to the use of blogs in the communication process.

The personally-oriented approach. It directs the teacher to take into account the individuality, originality and uniqueness of students on the basis of universal human values. The attitude towards them is implemented in the context of existing features, interests and abilities.

The mentioned approach resonates with the student-centered approach, which involves:

- encouraging students of higher education to play the role of autonomous and responsible subjects of the educational process;

- creation of an educational environment focused on meeting the needs and interests of higher education seekers, in particular, providing opportunities for the formation of an individual educational trajectory;

- construction of the educational process on the basis of mutual respect and partnership between the participants of the educational process.

The environmental approach makes it possible

to create special conditions and organize the educational process due to their impact on students.

We believe that the approaches that we have outlined are integrated, complemented and specified by the environmental approach, as they are implemented within the educational environment as an important lever of using blogs to implement communication.

The axiological (value) approach, which is based on the concept of value and makes it possible to find out the qualities and properties of objects, phenomena, processes capable of satisfying certain needs of an individual or society. Such needs appear in the form of norms and ideals. The subject of pedagogical axiology is the process of forming a system of values, value attitudes of an individual.

The cultural approach is important for the formation of prognostic competence of future bachelors of computer sciences, as it involves purposeful consideration of cultural heritage, human values, provides opportunities for personal and professional growth, development of their creative potential. In this context, it resonates with a creative approach that enables the use of non-standard teaching methods in the process of professional training.

The process of communication between teachers and students using a digital blog follows the following patterns:

- correspondence of the content, forms, methods and means of using blogs to the demands of real practice;

- unity of purpose and results of the process of using blogs to ensure communication between teachers and students;

- orientation in education to material and technical resources, including availability of high-speed Internet;

- the intensity of feedback between teachers and students as a guarantee of the process of using blogs in communication.

We will also outline the principles (system-forming factors (requirements and rules)).

The principle of scientificity and interdisciplinarity, which makes it possible to take into account in the process of using digital blogs for the communication of modern scientific theories, concepts and views.

The principle of continuity and perspective. We believe that the use of blogs in education should be experience-oriented, continuous, step-by-step, and outline the prospects for student growth. In addition, take into account individual characteristics of students, focus on creative development, disclosure

and realization of potential opportunities, enrichment of subjective experience.

The principle of focusing on digital technologies, which involves the systematic use of open educational resources, computer and multimedia tools, software, mobile devices, etc.

The principle of reflexivity, which prompts teachers and students to analyze and correct the process of using digital blogs.

The principle of culturology. The implementation of communication between teachers and students is based on the recognition of such activity as the highest value, the ability to realize the personality in professional life.

Analysis of the needs and desires of students and teachers of the Institute of Philology of the Borys Grinchenko Kyiv University has become decisive in choosing the topic of the blog, which is implemented within the research of the Blogger service. The survey showed that potential readers would be most interested in reading the news of the Institute of Philology. To implement the study, a number of stages were performed: from the formulation of the title and the choice of design to the content of the blog.

Stage 1. Formulation of the title. When choosing the name of the blog, we were guided by three, in our opinion, the most important features – accessibility, functionality and content. That's why the blog was named "Students IF".

The chosen title of the blog should be clear to the readers on whom it is aimed and easy to remember, as this will increase the audience. Second, Latin letters were used in the title, as it significantly expand the boundaries of the target audience and the possibility of its use to promote the blog. Regarding the third feature, the content and informativeness of the blog name is important. The title should evoke in the recipient a wide range of associative and give the opportunity to predict its thematic direction, so readers immediately understand whether this blog is in their area of interest.

Stage 2. Choosing a design. Blogger service can only use standard templates, which are quite limited: a few options for posting, choosing colors, setting your own main photo blog. To design the overall look of the blog, a typical model № 1 was chosen, as it is the most convenient to use: the news is arranged in chronological order, i.e. from current to the oldest (figure 1).

As for colors, the choice was due to two factors. First, the Grinchenko University has an approved Brand Book, which sets out recommendations for the use of corporate identity, it regulates the corporate colors of educational units, in particular, the
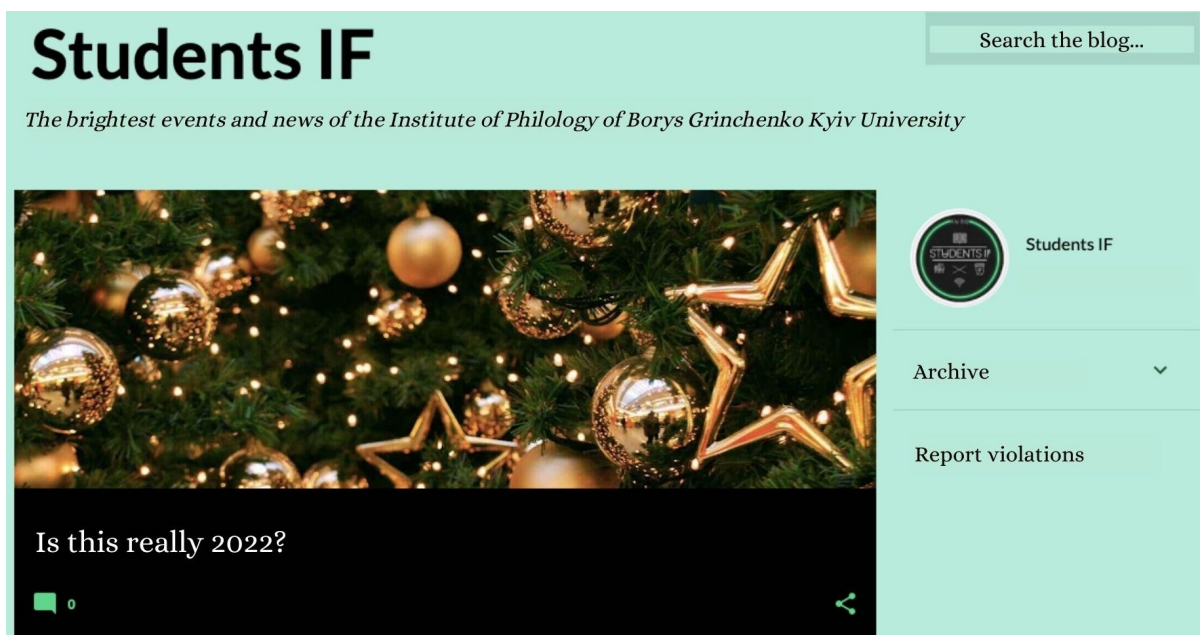
Figure 1: Typical model № 1 cloud service Blogger.

Institute of Philology has a green color. Another important factor is the recognizability of philologists by color, which is caused by the active promotion of corporate products, the availability of appropriate design corridors of the educational unit, the use of different shades of green when preparing additional materials for the educational process (figure 1). The third feature of the Blogger service is that you can choose the main photo, which will meaningfully complement the name of the blog.

In our opinion, the logo of the Student Self-Government Council correlates most accurately with the name of the "Students IF" channel (figure 2). It reflects the most important values of a student of the Institute of Philology: a book, sleep, Wi-Fi and coffee – an associative series of words that are necessary for the full existence of each student. The introduction of common values evokes emotions in all those involved in the educational process, which increases the likelihood of their involvement in the readers of the blog.

Stage 3. Selection of topics. The content plan of the blog "Students IF" was developed based on the results of the survey (figure 3) and contains four main thematic areas.

According to the results of the survey, the most interesting to readers (75.9%) is information about events in different directions of Kyiv and Ukraine – the first thematic block. Coverage of such news will help raise awareness and active involvement of student youth in events of various levels (city, na-

Figure 2: Logo of the Student Self-Government Council of the Institute of Philology of the Borys Grinchenko Kyiv University.

tional, international), which, in turn, will strengthen existing partnerships with the Ministry of Education and Science of Ukraine, National Agency for Quality Assurance in Higher Education, Kyiv City State Administration and youth public organizations (PO "Ukrainian Student Association", "Foundation for Regional Initiatives", "Ukrainian Academy of Leadership").

The second most popular was the thematic area related to the events of active student life of the Institute of Philology (71.3%). Over 100 events are held at Borys University in Kyiv every month: educational-professional, scientific, volunteer, entertaining, etc. So informing the participants of the educational process will positively affect the involvement of students in events they can choose depending on their interests.

Another important aspect of interest to potential users of the blog "Students IF" is related to changes in
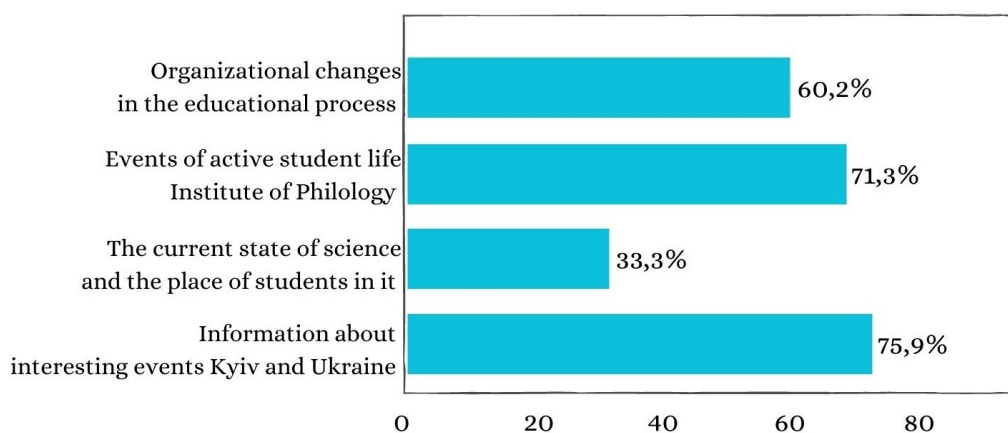
Figure 3: Content of the blog "Students IF".

the organization of the educational process (60.2%) – changes in the schedule, the transition to distance learning, urgent headmaster and more. Today's students are active Internet users, so blogging in this direction is more effective because it covers a larger number of students, and the dissemination of information requires much less time and effort.

The fourth thematic block is the current state of science and the place of students in it (33.3%). Science is an integral part of the educational process, so the coverage of scientific events and the results of such events (conferences, round tables, workshops, webinars, lectures, etc.) will expand the circle of stakeholders and motivate them to start a scientific career.

Stage 4. Determining the frequency of publications. The survey showed that the majority of potential readers (72.2%) believe that placing publications in the blog "Students IF" should depend on the availability of news, as certain time periods are rich in events, so we consider it best to disseminate information in the order of its receipt (figure 4).

Stage 5. Defining the target audience. Among potential readers of "Students IF", which is the focus of the blog, can be divided into three major groups: students, research and teaching staff and entrants. First, the content of this information channel is interesting for students because it is a means of one-way communication between the educational unit and students. Second, the blog is useful for the research and pedagogical staff of Grinchenko University, where they get to know the students better, which allows them to build the best individual educational trajectory for applicants. The third and most numerous group are potential applicants. The "Students IF" blog, a so-called university life diary, is a powerful career guidance tool.

Stage 6. Building a scheme of blogging strat-

egy. During the implementation of research and work with the cloud service Blogger, considering all its advantages and disadvantages, we have developed a scheme that contains step-by-step instructions for creating your own blog (figure 5).

As a result of working with the Blogger cloud service, students should:

- know: practical methods and methods of building blogs; methods of organizing activities for working with blogs; modern development trends, methods of creating blogs;

- be able to: work with software tools for solving tasks related to creating blogs; apply the acquired knowledge when solving actual problems of theory and practice, making forecasts and comprehensive assessments;

- have: practical skills of working with the Blogger cloud service; practical experience of drafting review reports, descriptions of the development of situations and assessment of trends in the development of activities related to the creation of blogs.

Stage 7. Approbation. The relevance and demand for the blog "Students IF" was tested among students of the Institute of Philology of the Grinchenko University (figure 6). To determine the level of communication with users of the "Students IF" blog, a survey was published on the format of study in the second semester, which was attended by over 1500 readers, which testifies to the relevance of this blog and its further development. Analysis of students' responses showed that the majority (68.2%) want to resume full-time study in the second semester, but 22.7% of these applicants are convinced that lectures should be left online. Some respondents (31.8%) prefer distance learning. The results of the survey were passed on to the administration of the educational unit and can serve as one of the key ar-
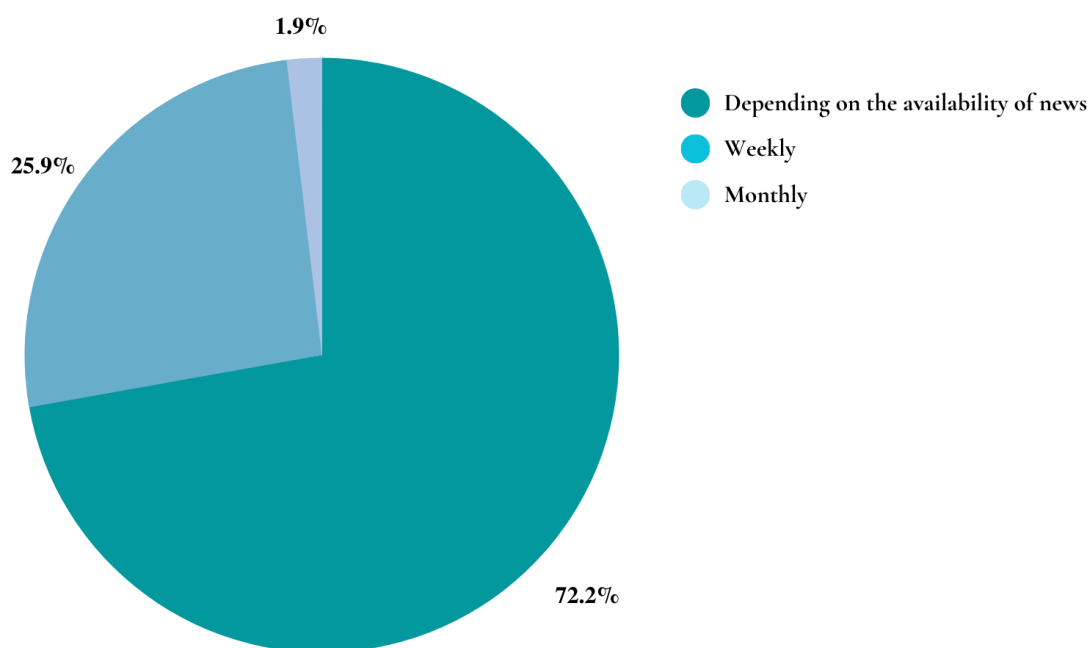
Figure 4: Frequency of publications in blog.

guments when deciding on the format of education in the future.

The results of the survey showed that contact with the applicants was established, so it was decided to go beyond the structural unit. To interest a wider range of readers, content has been expanded. The blog has publications that apply to applicants for various specialties. The expansion of the topic contributed to the rapid growth of the audience. Today, our readers include representatives of all departments of the university. The analysis of the audience showed that the content is interesting to applicants for various specialties.

Increased activity on the "Students IF" blog was the impetus for the launch of the Blogger cloud service in the educational process. First of all, we tested this service on the educational program "Ukrainian Language and Literature", during the implementation of the mandatory component "Methods of teaching linguistic disciplines". The task was to create and fill the teacher's educational blog as one of the ways to present theoretical information.

During the internship, undergraduate students (11 persons) had the opportunity to test their blogs on students of 1–2 courses of the Institute of Philology. Applicants were divided into two groups: one submitted part of the theoretical material through the cloud service Blogger (experimental group), another used traditional methods (control group).

Examples of using the Blogger service in the educational process are shown in figure 7.

We consider the study successful if, according to the results of the test, students received grades A, B, C (at least 75 out of 100 points), see table 1.

Table 1: Comparison of control and experimental group.

	Control group	Experimental group
Number of students who received grades A, B, C	15 (62%)	18 (78%)
Number of students who received other grades	9 (38%)	5 (22%)

Using Fisher's test, it is established that

$$\varphi*_{emp} = 2.489, \; \varphi*_{cr} = \begin{cases} 1.64 & p \leq 0.05 \\ 2.31 & p \leq 0.01, \end{cases}$$

therefore, hypothesis H1 accepted, the difference in the learning outcomes of the experimental and control groups is statistically proven.

The functioning of the "Students IF" blog for 3 months was productive and effective. This is confirmed by the analysis of the involvement of applicants at the beginning of the school year and after a few months from the launch of the blog (figure 8). Looking at the chart, we see that the figures have increased significantly. We are convinced that the further systematic work of the blog "Students IF" will have a positive impact on the formation of a conscious and active student movement.
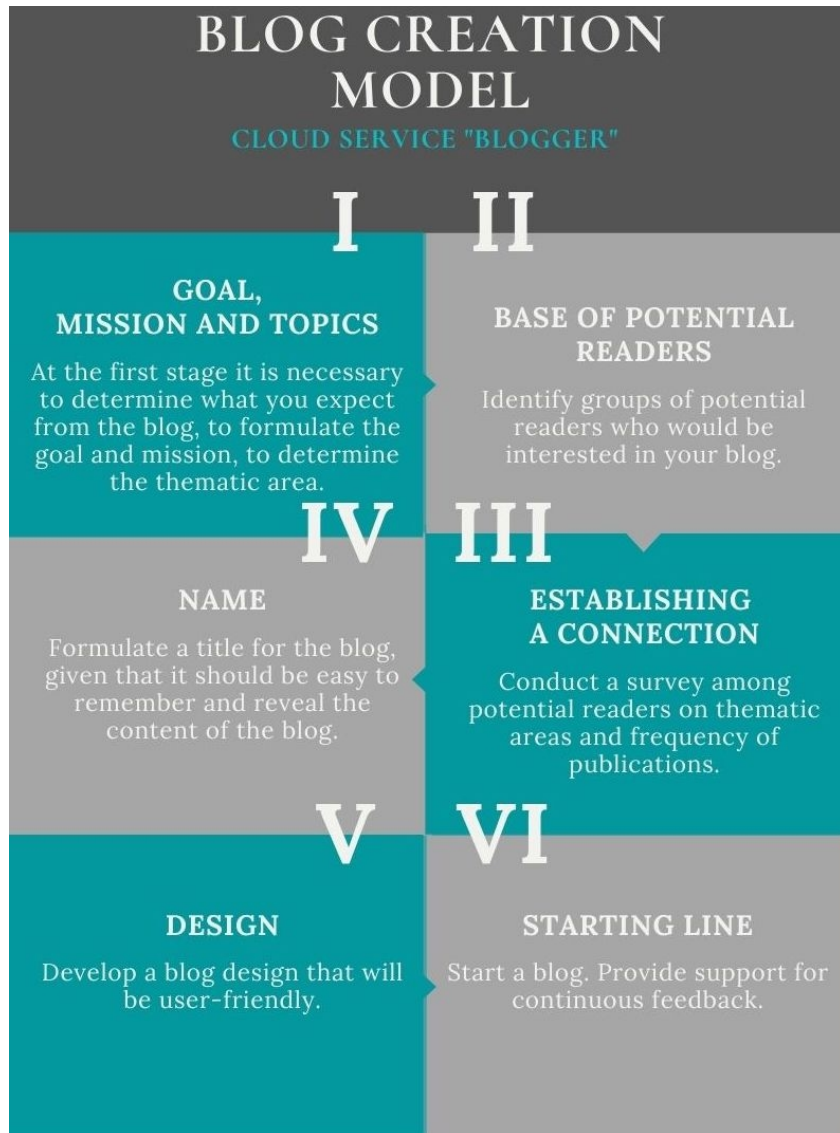
Figure 5: Scheme of blog creation in the cloud service Blogger.
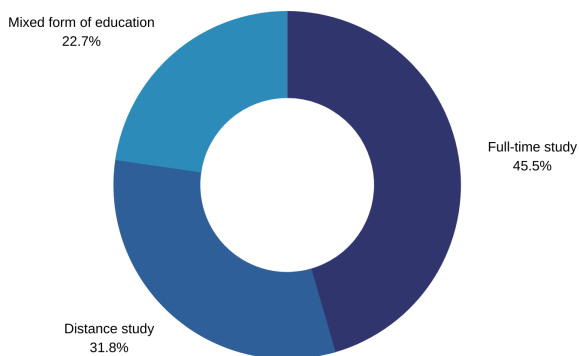
Figure 6: Format of study in the second semester.

It is interesting that as a result of the survey of teachers, the types of various educational activities of students, within which it is possible to develop educational blogs with the help of cloud services, were summarized:

- an interdisciplinary practical session, which is conducted by teachers of various educational disciplines with the aim of realizing interdisciplinary connections;

- analytical workshop where professional situations are worked out;

- a webinar-conference where students present reports on given topics with further discussion;

- workshop-discussion;

Figure 7: An example of using a blog during the educational process.
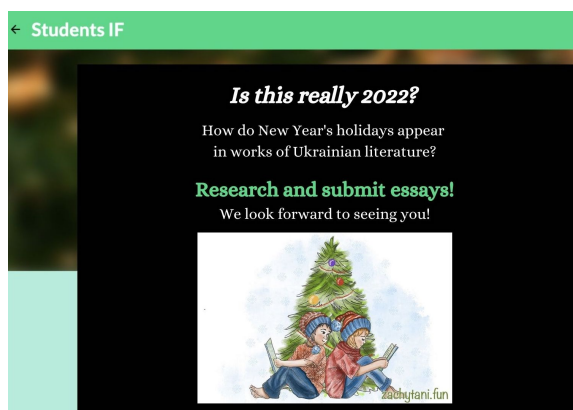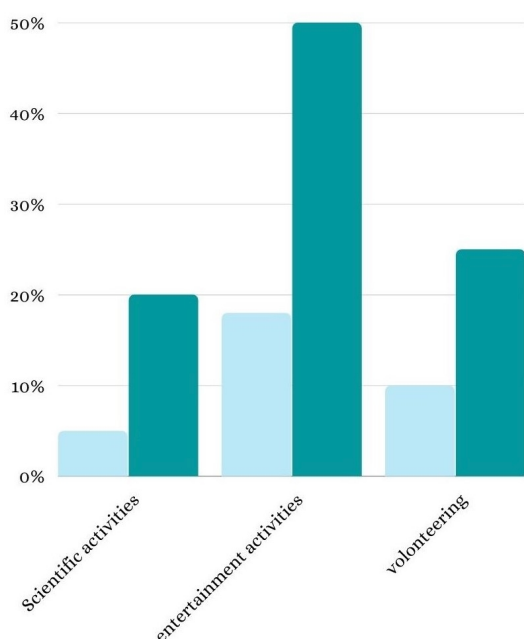

Figure 8: Statistics of applicants' participation in various directions events.

- research practicum, which involves the implementation of research-oriented training;

- a business game that simulates a real problem situation;

- practicum – "brainstorming", students are offered a case in advance, then students offer options for solving the problem with further discussion and selection of the most effective proposal;

- workshop – a master class from stakeholder representatives;

- practicum – meeting with graduates of the educational and professional program.

The main areas of implementation of research-based education and enabling the creation of research-themed blogs are also highlighted:

1. Work of students in scientific laboratories, centers, problem scientific groups and other scientific associations.

2. Individual research work of students.

3. Studying the theoretical foundations of setting, methodology, organization and execution of scientific research, planning and organization of a scientific experiment, processing of scientific data within the framework of specialized courses included in the OPP.

4. Independent scientific research carried out during informal education (taking courses on open online platforms).

5. Carrying out tasks of a research nature, laboratory works, coursework, projects that contain elements of scientific research or are of a research nature.

Methodical development of the implementation of educational activities and research work of students, which involves the creation of blogs using cloud services, will become the perspective of our further research.

5 CONCLUSIONS

The study confirmed the relevance and feasibility of using the Blogger cloud service for communication between teachers and students at the university.

1. Analysis of definitions of "blog" and "Blogger" gave grounds to formulate own definition, which shows the functionality of these terms. The advantages and disadvantages of the Blogger cloud service have been identified. Among the advantages are the following: one user can have several blogs, page filling and management can be done by several authors; a number of additional opportunities that open up through collaboration with Google, etc. Disadvantages include the limited number of design templates and tools.

2. Having found out the desires and needs of potential readers through a survey, the stages of creating a blog using the cloud service Blogger were identified, which meets the needs of users and helps to raise awareness of higher education students about the organization of the educational process and active student life. A blogging scheme has been developed in the Blogger cloud service. It was announced that the results of the study are more applied than theoretical.

3. Successful approbation of the blog "Students IF" among students of the Institute of Philology of Grinchenko University was confirmed by Fisher's test. This shows that Blogger is the optimal platform for organizing training, quality communication of higher education institutions with applicants. The blog also helps to improve the level of information and consideration of students' opinions, serves as a platform for discussions, consultations, etc.

Prospects for further research we seen in the development of methodological recommendations for the use of the Blogger cloud service in implementing practical classes at the university.

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