

Digital Storytelling as a Means of Competence Development in Teaching Foreign Languages: Experimental Study

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ABSTRACT

Digitalization of economy and high demand for e-technologies require teaching methods’ modernization in higher school. The ways of using computer technologies for subject and universal competences’ development are proposed. The technology of “digital storytelling” which is creation of individual video projects has been applied for university students’ language teaching. Its application with the groups of first year students, majoring in IT, has been examined. The paper describes the first part of the complex project, in which students created their digital stories “My university. My specialty”, presented them in their groups, evaluated them and chose the best stories. Students’ attitude to this educational technology and opinions on its effectiveness are revealed. The results of the experiment prove that digital storytelling is a good tool to motivate students for both, learning a foreign language and improving their professional skills. The results show that more than 80% of students are positive about the use of “digital storytelling” in the educational process; the absolute majority expressed their desire to fulfil this type of learning task on a regular basis.

Keywords: *digital storytelling, methods of teaching English, competence-based approach, communicative competence, soft skills*

1. INTRODUCTION

Digital economy and fast development of information and communication technologies stimulate modernization of methods of teaching in higher school. Employers are constantly adjusting their requirements and increasing demands for university graduates’ skills. Students, in their turn, expect innovative technologies to be used in teaching and learning, as they cannot imagine their life without electronic communication [1: 61]. Thus, the use of digital technologies is not a mere desire of teachers to improve students’ motivation but a necessary condition of modern educational process.

The present research is undoubtedly of high importance as it contributes to the development of teaching methodology and finding new effective ways of learners’ competences formation. The significance of this study can be explained by the following reasons. First, modern education should include digital technologies to provide future specialists with the necessary skills. Second, students become more motivated when they are able to use electronic devices in class. Finally, teachers should develop a wide range of competences – subject competences and universal competences often referred to as “soft skills”. Digital storytelling is an efficient tool to accomplish all of the abovementioned tasks.

The goal of this research is to implement technologies of smart-education into teaching English to students of non-linguistic specialties in the Ural State University of Economics to update teaching and learning, to arouse students’ interest to the subject and to form the necessary competences. To reach this goal we singled out the following tasks: 1) to adapt the technology of digital storytelling to the conditions of university and needs of the students; 2) to explain the students the essence of this technology and to engage them into it; 3) to test the technology; 4) to conduct a survey to reveal the students’ attitude to the technology and its efficiency; 5) to make conclusions and outline the prospects.

2. METHODOLOGY

2.1 Competence-based approach

The specific features of the new educational system are in the use of student-centered technologies, the emphasis on independent work of students and their motivation to learn with the help of digital technologies. In terms of foreign language teaching the central role is given to communicative competence development. It is important that knowledge of a foreign language is a necessary skill for many professions, “there is a huge demand for

economists, engineers, IT specialists with a good level of a foreign language” [2: 89]. The possibility to develop professional competences alongside with mastering communicative competence in a foreign language when teaching IT students is a promising area for research. In this article we will describe and analyze the results of the experiment aimed at using a new digital technology to teach students English and to form a wide range of competences: subject competences, professional competences and universal competences (known also as soft skills). The number and types of competences are given much attention to in scientific papers [3, 4, 5, 6].

In foreign language teaching the leading role among subject competences belongs to communicative competence. It is the ability to speak a foreign language in different situations to reach the necessary goals within a certain sphere (profession, everyday life, etc.). Communicative competence includes language competence, speech competence, socio-cultural competence, compensatory competence and discursive competence. Universal competences or soft skills play an important role in professional development of young specialists [7, 8, 9, 10]. The following universal competences are relevant for our research: responsibility, time management, self-control, planning, self-discipline, creativity and critical thinking.

2.2. Modern technologies in teaching

To meet the requirements of competence-based approach, new forms of adaptation of educational process to the current trends of computer technologies’ expansion are developed and introduced in Russia and abroad. For instance, the technology of “flipped classroom”, presented in 2007 by American methodologists, combine video lectures that students watch at home and practice in class [11]. Research proved the efficiency of this technology as most of the students believe that electronic component is a good supplement to classroom work and it is very effective in learning [12, 13 14, 15]. Another digital technology that is frequently used in teaching foreign languages is computer-assisted language learning or CALL that uses special computer programs to teach a language, for example, tests, games, vocabulary and grammar tasks [16, 17, 18].

According to the Federal State Educational Standard in Russia, university graduates of Bachelor programs in computer science, IT and information technologies must be able to communicate orally and in the written form in Russian and foreign languages. [19]. One of the most efficient technologies to develop and practice communication skills in a foreign language is storytelling, which has been the main tool for mastering monologue for decades. This technology makes it possible for a student to express their thoughts, feelings and emotions, to analyze and describe their attitude to a phenomenon and thus to develop critical thinking. “Storytelling can encourage students to explore their unique expressiveness and can heighten their ability to communicate through their

thoughts and feelings in an articulate, lucid manner” [20: 30]. “Digital storytelling” has appeared in the context of electronic education as a new educational technology. Originally digital storytelling was a cinematography genre, which was invented in the USA in the 1990-s. It existed in the form of short narrative videos telling stories of ordinary people in the first person. The first digital stories told about the life of people during the Civil War (Ken Burns, *The Civil War*), they used real photos and footage. The videos produced strong emotional impact on the audience, so other industries decided to use them (to advertise products, to present authentic ideas, to teach something, etc.). Social uses of storytelling are worth mentioning, for example, “Patient Voices Program” tells about the struggle of patients with serious diseases and “The military families story” project presents memories of families affected by wars. These are just a few examples, which became the cornerstones of the genre. Unfortunately there are no big digital storytelling projects in Russia, so it is especially important to show students the effectiveness of this digital tool. In education digital storytelling has been widely used since 2000-s.

Digital storytelling is a very promising method, which changes the role of videos used in teaching [21, 22]. Traditionally videos are shown by teachers and students just watch them. However in digital storytelling the role of students in their work with digital elements is different - they are not “passive” users of videos, but they become creators and authors of multimodal products, which combine video, text, audio, graphic, etc. According to John M. Malouff and Julie J. Shearer, in spite of the variety of approaches to the use of digital stories, «most university instructors have not taken advantage of student-generated videos, possibly because they are either unaware of the option or they do not know how to set up and assess video presentations» [23]. Another example of digital storytelling implementation is the experiment of Petrozavodsk State University, where this technology is used to teach students of non-linguistic specialties English [24].

In this research we accept a broad definition of digital story, which is treated as a wide range of videos that combine a story and different multimedia tools: video itself, audio text (in our case it is a story in English), graphic images to support the plot of the story, subtitles and phrases in English, music, voice over, etc.

3. RESULTS

The hypothesis of this research is that the technology of digital storytelling can help develop communicative competence, increase motivation to learn and responsibility, attract students’ attention to important issues and promote their professional and soft skills.

Sample. 36 students were chosen to take part in the experiment. All of them study computer science in the Ural State University of Economics (specialties Administration of Information Systems and Applied Computer Science in Economy). The choice of these

students is explained by the fact that teachers of Department of Business Foreign Language have always stressed out specific features of these students, which prevented them from being taught effectively on the ground of traditional methodology only. To identify the main problems and differences of IT students from those of other specialties, we conducted a survey among the teachers, which revealed the following: 1) most teachers believe that it is important to use computers, gadgets and special programs in teaching IT students English; 2) the absence of information and communication technologies in class ruins the interest to the subject and causes concentration problems in the work with IT students; 3) it is difficult for such students to talk in front of the group and to express their views on the problem. The behavioral portrait of IT students includes the following features that have a negative influence on learning a foreign language: 1) students are reserved and prefer to keep silent in class; 2) they do not take part in social activities in university, in competitions and contests; 3) they show low self-discipline and self-control; 4) they have no desire to speak up and discuss socially important issues; 5) some soft skills are underdeveloped as well, for instance, discipline, concentration, and planning. There is no doubt that IT students possess strong traits that need to be developed in the course of study: 1) they know a lot of computer terms and can use them freely in professional communication; 2) they can work with different computer programs and gain new knowledge of English; 3) they act logically and rationally; 4) their intelligence is above average. According to the survey, the most interesting tasks for them are PowerPoint presentations, creative exercises (involving drawing or sketching, poetry writing, mind maps, etc.) and listening tasks. The analysis of the teachers' responses proves that the technology of digital storytelling meets the demands of IT students, it will help them to "unlock" their potential and will motivate them to learning English. Digital storytelling is a creative exercise, it stimulates speaking (when recording one's own video and discussing videos of other students in class), listening (when watching videos of groupmates), it develops professional skills (usage of suitable software for editing, adding sound tracks and off-screen voice, etc.). It can also arouse interest to the subject as it relieves students from monotonous and similar tasks. It develops universal competences (soft skills), such as independence, self-discipline, self-control, planning, responsibility and others.

Research design. The experiment involved the implementation of digital storytelling instead of traditional oral presentation of monologues. The whole project lasts for the entire academic year and is divided into two stages. This paper describes the procedure and analyzes the results of the first stage of digital storytelling technology implementation. On the first stage (September 2019) we chose the topic "My university. My specialty" and asked the students to create their digital story to elaborate on this subject. Traditionally this theme involves oral presentation of the students' ideas in the form of a monologue, but students show little interest to such tasks, and we believe that replacement of the traditional method by a digital

story technology will have a positive result. The choice of the topic is explained by the fact that many first year students couldn't answer a simple question of why they had chosen this university and the specialty. Some of them mentioned relatives who studied in the same university, the others said that its location was most convenient for them, the third mentioned that it was a random choice. So, we can see that the choice of educational establishment and future profession was either not conscious or the students just could not explain their reasons properly. We believe that the topic chosen for the first stage of the experimental methodology can help create a positive attitude to the university and to motivate students to continue learning here.

Procedure. The introduction of the methodology was carried out in the following way: first, the students were shown some examples of digital stories from different sources, then we gave them written instructions of how to plan, record and edit the story (we suggested certain software, and explained the plan of work). Students had 10 days to prepare their digital stories and get ready for their presentation in their group. The following algorithm of work on the projects was offered: 1) identify the idea of the digital story; 2) write the text (it should have three parts – introduction, main part and conclusion); 3) plan the video (divide the text into parts and choose the picture to support the idea in each part); 4) choose the equipment and software to record and edit the video; 5) record video and audio, or find suitable video and pictures on the Internet; 6) edit the video; 7) get ready to present it in your group. This algorithm confirms that digital storytelling can be used in teaching any subjects in which students should give reports, make presentations or surveys, promote a product, present their ideas, etc. There are many free platforms to create digital stories, we recommended our students the following: StoryBird – is suitable for all ages, it has a huge collection of pictures in different topics; UtellStory – is a free network for multimedia stories, the users can share their stories; Storyboard Generator (SG) – is an online platform where users can choose and plan their story with the help of the gallery of pictures. However students are not limited to these resources, they may choose the most suitable way of making a digital story themselves.

Method. Students were given 10 days to make their digital stories and when the deadline was due, all 36 students who took part in the experiment gathered to watch and discuss the stories. While watching the stories they were asked to evaluate each story and to choose the best ones. Six best digital stories were sent to the International Digital story contest held in Petrozavodsk. Moreover, after watching all digital stories, students were asked to fill in a questionnaire to find out if the introduced technology was efficient in development of the necessary competences and to identify ways of its perfection.

Results of the questionnaire analysis are given in table 1.

Table 1 Statistics

1. What is your result in participation in the digital storytelling project?				
It was interesting – 54%	I learnt much new – 29.7%	I did not feel difference – 13.6%	It was difficult – 2.7%	
2. What should we change to make the digital storytelling technology more useful for students?				
Show more examples of digital stories in class – 48.6%	Explain where such digital stories can be used – 43.3%	To create digital stories more often – 2.7%	Everything was fine – (2.7%)	Do not give this task – (2.7%)
3. Is this task necessary for students?				
Yes – 86%	Not really/ probably not/ not very much – 11.3%	No – 2.7%		
4. Do you think the beginning of the first term in university is a suitable time for such project?				
Yes – 50%	No – 41,7%	Yes, if more time to make a digital story is given – 8.3%		
5. What skills were useful in creating a digital story? (several variants were possible)				
Computer literacy – 61%	Editing skills – 52.7%	Knowledge of English – 41.6%		
6. What skills were underdeveloped?				
Knowledge of English – 38.8%	Knowledge of software – 19.5%	Time management – 25%	Creativity – 16.7%	
7. What should teachers improve in their use of digital storytelling in class?				
Help to write the text and check it for mistakes – 38.8%	Give students more time – 25%	Give students advice how to make digital stories creative and unusual – 16.7%	Give more tasks of this kind – 2.7%	Nothing – 16.8%

4. DISCUSSION

- In general, students positively assess their experience in digital storytelling project's participation, only one student finds this task difficult and votes for its exclusion from learning. However, during the discussion of the reason for such an answer, we found out that this student did not have access to computer and it was difficult for him to make a digital story using his smartphone. In future we are planning to provide clear instructions for making digital stories using either a computer or a smartphone.
- As the technology of digital storytelling is quite new in Russian pedagogy, as well as cinematography genre in general, students need more examples of such works, which will help them understand the potential of digital storytelling as a process and as a final product.
- The majority of students find digital storytelling an effective and necessary task for modern education.
- The question of timing is a controversial one. 50% of students were ready for the task and had no difficulties in fulfilling the task, but almost 42% thought it was given too early (the very beginning of the university first term). In the future we plan to give students more time to create their digital stories.
- As for the necessary skills, students confirmed out the belief that their computer literacy will help them do this task.
- Skills that need to be developed are the following: knowledge of English, time management, knowledge of software and creativity. We may say that digital storytelling is a good tool to develop all these skills. As for English, the task develops writing skills, speaking skills, including pronunciation and vocabulary growth. As for the software, digital storytelling provides a good opportunity to start using different computer programs that might be useful for the future professional career.
- The last question gives ideas of how the technology can be improved and perfected. First of all, if the assistance to students to write the texts is necessary. We believe that the text must be written independently by the students themselves, but teachers must give advice on text production, text cohesion, structure and features of texts belonging to different genres.

Special attention should be paid to the comments which the students left when answering the questionnaire: all of them can be correlated with certain competences that the technology of digital storytelling develops. Here we present the original answers given by the students:

- Language competences: it helps to quickly learn the language; it makes students check

pronunciation of words; it teaches to write texts; it develops speaking skills.

- Professional competences: it teaches to edit a video; it involves in learning; it gives experience of work with different software.
- Universal competences (soft skills): it helps to become more confident; it develops creativity; helps to make learn the group-mates better; helps to overcome the fear of speaking; it gives way to self-expression; it discloses student's potential; it develops time management skills.

5. CONCLUSION

It is empirically proved that the following competences are developed with the help of digital storytelling technology: Communicative competence and its sub-competences.

- language competence – the knowledge of the language system, rules of its grammar, and the ability to understand a message in a foreign language, to choose proper language units to express the necessary idea. Our experiment showed that there are fewer mistakes in the digital story text than in the traditional monologue in front of the group (the average result is 2 mistakes vs. 7 mistakes). The reason is that students are more attentive when they write texts for their stories and they can listen to themselves while watching their stories;
- speech competence – is the ability to express the view in a proper way, using language units suitable for the situation. During the experiment students created stories in different genres – interview, humorous story, a story that teaches a lesson, socially important stories.
- socio-cultural competence – is the knowledge of culture and realia of foreign countries and the homeland. Knowledge of the Russian realia is especially important and when creating their digital stories students learned and then told about the Urals and about different universities in Russia.
- compensatory competence – is the ability to express the ideas with the limited resources of the foreign language. Digital storytelling is a perfect tool in this case, as pictures and videos can add the necessary additional meaning that a student cannot express with the help of the verbal means.
- discursive competence is the correct usage of strategies to construct a cohesive text, as well as to interpret texts produced by the others. In their digital stories all students presented logical stories, and the pictures in most cases complemented the story being told.

Universal competences:

- information competence: the ability to use digital technologies, Internet and software. There is no

doubt that this competence is formed with the help of the technology of digital storytelling, as the students use computer, smart phones, audio and video recording software, editing programs, etc. in order to create their multimedia products;

- cognitive competence is independent acquisition, analysis and evaluation of information (all digital stories made by the students were results of their independent work with different sources of information);
- scientific and research competence – students gathered the necessary information, structured it and organized in the way suitable for their project;
- personal competences such as self-control, self-education, planning, responsibility, creativity, time management and self-discipline.

So, the hypothesis is empirically supported, competences of different levels are developed. It is possible to use the technology of digital storytelling in teaching a wide range of subjects, for example, History, Philosophy, Sociology, Psychology, Marketing, Management and others. We are planning to implement it in teaching students of Department of Business Foreign Language of the Ural State University of Economics.

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Research disclaimer. We would like to emphasize the following facts:

- The parameters of the sample: we tested two groups of first year students of IT department. All conclusions are true in reference to students of this specialty; however, it is important to test the technology of digital storytelling in groups of other specialties.
- The analysis provided in this paper presents the result of the first stage of our experiment. The results of the second stage will be analyzed, described and compared with the first one in the future.
- In this paper we focused on two aspects of our experiment: competence development and students' attitude to the technology. This does not mean, that we did not study linguistic data – mistakes of different types, text quality and correlation of verbal and visual parts of digital stories. All these will be described in our further research.

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