

# Digital Storytelling in a Foreign Language Classroom of Higher Educational Establishments

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**Abstract.** The conceptual idea of the paper is that the use of digital biographical narratives in a foreign language classroom creates favorable conditions for the harmonious development and creative, cognitive, communicative and technological skills of students. The paper deals with the methods of teaching students to create digital biographical narratives about the life of outstanding personalities which involve a combination of training to do a biographical research and determine the content of narratives with mastering technologies to create and present digital biographical narratives. The component structure of methods of future Masters of Education teaching to design digital biographical narratives provides five interrelated components: axiological and motivational, content, technology-based, praxeological and creative, result-reflective.

**Keywords:** digital biographical narratives, teaching, foreign language, cognitive, creative, communication, technological-based, methods.

## 1 Introduction

The challenges of the XXI century to modern education system require implementation of educational approaches that provide improvement of digital competence at all levels of lifelong education and, particularly, higher education. Using digital narratives in a foreign language classroom creates favorable conditions for the harmonious development of technological and communicative skills of students. However, educational activities to create digital narratives are based on a combination of digital technologies with spoken or written language that appears in the integration of rational and sensual, creative and technological, conscious and unconscious. The spread of digital narratives in the network and sharing them encourage the development of communicative skills in a global context.

The choice of biographical narratives among different types of digital ones actualizes the problem of formation of cognitive abilities, especially in the context of self-knowledge, self-control and self-expression through digital technologies.

In the context of using biographical narratives in pedagogical research the works of the following scientists are of particular interest: N.K. Denzin (USA) [7], B. Roberts (USA) [11], M. Piorunek (Poland) [10] and others. The works of S. Isaeva [3], M. Leshchenko [4], L. Ruban [5] and others are devoted to biographical narratives about life and work of the famous Ukrainian scientists, and prominent figures of Ukrainian and world culture. The principles of digital humanities pedagogy, one of the objectives of which is to study educational opportunities of digital narratives are highlighted in the paper of V. Bykov and M. Leshchenko [1]. Numerous scientific papers and thesis of L. Tymchuk [6] are devoted to pedagogical possibilities of using digital biographical narratives in educational practices of high school. However, the problem of using digital biographical narratives in a foreign language classroom of higher educational establishments needs additional study.

**The article's purpose** is to consider the peculiarities of digital biographical narrative to enhance digital competence of students of economic specialties in foreign language classes.

In our study we have used the following methods: theoretical – analysis and synthesis of pedagogical, psychological literature making it possible to clarify the nature of the basic concepts of research; analysis of students' creative products; empirical – interviews to explore the views of students on the impact of digital biographical narratives on digital competence; teacher observation (direct and media) of the learning process of students of economic specialties to determine the effectiveness of learning; online counseling of students.

## **2 The Results and Discussion**

### **2.1 Students' Skills to Project Digital Biographical Narratives**

A typical feature of using digital biographical narratives in teaching is enriching student by experience of creative activity. The main objective should be the formation of students' ability to create figurative world of narrative using digital technologies. Students should have a good knowledge of:

- the peculiarities of process of digital creativity, types and forms of digital narratives;
- the possibilities of digital narratives impact on different areas of professional and personal life;
- the various kinds of information narration in digital narratives (verbal, visual, audio, audiovisual and multimedia, as well as relevant information media narration);
- the principles of image composition (e.g., verbal, photographic and cinematographic);
- the basics of modeling storyline of digital narratives;
- the ethical bases of behavior in the network.

Students should have the following skills:

- interpret the essence of fantastic images, scenes, created with the help of digital technologies;
- interpret nonverbal information messages (e.g., sign, symbol, facial expressions, gestures, body language, appearance) in the form of emotive texts;
- practice the selected digital technologies;
- control the use of digital technologies to prevent overloads and addictions;
- analyze and compare points of view, hidden positions presented in digital narratives;
- distinguish and interpret features of technologies used to create digital narratives;
- evaluate, analyze and describe the multiplicity of digital narratives;
- place in a network, give access to and share digital narratives;
- use a variety of information sources on the web for gathering electronic materials to create digital narratives;
- use literary language and behave appropriately when using a microphone and video camera recording;
- have an ability to carry out various forms of graphical and textual presentation;
- perform simple design of digital materials (images, audio, text, film) based on the use of digital technologies;
- create and demonstrate digital media narratives in the form of presentations that combine text, image, audio and video materials according to the perceptual capabilities of recipients, group size and age of the audience;
- share digital narratives in the network.

Training students to design digital narratives can be done not only while teaching a special course, but also integrated into the process of learning foreign languages, provided that teachers have a sufficient level of digital competence.

## **2.2 Model of Teaching Students to Design Digital Biographical Narratives**

Model of teaching students to create digital biographical narratives about the life of outstanding personalities involve a combination of training to do a biographical research and determine the content of narratives with mastering technologies to create and present digital biographical narratives. The component structure of model of teaching students to design digital biographical narratives provides five interrelated components: axiological and motivational, content, technology-based, praxeological and creative, result-reflective. The specificity of the model saturation of each component by biographically oriented content that is emphasized in the selected type of digital narratives, namely biographical. Let's characterize each component of the methods.

Axiological and motivational component outlines the values, aspirations and ambitions of students which are realized in the design of digital biographical narratives, among which the basic are the guidelines for the development of digital and professional competence, creativity, cognitive skills, and enhancement of self-improvement process. Axiological and motivational component of the methods emphasizes capabil-

ities, values and driving forces of learning in the process of creation digital biographical narratives using information and communication technologies.

The goal and objectives of the project activities are formed on the basis of analysis of the values, aspirations and ambitions of students correlated to the tasks set before a teacher.

Content component provides educational and informational content that involves the use of subjective-personal approach to creating materials that relate not only to known, but also unique aspects of human life (birth, childhood, career, love stories, interesting cases, meetings etc.) by examining personal diaries, memoirs, notes, letters, photos, videos, autobiographies, autobiographical stories, descriptions, biographical profiles, as well as works of art, memories and evidence of relatives, friends, loved ones, students, associates, materials of interviews, discussions, video recordings, newspaper reports, protocols, applications, results of questionnaires and so on.

While creating educational and informational content of digital biographical narrative, attention is usually focused on specific aspects: different periods of life, family, school, friends, teachers, figures and significant events, professional way, interpersonal relations, conditions that contributed to the development of abilities and talents of the personality (e.g., influence of family; the role of socio-cultural environment in the identification and development of abilities and talents of the individual; the role of school, teachers in acquiring new knowledge and skills; the role of personal ideals, values, motivational attitudes, formed complexes in the development of the personality).

Technology-based component characterizes technological means (computer, netbook, smartbook, camcorder, microphone (digital audio recorder), loudspeakers, headphones, Internet access, digital photo or video means, which will store created digital narratives) and related software (e.g., PowerPoint, Microsoft Photo Story, Windows Movie Maker etc.) used for the design and presentation of digital biographical narratives and which allow you to combine different sources of information, clearly and dynamically present information.

In order to create digital biographical narratives, it is necessary to use free digital tools, including Web sites and applications. Let's briefly describe them:

- **ASMI Generator** is a program that allows students to explore moving images, create their own moving images, i.e. to implement their own creative inspiration and share their works with representatives of online community.
- **Bubblr** is a program that enables students to create photo novels in which consistency of images is achieved through combining different images, and it allows creating your own photo story.
- **Capzles** is a program that gives an opportunity for students to use various ways of combining different types of media and narrative that allows enriching the narrative by multimedia combining video, photos, music, blogs and documents.
- **Comic Master** is a program that allows creating a short biographical narrative. It enables students to create their own original design of pages, add a background, select the characters and scenery in shots, add dialogues, captions and so on.

- **PicLits** is a website to encourage creative writing of narratives that combines beautiful, interesting, unusual images with carefully chosen keywords. The purpose of this website is training to pick and place the right words, texts in appropriate places and in the right order to realize the creative idea by combining narrative and image.
- **SlideStory** creates conditions for combining different types of images in a slideshow with the voice of the narrator. Each image of the slideshow is accompanied by audio file (MP3). This gives students the opportunity to create interesting presentations and share them.
- **Smilebox** allows students to quickly and easily create slideshows, invitations, greetings, collages, scrapbooks and photo albums directly onto the monitors. Students select pictures or patterns that they want to use (among more than 1,000 options), add text and music, and in the result they receive implementation of creative ideas in a form of digital biographical narrative.
- **Storybird** allows students to create visual biographical narratives in a relatively short time. They choose works of art of illustrators and animators from around the world and use these images in their own digital biographical narratives. Using of Storybird is free, but print or download of different images may require payment, you need to figure out in each case.

Let's have a look at seven free programs for digital biographical narratives:

- **Adobe Slate** allows students to turn newsletters, reports, invitations or adventures while travelling into interesting visual biographical narratives using any computing device. Students can pick up a unique background, beautiful fonts, color and design of narratives. The series of motions and movements appear instantly. Students can exchange digital biographical narratives.
- **Puppet Pals**. Using Puppet Pals students create their own digital biographical narratives in the form of unique shows with animation and sound in real time. For this purpose they choose actors and scenery, and place them on the stage. With the help of recording function, movements and voice are recorded in real time for further playback. This application actively stimulates creativity.
- **ShowMe Interactive Whiteboard**. This program turns iPads into personal interactive whiteboards. ShowMe allows you to record texts on the board, dictating them aloud, and share them online. This simple application is easy to use by students.
- **Sock Puppets** allows students to create own lip-synched videos using puppet characters, props, scenery and background and share them on Facebook and YouTube.
- **Toontastic** is a tool that allows students by participating in a simple, fun game to draw, animate, and exchange their animated films with friends around the world.
- **WeVideo** is cloud-based online video editing software, which is available on Android, iPhone, iPad, Mac, PC and Chromebook. Using this software students create and share video narratives. This cloud platform allows you to create group video, save your work on hard disk, download to the cloud and use at random places where there is access to the network on another computer.
- **30hands Starter** provides a simple and fun way to create and present multimedia digital biographical narratives. This tool was developed as a simple and fast, so it should be used when the task is to create and show digital biographical narrative

within a classroom lesson. It is advisable to use this software also over longer projects, ensuring the principles of Universal Design Learning (UDL) and forcing every student to think and make narratives creatively [9].

Praxeological and creative component combines teaching methods of biographical research and technologies of creation and presentation of digital biographical narratives, providing consistent implementation of the following steps:

*Stage I.* The choice of the personality to create digital biographical narrative.

While creating a digital biographical narrative about an outstanding personality, you should pay attention to the important components of this process, namely: conceptualization of the creative idea about the choice of the personality – the subject of study; biographical research; determination of the conditions that positively and negatively influenced the development of the personality; design of component structure of narrative-reflective character (problematization of the text). When it comes to multimedia narrative, it is necessary to pay attention to the design, aesthetic decoration of materials, and technological realization of creative projects.

*Stage II.* Doing a biographical research of the life of the selected personality (required in the following order):

- 1) create a folder on your desktop where you can store all digital materials for biographical narrative;
- 2) find out, thinking about the purpose of the future digital biographical narrative, which aspect of life of the personality studied to pay attention to;
- 3) identify sources of biographical research, the use of which makes it possible to understand and imagine the live of the personality studied in the dynamics of his/her development;
- 4) collect biographical materials that contain important, original, targeted information which is not available in other sources;
- 5) highlight interesting information, which would be largely unknown, emotive, of interest to the audience; it is necessary to pay attention to the age peculiarities of the audience for which it will be used;
- 6) determine, based on the results of a study of various documents (notes, letters, diaries, fiction, photos), interviews, questionnaires, evidence of others, autobiographies, objective (scopes of activity, contacts with other people, achievements, accomplishments) and subjective (personal experience, emotions, feelings, dreams, fantasies, relationships and evaluation of various situations) factors of the personality development and the most effectively, comprehensively outline them in the cover of the plot;
- 7) transform collected biographical materials in a digital form.

*Stage III.* Design of the script of digital biographical narrative (required in the following order):

- 1) write the first version of the script of digital biographical narrative, which will become the basis of digital narrative, the final version will be created and recorded electronically later;

- 2) predict (collect and enter) in the plot of digital biographical narrative not only information (information load) but also sensory-emotional (personal author's attitude of the narrative, his/her reflection, point of view on the aspects studied) components;
- 3) use effective technologies for selected parts and reasonably-structured relationships between events to display real or imaginary experience of the personality studied;
- 4) seek clarity, problem-concentrated brevity, consistency in the presentation of events, situations, smooth transition between them;
- 5) in the process of creating the storyline of digital biographical narrative use such narrative technologies as: dialogue, stimulation of discussion, description, reflection, multiline plan of the plot for development of events, characters and gaining experience;
- 6) read the created script of digital biographical narrative to check if it has a clearly outlined goal and clearly distinguished points of view;
- 7) in order to improve the created scenario of digital biographical narrative, it is necessary to hold collective discussion with others;
- 8) improve the scenario after discussing the original version;
- 9) complete and improve the created digital biographical narrative using alterations, editing, rewriting, changing and finding new approaches to implementation of creative idea and focusing on solving the most significant comments.

*Stage IV.* Providing resources for imaginative interpretation of the plot of digital biographical narrative is through the following:

- 1) searching, imaging, which can be used in digital biographical narrative, including: photos of the personality studied, pictures, personal sketches, drawings (made in different art techniques), caricatures, etc., that in any way characterize selected personality, outlook, hobbies, creative work, dreams, memories, professional achievements, experience, relationships with others, and storing these resources in the folder created at the first stage;
- 2) localization of audio resources such as: music, speeches, interviews and other sound effects, storing these resources in the created folder;
- 3) finding another information content hosted on websites, in documents, on slides in PowerPoint, processed on the computer text documents that can be used in digital biographical narrative and storing found resources in the created folder.

*Stage V.* Shot design of digital biographical narrative needs to be posted in the following order:

- 1) select images to illustrate specific points of the plotline of digital biographical narrative;
- 2) select audio to sound specific points of the plotline of digital biographical narrative;
- 3) select texts and additional content for use in digital biographical narrative;

- 4) work with shot modeling, which provides textual and visual inspection of the plotline of digital biographical narrative.

*Stage VI.* The final design (entering, recording, completion) should be performed in the following order:

- 1) enter images in digital biographical narrative (using appropriate software);
- 2) change the quantity of images or their order (if necessary);
- 3) use computer microphone to record narrative (narration) based on scenario of digital biographical narrative;
- 4) making an entry of oral story to digital biographical narrative;
- 5) add audio (music or other sound) to digital biographical narrative;
- 6) complete digital biographical narrative, store it in the version that you can view.

*Stage VII.* Demonstration, evaluation and reproduction of digital biographical narrative should be carried out by following these steps:

- 1) submit digital biographical narrative to others presenting information, findings, evidences, statements clearly, understandably and logically (in such a way that the audience could follow the line, and the organization, development and style meet the purpose, audience and objectives);
- 2) gather feedback on how this digital biographical narrative can improve, extend and use in educational purposes;
- 3) train others how to create their own digital biographical narratives, using the strategic use of digital media (e.g., textual, graphic, audio, visual and interactive elements to enhance the understanding of the results, conclusions, proofs, and to provide information interesting content);
- 4) self-appraisal of the results of own creative activity.

*Stage VIII.* Design of further creative activity is based on:

- 1) discussion of the results of further creative activity;
- 2) determining ways to improve the competencies needed to create digital biographical narratives;
- 3) forecasting the possible expansion of the use of digital biographical narratives.

Result-reflective component describes the enrichment of professional competence through the development of creative and digital competences and skills to give to the whole educational process research and creative nature and provides the following:

- strengthens the emotional component (interest in the selected personality) and provides multichannel of information impact, allows to remember larger volume of material;
- helps create a relaxed positive communication atmosphere;
- individualizes learning, makes it interactive;
- forms skills of cooperation in groups;
- encourages efficient constructive communication of students (as in the design of digital biographical narratives discussion, debates, public speaking, presentation of

- projects on websites or portals of educational establishments are encouraged and supported);
- enables independent choice of a research subject – personalities, whose way of life will be studied;
  - forms the critical thinking skills, helps students deeply, diversely and clearly think about a topic, choose material to digital biographical narrative;
  - promotes logical designing of their own judgments, development of skills convincingly prove their own point of view;
  - provides an opportunity to rethink their own experience and influence future professional activity;
  - improves creative skills in creating, processing and editing of scenarios for digital biographical narratives, becomes natural, develops responsibility and skills of independent work in the process of checking, amendments and corrections;
  - provides an opportunity to talk about yourself, describe important moments of life, family stories, and speak on behalf of others to express their opinions, outlook, points of view;
  - helps develop skills of self-knowledge and reflection, understanding life purpose, self-confidence, that is essential for self-actualization in professional and personal life;
  - develops skills of analytical and critical analysis of media products;
  - forms tolerant behavior when discussing various plotlines, created biographical narratives about selected personalities;
  - stimulates creativity, which makes it possible to develop intellectual understanding of information, research skills, put them to implement new and innovative approaches in the design of digital biographical narratives;
  - improves digital competence.

Model of teaching students to create digital biographical narratives is found in the ability to carry out digital-biographical and teaching-research projects of the diverse topics.

### **2.3 Pedagogical Experiment**

In order to test the effectiveness of experimental use of digital biographical narratives, the experimental work was organized. This work was carried out during 2015-2016 years in a foreign language classroom of Faculty of Economics of Taras Shevchenko National University of Kyiv and covered 48 students. The forming experiment using digital biographical narratives occurred in the study of discipline “Foreign Language for Special Purposes”. A teaching-research project about life, professional successes and failures, ability to withstand hardships and overcome obstacles, skillful combination of intensive work with interesting vacation, formal and nonformal education of prominent representatives of business world became a striking example of the effective use of digital biographical narratives. Students prepared digital biographical narratives about: Henry Ford, Richard Branson, Steve Jobs, Mark Zuckerberg, Colonel Sanders, Ray Kroc and others.

The experimental group of 48 persons was formed during the experimental work. The forming experiment tested the general hypothesis of the study that the introduction of digital biographical narratives in learning a foreign language by students will increase the levels of digital competence formation in accordance with defined criteria.

Evaluation of effectiveness of the implementation of digital biographical narratives was performed by determining the levels of students' digital competence. The three criteria for evaluating levels (low, sufficient, high) of students' digital competence were identified. *Axiological-motivational criterion* is used to study the motivation of students to create digital biographical narratives. *Cognitive criterion* is used to identify the students' analytical and synthetic skills for finding, selecting, converting and storing information messages needed for creation of digital biographical narratives. *Creative and technological criterion* is used to identify creative and technological skills (Table 1).

**Table 1.** Distribution of students by the levels of digital competence formation according to criteria

Criteria	Distribution before the experiment						Distribution after the experiment					
	Low		Sufficient		High		Low		Sufficient		High	
	Abs	%	Abs	%	Abs	%	Abs	%	Abs	%	Abs	%
Axiological-motivational	42	88	6	12	0	-	0	-	32	66	16	34
Cognitive	32	66	12	25	4	9	0	-	26	54	22	46
Creative and technological	36	75	8	16	4	9	4	9	34	70	10	21

By carrying out an analysis of the forming experiment, we noted that students who were part of the experimental group in the study learnt to project digital biographical narratives.

The following figures of digital competence formation were found. *Axiological-motivational*. Before the experiment the figures were: low – 42, sufficient – 6, high – 0. After the experiment the figures were: low – 0, sufficient – 32, high – 16. *Cognitive*. Before the experiment the figures were: low – 42, sufficient – 6, high – 0; after the experiment the figures were: low – 0, sufficient – 32, high – 16. *Creative and technological*. Before the experiment the figures were: low – 36, sufficient – 8, high – 4; after the experiment the figures were: low – 4, sufficient – 34, high – 10.

The qualitative analysis of the data showed that most of the difficulties occurred in the implementation of creative tasks through the use of digital technologies. As the

data show that 10 persons have high level of digital competence according to creative and technological criterion after the experimental work has been done. The vast majority of students (36 persons) mastered the necessary skills at a sufficient level. A small number of students were at a low level (4) due to their absence in the classroom during the teaching experiment.

Thus, the forming experimental research and comparative analysis of the levels of students' digital competence formation in the projecting of digital biographical narratives before and after the experiment confirmed the effectiveness of the proposed author's approach. The results of the forming experiment determine the feasibility of its implementation in various educational practices of formal and nonformal education.

### **3 Conclusions**

The knowledge obtained in the result of digital biographical studies help students not only to learn, but also rethink different events of their lives through becoming acquainted with individual and personal experience of the personality in different life contexts and vectors of development, help to establish relationships between individual psychological and social factors of impact at different stages of ontogeny. Technological, creative skills used for creation digital biographical narratives will contribute to the development of digital competence.

The changes taking place in the scientific and socio-cultural environment increasingly actualize the problem of use of biographical research in various aspects of human existence. They are not only the dominant theme of the mass media space, but also some specific indicator of humanistic and democratic processes in the country, for which priority should be the life of each individual, his/her unique and unrepeatable being. So, quite naturally is the fact that in the space of humanities (languages, literature, history, art, pedagogy, psychology, sociology, media, etc.) there is increased interest in biographical research.

In order to accomplish positive changes in higher education, first of all, it is necessary to provide training for university teachers to implement innovations in practice. It is no exaggeration to say that university teachers of philological sciences should master the methods of creation and use of digital biographical narratives, design of which activates humanization, individualization of the educational process.

The problems of creating such a learning environment in which digital narratives will be a tool of pedagogical research and positive educational impact need further coverage.

### **References**

1. Bykov, V., Leshchenko, M.: Digital humanistic pedagogy of open education. The theory and practice of social systems management, pp. 115-130, Kyiv (2016)
2. Zjazjun, I. A.: Pedagogy of kindness: ideals and realities, Kyiv (2000)
3. Isajeva, S.: Ways to ensure effective communication between teacher and students accord-

- ing to Thomas Gordon. Actual problems of sociology, psychology, pedagogy, pp. 193-198, Kyiv (2012)
4. Leshchenko, M.: The methods of biographical research in discourse of educational narrative practices. Scientific notes of Taras Shevchenko National University of Kyiv, pp. 62-65, Kyiv (2012)
  5. Ruban, L.: American educator and reformer John Holt (1923-1985): genesis of ideas on teacher masterpiece, Kyiv (2011)
  6. Tymchuk, L.I.: Digital narratives in teaching future Masters of Education: history, reality and prospects of development: monograph, Kyiv (2016)
  7. Denzin, N.K.: The landscape of qualitative research. Sage Publications, Inc. (2008)
  8. Nowak, M.: Teorie i koncepcje wychowania. Wydawnictwa Akademickie i Profesjonalne Spółka z.o.o., Warszawa (2008)
  9. Pappas, C.: 18 Free Digital Storytelling Tools For Teachers And Students, <https://elearningindustry.com/18-free-digital-storytelling-too>
  10. Piorunek, M.: Badania biograficzne I ich aplikacje w pedagogice pracy. Wartosci w pedagogice pracy, Warszawa-Radom (2008)
  11. Roberts, B.: Biographical research Principles and Practice in Survey Research. Open University Press. Buckingham, Philadelphia, <http://mcgraw-hill.co.uk/openup/characters/0335202861.pdf>