NEW TECHNOLOGIES OF THE VUCA-WORLD FOR A FOREIGN LANGUAGE TEACHER

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Abstract

In the modern educational system, both the competencies of a foreign language teacher, who has to enter the complex world of the XXI century – the VUCA-world (the world of Volatility, Uncertainty, Complexity and Ambiguity**)**, and, accordingly, teacher training strategies are continuously changing. The world's best practices and rapidly developing technologies' mastering is one of the priorities of the teacher training process for the VUCA-world. The analysis of scientific and methodological literature shows that the use of modern technologies in teaching is becoming a dominant characteristic of modern education. In their article, the authors describe the theoretical and methodological foundations of using the PechaKucha pedagogical technology (by Astrid Klein and Mark Dietam) in teaching foreign languages.

The research goal of the study is to identify and experimentally test the ways of implementing the PechaKucha technology in the foreign language teacher training program.

The authors used quantitative methods to confirm the possibility of using the PechaKucha technology in the training of foreign language teachers. Within the short elective course "Interactive Technologies in Teaching Foreign Languages", 4th-year students (future English teachers) were offered to use and approbate the above technology when modeling foreign language lesson plans.

The study shows that the PechaKucha pedagogical technology allows solving the following tasks:

- to improve speech competence,
- to develop creative thinking,
- to form presentation skills,
- to educate person-oriented qualities such as openness and sociability,
- to master ICT competencies,
- to deepen knowledge on the subject.

The results of the study can be taken into consideration by University faculty and administrators while compiling foreign language teacher training programs for the VUCA-world.

Keywords: foreign language teacher, PechaKucha pedagogical technology, PechaKucha technology implementation, teacher training, VUCA-world.

1. INTRODUCTION

In modern Russian education, there is an increasing need for a new type of a foreign language teacher who is ready to work successfully in the modern, complex and unstable world with its constantly changing socio-economic and cultural conditions. The VUCA-world (the world of Volatility, Uncertainty, Complexity and Ambiguity) is leaving its mark on almost all professional competencies of a foreign language teacher, above all, on the communicative competency, which is most sensitive to the changes that occur in language. To meet this need, teacher training strategies are to be applied and/ or modified accordingly. One of the effective ways to shape professional competencies of a foreign language teacher is to master the world's best practices and educational technologies. The most flexible and mobile sources of language information available to both students and teachers are digital sources. Therefore, it is digital educational technologies that are objectively becoming the key tools of forming professional competencies of a future foreign language teacher.

The outlined problem is as follows. Are new technologies of the VUCA-world designed for a foreign language teacher, or is a foreign language teacher destined for new technologies of the VUCA-world? The authors claim that new technologies, rapidly appearing in the VUCA-world, are invented for a teacher to implement them in the education process. Taking into account their educational potential, the authors assert that the PechaKucha, Ted talks, Quizzes, Britishcouncil, Coggle, Canva technologies are aimed at developing language and speech skills. The technology that promotes teamwork is Kahoot. Technologies for forming critical thinking are Venn diagram, clustering, and others. In this study, the PechaKucha digital technology's methodological potential was tested.

The following research questions are examined:

✔ How easy is it to implement the PechaKucha technology in the foreign language teacher training program?

✓ Does the PechaKucha technology aim at improving students' speaking, creative thinking and presentation skills, i.e. forming professional competencies of a foreign language teacher?

The research goal of the study is to identify and experimentally test the ways of implementing the PechaKucha technology in the foreign language teacher training program in the "Interactive Technologies in Teaching Foreign Languages" class for forming professional competencies of a future foreign language teacher.

The research was carried out at the intersection of a number of pedagogical and methodological disciplines such as Linguistics and Computer science, Methods of teaching foreign languages and Rhetoric. The results of the study can be used in developing foreign language teacher training programs and organizing the training of future foreign language teachers for the VUCA-world.

2. PURPOSE AND OBJECTIVES OF THE STUDY

The purpose of the study is to develop a theoretical justification and an experimental verification of the system of the methodological support for the process of training foreign language teachers by means of digital educational technologies, namely the PechaKucha technology. There are considered theoretical and methodological foundations of using the PechaKucha technology for the above purpose. The technology was tested in the "Interactive Technologies in Teaching Foreign Languages Class" during the Fall semester of 2020.

The objectives of the research are:
1. To explore the PechaKucha origins.
2. To describe the characteristic features of the PechaKucha technology.
3. To study the PechaKucha structure and test the presentation technique.
4. To implement the PechaKucha technology in the foreign language teacher training program.
5. To identify the outcomes of the PechaKucha technology.

3. LITERATURE REVIEW

On revealing the contradiction between the objective need in training foreign language teachers with highly developed foreign language communicative competency that allows them to successfully function in new learning environments, on the one hand, and the lack of a scientifically based system of methodological support for the formation of such competency in the process of university training based on digital technologies, on the other hand, the authors defined the problem of this research and set the research goal. There was critically analyzed scientific literature and were studied different approaches to determining the methodological potential of various digital technologies in the formation of foreign language communicative competency of future foreign language teachers for the complex world, as well as the most effective ways to realize this potential.

The literature review showed that researchers and educators mostly describe the effectiveness of the usage of digital games highlighting "exciting opportunities for learning and teaching" they offer [1], [2]. As cited in Li K. [3], "Digital games, with their growing popularity and prevalence in people's everyday life, have received considerable scholarly attention for their educational value and pedagogical potential. In the field of second language acquisition (SLA), researchers have investigated the affordances of digital games for language learning and studies have produced promising results suggesting their positive effects on language learning, ranging from lowering affective filters [4], [5], [6], [7], to facilitating collaborative interaction and learning [8], [9], [6], learner participation [10], [11], and language socialization [12], [13].

Technology has changed and improved education, and will continue to do so. Technology has a role to play as a powerful teaching tool [14], [15], [16]. Therefore, interest in teaching through digital educational technologies has intensified in recent years, and researchers and teachers have been keen to harness the pedagogical benefits in classroom contexts.

We found no in-depth investigation which deals with the implementation of the PechaKucha technology in training foreign language teachers for the VUCA-world.

4. METHODOLOGY

To answer the research questions, the authors included the PechaKucha technology into the short elective course "Interactive Technologies in Teaching Foreign Languages" syllabus. 91 BA students (pre-service teachers) of the Institute of Philology and Intercultural Communication of Kazan (Volga Region) Federal University were trained to use the technology when modeling EFL (English as a Foreign Language) class plans. These made the first stage of the research.

At the second stage, there was compiled a web-based questionnaire to obtain data which should answer research questions. A web-based questionnaire due to its flexibility allowed the respondents to fill in the questionnaire in their free time using any device which was at their disposal (a desktop, laptop, tablet, or mobile). This proven method helped the authors to collect objective data. A rating scale type of questions, that made the bulk of the questionnaire, helped to simplify and quantify the respondents' answers.

The collection and analysis of the obtained data constituted the third stage of the research. The quantitative methods were used. The collected data were processed in numbers and percentages.

The obtained data are presented in Table 1 and Table 2 below:

Table 1. Respondents demographic data

Status	Year of training	Number	Gender
BA students	4-th year students	n=91	Male (n=4/4.4%)
			Female (n=87/95.6%)

Table 2. Obtained data on the basis of the respondents' answers

1: The PechaKucha technology teaches how to highlight the main issues from a huge amount of information.			
Status	Respondents	Gender	Responses
Students	n=91	Male (n=4/4.4%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=1/25.0%) Agree (n=3/75.0%) Strongly Agree (n=0/0.0%)
		Female (n=87/95.6%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=5/5.7%) Agree (n=80/92.0%) Strongly Agree (n=2/2.3%)

2: Future teachers develop the ability to apply modern pedagogical technologies and improve the skill of working with a computer as a means of information management.			
Students	n=91	Male (n=4/4.4%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=1/25.0%) Agree (n=3/75.0%) Strongly Agree (n=0/0.0%)
		Female (n=87/95.6%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=1/1.1%) Agree (n=10/11.5%) Strongly Agree (n=76/87.4%)

3: The PechaKucha technology saves time in class.			
Students	n=91	Male (n=4/4.4%)	Strongly Disagree (n=0/0.0%) Disagree (n=1/25.0%) Neither agree nor disagree (n=1/25.0%) Agree (n=2/50.0%) Strongly Agree (n=0/0.0%)
		Female (n=87/95.6%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=5/5.7%) Agree (n=82/94.3%) Strongly Agree (n=0/0.0%)

4: The PechaKucha technology helps students think quickly and express their ideas in the most succinct and accurate way.

Students	n=91	Male (n=4/4.4%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=1/25.0%) Agree (n=3/75.0%) Strongly Agree (n=0/0.0%)
		Female (n=87/95.6%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=1/1.1%) Agree (n=86/98.9%) Strongly Agree (n=0/0.0%)

5: The PechaKucha technology suggests learning autonomously and from community.

Students	n=91	Male (n=4/4.4%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=0/0.0%) Agree (n=4/100.0%) Strongly Agree (n=0/0.0%)
		Female (n=87/95.6%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=0/0.0%) Agree (n=87/100.0%) Strongly Agree (n=0/0.0%)

6: The PechaKucha technology educates person-oriented qualities such as openness and sociability.

Students	n=91	Male (n=4/4.4%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=1/25.0%) Agree (n=3/75.0%) Strongly Agree (n=0/0.0%)
		Female (n=87/95.6%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=1/1.1%) Agree (n=86/98.9%) Strongly Agree (n=0/0.0%)

7: The PechaKucha technology masters ICT competencies.

Students	n=91	Male (n=4/4.4%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=0/0.0%) Agree (n=4/100.0%) Strongly Agree (n=0/0.0%)
		Female (n=87/95.6%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=0/0.0%) Agree (n=87/100.0%) Strongly Agree (n=0/0.0%)

8: The PechaKucha technology deepens knowledge on the subject.

Students	n=91	Male (n=4/4.4%)	Strongly Disagree (n=0/0.0%) Disagree (n=1/25.0%) Neither agree nor disagree (n=1/25.0%) Agree (n=2/50.0%) Strongly Agree (n=0/0.0%)
		Female (n=87/95.6%)	Strongly Disagree (n=0/0.0%) Disagree (n=0/0.0%) Neither agree nor disagree (n=1/1.1%) Agree (n=78/89.7%) Strongly Agree (n=8/9.2%)

9: The PechaKucha technology helps students seamlessly integrate into the learning process and start their own project activities.

Students	n=91	Male (n=4/4.4%)	Strongly Disagree (n=0/0.0%)
			Disagree (n=0/0.0%)
			Neither agree nor disagree (n=1/25.0%)
			Agree (n=3/75.0%)
			Strongly Agree (n=0/0.0%)
		Female (n=87/95.6%)	Strongly Disagree (n=0/0.0%)
			Disagree (n=0/0.0%)
			Neither agree nor disagree (n=3/3.4%)
			Agree (n=70/80.5%)
			Strongly Agree (n=14/16.1%)

5. RESULTS

These data were collected with the use of the web-based questionnaire the participants filled in anonymously. So there was no need in getting any special permission from the ethics committee of the University where the data were gathered.

The web-based questionnaire consisted of nine questions which were developed by the researchers of this study and which helped them to test the PechaKucha digital technology's methodological potential in forming professional competencies of a foreign language teacher. After they had approbated this technology when modeling their English lesson drafts, the 4-th year BA students were offered to answer the above questions.

The results showed that the PechaKucha educational technology is all-encompassing. It allows:
-        bettering students' communicative competency: 100% of the respondents agree that the PechaKucha technology suggests learning both autonomously and from community (Question #5), and 97.8% of them assert that the PechaKucha technology educates person-oriented qualities such as openness and sociability (Question #6);
-        improving students' ability of developing creative thinking: 93.4% of the respondents think that the PechaKucha technology teaches how to highlight the main issues from a huge amount of information (Question #1), 92.3% of the respondents admit that the PechaKucha technology saves time in class (Question #3), 96.7% of the respondents consider that the PechaKucha technology helps students think quickly and express their ideas in the most succinct and accurate way (Question #4), 95.6% of the respondents state that the PechaKucha technology helps students seamlessly integrate into the learning process and start their own project activities (Question #9), which all together develop soft skills.
-        forming presentation skills: 97.8% of the respondents agree with the statement that the PechaKucha technology improves the skill of working with a computer as a means of information management that helps to form presentation skills: (Question #2);
-        mastering ICT competencies: 100% of the respondents are sure that the PechaKucha technology masters ICT competencies (Question #7);
-        deepening knowledge on the subject: 96.7% of the respondents agree with this point (Question #8).

Analyzing the obtained data we found out that the collected data confirmed our preliminary assumption that
✔ it is possible to implement the PechaKucha technology in the foreign language teacher training program
✔ the PechaKucha technology provides for improving future foreign language teachers' speaking, creative thinking and presentation skills, i.e. forming their professional competencies.

It was also affirmed that the Pechakucha technology has a number of disadvantages. First, bright and attractive images used in slides may distract listeners from the content of the presentation. Second, choosing good images for slides takes a lot of time. Third, a presenter has to learn his "speech" by heart beforehand; slides change automatically, and if the speaker falls behind or outruns their changing, the whole presentation is smashed.

6. DISCUSSION

In this study, there is presented a novel, for Russian foreign language teachers, pedagogical technology called PechaKucha. The first three paragraphs below give an idea on how this technology has emerged in education, how it works, and what didactical tasks it allows solving.

The following paragraphs discuss how the researchers identified the characteristic features of the PechaKucha technology and implemented it in the foreign language teacher training program compiled for pre-service teachers who were seeking their BA degree.

PechaKucha origins

In 2003, architects Astrid Klein and Mark Dytham of Tokyo's Klein Dytham architecture invented PechaKucha. The initial purpose was to streamline long design presentations. Sessions soon turned into happenings "PechaKucha Nights" first in Tokyo, then around the world. Today, more than 50,000 people present at 1,100+ global "PechaKucha Nights" every year. And the number keeps growing. PechaKucha is the world's fastest-growing storytelling platform, used by millions all over the world. PechaKucha is what "Show and Tell" always dreamed of becoming. Today schools and business use PechaKucha to creatively and effectively engage students and employees on a range of subject matters [17].

PechaKucha structure and presentation technique

Like any educational technology, the PechaKucha technology consists of a task / or a number of tasks, the purpose, and means of achieving the purpose.
The PowerPoint presentation comprises 20 slides with 20 seconds of commentary per slide. Slides contain as little text as possible, replacing it with one or more bright images. Slides change automatically, the speaker cannot switch them or go back to the previous one. After presenting, the speaker answers the questions of the audience during the time not exceeding the time of the presentation, that is, 6 minutes and 40 seconds.

Outcomes of the PechaKucha technology

The PechaKucha technology allows solving the following tasks:
- improvement of communicative competency;
- development of creative thinking;
- formation of presentation skills;
- education of person-oriented qualities;
- mastery of ICT competencies;
- deepening of knowledge on the subject.

The implementation of the PechaKucha technology in the foreign language teacher training program

The researchers tried to find answers to the following two set research questions:
1. How easy is it to implement the PechaKucha technology in the foreign language teacher training program?
2. Does the PechaKucha technology aim at improving students' speaking, creative thinking and presentation skills, i.e. forming professional competencies of a foreign language teacher?
In order to answer the first question, the authors developed a course syllabus "Interactive Technologies in Teaching Foreign Languages" for training future foreign language teachers which included, amongst others, Module "Digital Technologies", which in its turn comprised the PechaKucha technology.
BA students got interested in learning and testing a new teaching instrument and modeled their English lessons using the PechaKucha technology. One can judge by the responses in the web-based questionnaire that this digital technology seemed appealing to most students. Thus, it was not difficult to implement the PechaKucha technology in the foreign language teacher training program.

Limitations

By the students' responses in the web-based questionnaire the researchers drew a conclusion that practicing this engaging teaching technology might improve students' speaking, creative thinking and presentation skills although there was not held a qualitative experiment which could measure these skills. And this is one of the limitations in this quantitative study. Some new researches will definitely meet this challenge; moreover, further studies may reveal the educational potential of the PechaKucha technology to its full length in the process of forming professional competencies of a foreign language teacher.
The current study is inevitably subject to some more limitations. First, the lack of a control group renders the generalization of the results challenging. Second, the interpreting of the obtained data is subjective due to the nature of the self-reported data. These issues together with the mentioned above can be taken into consideration in future researches in this area.

7. CONCLUSION

In this study, there is tested the way of implementing the PechaKucha digital technology in the foreign language teacher training program. The testing proves that students – future foreign language

teachers – are easily engaged in the teaching process when they are offered to learn by new digital technologies. The theoretical and methodological foundations as well as the presentation technique of the PechaKucha digital technology are described. The data derived from the web-based questionnaire reveal that the PechaKucha educational technology seems appealing and useful to students because it teaches how to highlight the key ideas while presenting, to develop creative thinking, to improve communication skills, to deepen knowledge on the subject, and to master ICT competencies.

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