Digital storytelling to facilitate academic public speaking skills: case study in culturally diverse multilingual classroom

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Abstract

A small scale study is reported in the article in an effort to determine the impact of enhancing cultural diversity in teaching academic public speaking skills as a result of Digital Storytelling (DS) implementation in multilingual classrooms of 2nd year TEFL pre-service students who took training over 7 weeks to become teachers of English as a foreign language. DS represents a powerful way of making/telling short stories using animation, website, audio video, and graphics. We explored DS in the English Language Classroom for TEFL pre-service students for developing public speaking skills because DS improves vocabulary enrichment and oral skills. Teachers also access students' English language fluency, coherence, and cohesion to identify areas of academic public speaking skills improvement for their multilingual students. The experimental teaching had several stages, namely the introductory phase when students were supposed to decide on the topic of their stories and make initial drafts. The second phase was dedicated to the verification of the final draft by a tutor. During the last phase of the project, students performed their own DS with public presentations. The study used mixed research methods, i.e. both qualitative (focus group) and quantitative (questionnaires and rubrics) methods. Students used devices with digital capabilities to record narrations so their created DS included their personally produced public speech. Our results demonstrated that DS provided an opportunity to make students' speech more coherent and cohesive because points of descriptors such as fluency, coherence, and cohesion of academic public speaking performances significantly improved by 15%. Moreover, this technique depicted a positive outcome because of its constant reiteration of academic vocabulary and grammar in multilingual groups, and cultural diversity in different nations.

Keywords Foreign language learning and teaching · Digital storytelling · Linguistic and cultural diversity · Academic public speaking skills · Pre-service teachers

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Introduction

Cultural diversity

Nowadays, in the 21st century, we live in a world where communication has vast importance in every sphere of our lives. We use language as a means of communication. Language exists to help with interaction, and it is a crucial part of national history and culture. There is a big role in intercultural communication notions such as multilingualism and cultural diversity.

Theoretically, the term cultural diversity possesses various meanings. Sociologically, it means the existence of numerous ethnic groups with different cultures coming jointly in society. Ideologically, it also refers to social analyses that affirm cultural origins at differing levels by numerous ethnic dominations (Aronin & Singleton, 2010). The correlated specific ideas are multiculturalism, ethnic diversity, and cultural pluralism (Krashen, 2010).

Hence an increasingly racially and ethnically varied society is described in many ways by the phrase cultural diversity. It relates to an individual's development of their cultural identity and interactions with others. The phrase has meaning in how cultural groups organize themselves nationally and how the governments utilize the legislation to promote or restrict variety (Capra, 2005; Cenoz, 2009; Edwards, 1994). The question of globalization and how changes in economic, political, and social activities will affect the diversity of the world are intertwined with cultural diversity on a global scale (Dewaele, 2010).

To advance educational quality, it is necessary to introduce innovative progressive pedagogical digital capabilities into teaching and learning. Implementing new technologies in teaching English is due to the realities of today. The modern lesson cannot be imagined without computer-assisted tools. With modern educational gadgets, study innovation is now largely advanced by many steps and has made huge steps towards quality improvement.

With the development of the Internet, there are new opportunities for teaching foreign languages (Shayakhmetova et al., 2020). The effectiveness of operating with innovative tools depends mainly on teachers' competencies (Duduney et al., 2014). However, implementing technologies in the learning process should be carried out carefully and with all precautions (Shadiev & Liu, 2023). As it was noted digital technologies represent positive feedback in teaching pre-service teachers (Gavaldon & McGarr, 2019).

To plan a good lesson, a language teacher follows certain criteria because multilingualism is not only a high goal set by Kassym-Jomart Tokayev, the President of Kazakhstan, but the concept of "multilingualism" is also filled with some aspects of the professional plan. Mostly it means the implementation of integrated subject learning in interdisciplinary connections in the classroom, broadening students' horizons and cultural cross-fertilization through the acquisition of languages, and development of intercultural awareness, tolerance, and internationalism (Kunanbayeva, 2016). Teaching factual usage of the target language in spoken and written forms of communication promotes students

to express their identities and intelligence in the language in compelling ways, consolidating their internalization of the code (Cummins, 2001).

It has been proven that storytelling is used as an approach for delivering cultural issues from generation to generation. Narrating is a clear way of communication between nations and the benefits and drawbacks of short stories during learning and teaching the target language are well described in methodological works (Author, 2016).

DS

Nowadays DS proposes an innovative and digital mode of retelling stories with the help of computer-assisted tools and techniques, and it routes modern story narration by mixing numerous media such as websites, audio, video, animation, and graphics to design colorfully creative live sessions (Brenner, 2014; Hwang et al., 2016).

DS is considered an amazing educational approach that aids learners in the comprehension of topics and specific knowledge (Shadiev et al., 2017). What is more, DS enables students to use their visual, auditory, and kinesthetic skills. DS is a great tool that enhances creativity and thinking skills in the students when they brainstorm to make a story. It also helps students to learn how to collaborate and work in a team. As Patricia Search identifies DS as a technique that contributes to combining interactive technology with the traditional art of storytelling to produce national narratives that immerse the audience in new cultural experiences (Search, 2015).

DS enables ordinary people to contribute snippets of their tales in a condensed form of digital media production. The multimedia used can be the digital equivalent of film techniques (full-motion video with sound), still images, audio recordings, or any other non-physical media (material that only exists as electronic files as opposed to actual paintings or photographs on paper, sounds stored on tape or disc, movies stored on film).

There are numerous meanings of DS but generally speaking they all center on the idea of fusing the craft of storytelling with a range of digital multimedia, such as images, photos, graphics, audio, and video. To provide a piece of information on a particular topic, almost all digital stories include graphics, recorded text with audio and video, and musically followed. As a co-founder of the Center for DS (CDS), a non-profit, community arts organization in Berkeley, California, Lambert helped DS get off the ground as a relatively new concept. In addition to providing training and assistance since the early 1990s, Lambert and the CDS have developed and disseminated the Seven Components of DS.

While DS is defined in many different ways, they all combine traditional story telling with digital media (images, audio, video, podcasts, etc.) to retell a story. The Bologna Process is encouraging technological innovation in teaching in Europe. DS is one of the genres that seem to match these expectations, as technology is prompting academics to reconsider their educational endeavor in terms of both content and teaching. DS is a versatile and flexible tool that can be implemented

in almost all the subjects we teach and fulfill most purposes. Its adaptability comes from the fact that, depending on the goal of the activity and the student's level of computer literacy, a digital story writer can use a variety of tools, ranging from the basic (like digital images and Photo Story) to the complex (like Flash to create their animations). Point of view, emphasis on the dramatic question, emotional state, the storyteller's voice recordings, soundtrack, economy, and tempo, were the seven primary DS components recommended by CDS.

Normann (2011) defines DS as a tale that lasts little more than two to three minutes and in which the narrator utilizes his voice to embellish the tale. The emphasis is on the private aspect, which could be connected to characters, a setting, an interest, or anything else that will give the narrative a personal touch. This has evolved in numerous ways because of improvements in recording and personal computing technologies as well as its use in a wide range of academic situations.

DS is outlined by the DS Association, as a contemporary manifestation of the ancient art of story telling (the DS Association). Though there is no definitive explanation for DS, the bulk emphasizes the employment of multimedia tools together with graphics, audio, video, and animation to inform a story. Benmayor suggests DS as a brief multimedia system story that combines speech, image, and music (Benmayor, 2008).

According to Kajder and colleagues, DS is a set of still images followed by a recorded soundtrack and they relate to a story (Kajder, et al, 2005).

Meadows assumes the technology-focused meaning where DS creates brief transmission stories using computers, nonlinear authoring tools, and inexpensive digital cameras to complete social story telling projects. It is a technological tool that helps lecturers employ technology in their classrooms by implementing user-generated content (Meadows, 2008).

Constructivist learning is the focus of DS. Different learning paradigms, including behaviorism, cognitivism, and constructivism, have been applied in recent years to improve the teaching and learning process. Each of these theories has its own take on learning methodologies. For instance, Hill claims that a learning theory is an effort to describe how individuals learn as well as a paradigm for comprehending the core elements of the learning process (Hill, 2008).

The Psychonomic college supported by such scholars as Thorndike, Pavlov, and Skinner, assumed that learning promotes a new type of behavior resulting in out-of-classroom acts. Behavior models embody the employment of direction signs and learning observations. A behavior is performed on corresponding changes in discernible aspects of learning and the learning method. The important components of activity models are unit motivation, prompts, and the association between them. One of the foremost vital options is the incentive gift for learning at intervals in a learning setting. Compared with experimental psychology, which explores students' behavior, psychological feature theories touch upon the processes driving the behavior. It places larger stress on the setting to facilitate the training method. Cognitivism focuses on the development, organization, and arrangement of instructional content facilitating the optimum management of knowledge, and how to recollect, store, and retrieve info. Additionally, learning is seen as a dynamic method, which is formed by the learners themselves (Skinner, 1974).

Though contemporary constructivism dominates the educational paradigm, there are huge areas where it differs from the cognitive learning theory. It is distinguished by the emphasis on learning in real-world situations and attention to the social component of learning. It is according to Wilson, "a setting where students can collaborate and support one another as they use a range of tools and information resources in their supervised pursuit of learning objectives and problem-solving tasks" (Wilson, 1996).

In addition, according to Anderson, the constructivist has more than a simple perspective on learning, recognizing that people explain the learned information and the world around them, based on their vision. In accordance with Jonassen's opinion, learning environments ought to promote constructive, purposeful, active, cooperative, complex, dialogical contextualized, and reflective learning. Additionally, constructivism's key learning qualities are that students build on their worldviews based on experience and interaction and that they create new understandings by assembling information from a variety of sources (Jonassen, 2012).

On contrary, education theories created in the twentieth century view teaching and learning as more than just the exchange of information. These theories consider instruction as a particular paradigm of adult–child interaction, where the adult is ideally seen as a collaborator and/or co-constructor.

The importance of the learners' active role is highlighted heavily because it is essential for the development of abilities for lifelong learning. Leo Vygotsky created the zone of proximal development (ZPD) which is described as a gap between what a learner can perform with and without assistance (Vygotsky, 1978). The ZPD's main goal is to make sure that students are actively involved in their education so that they can eventually become self-directed, lifelong learners. In this way, learning and teaching are two parts that jointly produce knowledge. Additionally, it makes it easier for that knowledge to be further transformed into the knowledge of each learner.

DS facilitates an artistic approach to teaching and learning. It is a useful. educational tool because it provides a vehicle for combining digital media with innovative teaching and learning practices. Aside from building on learners' technology skills, DS encourages further educational outcomes. It enhances learners' motivation and helps academics in building constructivist learning environments that encourage artistic downside-finding supported collaboration and peer-to-peer communication. Additionally, DS is accustomed facilitate integrated approaches to program development and interaction with learners in higher-order thinking and deep learning.

Current research is focused on the implementation of Web 2.0 tools in EFLT and it needs to be grounded on empirical foundations. Besides Web 2.0 technologies require users to have multiliteracies that are necessary for traditional paper-based activities (Sylvester & Greenidge, 2009). The term multiliteracies were introduced in 1996 by the New London Group to refer to the combination of literacies used now that allow people to successfully explore and adapt to information and communication technologies and contexts (Leu et al., 2004).

In 2012 Nicky Hockly defined the term digital literacies as the constantly evolving digital landscape (Hockly, 2012).

Furthermore, Dudeney et al. (2014) highlighted 4 main areas of digital literacies language-based, information-based, connection-based, and redesign-based literacies.

Another opinion was proposed by Belshaw (2011) who characterized digital literacies as cultural, cognitive, constructive, communicative, confident, creative, critical, and civic.

Students today merge text with other media like images, gifs, audio, and video locating and synthesizing information on the Web, communicating synchronously with others, and working in a nonlinear design.

So, the modern digital approach of representing computer-assisted story telling for delivering specific information and sharing cultural ideas is determined as DS. Citing K. Brenner, DS contributes to getting knowledge via using various media such as animation, audio–video, graphics, web sites, so that to read, listen, see and act (Brenner, 2012). She realized not only her idea so that to demonstrate how to include the DS technique into the teaching process, but Brenner has organized a DS lab. Most of her suggestions DS technique is a project based assignments lasting from 10 to 12 weeks that is intended to increase personal abilities including teamwork, leadership, and time management.

Analyzing collective research conducted by Condy, Chigona and other scientists, DS is highlighted as a powerful tool in teaching students with different learning styles, it suits visual, auditory, and kinesthetic students. This tool strengthens learners' creative, critical thinking and cognitive skills in designing and making DS colorful and unique while collaborating and working in a team.

Description of the methodology

Research context

The given case study represents the strengths and weaknesses of implementing DS in University endeavors and describes the Web 2.0 tools to make and narrate own stories, and how they can be used for educational purposes. The increasing popularity of Web 2.0 tools in the pandemic COVID-19 situations around the world highlighted their huge educational capabilities. The main purpose is to investigate the benefits of using DS in distance education and its impact on teaching and learning and raise certain difficulties for pre-service teachers in designing their own DS.

The main purpose of the current study is to explore the effectiveness of public speaking skills by describing methods and strategies for using digital media for storytelling in multilingual classrooms. Besides, sub-objectives were to look at whether the different scopes and areas in which academic public speaking skills with the help of the DS could be integrated as a significant source in academic speaking and to improve students' public performances of multilingual groups which benefit them when applying their knowledge and performances in their professional endeavor.

DS is a process of creating a typical story in a digital version that revolves around the narrative. Students write multiple drafts and receive peer reviews during story

circles. After the narrative is completed, students develop a script, a refined version of the narrative that is recorded later. Then students put together a storyboard to align their script with visuals and videos from personal life or online resource, YouTube channels. DS creating is conventionally done using video editing software such as iMovie, and Movie Maker. Finally, students share their digital productions with peers and demonstrate them in the English classroom.

In addition, DS videos were created that were accustomed to support DS's instructional use. Also, a discussion of challenges and different vital issues that students and instructors ought to bear in mind before implementing the DS within the learning area unit is enclosed and conclude with an outline of the analysis that has been and desires to be conducted on the effectiveness of DS as an effective learning device for education.

DS is a beneficial way of telling/making stories using animation, website, audio video, and graphics. Students create their own stories with images, and scripts on cultural differences/similarities in English, Russian and Kazakh communication.

The effect of DS creating on the L2 comprehension ability of university participants was determined with the questionnaire. It examined the motivating impact of L2 acquisition of a given linguistic and cultural aspect. The results showed that students produced language and cultural awareness skills while communicating more significantly than before our practical approbation. What's more, the results of the current study provide that the teaching language and culture are closely intertwined and shift teaching language into cultural interaction.

Nevertheless, high schools' graduates have usually not reached level B1 because of their lack of communicative context, shortage of learning motivation, and testing pressure (Nguyen & Huan, 2018). So, the urgency of this research is to promote teaching conditions via DS for improving academic speaking skills in public pre-service teachers.

The article reports on a small-scale study that examined the impact of enhancing cultural diversity in English language learning (L2) due to DS implementation at the Eurasian National University, Nur-Sultan, Kazakhstan, for second year students on the specialty "Foreign Languages: two foreign languages" over 7 weeks. 7 weeks had been scheduled for data collection.

Participants profile

60 pre-service teachers during the autumn term of 2021 were involved in the experiment. The participants were 19–20 years old learners of different nationalities: Kazakh, Russian, Tatar, Uzbek, German, Polish, Korean, Kirgiz, Ukrainian, Chinese, etc. They master their native language, the language of communication either Kazakh or Russian, and less than one foreign language.

In total, 60 students took part in the experimental training. At the time of implementation, all students studied two foreign languages (English and German/French/Chinese/Spanish).

"Public speaking skills" was a subject that participants went into that particular period of time according to the syllabus of the given specialty. It is obvious; that this

discipline was the most pivotal one for our students. According to the requirements of national standards, the students should be prepared for four main activities listening, reading, writing, and speaking. The topics of speaking dealt with cultural problems focusing on their own experience and national events.

Noteworthy the participants were divided into two groups: subgroup "CG"—a control group and subgroup "EG"- an experimental group, with 30 students in each. The academic proficiency of both groups was high enough. Subgroups CG and EG overall had the same scores in reading, listening, writing, speaking, and level of academic knowledge in specific disciplines.

In the control subgroup CG, students were approximately of the same age (19–20 years old), and 16 students were bilingual, based on the responses to our survey. Sixteen of them were students of Kazakh nationality (including 6 bilinguals), and four were students of Russian nationality. Students in the control subgroup were taught according to the 10-week implication DS model. Despite nationality, only 5 bilinguals were trained in the experimental group, according to the questionnaire. Two more students studied Russian from the school bench, and the remaining six students are Russian-speaking and studied the Kazakh language at school.

Nevertheless, the control group had a traditional teaching approach. The traditional teaching approach meant classical training with the help of textbooks and audio–video supplementary materials.

Subgroup EG had an experimental teaching approach to implementing DS. Seventeen students of Kazakh nationality and three students of Russian nationality studied in the EG subgroup. All students spoke Kazakh in the framework of the curriculum except for bilinguals according to the questionnaire.

Both groups the control and experimental subgroup consisted of 30 students who were also students at the same University. For all participants in the control and experimental training, English was the first foreign language. Learning a second foreign language starting from the third year of study.

All designated students in the control and experimental groups were studying according to the educational program with the Kazakh and Russian languages of instruction.

An empirical study revealed partially variable and no variable conditions for conducting experimental training.

No variable conditions included: (1) the same number of studied foreign languages in CG, and EG; (2) the same number of hours allocated for teaching foreign languages in CG and EG; (3) approximately the same initial level of learning foreign languages of subjects of the experimental and control groups; (4) the equal tools and forms of assessment.

We attributed to partially non-invariant conditions: (1) the same occupancy of groups (30 people); (2) the same length of the period of learning the second foreign language; (3) the equal teaching materials and work program.

Variable conditions included: (1) the application in experimental groups of an author's methodology for the formation of multilingualism skills in students when they learn several foreign languages, (2) the formation of multilingualism skills for students not only in foreign language lessons, but also through the organization of

student's independent work, and (3) using different types of work (individual, pair, group work in the EG, and individual self-work in the CG).

As a result, we concluded that the students being observed in this research were fourth-year students at the University of the foreign language department. None of them are native English speakers. The racial demographics of students from the control and experimental groups largely comprised two groups—native Kazakh speakers (36%) and native Russian speakers (58%). But it is also important to point out that native Kazakh language speakers preferred to get an education in Russian language groups. Classes included 10–12 students. The English proficiency levels of the English language learners range from upper-intermediate (22) as it was determined by the proficiency exam.

Additionally, we worked out the definite criteria for achieving academic public speaking skills in n culturally diverse context. Cited to M. Hogan who highlighted the most useful skills of cultural diversity competence as known as cultural awareness, successful interpersonal techniques, and tolerant behavior. An umbrella term he had defined as cultural diversity competence (Hogan, 2013). According to Hogan's research, it was stated that because of updated challenges, higher education plays a crucial role in helping people to discover their personal identities, the historical and cultural peculiarities of their native area, and to recognize the factors that have shaped and continue to shape their lives. In a nutshell, representatives of large national groups should desire to explore the differences of other ethnic groups since it is the only way to enrich their social and enhance their understanding of the multicultural challenges facing the world today. Hence, we applied his suggested parameters of cultural diversity skills in assessing students.

In our experimental teaching, we encouraged our students to become culturally competent in today's diverse environments.

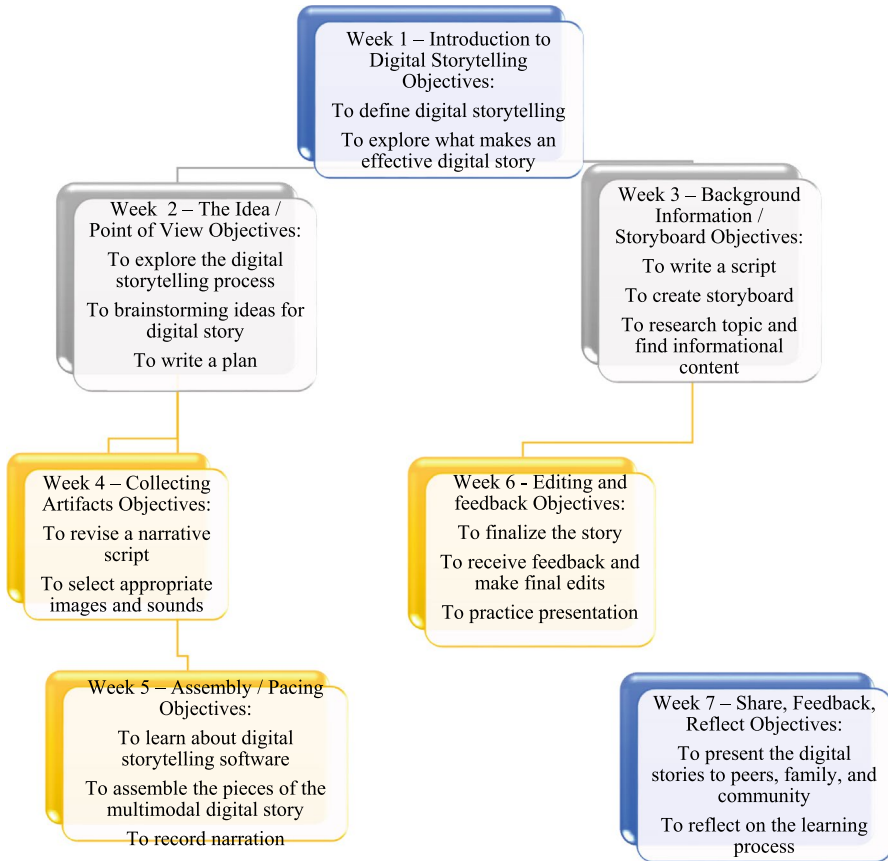Thus, the problem tackled in the given research is of huge importance.

So, we put the following statements to prove during our experimental teaching. Our research questions were:

– Can DS be used in classrooms with diverse nationalities and languages?
– Is it possible for multilingual students to develop their linguistic, cultural, and organizational skills through DS learning activities?
– How can DS foster a collaborative environment where students can actively participate and share ideas, and carry responsibility for completing academic goals in literary public speaking?

The procedure

We used DS in the English Language Classroom for pre-service teachers. We tried to develop students' academic public speaking because DS is highly beneficial in comprehending new knowledge and improving digital and grammar literacy which totally means contributing to developing the oral skills of the students.

DS is a novice emerging concept that describes the new practice of everyday people who use digital tools to tell their stories. Digital stories ensure digital interactive

Week 1 – Introduction to Digital Storytelling
Objectives:
To define digital storytelling
To explore what makes an effective digital story

Week 2 – The Idea / Point of View Objectives:
To explore the digital storytelling process
To brainstorming ideas for digital story
To write a plan

Week 3 – Background Information / Storyboard Objectives:
To write a script
To create storyboard
To research topic and find informational content

Week 4 – Collecting Artifacts Objectives:
To revise a narrative script
To select appropriate images and sounds

Week 6 - Editing and feedback Objectives:
To finalize the story
To receive feedback and make final edits
To practice presentation

Week 5 – Assembly / Pacing Objectives:
To learn about digital storytelling software
To assemble the pieces of the multimodal digital story
To record narration

Week 7 – Share, Feedback, Reflect Objectives:
To present the digital stories to peers, family, and community
To reflect on the learning process

Scheme 1 Methodological model of implementing DS

plots with compelling and emotionally engaging formats. The DS invention consists of a huge number of Web 2.0 tools like hypertexts, narrative computer programs, interactive stories, making videos, web-based stories, voice recording, and infographics.

The experimental teaching had several stages lasting 7 weeks depicted in Scheme 1 The main theoretical background in our methodological model of implementing DS in the culturally diverse multilingual classroom was based on key notions by K. Brenner (2014).

Totally during experimental teaching, we aimed at improving cultural awareness, successful interpersonal techniques, and tolerant behavior as cultural diversity parameters and aspiring academic public speaking for TEFL Pre-Service students.

Therefore, the experimental course of implementing DS for 7 weeks was organized as follows:

In the first introductory phase Week 1—when students were supposed to decide on the topic of their stories and make initial drafts.

Week 1 was a preparatory one that concluded with choosing a topic and purpose. In the first lesson, we created a visual problem of the story or global issue. Things like politicians speaking, televised debates, and celebrities show where there are several people around a table discussing something were useful. Here we used YouTube resources. We aimed for our students to be attentive to body language gestures, zone, and speaking manners so that to interpret the thoughts of people from native and foreign cultures. The DS was the most long-lasting and time-consuming both for the students and tutors because we need to choose video for any global issues with meeting people from the target culture and mother culture as was pointed out in the report about using Web 2.0 digital stories by Alameen (2011).

In our case, students had decided in a group that stories should be about cultural differences and similarities, experiences of celebrities, events, etc. that inspired them, or about people whom they admired. Moreover, all stories should concern different cultures, traditions, beliefs, aspects of nonverbal communication, etc.

Besides, we demonstrated innovative software programs, websites, web applications, etc. Whether or not there was a software demonstration, students watched DS as examples that were available on the Internet. Additionally, students were given an extensive list of web resources to assist in the experimental teaching. The most favorite was iMovie, Windows Movie Maker, Splice, Clips, Video Star, Viv video, Flip gram, and Voice Thread.

TEFL Pre-service students identified the fundamental elements of a good DS and reviewed examples, by the end of week 1, they chose a topic and define the purpose of the story they want to create for a classroom. Getting students to focus on these factors helped to raise their awareness of the diverse cultural communication which was happening.

What is more, in the first week before our experimental teaching we assessed skills of cultural diversity such as cultural awareness, successful interpersonal techniques, and tolerant behavior. The skills under the experiment were measured with the help of rubrics. Precisely we evaluated their initial cultural diversity due to academic public speaking focused on descriptors such as language fluency, linguacultural coherence, and cohesion, grammatical and lexical accuracy, pronunciation, willingness to communicate, communicative strategical skills, and abilities to discuss.

Week 2 introduced me to the basics of DS and was devoted to writing an effective script and creating a storyboard. We focused on scriptwriting as learning the steps in writing a script for DS. TEFL Pre-service students explored the basic elements of a script, such as introduction, character development, tension, and resolution that were necessary for developing a useful script. By the end of this week, they began to understand the important steps and elements of scriptwriting.

A point to note is that TEFL Pre-service students recognized the importance of selecting appropriate cultural images and the value of creating a storyboard by further acquiring new web technologies.

During Week 2, they explored several useful ways to choose images for DS, including taking their photos from real life with a digital camera, using software applications to create charts, graphs, and other images, and finding and downloading images from the web-based on size, quality, type, and usage rights.

The second phase was dedicated to the verification of the final draft by a tutor. During the last phase of the project, students performed their own digital story with a public presentation (See Table 1).

A step-by-step approach was used to illustrate how these images support script and cultural differences between native and foreign communication and to identify their similarities and differences as a part of DS creation. By the end of this week, TEFL Pre-service students created their own story's script in a visually interesting and useful storyboard.

We familiarize TEFL Pre-service students with rubrics for assessing DS which focus on linguistic abilities, and technical creativity namely narrative voiceover, images, photos, audio soundtrack, and students' performance and public speaking skills parameters as fluency and coherence, cohesion, grammatical and lexical accuracy, pronunciation, and abilities to discuss (Table 2).

One of the groups was the most advanced so we asked them to collect visual, audio, and other sensory materials to create a story using Animoto and iMovie video creation services.

Week 3 was devoted to recording audio narration. We recorded audio narration using digital devices so that students' voices could be added to the DS they created. They gained hands-on experience using some of the most common features of audio recording software to create a high-quality audio narration. In addition, students explored ways to improve audio recording with basic editing tools. Also, they learned how to find and download appropriate music for a digital story that is in the public domain or is free of copyright restrictions.

The week was the most complicated because Pre-service students recorded an infinite amount on different days and they were disappointed in their pronunciation, stress, tone, intonation even their voices. So, recording the voiceover was the most frustrating moment of our experimental teaching.

In week 4, we learned how to use We Video, a free online video editing application to assemble all the elements such as text, images, narration, and music to create

Table 1 Participant's profile

№	Nationality	Number	Native language	Target language
1	Kazakh	33	Kazakh	English
2	Russian	7	Russian	English
3	Uzbek	5	Uzbek	English
4	Ukrainian	3	Russian	English
5	Chinese	2	Chinese	English
6	Tatar	2	Russian	English
7	Korean	2	Russian	English
8	Kirgiz	2	Kirgiz	English
9	German	1	Russian	English
10	Polish	1	Russian	English
11	Armenian	1	Armenian	English
12	Vietnamese	1	Vietnamese	English
	Total	60		

Table 2 The rubric of DS Evaluation

No	Criteria		Points
1	Structure	The number of slides corresponds to the content and duration of speeches (for a 4–5-min speech, it is recommended to use no more than 8–12 slides)	20 points
		The presence of title slides and a slide with conclusions	
		An overview of the content is provided	
		Student and instructor info provided	
2	Visibility	Illustrations with good quality, clear images, the text is easy to read (not too much text per slide or its too small to read)	15 points
		Use visuals to support work and main speaking points (screenshots, screen captures, video clips, pictures of slides from presentations, etc.)	
		Student is on screen and the camera is focused	
3	Design and customization	The design of the slides corresponds to the theme, and does not interfere with the perception of the content, the same design template is used for all presentation slides	15 points
		Creativity and originality are demonstrated	
4	Content	The presentation reflects using the 4-level model of reflection for the course (before, during, after, going forward)	15 points
		Contains complete, understandable information on the topic	
		At least 3–4 examples demonstrated through pictures or video	
		Student provides meaningful insight into the future practical application of content beyond just a generalized mention	
5	Requirements to the speech	The student is fluent in the content, and clearly and competently presents the material	20 points
		The student freely and correctly answers questions and comments from the audience	
		The student fits exactly into the time limit (4–5 min)	
		The student is expressive of personal feelings and discusses the "how" and "why" and is not overly focused on the general theory	

Table 2 (continued)

No	Criteria		Points
6	Requirements to the video	The video must be live, i.e., be present with the camera on	15 points
		At the same time, the presentation should reflect both the student's video and the presentation	
		Excellent video recording quality	
		Clear sound and language used	
	Maximum points		100 points

the full version of students' DS. In addition, they learned to use basic editing techniques to improve their DS so that all the components of the story fit together and look and sound good.

Week 5 was devoted to revising, publishing, and sharing the final DS for use in the classroom. In week 5, Pre-service students revised the final version of their DS published it online and discussed how it might be used in the classroom to support teaching and learning.

Week 6 was the endpoint of our experimental teaching. The students represented their DS as an oral l public presentation consisting of an introduction, the main body, and a conclusion. Pre-service students had an opportunity to reflect on the DS process and discussed the challenges they faced, how they dealt with these challenges, the most significant things they learned during the course, and how they thought they might use DS in the classroom.

The students wrote the final essays, delivered info and links with peers, evaluated themselves and the teacher, and reflected on the new approach. During speaking tasks students mastered skills of cultural diversity such as cultural awareness, successful interpersonal techniques, and tolerant behavior.

The DS requirements were discussed beforehand as a well-organized storyboard and crucial topic. Pre-service students were given approximately 4 min and limited to 15 slides, 20 images, and a volume of no more than 650 words. The Soundtrack was optional. It must be mentioned that all Pre-service students did their best, and all of them tried to implement the elements they intended to. In addition, we assessed Pre-service students' DS with an oral presentation in public according to rubrics that evaluated the following criterion: linguistic abilities, technical creativity namely narrative voiceover, images, photos, audio soundtrack, and students' performance. Week 7 was the final summarizing week of the efficiency of implementing DS in the English lessons for multicultural students. This week as in the first week, after our experimental teaching, we checked skills of cultural diversity as cultural awareness, successful interpersonal techniques, and tolerant behavior. And we evaluated their initial public speaking skills with the help of rubrics focused on descriptors such as fluency and coherence, cohesion, grammatical and lexical accuracy, pronunciation, and abilities to discuss.

The empirical classes dealt with diverse tasks and exercises aimed at improving academic speaking skills. All the activities were conducted to extend academic vocabulary and develop speech to make it precise and fluent as well as expand the knowledge of grammatical constructions. The students shared ideas, expressed their own opinions, and tried to find solutions in their small discussion groups. The students were involved in agreeing or disagreeing discussions providing their solutions. It is essential in this case that the student tried to form conversational skills. In addition, these activities fostered to development of critical thinking of students and decision-making, and students learned how to express and justify themselves in polite ways while disagreeing with others. Furthermore, the students were always encouraged to ask questions, paraphrase ideas, express support, check for clarification, and so on. It was apparent, that such activities were beneficial and efficient because everyone had the opportunity to speak and make their speeches fluent.

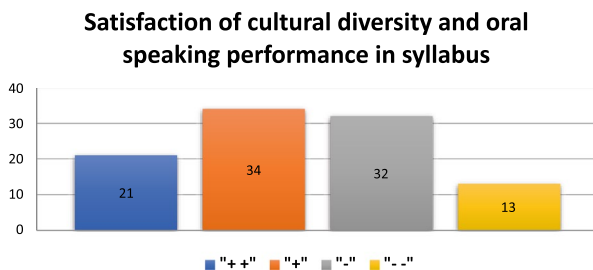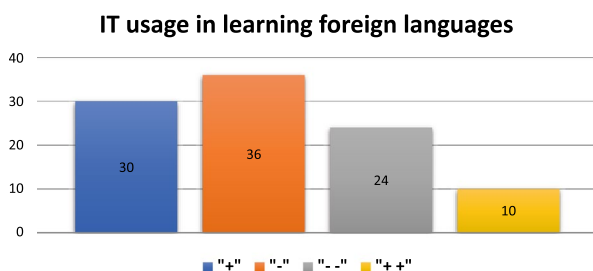**Fig. 1** Satisfaction of cultural diversity and oral speaking performance in syllabus

Satisfaction of cultural diversity and oral speaking performance in syllabus

21   34   32   13

■ "+ +" ■ "+" ■ "-" ■ "- -"

Fig. 2 IT usage in foreign language learning

IT usage in learning foreign languages

30   36   24   10

■ "+" ■ "-" ■ "- -" ■ "+ +"

During DS activities students dealt with the writing section. A huge amount of time was devoted to narrative writing because the multilingual groups had difficulties in the formation of written speech. The aim was to draw much attention to the accurate way of writing including coherence and cohesion. The DS pursues the continuous repetition of utterances based on paraphrases and synonymy. The tasks embraced the different statements where students had to provide their relevant variants considering linking words, expressive means, emphatic constructions, and so on. The latter constructions, elliptical constructions are those which help students make their essays authentic and relevant to the English language.

Results and discussion

During 7 weeks of the study, the students explored several useful ways to create a storyboard, choose images for DS with the inclusion of taking their photos from real life with a digital camera, use software applications to create charts, graphs, and other images, and finding and downloading images from the web-based on size, quality, type, and usage rights, making voiceover, recording again and again.

When our experimental teaching was completed, we began to analyze the whole pre- and post-experimental results and findings.

Firstly, before our experimental teaching of implementing DS in the multicultural classroom, we conducted a pre-experimental questionnaire (September 2018) to the 60 participants (Figs. 1 and 2).

The questionnaire aimed to reveal students' attitudes to academic speaking skills teaching, the completeness of the syllabus, and the level of using computer-assisted technologies in the classroom. So the information was collected in the following areas:

– Cultural diversity in the syllabus and oral speaking performance (Fig. 1);
– Students' satisfaction in using IT technologies in learning foreign languages (Fig. 2).

These dimensions were investigated using a four-level scale: + + very positive, + positive, − negative, − very negative.

Analyzing Fig. 1, from 60 questionnaires the satisfaction of cultural diversity that studied according to syllabus and development of oral speaking performance Pre-service students had the very positive evaluator 21%, 34%—positive. Totally just over the middle of all students were satisfied with the existing syllabus and its presentation of public speaking and cultural diversity. It was clear that University appreciated the cultural diversity in the syllabus.

The limited number of students, 13%, had very negative indicators, and 32% had—a negative attitude.

Analyzing Fig. 2, from 60 questionnaires about the satisfaction of using IT in the English classroom only 10% answered they had a very positive indicator, 30%—positive, and, remarkably, the most prevailed percent was negative, 36%. 24% of Pre-service students had a very negative evaluator. It meant that IT technologies in learning foreign languages were applied a little in the classroom.

The valid 60 questionnaires are represented in Figs. 1 and 2

So after having analyzed both questionnaires we proposed to organize the academic public speaking teaching with the help of DS in the lessons for multilingual Pre-service students.Moreover, during our experimental teaching on exploring DS in a multilingual classroom, we organized and prepared a variety of assessments on cultural and academic public speaking skills.

Then the second assessment rubrics were fostered to evaluate the cultural diversity skills during the experimental 7 weeks of teaching. As was mentioned above, we conducted pre-experimental and post-experimental testing to check how students mastered cultural diversity skills such as cultural awareness, successful interpersonal techniques, and tolerant behavior in Chart 1 and Chart 2.

This experimental teaching focused on the interrelations between learning a foreign language involving culture and technology.

Chart 1 illustrated the results of pre-experimental testing on cultural diversity in two groups: CG and EG. The first one "CG" was taught according to the traditional teaching approach. The second "EG" used DS in teaching.

As is shown in Chart 1, the indicator of cultural awareness group "CG" had 22%, and group "EG"—had 21%. With the mastering of interpersonal techniques in cultural communication students of both groups, "CG" and "EG" had 30%. The

Chart. 1 Pre-experimental testing on cultural diversity in CG and EG
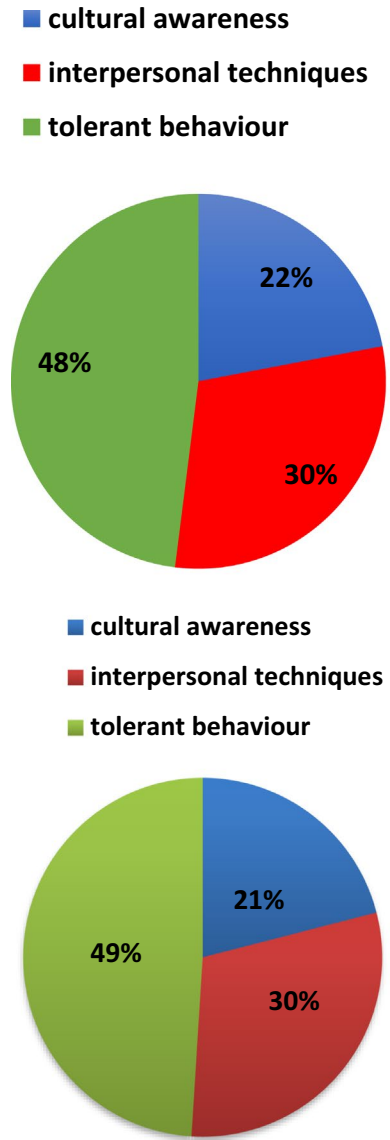
dimension of tolerant behavior in group "CG" was 48%, and in group "EG"—49%. Both groups had equal parameters.

As the study examines the impact of enhancing cultural and linguistic diversity in English language learning due to implementing DS for second year Pre-service students over 7 weeks, we analyzed in what way DS allowed students to create their own stories with images, scripts on cultural differences, and similarities in native and foreign communication. The results were demonstrated in Chart 2.

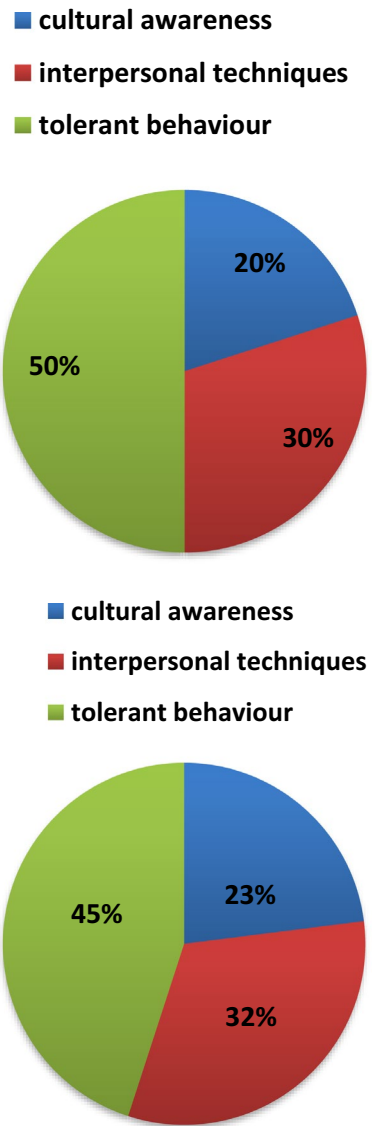**Chart. 2** Post-experimental testing on cultural diversity in CG and EG

Chart 2 illustrated the results of post-experimental testing on cultural diversity in the "CG" and "EG" groups. As we saw in Chart 2, the indicator of cultural awareness group "CG" had 20% while group "EG" improved to 23%.

The next parameter of interpersonal techniques in cultural communication students of group "CG" had the previous 30% but group "EG" developed as 32%.

The tolerant behavior in group "CG" was 50%, and in group "EG"—45%.

The purpose of implementing DS in the multilingual classroom was to create all parameters equally aligned.

Comparing Chart 1 and Chart 2 we summed up that parameter of developing cultural diversity had dynamics and changed in "EG". For example, the dimensions of cultural awareness enhanced from pre-experimental teaching 21% to post-experimental 23%, also, and interpersonal techniques improved from the initial stage 30% to final 32%.

Generally, there were no significant differences in developing cultural diversity criteria in "CG" while in "EG" almost all parameters had changed. It meant that the main indicator of cultural diversity skills as cultural awareness, successful interpersonal techniques, and tolerant behavior had a perfect result.

Additionally, the results showed that students in "EG" produced gestures, facial expressions, and eye contact with more consciousness while communicating and developing a conceptual framework. Cultural diversity skills were represented as cultural awareness of different nations and traditions, cultural behavior toward various beliefs and customs, and tolerance which means appreciating diversities.

So, it is suggested that DS is a powerful way of telling and making stories using animation, website, audio video, and graphics. Moreover, DS enhances the second year pre-service TEFL students listening, reading, speaking, and writing skills in the target language especially it helps them understand information and develop vocabulary.

Taking into consideration the speaking section, "EG" students were involved in implementing 3 main parts: the response to several questions, the response to the whole topic with the given plan, and the response to the different abstract questions. According to the DS techniques, the students were engaged in multiple reiterations of the necessary and relevant vocabulary and the variety of grammar, they were concentrating on the authentic way of speaking. Moreover, the focus of the practical training was to pay students attention to the authentic expression of ideas not the mental translation from their native languages such as Kazakh, Russian, Korean, Polish, Uzbek, etc. Huge attention in training was paid to the improvement of communicative skills.

Besides we made a pre-experimental data analysis of the student's academic public speaking skills before the experiment to check the initial data in both groups as "CG" and "EG" (Table 3).

After 7 weeks of experimental teaching, we conducted a post-experimental data analysis of the student's academic speaking skills to check them (Table 4).

The academic vocabulary and grammar were permanently reiterated by different speaking exercises, and it gave a golden opportunity to develop students' skills in the experimental group.

Noteworthy, students revealed the value of eye contact, facial expression, proximity, and gesture in their endeavours and foreign ones.

The effect of using video context in DS on the listening and speaking comprehension ability of university pre-service students was positively influenced during experimental teaching. It examined the impact of DS production on developing cultural components via communication in native and foreign languages and the acquisition of a given video in the second language.

Many students, especially when listening to a second language, focus so heavily on hearing and understanding 'the words people are saying that they suffer from a

Table 3 The data of students' academic public speaking performances before the experiment

Score (points)	95–100 A	90–94 A–	85–89 B+	80–84 B	75–79 B–	70–74 C+	65–69 C	60–64 C–	55–59 D+	50–54 D	0–49 F
Control group (%)	8	16	16	15	14	12	11	8	–	–	–
Experimental group (%)	6	14	15	13	13	14	13	10	2	–	–

Table 4 The data of students' academic public speaking performances after the experiment

Score (points)	95–100	90–94	85–89	80–84	75–79	70–74	65–69	60–64	55–59	50–54	0–49
	A	A−	B+	B	B−	C+	C	C−	D+	D	F
Control group (%)	8	16	16	15	14	13	12	6	–	–	–
Experimental group (%)	8	15	16	14	14	13	10	10	–	–	–

form of cognitive overload. There is just too much incoming information for them to process and they miss many of these subtler messages. When we deal with listening in class, this is mostly done with the use of recorded text on an audiotape or CD, so these more visual factors in the communication are neglected in our students' second language development. Many of these traits of communication can have different meanings or be interpreted in completely different ways in different cultures.

More interestingly, however, the results of the current study if components of cultural diversity effectively supplement the information conveyed via speech but could not replace it.

We chose the descriptors of evaluating academic public speaking as fluency and coherence, cohesion, grammatical and lexical accuracy, pronunciation, and abilities to discuss. These descriptors were structured in the rubric.

The results of academic public speaking tests via rubric before the experiment were counted by 100 points assessment system that is used at the University as the highest score. As far as it is seen, the control group passed the tests more successfully and got higher scores than the experimental one. The evaluation of students in the experimental group showed improved skills in cultural diversity as cultural awareness, successful interpersonal techniques, and tolerant behavior.

In comparison, 95–100 points were received by only 6% of students in the experimental group but in the control group—8%.

60–64 points in the experimental group were 10% compared to the control group at 8%.

55–59 points scored 2% in the experimental group.

However, there are a couple of girls who eagerly arrange all class activities and keep the students united. They are the most responsible people who are ready to help with any arrangement. Overall, the students are well-mannered. They do not unitize obscene language, at least, in the teacher's presence. At the lessons, one part of the group is active and loud, but another part is quite silent. A teacher has to make effort to arouse them from their indifference. The subject matter of texts and assignments meets the student's needs and interests in compliance with claimed age. Many students have a B2 level of English proficiency.

A step-by-step approach was used to illustrate how these images support script and cultural differences between English/Kazakh/Russian communications and to identify their similarities and differences as a part of creating a digital story.

Then they recorded audio narration using digital devices so students' voices could be added to the digital story they created. By the end, students created their own story's script in visually interesting issues from the target and mother culture and defended it in the classroom. Finally, the effect of video and audio context on the listening and speaking comprehension ability of university students was determined with the assessment rubrics.

The results showed that participants mastered new technology which helped them to promote the acquisition of certain knowledge of foreign language content and require new skills in a better and more relevant way.

After experimental teaching both groups, we conducted academic public speaking tests with the help of an assessment rubric and got the following results described above in Tables 3, 4. The results of the academic public speaking skills

test after the experiment were counted by 100 points assessment system that is used at the University as the highest score.

As far as it is seen, both the control and experimental groups passed the tests nearly equally.

More successfully were the students from the experimental group because they got the same scores of 95–100 points.

The experimental group received 10% of students in the experimental group in 65–69 scores just as in the control group 12%. The experimental group improved their scores, and nobody got 55–59 points.

In comparison with the control group, the moderated average variance of the experimental group is higher in many scores.

The results pointed out that all participants of the control group had made some improvements after the study, though, this improvement was not as huge as the one made by the experimental group learners. The average variance of the experimental group was superior to that of the control group showing that DS effectively enhanced the public speaking performances of the students at the University multilingual groups and improved their cultural skills.

To sum up, we illustrated their reflection as *"It was one of the most entertaining activities during the term", "All students seemed to be actively engaged in the process, everyone did his/her best as they could", and "Only Positive feedback"*.

Last but not the least, teaching language and culture are closely intertwined and shift to teaching language in cultural interaction.

In fact, the Rubric of DS evaluation was constructed for marking students' DS which helped to identify the extent of their public speaking skills progress. The findings of this study reflected that EFL pre-service students in EG had improved their public speaking skills. They had designed DS, created a plot, used vocabulary and grammar in culturally diverse practice, and summarized it. The students got the skill of paraphrasing stories and gained confidence in speaking publicly with proper pronunciation after practicing it a lot for narrating a story.

Conclusion

In the context of the present study, we defined DS as the learning process by which culturally diverse people shared their life stories and creative imaginations with others. This newer form of storytelling emerged with the advent of accessible media production techniques, hardware, and software, including but not limited to digital cameras, digital voice recorders, iMovie, Windows Movie Maker, and Final Cut Express software. These new technologies allow individuals to share their stories over the Internet on YouTube, Vimeo, compact discs, podcasts, and other electronic distribution systems.

DS is a powerful way of telling/making stories using animation, website, audio video, and graphics. Students created their own stories with images, and scripts on cultural differences/similarities in English, Russian and Kazakh.

Besides DS environment promoted lifelong learning. The effect of creating DS on the L2 comprehension ability of the participants was determined with the

questionnaire. It examined the motivating impact of L2 acquisition of a given linguistic and cultural aspect. The results showed that the students produced language and developed cultural awareness skills while communicating more significantly than before our practical approbation. What's more, the results of the current study provide that the teaching language and culture are closely intertwined and shift from teaching language into cultural interaction.

Quite apart from the emphasis put on lifelong learning and the acquisition of ICT skills in all areas of education in many countries, we are teachers of the language of global communication. And that communication is increasingly digitally mediated. If learners are to be fully functional citizens in the twenty-first century, they need digital skills. We can promote these skills in parallel with teaching English. Digital skills and English help many adult learners get ahead in the workplace or prepare our younger learners for better future job opportunities. And equally important, they can make our classes a lot more relevant and interesting in the here and now. Integrating digital literacy work into our English classes can make them a little more relevant to who we are learners once they are outside the learning environment.

In this article, we reviewed the DS characteristics and argued in favor of using it as an instructional tool in teaching EFL. We first provided a description of the characteristics and elements that form the structure of digital stories, and then proceeded to illustrate some of the possible uses of digital storytelling in the classroom The last part of the article included a description of a digital personal project that is currently under development and that involves the creation of personal narratives. Notwithstanding the impact of the use of digital storytelling as an instructional tool, digital storytelling is still under survey and a lot of work needs to be done until both students and teachers become familiar with the genre itself. But, although there may be some negative outcomes when using digital storytelling as an instructional tool, so far, we have seen more positive aspects and we would therefore give digital storytelling the benefit of the doubt. It's a good way to design information and a pedagogical tool that is worth looking into.

Further implications

Now that we have looked at the entire data meticulously, we state Digital Storytelling is used as a teaching and learning tool in a multilingual diverse classroom. It is one of the ways teachers can understand students' outlooks. There is no doubt that it is time-consuming, but it helps to develop skills such as Research Skills; Writing Skills; Organization Skills; Technology Skills; Presentation Skills; Interview Skills: Interpersonal Skills; Problem-Solving Skills: Assessment Skills, and literacy: Digital Literacy; Global Literacy; Technology Literacy; Visual Literacy and Information Literacy. The findings of the DS study proved that DS is a highly recommended tool for EFLT, especially when we consider academic public speaking skills in the culturally diverse multilingual classroom. Our students enjoyed the DS activity as demanded technical and artistic involvement.

It is believed that there is more that needs to be learned about Digital Storytelling as a teaching and learning tool for language learning classrooms, including

target languages that are different from EFL, e.g. Chinese, Russian or Spanish. More examples of providing greater insights and understanding into how Digital Storytelling can engage, inform, and enlighten new generations of students and educators will be found.

Due to time constraints, the research was done from a specific level with a smaller number of students.

Further research activities can be done in the future to gather more data on the same topic. DS is very useful for promoting learner autonomy strategy.

Declarations

Conflict of interest The authors declare that they have no conflict of interest.

Ethical statement The present study was approved by the ethics committee of the Faculty of Philology, L.N. Gumilyov Eurasian National University, Astana city, Kazakhstan. The experimental process was explained to all participants by the researchers in the beginning of the study. In addition, the researchers explained that the research data will be collected, anonymized and used by the researchers in their report and research article. After that, the participants provided an informed consent to participate in the study.

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