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# DEVELOPMENT OF MEDIA LITERACY AND COMMUNICATION SKILLS BY MEANS OF DIGITAL STORYTELLING IN JAPAN

**Abstract.** The research substantiates Japanese experience of media literacy and oral communication skills development by digital storytelling (DST); reveals theoretical background and current practical application of DST in higher education of Japan.

DST has significant advantages as an individual- and situation-oriented tool of oral communication as well as the instrument of psychological and learning influence on society. It is continuously implemented into Japanese educational and social practice. Famous universities of Japan initiate and realize scientific and academic projects, extending communication connections of Japanese population, improving their skills of critical thinking and argumentation, developing desires and abilities to communicate freely, fluently, confidently and persuasively.

At present DST shows a positive growing tendency as a teaching and learning tool in higher education of both Japan and Ukraine. This is primarily linked with the global processes of social digitalization, computerization of education and urgent transferring to distance learning due to the COVID-19 pandemic. Evidence-based studies prove the efficacy of DST as the learning and evaluation instrument of oral communication skills, i. e. in English. Moreover, the technology can be applied in different specialties, i. e. medical one. The healthcare branch was drastically influenced by quarantine restrictions, having resulted in fundamental transformations of teaching and learning approaches, implementation of e-learning and telemedicine. DST has a confirmed positive influence on public health and medical knowledge development. In higher medical education it can be used as a new type of virtual patients. DST can improve physician-patient communication skills, professional qualities, tolerance and empathy.

Our research confirms the potential of DST as a powerful developmental tool of media literacy and oral communication skills, and proves the requirement for the implementation of Japanese experience into higher education of Ukraine.

**Keywords:** media literacy; oral communication skills; digital storytelling; Japan.

## 1. INTRODUCTION

**Problem statement.** The ancient culture of Japan, one of the leading countries in the list of the most developed ones, is highly respected worldwide. The Japanese economy, healthcare and education are characterized by very high market indexes and significant technological progress partially due to higher education which is qualitative and competitive. As a result, Japanese specialists are evaluated as highly-professional and demanding.

Profound professional knowledge and communication skills are considered the most important features of modern Japanese professionals [1]-[2], while oral communication and media literacy skills are defined as the most remarkable and marketable. However, being one of the most media-saturated countries in the world, Japan faced social challenges associated with media literacy. As a consequence, Japanese higher education institutions launched systematic programs on media and information [3]-[6] and provided a consistent national curriculum in media literacy and communication skills development. Nowadays most Japanese undergraduate students exhibit knowledge on media literacy basics, skills of critical information perception, and oral communication.

Japanese experience proves digital storytelling (DST) to be an effective tool for achieving media literacy [1]-[2] and developing oral communication skills [3]-[7]. DST allows the creation of short video stories using digital-based files (images, video, audio, etc.) on a variety of topics [1]. This approach is a powerful educational tool for students regardless of the branch of study [8]-[10] since learners become active creators in the field they pursue via developing narratives. Japanese research proves that involvement of DST results in boosting elocution and oral communication skills, proficiency in language, computer and media literacy.

While the term "digital storytelling" had been hardly familiar to educators a few years before, it became ordinary with COVID-19 quarantine restrictions introduced on a global level. It is evident that the tendency to digitalize the process of learning has significantly increased over the past three years. This is why DST as a tool of teaching languages, communication and media literacy becomes more and more popular in Ukraine due to a proper combination of entertainment and expediency. DST method has been already used as a teaching and learning technique in Ukrainian higher education institutions [11]-[14]. However, this direction is still at a developing stage. Our research has defined the gaps concerning effectiveness of DST with the aim of professional communicative training and media literacy skills development. The following indicates the requirement of further research of the related problem in different countries. Japanese higher education institutions have already gained some important experience in the application of DST in the academic process with the aim of improving oral communication skills, linguistic, computer, and media literacy. Both successful and failing ideas of this country require profound analysis for further implementation of the DST method as an innovative educational technique for oral communication and media literacy skills development in Ukrainian academic practice.

Analysis of recent studies and publications. Media literacy and communication skills development by DST is researched by Japanese [1], [2], [7], [15], [16] and Ukrainian scientists [11]-[14]. A number of evidence-based studies confirm its effectiveness as an innovative and engaging educational technique for various academic purposes [2], [3], [4], [5], [7], [8], [12], [1], [14[], 18, [19], [27], [29]. In addition, the problem of DST application in higher education for different educational purposes has been researched by S. Mizukoshi [1], [2], M. Leshchenko et al. [3], D. D'Alessandro [4], B. Robin [5], [6], A. Ogawa and Y. Tsuchiya [7], R. Benmayor [8], P. Hardy [10], L. Panchenko [11], Y. Karpenko [12], P. Sodomora et. al. [14]. The technology of DST is defined as a promising education strategy as well as an emerging field of study in the higher education of Ukraine. The origins of DST were studied by S. Mizukoshi, who highlighted a range of its applications in professional training [1], [2]. The paper of K. Moreau [18] describes

the differences between digital storytelling and traditional one. Storytelling aimed at developing speaking skills has been researched by M. Leshchenko et al. [3], Y. Karpenko and M. Ajtay-Horváth [12], P. Sodomora et. al. [14], S. Rabinowitz et. al. [18].

The use of student storytelling as a tool of English communication skills development is researched worldwide. Compared to other methods of teaching foreign languages DST is a promising method for conversation skills development [15]. The technique has been already adopted in the Ukrainian education system [12], [15]. Teacher storytelling has been studied by B. Robin [5], [6], R. Beltrán and S. Begun [19] who prove the ability of this method to adapt to nearly all possible topics and even to reporting medical cases [20]. DST is an innovative technique, used for mastering physician-patient communication at medical universities of Japan [1], [15], [16] and Ukraine [14]. Inter- and intra-professional medical communication training is a significant professional and social task of higher medical education [15], [17], [18], [19], [20] and requires special scientific attention.

The research goal. The research aims at reviewing the theoretical basis as well as the current practice of media literacy and communication skills development by DST in the system of Japanese higher education. The main research tasks include analyzing valuable Japanese experience in promoting DST as a tool for oral communication and media literacy skills development; highlighting a range of potential applications of DST in higher education i. e. medical, namely for developing and improving students' media literacy and online speaking skills.

# 2. RESEARCH METHODS

The study of the problem involved the application of several theoretical research methods. The first stage of the research involved information search and literature review on the problems of media literacy and DST in Japan. At this level we defined the relation of effective communication skills, media literacy and DST, which resulted in further study of historical and educational backgrounds as well as evolution of teaching media literacy and communication by means of DST.

At the second stage we performed terminological analysis of media literacy and DST; identified and generalized theoretical evidence on the topic and applied it to substantiate the researched issue.

The third stage included the review of the Japanese experience in media literacy and communication skills development by DST and the analysis of some Ukrainian experience in the problem of media literacy and oral communication skills development by digital storytelling, as well as application of DST in Japanese and Ukrainian higher education systems.

At the fourth stage we systemized the reviewed data and structured the research results.

The conducted research reviews and complements previously collected and analysed data related to the studied problem.

# 3. THE RESULTS AND DISCUSSION

# 3.1. History of DST in Japan

People of all nationalities have always been using stories to communicate. Different nations create and preserve history and cherish traditions through creating and sharing unique personal stories. A comparative analysis of American, European and Asian cultures proves a prominent experience of Japan in the tradition of storytelling [1], [14], [21]. The history of

storytelling in Japan started in the 9<sup>th</sup> century and continues in the present day through "rakugo" which is a specific stage performance of a comical or sentimental story [1].

With the emergence and active use of digital media, storytelling in a traditional sense (i.e., oral, written stories) upgraded to digital storytelling. DST complements possibilities of a conventional one concerning the ability to share one's "lived experience." Thus, individuals can archive, retrieve, and review digital stories offline, as well as distribute them online to infinite audiences through websites or social media services. With the inclusion of multimedia, digital stories can also effectively set and preserve the scenes and moods of individuals' narratives [14].

DST was introduced by D. Atchley (San Fransisco, the USA) in the early 1990s. Later, it was developed at the Center for DST in California and spread in all civic and public spheres worldwide. In Japan, DST is characterized as a grassroots movement and a workshop-based practice [2]. The research of S. Mizukoshi reports two important Japanese DST projects, initiated in the mid-2000s aimed at promoting the art and practice of storytelling by rakugo, namely: Media Exprimo (interdisciplinary-design research and information online platform) and Storyplacing (research project in cooperation with Finnish scientists) [1], [2], [21].

Media Exprimo primarily supported free media expressions and digital storytelling in the population of Japan [1], while Storyplacing aimed at creating a scientific basis for online platforms like Media Exprimo and organizing workshops to encourage storytelling in Japan and Finland. Storyplacing proved to be effective due to the involvement of a transdisciplinary bilateral professional team specialized in media studies, information design, and community planning. A project encouraged general social media literacy in Japan and resulted in four DST community-linked programs: the Comikaruta, the A-I-U-E-O Gabun, the Media Conte, and the Telephonoscope. The project designers accounted for peculiarities of Japanese culture and a specific feature of the Japanese population concerning preference to avoid talking about themselves due to stringent peer pressure. Japanese are believed to be shy by nature and they have a bias of telling stories due to the lack of experience and knowledge of telling a story in a public place [1]. The newly developed programs aided in weaving collaborative storytelling networks through mobile devices and other services and assisted in overcoming personal and social fears associated with oral communication.

In order to involve different ages and population categories in the programs, the developers applied their knowledge of Japanese history and psychology. Thus, the Comikaruta was based on a traditional Japanese card game Karuta. In this program, creators involved categories of people keen on playing cards online. The A-I-U-E-O Gabun was developed for active readers and was based on traditional Japanese poetry – haiku. For individuals preferring sharing personal photos, designers created the Media Conte based on photograph software. And, the Telephonoscope in form of a mobile application was created for those who prefer spending time communicating via telephone.

It is worth emphasizing that the conducted programs were launched with the cooperation of both educational institutions and media members. Contents were delivered as workshops at universities, deployed in local schools, presented at traditional festivals, and through television [21]. The media used the programs to gather stories of residents for cable TV programs. These digital stories were not edited as additional editing of stories describing everyday matters could have challenged the master narrative in Japan. The quality of pictures, plots, and stories belonged to limitations of the reported programs; however, the benefits were more significant. In addition to the cultural context, the programs shared three important features: collaboration, playfulness and sustainability. The act of DST was encouraged, assisted and controlled by a facilitator in every program group to discover each participant's dormant DST skills.

In Japan, where the population is not used to viewing stories in the neighbourhood, DST projects undoubtedly aided the development of digital folk art. The programs resulted in the

emergence of a new term: "Digital Mingei" (Digital Folk Art). While designing DST programs creators reconsidered the traditional Japanese art movement, bridged professional artists and usual people, thus connecting art and everyday life [1], [2]; [21]. In addition, the experience of DST promoted the ability to differentiate unique information and stereotypical narratives from the mass and digital media. It is known that this ability results in the development of critical perception and free opinion expression skills [22].

# 3.2. DST and media literacy

Japanese society is information-saturated but digitally-divided. For the past decades, it has been struggling with the problem of poor media literacy skills which is affected by several global and local factors. Firstly, the media landscape of Japan has been considerably influenced by the common spread of smartphones and social networking services (SNS). However, in this country, mobile services are no longer associated with diverse and free speech due to the pressure of authorities who suppress the freedom of speech and journalism in mass media. Due to such media suppressing actions false reports and misinformation, extreme and violent racist and nationalist narratives tend to appear on SNS causing the emergence of "invisible" digital illiteracy.

Secondly, media literacy is influenced by the substitute of PCs with smartphones. Preference of smartphone to PC is prognostically undesirable as the former is designed to simplify performing daily operations. This phenomenon can cause the inability of performing mentally complicated work and solving complex tasks. The Japanese experience of employing college graduates immediately after graduation proves their lack of computer literacy despite the fact, they spend their "lives" in digital media [23].

Thirdly, due to belonging to specific media communication spheres or so-called "island universities" society receives selective information and opinions. Public communication spheres accounting for different opinions and suggesting a broad overview of the socially important agendas are absent within an island universe. This problem resulted in the development of a new updated approach for media literacy formation by Japanese scientists [1], [20] by creating media communities. S. Mizukoshi characterizes mediated communities as "incubation sites for the development of new media literacy, which can serve as people's gyrocompasses in the media-saturated society" in Japan [1].

It is confirmed that media can create and maintain communities and societies. According to J. Carey [22] and B. Anderson [24] "nation states" have been created by cooperation of mass media journalism and school textbooks." In media communities, people can communicate mutually and live together. In a country, where information is thoroughly censored, it is very important to create mediated communities that are closely related to social communities.

DST can serve as a specific media practice for mediated communities. Applying DST has the potential of creating small mediated communities and connecting them with each other despite geographical distance and cultural gaps. On one hand, members of one group create their own DST pieces, on the other hand, another mediated social group consumes these stories receiving them during different events, through local TV programs or websites of local institutions.

The DST projects mentioned in the previous paragraph promoted the development of media literacy in the general population as the process of creating a digital story contributes to new media literacy. DST involves the three main communication components concerning technological operation, critical perception and active expression. The listed cognitive activities are essential in a modern mass media-driven society and define media literacy. For several decades, media literacy has been understood as the critical reading of mass media. However,

the rapid development of digital technologies has changed the media landscape and the term should be fundamentally re-examined.

Theoretically, the definition can be broadened taking into account the specificity of digital communication. The adjectives "technological", "critical" and "active," and the nouns "operation", "reception" and "expression" can collocate with each other in different ways. For example, critical reception, critical operation and critical expression occur among participants and facilitators of communication. Thus, media literacy does not restrict to the sole critical reception of media texts. Such an approach significantly changes the direction of teaching media literacy by DST. The cyclical process of creation and reception in the act of DST occurs through untraditional communication activities like using, watching, enjoying, consuming, exchanging, and chatting via media.

# 3.3. DST in teaching communication and media literacy

Over the past ten years, the terminology of education from year to year has been absorbing an increasing number of computer-related words. This newly-formed vocabulary includes the term "digital storytelling", which from day to day becomes more and more familiar to educators in different countries [5].

Sometimes it appears to be difficult to distinguish digital storytelling from other types of media activities in today's online environment. Therefore, many articles provide a wide range of approaches to the topic. Despite the variety of definitions [8]-[10], digital storytelling is determined as "short stories created by the means of digital tools." The DST method contributes to the formation of students' communication skills and media literacy by facilitating the accumulation of new vocabulary and developing the ability to use it. By DST students learn to combine information and find new solutions, etc., which results in building confidence in communication and media proficiency. Students become active composers not only passive users of media, which undoubtedly facilitates practising communication and media skills. As a digital storyteller can be anyone who possesses a desire to actively communicate his personal life experience, thoughts, or any other ideas, it is relatively easy to administer this kind of storytelling to a variety of study fields. It is apparent, that students tell their stories based on their life experiences using different narratives that reflect their language skills. Therefore, this method is aimed at eliminating communication barriers for students and provides great possibilities for evaluation communication and media literacy skills for educators.

While possessing similar background with storytelling in general, DST is closely connected with using digital technologies and multimedia techniques. This feature usually encourages students to create their own stories and demonstrates their knowledge and understanding of not language only, but modern technologies as well, which constitutes nowadays literacy. Thanks to this fact, the method of digital storytelling can be considered as a great means for demonstrating the knowledge and understanding of educational themes and topics. Students who are involved in compiling digital stories gain valuable experience in estimating the works of their peers, and consequently can promote their own gains in emotional intelligence [25], which is crucially important for their successful communication in general. The research confirms that students who participated in a digital storytelling activity behaved better at the time of classes, had an increase in their self-confidence and displayed greater interest in the subjects they were learning [6]. This is why the aforementioned type of educational activities requires a more detailed explanation to acquire more profound implications in a variety of institutions.

Primarily, there is a need for more precise research into what exactly the term "digital storytelling" means. Even though it appears to be difficult to clearly define what digital storytelling is due to a variety of approaches, it should be clarified what this type of media is

supposed to include. By definition, digital storytelling is suitable in the classroom, therefore this type of storytelling should include stories that inform or instruct directly or indirectly, reiterate grammatical and lexical structures and compositions, examine professional skills – often with overlap between these classes. As a consequence, the type of storytelling we are dealing with should include the following: it needs to be based on a certain topic studied at the given class; it possesses a definite purpose and goals; it aimed at the intended audience; the information presented is to be clearly organized; it possesses clear educational value. Some scholars [6, p. 18] identify more specific features of digital storytelling, but it is credited that this list should be exhaustive in terms of this research.

The scientific data prove that digital storytelling provides students with a variety of creative solutions [26]. As a result, learning becomes more relevant to students, i.e. they realize how to immediately implement their new knowledge, acquired in the classes. For example, students can be asked to read a particular professional (e.g. medical) text and then use digital storytelling to create their own digital story. While performing this activity, they keep changing from passive listeners to active creators, which is extremely important in terms of obtaining linguistic fluency. Apparently, this process is aimed at activating passive vocabulary and making students recall and use it at their will whenever the situation requires it. For instance, being language learners, students often think that they know a word because they experience no difficulties understanding it while reading it. In fact, this is what Socrates calls "double ignorance", i.e. when someone thinks he knows what he does not know, which is much worse compared to so-called "simple ignorance", i.e. when someone realizes the fact of lacking the knowledge. However, during the communication act, students are frequently unable to recall and quickly apply the word they need at a determined time, which indicates improper language competency that is a key competency in terms of communication and media literacy. Consequently, being aware of the distinction between active and passive vocabulary can make a huge difference in the process of learning. Turning passive vocabulary into active requires specific means and approaches, and this is what digital storytelling, being one of those means and approaches, is actually aimed at. The significance of language in storytelling practice is proved by a community-based DST workshop by R. Beltrán and S. Begun. Their findings are based on collected and further digitalized stories focusing on the cultural strengths of the Maori community [19].

Applications of DST for teaching communication and media literacy include personal stories, digital story archives – stories chosen to share publicly through the blog, memorial stories, avocational stories, educational stories, and stories in medicine and health. A digital story is made of visual elements, namely graphics, diagrams, shareable images, photos, and videos across social media platforms (SMP). Generally speaking, common today Instagram or TikTok accounts are, essentially, digital storybooks.

Both high communication and media literacy levels define effective "blogging" (original "weblog") or vlogging (video blogging) which are modern solutions for creating a successful career and "selling" one's skills in the early stages of professional development or even at an undergraduate level. Blogging has now been incorporated into various branches of business, healthcare, and education while it was initially used as a tool for writing diary-style entries. Nowadays it refers to regular DST, i.e. writing and delivering digital stories in form of blogs, speeches and talks, as well as sharing photography and other media that are self-published online. DST can be considered as an essential component of blogging as the abovementioned verbal and non-verbal activities are characteristic of DST. Thus, the terms 'blogging' and 'digital storytelling' are sometimes used in equivalent meanings. However, the key features of blogging include frequent updates of personal or professional experience, informal language, and opportunities for readers to engage and start a conversation. Thus, based on the listed above

features, DST can be characterized as a functional component of a personal blog which in its turn consists of a series of personal digital stories [20].

Both digital storytelling and blogging involve visual-spatial, visual-object, and verbal communication/learning pathways in different ways facilitating the learning process. Learners no longer just consume data from digital media, they also actively engage in creating new stories and sharing them with others. The model of cognitive processing systems comprising the nonverbal and verbal pathways was suggested by J.S. Groff. The author argues that "learning experiences in any of visual-spatial, visual-object, and verbal areas provide young people with the opportunity to process information through varying means and therefore the potential to develop these three separate but integrated pathways to cognitive processing" [27], [28].

# 3.4. Practical application of a DST method in higher education of Japan and Ukraine

In Japan DST is a relatively new method being introduced into Japanese university classes gradually. Courses on effective application of digital storytelling are offered in communications and creative writing programs at several universities [1], [15], [16].

A successful effort of applying DST in Japanese higher education took place at Mie University in 2010. A study involved 49 teachers who created their experience-based digital stories on the topic "Reflection of My Teaching Life." All participants reported satisfaction with the DST workshop aimed at developing and improving the skills of DST with the aim of its introduction into classes [15].

Despite the fact that in Japan DST technique is more widely used in the field of marketing and economics, it also finds application in education, particularly, in teaching foreign languages. Storytelling has certain benefits in this process as it is described above. One of them is that it gives vast space for creativity and there are no strict rules or principles in it. It enables influencing the student's subconsciousness and conveying all necessary information quickly and easily reducing teaching time.

In addition, storytelling is used as a linguistic and psychological tool by teachers. They apply it with learners of any age and have direct contact with listeners, create emotional connections, control the listener's attention and feelings, emphasize certain information so that the story remains in memory for a long time. Moreover, this non-formal learning method allows students to acquire communication and media literacy skills easily and naturally.

However, storytelling does not imply passive listening to a story. It is an interactive technique, which reinforces grammatical knowledge, expands vocabulary and develops listening skills. Discussion and analysis of stories after listening facilitate the acquisition and development of speaking skills. Students are encouraged to discuss the story they have heard, express their opinion, and predict options for future events using the active vocabulary and grammar of the lesson.

The described above Japanese DST project "The Media Conte" was partly implemented in higher education. It applied a photo-based approach to DST. The same technology based on the software Photo Story 3 was applied for improving oral reading fluency in English at Tokyo Women's Medical University. Photo Story 3 application has all technical characteristics enabling both visualizing and verbalizing. The story can be recorded and revised which is an essential part of developing oral reading skills. DST is a perfect tool for this type of learning activity through the use of various multimedia tools. Oral reading fluency in English, influencing comprehension and thinking, characterizes a high level of language. However, it is poor in Japanese students as a result of the reading/translation teaching method. The conducted pilot study involved a total of 35 Japanese nursing students. By its results, the DST method

improved oral reading literacy in students forcing learning to read deeply, visualizing the story, and verbalizing the context [16].

The use of DST is a promising method for language learning. In addition to the previously listed benefits, it can re-energize language classes causing pleasure while reading in English [3]. A reading-translation teaching method, that is commonly used in Japanese as well as Ukrainian higher medical education, has important drawbacks. Firstly, translating sentences word by word hinders or excludes the ability to enjoy the content. Even comprehensive questions do not encourage students to read passages deeply or interpret them from various perspectives. As a result, the learning goals are not fulfilled. Secondly, concentration on reading prevents from taking care of phonetic, lexical, or morphological components. As a rule, students do not read entire texts aloud before classes. It causes uncertainty while reading aloud in a class as medical texts contain a lot of terminology, which is difficult or tricky for pronouncing. The uncertainty in reading aloud in a group leads to decreased self-confidence in English.

The personal and professional self-confidence of both medical students and practitioners are influenced by several factors, namely: professional skills, communication skills, and due to the COVID-19 pandemics, computer and media literacy skills. These skills became crucial for many professionals who transferred their work online. Quarantine restrictions drastically reflected on healthcare, fundamentally transforming the approaches to medical education and practice, and promoting the rapid development of online learning and telemedicine.

During the pandemic, most medical encounters were transferred to the digital world. Patients get doctor's advice through different social media like Facebook messenger, Viber, WhatsApp, Instagram, Twitter, video conferencing services like Zoom or Skype. Physicians and patients, medical educators and students have to adapt to new challenges of digital realities. It is important to know how to adjust professional and communication learning activities (listening, reading, writing, and speaking) to modern tasks. The research proves that the DST method can assist in the formation of communication and media literacy skills in medical students and prepare them for future digital challenges [15], [17], [18].

Digital storytelling is known as a "must-have" skill in the era of the Fourth Industry Revolution or Industry 4.0. Undoubtedly, Industry 4.0. has reflected on the branch of health care and triggered the emergence of Healthcare 4.0 that primarily aims at digitizing health care enterprise and services applying the tools of Internet of Things (IoT), Internet of Services, artificial intelligence, robotic technologies, etc. The application of digital storytelling varies from routine to highly professional levels. It has the potential to enhance, promote and share both different products and knowledge, which is the most important constituent for the global economy and healthcare growth [20].

The study of S. Lacey and D. Craighead [29] proves the effectiveness of digital storytelling in promoting health in the adult US population. The study involved 59 individuals with well-managed and less controlled hypertension who shared their success stories over a 16-month period. The results show that DST shortened the number of unplanned medical encounters and can be characterized as a preventive measure for hypertension control.

The research on DST in medical education is still in an emerging phase and the amount of empirical literature on the topic is limited. It poses a couple of important questions, namely: the purpose, definition, use, and contexts of DST in health education; the impact of DST in clinical knowledge development, and healthcare practice; the key ethical considerations of using DST [30]. Katherine A. Moreau [17] conducted a systematic review focused on the contexts and purposes for which digital storytelling was used in medical education as well as its impact on health professionals' learning and behaviour. By the research, DST could be an effective tool for the development of communication skills. While interpreting patients' stories substituting colloquial terms with more professional present or future physicians master their professionalism [15].

Listening to patients' stories is a usual daily practice for various medical specialists. However, they usually have organized hours to treat their patients and a limited period of time for prolonged communication. Practising traditional or digital storytelling in groups employing patients' stories will teach future physicians how to listen to a potential patient demonstrating empathy, openness, tolerance of patients' culture, race, sex and beliefs, as well as how and when to interrupt a patient's story. Moreover, by DST medical students gain and substantiate their clinical knowledge [18].

DST can be considered a new type of computer-based patient simulations or virtual patients, which are in turn very common and effective methods for future doctors. D. M. D'Alessandro et al. have developed and evaluated a DST system for future paediatricians. The researcher adopted a number of recommendations for students concerning featuring patients' stories in their own words, by focusing on problems rather than diseases, and by using simple cases [4]. The authors developed a DST template that comprises several parts: patient's story, followed by evaluation and clinical course, problem-based approach, and discussion of the disease course [4]. The main focus should be placed on reflecting the patient's story described in his/her own words. Through the analysis and organization of patients' stories and the course of diseases physicians' knowledge and experience enrich. This method also facilitates the assimilation of information by students while learning. Real situations and stories about real cases improve practical care, which in turn increases the doctors' professionalism.

Based on the Japanese experience of the DST approach for the development of oral communication and media literacy skills, the technique has already been incorporated into Ukrainian medical education, namely for improving oral communication skills of medical students at Danylo Halytsky Lviv National Medical University. The pilot study performed at the Department of Latin and Foreign languages proves the effectiveness of a DST method in teaching English. Sodomora et al. [14] designed a methodological basis concerning a story structure and its evaluation and confirmed its effectiveness. Structurally the act of DST consists of an introduction, preparing the listener directly for the story; the story itself; the interchange; the conclusion. The story is considered successful if it is concise enough for listeners to remember it. When teaching students with a poor level of English, the simplicity determines the choice of a story. It should comprise one plot and a minimum number of participants and events. The informal presentation of the story is important. The teacher should play the role of a facilitator in the DST process. It is important to introduce the grammar and vocabulary of the topic creating the basis for active listening, as well as emphasising the conclusion that requires the most attention. The following structural presentation of the story aids in absorbing the required educational material. To promote better learning outcomes, students have to use vocabulary and grammar introduced by the teacher at the introduction stage of telling a story. Students are given the task of compiling their story by a given scheme. In order to develop active listening and oral communication skills, it is recommended to practice DST in small groups, to encourage discussion and free opinion expression, to develop critical thinking by suggesting versions of the story ending.

# 4. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

The process of media literacy and communication skills development by DST in the system of Japanese higher education has a progressive tendency and is characterized by significant scientific and practical results. The review of DST in Japan shows that storytelling has ancient routes and serves at present as an effective educational and entertainment technique. The emergence and active use of digital technologies triggered the development of DST, which

is characterized as a grassroots movement and a workshop-based practice in contemporary Japan.

The study has proved the importance Japanese social DST projects, namely: Media Exprimo and Storyplacing, initiated with the cooperation of higher education institutions. These projects resulted in improving social and professional media literacy and oral communication skills in Japanese population. Due to the existing problem of poor media literacy skills characterizing information-saturated and digitally-divided Japanese society, DST is used as a specific media practice for mediated communities. It has been confirmed that DST promotes the development of media literacy in the general population and in future professionals, since the technology of DST contributes to new media literacy.

The research has found that DST is a relatively new method in Japanese higher education. However, the experience of Mie University and Tokyo Women's Medical University prove the effectiveness of this method as a teaching and learning tool, particularly, in the development of foreign language skills. Moreover, storytelling is used as a linguistic and psychological tool by Japanese educators. This innovative non-formal learning method allows students to acquire oral communication and media literacy skills in an easy and natural way. It is an interactive technique, which reinforces grammatical knowledge, expands vocabulary and develops listening skills. It has been established that the discussion and analysis of stories after listening facilitate the acquisition and development of speaking skills.

The obtained data prove that the DST method assists in the formation of oral communication and media literacy skills in students of different specialties, i. e. medical, and prepares them for future digital challenges. The Healthcare branch was significantly influenced by COVID-19 quarantine restrictions. The approaches to medical education and practice were fundamentally transformed, promoting the rapid development and implementation of online learning and telemedicine. While DST in medical education is still in an emerging phase, its effectiveness in promoting health in a population, mastering physician-patient communication, developing professionalism, empathy, openness, tolerance of patients' culture and cultural beliefs, as well as how and when to interrupt a patient's story. Moreover, DST can be considered as a new type of computer-based patient simulation or virtual patients.

Thus, DST in academic practice is an innovating technique contributing to the development of crucial skills required for XXI century specialists, i.e., communication and media literacy. Implementation of researched experience can result in promotion and modernization of Ukrainian higher education. The research results confirm the potential of digital storytelling in developing oral communication and media literacy skills and requirement of Ukrainian higher education for the implementation of DST based courses concerning various academic purposes. Highly developed oral communication and media literacy skills promote and improve the ability of critical perception, evaluation and reflection, which results in the improvement of professional and general social intelligence.

Development of media literacy skills at higher education level is one of the prospects for further research of the problem. Moreover, the further study of psychological and pedagogical benefits of using DST can solve specific educational tasks facing different branches of Ukrainian higher school.

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# РОЗВИТОК МЕДІЙНОЇ ГРАМОТНОСТІ ТА НАВИЧОК УСНОЇ КОМУНІКАЦІЇ ЗА ДОПОМОГОЮ ЦИФРОВОГО СТОРІТЕЛІНГУ В ЯПОНІЇ

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**Анотація.** У статті здійснено літературний та аналітичний огляд проблеми розвитку медійної грамотності та усних комунікативних навичок за допомогою «цифрових розповідей (ЦР)» в Японії; досліджено історичні передумови та практичний досвід розвитку медійної грамотності та усних комунікативних навичок за допомогою ЦР в університетах Японії та України.

ЦР має значні переваги як особистісно та ситуативно орієнтований засіб усного мовлення, інструмент психологічного та навчального впливу на соціум. Ця технологія активно використовується у вищій освіті Японії. Провідні університети ініціюють та реалізовують науково-освітні проєкти, розширюючи комунікативні зв'язки японців, покращуючи їх здібності до критичного осмислення та аргументації, бажання і вміння впевнено та переконливо висловити власну думку. У статті деталізовано особливості змісту проєктів; розкрито їх вплив на формування суспільної комунікативної та, як наслідок, медійної грамотності засобами ЦР.

У вищій освіті Японії та України зафіксовано позитивну тенденцію щодо поширення та використання ЦР як навчальної технології, що пов'язано передусім з процесами глобальної цифровізації суспільства, інформатизації вищої освіти та ургентного переходу на

дистанційне навчання, зумовлене пандемією COVID-19. Японські та українські доказові дослідження підтверджують ефективність ЦР як засобу навчання та контролю комунікативних навичок, зокрема англомовних. Ця технологія активно використовується з метою комунікативної підготовки фахівців за різними спеціальностями, зокрема медичної. Галузь охорони здоров'я зазнала значного впливу карантинних обмежень, що спричинили фундаментальні зміни у підходах до викладання і навчання, розвитку е-навчання та телемедицини. Незважаючи на те, що ЦР у медичній освіті Японії та України є доволі новою технологією, уже доведено її позитивний вплив на здоров'я населення та освіченість лікарів. У вищій медичній освіті ЦР може застосовуватись як новий тип «віртуальних пацієнтів» з метою підготовки фахівців до комунікації з пацієнтами (уміння вислухати розповідь пацієнта, вчасно зупинити, поставити запитання тощо), розвитку професіоналізму, толерантності та емпатії.

Проведене дослідження підтверджує потенціал ЦР як потужного засобу формування медійної грамотності та усних комунікативних умінь, а також доцільність впровадження ЦР як засобу навчання в освітній процес України.

Ключові слова: медійна грамотність; навички усної комунікації; цифрові розповіді; Японія.



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