

Resilience enhancement through digital narratives in wartime education

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Abstract

The paper investigates the effectiveness of digital narratives in promoting resilience and coping skills among students in crisis situations, particularly in the context of wartime education in Ukraine. Employing a mixed-methods approach, the research includes a literature review and primary data collection through narrative analysis, reflective interviews, and the Brief COPE Inventory. The study involved 94 students from two national universities in Kyiv. Findings indicate that digital narratives promote active engagement in problem-focused coping strategies, increase emotional involvement, and enhance personal resilience. Students demonstrated clarity, relevance, emotional engagement, and effective multimedia use in their narratives. The study highlights the potential of digital narratives in educational settings for improving academic performance, emotional regulation, and interpersonal communication among students.

Keywords: digital narratives; coping strategies; resilience; war; education

1. Introduction

As a result of the full-scale war in Ukraine, the survival of the nation, the preservation of human life, and its physical and mental health have become a priority. The destabilization of all spheres of social life deeply affected education as well. The war destroyed the educational infrastructure and educational environment, worsened access to education, deepened the existing educational inequalities, significantly reduced the safety, quality, and success of education, and negatively affected the psycho-emotional state of all participants in the educational process without exception. There is an urgent need for specialists who possess not only the necessary knowledge and competences, but also specialists who are ready to provide qualified psychological and pedagogical support and assistance in crisis and extreme conditions, who know how to create a safe and supportive space for interaction, provide emotional support and employ strategies for wellbeing enhancement.

Under such conditions, the role of educational technologies and the level of educators' digital competence are significantly increasing. The convergent application of digital and psychological-pedagogical technologies helps people overcome the devastating consequences of traumatic experience, which affects students' cognitive, emotional, and social development. From this perspective, traditional forms of intervention do not always correspond to traumatized students' unique needs, particularly within the university system. In recent years, digital narratives have also

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been identified as one of the effective means of therapeutic storytelling for students, serving as a link between technology and psychological support.

Digital narratives can be interpreted as a modern extension of narrative art in the multimedia space in which text, sound, moving and still images, music, video, animation, etc., are combined. The purpose of creating digital narratives is the development of creativity, reflection, the ability to analyze one's own experience, express one's own point of view, cooperate with others, interact in a multimodal environment, etc. The use of digital narratives in the curriculum of higher education institutions is connected with an effort to increase the effectiveness of the educational process by activating as many channels of perception as possible and creating opportunities for meaningful transformation and personal presentation of educational content with the help of technologies (Hirsch, 2012; Ohler, 2013). Digital narratives cover six areas of learning aligned with the National Standards for Technology in education (NETS), namely: research and information acquisition; creativity as a search for new solutions; development of critical thinking when solving problems and making decisions; communication and cooperation; understanding the principles of the technology; use of digital technologies. We aimed to expand this list and add the seventh area of coping and resilience skills for traumatic experience transformation.

Digital narratives can be integrated with coping and self-regulation skills, two closely related processes. Coping strategies refer to various behavioral and cognitive actions to manage emotional reactions to stressful or demanding situations (Carver et al., 1989). These strategies include problem-solving, emotion regulation, and avoidance, which can help reduce stress and anxiety. Such skills enhance well-being and resilience, particularly when students face various stressors (Baloran, 2020). Thus, using digital narratives combined with coping and self-regulating variables, we can achieve more efficient and individualized interventions for traumatized students. This integrated approach builds on the conventional, often close-ended, therapeutic models using technology, thus potentially providing a more appealing and viable assistance mode to any student in need. Digital narratives can be a powerful tool for exploring coping strategies, as they allow individuals to share and reflect on their experiences creatively, safely and engagingly. Here are some examples of coping strategies that can be described in digital narratives (Gustems-Carnicer, 2019):

- Problem-solving: Digital narratives can showcase how individuals cope with challenges. For example, a digital narrative might describe how a student uses problem-solving to overcome academic challenges;

- Emotional regulation: Digital narratives can also explore how individuals regulate their emotions to cope with stress. For instance, a digital narrative might describe how someone copes with anxiety by using mindfulness techniques;

- Social support: Digital narratives can also highlight the importance of social support in coping with stress or trauma. For example, a digital narrative might describe how someone copes with the loss of a loved one by seeking support from friends and family;

Reframing: Digital narratives can also demonstrate how individuals reframe their thinking to cope with difficult situations. For example, a digital narrative might describe how someone reframes negative thoughts about themselves to improve their self-esteem.

Recently, a growing focus has been on using digital narratives to create coping strategies and enhance resilience or adapting and surviving while dealing with difficult circumstances. It has become of interest to educational psychologists, especially in stress and crisis. In recent years, there has been growing interest in the potential of using digital narratives to create coping strategies and increase resilience. This literature review aims to gather evidence from other studies regarding the use of digital training in building resilience, the application of narrative psychological viewpoints on coping, and the general effects on university students.

The research conducted by Ang et al. (2022) demonstrated that e-learning effectively boosts resiliency levels. Meta-analysis of 22 trials, including 2876 participants, showed that digital training enhances resilience. The freedom and convenience of online training, where the participants were free to interact with the

materials at their leisure, was cited as one of the benefits of this type of training. This flexibility was especially helpful in keeping students attentive and informed, which is critical to developing resilience over an extended period. Additionally, digital training has proven to be more effective than conventional training, especially regarding self-regulatory and stress-coping skills. This is due to digital applications offering engaging and individualized exposure to enhanced execution of resilience-promoting strategies. This has implications for digital narratives as a mode of conveying multifaceted coping mechanisms applicable in different sectors, with different intensity levels, and for the short- and long-term.

In narrative psychology, the meaning of resilience is presented differently, focusing on using narratives regarding stress. Studying experiences in terms of creating a narrative helps a student give meaning to the difficulties found in the experience, promoting resilience (Browne-Yung, 2015). Previous studies (Lim et al., 2022; Leshchenko et al., 2020; Ohler, 2013;) have shown that narration allows people to express themselves, regulate their feelings and emotions, and enhance their psychological functioning. This is perhaps the most important aspect of the narrative process, as it helps build new meanings and find appropriate solutions that enable individuals to cope with specific situations, particularly during personal crises. People's stories enable them to rethink their lives and develop new forms of themselves when struggling, which helps strengthen their post-traumatic growth.

Coping strategies as the factors for resilience have been researched more in students of universities, particularly during the pandemic outbreak of COVID-19 (Chatfield et al., 2022). The authors conducted a mixed-method study to explore the relationship between adaptive coping strategies and resilience concerning students who identified positive correlations between the two factors and student flourishing. A significant focus was made on developing appropriate coping skills to improve the resilience of individuals in complicated situations, for instance, problem-solving or handling emotions. Thus, digital narratives as a strategy of self-reflection and self-expression can become a useful way of developing necessary coping skills (Falon et al., 2021). The study proves that through the development and sharing of digital stories, students can express what they feel, face what they experience, and have a sense of control over what they go through in life. Moreover, it enables the building up of the knowledge on resilience for the collective with sharing and fostering the resilience culture of the educational community.

It is vital to recognize that digital narratives contribute to resilience-building for university students and vulnerable groups, including unaccompanied refugee youth. The studies done by Goodman (2004) on the youths from the Sudanese refugee population established that resilience among these youths was tied to collective identity, meaning-making processes and movement from hopelessness to hope. As these youths seek to understand what they have gone through and build dreams for the future, they share their stories in this communal act. In this sense, applying digital narratives allows these youths to tell their stories to a broader community and, in turn, receive applause and validation for doing so. This process also helps to develop their protective factors and makes them feel they belong and are valued, which is important for their psychological functioning. Based on the above findings, it can be argued that digital narratives provide useful instructional strategies for addressing vulnerabilities, thus enhancing overall resilience for special populations.

While a steadily increasing amount of literature indicates that digital narratives impact the type and efficacy of coping and resilience, there remains a significant gap explaining how such an effect is realized in various groups and environments among the population. Even though numerous investigations have shown the efficacy of digital training, the investigations on how narrative training forms, such as written, visual, and multimedia, impact coping and resilience enhancement skills are understudied. Furthermore, there is little research on the impact of the interaction with digital narratives and how they can enhance resilience in crisis contexts. Filling these gaps may offer a better insight into how digital narratives can be used based on the type of education and psychological setting.

2. Methodology

2.1. Objective

The study aims to investigate the potential of digital narratives as a tool for enhancing resilience skills for students during prolonged crisis situations. We wanted to explore how creating digital narratives might serve as a restoring mechanism, developing skills that enhance overall resilience. In our case, we did not intend to provide students with profound knowledge of the psychological context of coping strategies or conduct a deep psychological experiment with pre- and post-testing. We employed testing for coping strategies to understand students' awareness of strategies and their level of practical application. Our goal was to raise students' awareness about coping strategies as a resilience tool and demonstrate coping strategies' potential on examples of well-known people's biographies. The key information about the students' reflection on coping strategies we took from the reflection interviews. In our study, we intended to find answers to two research questions:

- 1) What are the key characteristics of the educational process when using digital narratives?
- 2) How does the creation of digital narratives affect the development of coping strategies?

2.2. Participants

The study involved students from two universities: 48 students from Igor Sikorsky Kyiv Polytechnic Institute and 46 students from Taras Shevchenko National University of Kyiv. The participants represented a range of specialties, with engineering students from Igor Sikorsky Kyiv Polytechnic Institute and pre-service social educators from Taras Shevchenko National University. Engineering students underwent the study during the course on English for Engineering; pre-service social educators underwent the course on Digital Pedagogy. The participants, aged 19-22, included 40 males and 54 females. Among them, 42 students were internally displaced. All students experienced stressful situations due to the ongoing crisis in Ukraine, which has exposed them to critical and traumatic experiences related to military conflict. Although stress factors were the same, life conditions, the depth of stress experiences, and the impact of stress on the individual were considerably different (for instance, the death of close ones, the destruction of a house, forced migration, etc.). Participation in the study was voluntary, and all students were fully informed about the study's goals and procedures. The selection of participants was conducted randomly.

2.3. Instrument

A mixed-methods research approach was used to achieve the study's goals. Our choice is justified by multiple aspects and a variety of data obtained during the study, leading to a more thorough understanding of the research topic and the development of future implications. Moreover, mixed research methods enhance data triangulation by using multiple datasets to address a research question. In our case, the methodological triangulation involves data from students' questionnaires, a brief COPE Inventory (Carver et al., 1997), and students' narrative quality assessment according to determined criteria. The model developed by Carver et al. (1997) conceptualizes coping strategies as a combination of stable coping tendencies and techniques applied in specific stressful situations. This perspective considers coping strategies as the outcome of the interaction between individual traits and the context of the situation.

The implications of the study were gathered by employing digital narrative analysis, students' reflective interviews and a Brief COPE Inventory. The principal data-gathering tool was a narrative interview, which was aimed at identifying the effects of the overviewing process on student learning and emotional involvement,

starting from the conceptualization of the digital narratives and ending with their design. The interview was conducted based on a set of open-ended questions. It allowed participants to expand their thinking. The responses were kept anonymous. Students gave their consent to be videotaped in order to capture their responses accurately. The interview included the following questions:

1. What advantages of digital narratives do you notice as opposed to traditional approaches to studying?
2. In what way do you integrate visual components into the context of your digital narratives, and how does it affect the quality of the narrative?
3. In your opinion, what is the connection between creating digital stories and doing the typical writing assignments?
4. How do you think the creation of digital narratives influences your emotions?
5. Does the creation of digital narratives increase your motivation to study?
6. What coping strategies did you discover during narrative creation or presentations? Which strategies can you use in future?
7. How has the process of the digital narrative creation benefited your individual resilience?

For evaluating coping strategies, Brief COPE Inventory by Carver was used. The presented methodology is verified and empirically applied in current research studies (Rajesh et al., 2022; Rahman et al., 2021). Cronbach's alpha coefficients of internal reliability for the subscales range from $\alpha = 0.57$ to $\alpha = 0.8$. This is a 28-item multidimensional instrument that measures the coping styles that persons apply when handling stress, scored on a 1-4 scale, where 1 stands for "I haven't been doing this at all," while 4 refers to "I have been doing this a lot." The inventory identifies primary coping styles across three subscales: Coping strategies include Problem-focused Coping, Emotion-focused Coping, and Avoidance-focused Coping. Furthermore, it contains 14 more distinct two-item subscales that reflect different aspects of coping, such as self-distraction, active coping, positive re-appraisal, etc. We employed a Ukrainian adaptation of the inventory suggested by Yablonska et al. (2023).

In this study, digital narratives were assessed to examine their quality, to what extent narratives affected the appreciation and recall of the course materials and concepts with reference to coping strategies and resilience, and to understand the general impact of digital narratives as an intervention in relation to the promotion of personal responsibility, analysis, and metacognition.

2.4. Procedure

The study procedure included five stages: explaining the narrative development process, introduction to coping strategies, narrative creation, reflective interviews, and COPE inventory performance.

The research was carried out by implementing a cycle of preparatory problem-based instructional seminars and practical classes where students were introduced to the theoretical principles of using digital narratives in the educational process and the technology of their creation. Thematic digital projects were implemented in which each student took part, choosing a topic of digital narrative. An important stage of the research involved introducing students to creating digital narratives. Digital narrative technology combines different types of multimedia, including still images, text, video clips, audio narration, and music, to tell a short story about a specific topic, usually a few minutes long.

Then, we explained the main idea for the narratives – resilience via coping strategies. We informed students about different strategies (such as problem-solving, emotion regulation, social support, and positive thinking) and demonstrated examples of how these strategies could be used in different situations from historical perspectives and examples of famous people's biographies.

The creation of narratives included three steps: initial design, final design, and demonstration with further discussion. Firstly, students were encouraged to choose a topic. Among the suggested topics were stories of how famous people coped with difficult situations, strategies of surviving in crisis, personal experience of studying in

times of crisis, mental health strategies, family and social support in crisis, and the meaning of hope and positive thinking in crisis. The key idea was that the choice should be personally motivated. At this step, the target audience evaluation was important. Students had to consider the following characteristics of recipients of digital stories: age, gender, cultural background, and educational experience. Also, it was critical to use strategies to engage the audience in the narratives: asking open (specific) questions, presenting an exciting beginning of a digital narrative, integrating of sound, video, and other components in accordance with the audience's perception capabilities, determining what type of digital narrative will be the most acceptable for them.

After that, the plot was created—the most important component in the process of creating digital narratives. Next, a detailed scheme of the digital narrative was created, the sequential arrangement of shots was planned, and materials were collected and cataloged. Various technology, software, and digital applications (Canva, Adobe Photoshop, Windows MovieMaker, etc.) were chosen. The final step was the demonstration, followed by the discussion. Students presented their digital narratives to the audience for discussion.

After the demonstration, students underwent reflective interviews and COPE inventory. more.

2.5. Data analysis

The Brief COPE Inventory was scored for three overarching coping styles as average scores (sum of item scores divided by number of items), indicating the degree to which the respondent has been engaging in that coping style. Each of the 14 scales comprises 2 items; total scores range from 2 (minimum) to 8 (maximum). Higher scores indicate increased utilization of that specific coping strategy. Total scores on each scale are calculated by summing the appropriate items for each scale. According to Carver's recommendations (1997), there is no such thing as an "overall" score on this measure. Microsoft Excel version 2019 was used to process the statistical data.

Relational content analysis was used to analyze the qualitative data from students' reflections during the interviews to identify common themes related to coping strategies and resilience skills. This type of analysis focuses on the relationship, not quantity, between concepts and the context in which they appear. Students' answers were transcribed and coded. We applied the strategy of inductive coding. The research team initially read all transcripts to identify recurring themes, concepts, ideas, and patterns. Based on the initial review, a coding framework was developed. It included deductive codes (pre-determined based on the research objectives) and inductive codes (emerged from the data). Each transcript was coded line-by-line using qualitative data analysis software (MAXQDA). Codes were assigned to text segments representing specific themes, ideas, or concepts. The codes were grouped into categories that represented key themes. Themes were refined to ensure they were distinct, comprehensive, and directly related to the research questions.

The quality of digital narratives was assessed according to the following criteria: clarity and coherence of the content, relevance to the topic, the author's position regarding the informational message conveyed by the digital narrative, emotional engagement, use of multimedia elements, and creativity.

3. Results

The relative content analysis was employed to evaluate students' reflective interviews. Cognitive mapping was chosen as a tool to visualize the relations between these codes and coping strategies concepts. Using cognitive mapping, we tried to create a model of the overall meaning of the coping strategies context and the relationships between concepts (Fig.1) expressed by students:

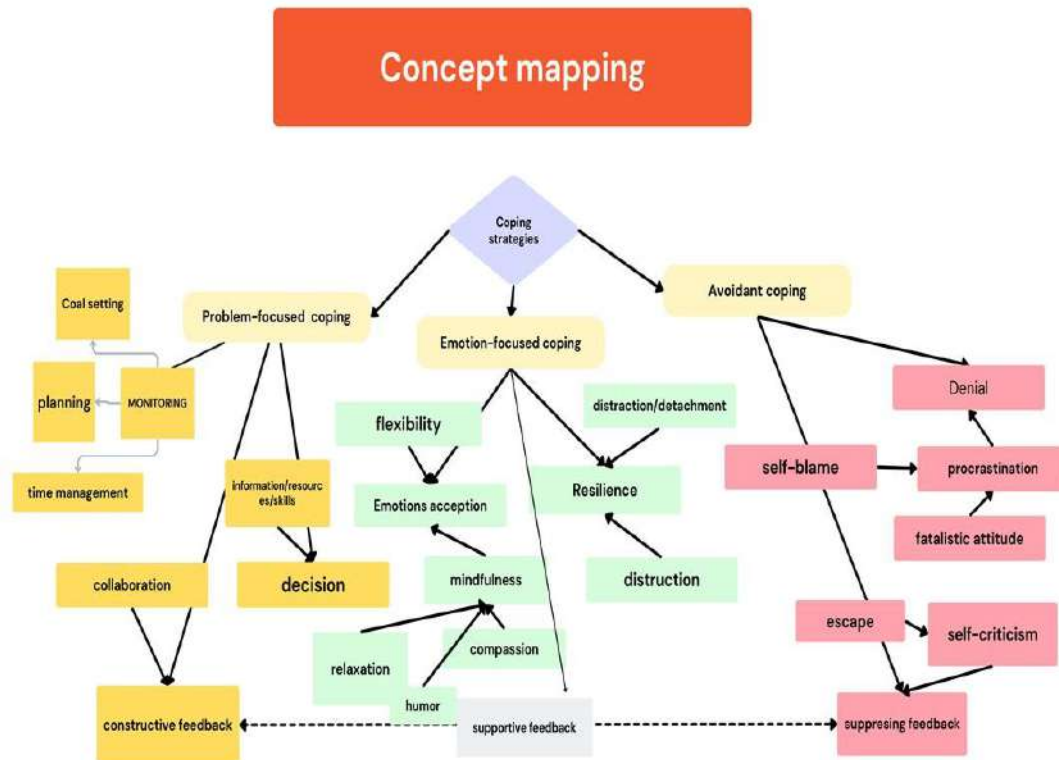


Fig. 1. Cognitive Map of Coping Strategies and Concept Relationships in Students' Reflective Interviews

Table 1 presents the descriptive statistics results for the Brief COPE Inventory, where M is the mean of the distribution, and SD is the standard deviation for each scale of the inventory (n=94).

Table 1. Descriptive statistics

Coping strategies	M	SD
Problem-focused		
Active coping	2.96	0.76
Use of instrumental support	2.65	0.88
Positive reframing	2.42	0.90
Planning	2.98	0.75
Emotion-focused		
Use of emotional support	2.82	0.85
Venting	2.46	0.76
Humor	2.31	0.92
Acceptance	3.25	0.72
Self-blame	2.53	0.72
Religion	1.73	0.90
Avoidant		
Self-destruction	2.92	0.79
Denial	1.94	0.87
Substance use	1.59	0.86
Behavioral disengagement	1.53	0.67

The results of the Brief COPE Inventory indicated that problem-focused coping (56% of students) remained the most commonly used strategy, while avoidant coping (27%) was less prevalent. Only 11% of students tended to engage in emotion-focused coping, reflecting lower overall engagement with these strategies.

Among the 14 two-item subscales, planning, active coping, and acceptance were the most frequently reported coping strategies, with around 58%, 57%, and 62% of students, respectively, actively employing these methods. In contrast, substance use (16%), behavioral disengagement (13%), and religion (18%) were the least utilized.

Other subscales, such as self-distraction (56%), emotional support use (55%), and instrumental support use (51%), showed moderate engagement. Humor (49%), positive reframing (45%), and venting (47%) also indicated moderate usage, while self-blame (50%) and denial (36%) were less common.

These results suggest a diverse range of coping strategies, with a notable preference for problem-focused approaches, particularly in active and planned coping behaviors, alongside a lower reliance on avoidant and emotion-focused strategies.

Analysis of the quality of digital narratives indicated general positive trends regarding the specified criteria. Most of the digital narratives were comprehensible, with 75% of the students correctly constructing the content in order and logic. A very high percentage of the students, 90% to be precise, comprehensively understood the topic under analysis as expressed through their narratives. This shows that the students are highly involved with the content taught in the class. Most students (67%) chose a reflective description of their personal experience. Emotional engagement was observed in 88% of the data, and students used narrative techniques to evoke empathy for the characters. There were great uses of multimedia components, including images 90%, videos 74%, and sounds 80%; these are good indications of how the students incorporated multimedia in supporting their digital narratives. As for creativity, 87% of the students used rather creative and unique ideas in their narrations, which makes them rich and interesting.

4. Discussions

Many researchers claim that narrative technologies have proved their effectiveness and are valued in the teaching process (Nasir, 2024; Peñalver et al., 2021, Lester et al., 2013). Their use contributes to studying how people experience, understand and reflect on their negative memories, experienced terrible events, painful life stories, and acquired traumatic experiences. Digital narratives are also a method of narrative therapy that uses a personally meaningful linguistic concept created in a digital format to eliminate accumulated negative emotions and experiences (Lim et al., 2022). Digital narratives are especially beneficial for future social educators who assist in overcoming stress, reducing its destructive impact, and transforming traumatic experiences.

The use of digital technologies for therapeutic purposes aims to teach a person to create stories in digital format that make beneficial changes in his / her life by interpreting and constructing a more positive individual experience. While conducting our study, we evidenced that creating digital narratives allows everyone to express their thoughts, feelings, and experiences in the most acceptable way— with words, images, melodies, colors, and special design. This allows a person who has experienced a traumatic experience, in the process of creating a digital narrative, to gradually get rid of the destructive consequences of trauma to release internal pain, painful memories, fear, sadness, and despair. The same conclusion was made by Ang et al. (2022), who proved that digital storytelling impacts the level of resilience.

Every person contributes unique details and his or her story into a digital narrative related to numerous issues and, when combined, forms a unique and very individual experience. The essence of these narratives is freedom, whereby students can express themselves regarding what they wish to share and what they are interested in or concerned about. In constructing their stories, the students are not bound to one single position; instead, they approach the whole process versatily, acting as the writer, screenwriter, director, narrator, actor, or composer. In this manner, learners acquire experience in self-expressed communication alongside the successful transference of emotions and ideas, which is essential in the learning-teaching process.

One of the study goals was to attempt to identify how digital narratives could be integrated into the educational process. The analysis of the reflections received during the interviews and surveys made it possible to determine four factors, according to which the integration of digital narratives into educational practice can be classified:

1. The general process of creating digital narratives (choosing a personally meaningful topic, ways of using multimodal means, editing process)
2. The ways in which digital narratives allow the implementation of communication (combination of audio and video channels).
3. Comparison of traditional written tasks and digital narratives.
4. The restorative aspect of using digital narratives.

The research results allowed us to analyze some answers regarding the issues outlined for the interview. These answers help to understand what kind of stimuli make the students engage in creating digital narratives. Some of the reasons claimed are the attractiveness of non-standard tasks, the need to gain experience in managing digital technologies, and the desire to learn more about new restorative technologies. These motivations illustrate a new tendency among students related to their desire to use modern, technology-focused approaches in their studies. This is in line with the trends observed in the modern processes of education that are focused mainly on the learning-by-doing approach and use of information technologies within the learning process to improve the results of the learning process and students' satisfaction with the learning process (Hansch et al., 2015; Tymchuk, 2015). The importance of digital narratives as a restorative tool indicates that students accept the role of digital stories for healing and post-traumatic growth. This idea is supported by Browne-Yung et al.'s (2015) study, which discloses the effective use of digital creative activities as an intervention for people coping and healing from stress and trauma.

Here are some answers regarding the digital narrative benefits and issues of traditional and non-traditional ways of learning:

"I did not think deeply about my writing process but simply wrote the text. I didn't really think about the strategies or the choices I made. Most of the material was simply reproduced from what was learned or found. When I was creating a digital narrative, I thought about how to realize my idea so that it would be clear to others, how I would present my main idea by controlling sound, voice and image at the same time, which media would dominate, how would my voice sound or if I show an image, then what I will say at this time, should I speak in such a way as to create tension in the reception of my idea, or vice versa. I was interested in this, because I had never thought about writing in such technical terms. It was something new, interesting, and something I could cope with".

Student M. underlined, "It was a great opportunity for me to show my creative abilities, which I realize in the theater studio. Writing scripts, implementing interesting projects is my favorite thing, so creating a digital narrative from an educational discipline was a new, interesting experience for me which opened new horizons for realizing my passion in the educational field as well". Student V. said, "Before working on the design of digital narratives, I perceived the learning process as a process of accumulating knowledge, concepts that you can remember and reproduce to your professor. After creating a digital narrative, I knew how to express myself in a new reflective way. It affected not only me, but the teachers' attitude towards me, improved my academic results". Student N. pointed out, "Digital narrative, of course, requires time, but communicating in the language of digital narratives is cool. You can't always express everything in words and out loud, but the combination of images, music, and words reach the very depths of the human soul".

Another interesting aspect is the students' choice of topics for the storytelling. The theme of the war in Ukraine was present in the content of the digital narratives created by all students: described their own traumatic experiences – 33 students, stories of how other people coped with critical situations – 19 students, volunteering – 10 students, assistance to people who suffered in a result of military actions – 26 students, post-war revival – 6 students. The choice of topics demonstrates students' interest in the subject and concerns related to the war in Ukraine. It was found that many of the learners preferred to represent their own difficult experiences, which shows that news

sharing was an effective method for the learners to come to terms with the issues affecting them. This is congruent with the narrative therapy approach, where telling a story is crucial to healing trauma (Lester et al., 2013). The decision to concentrate on volunteering might demonstrate a positive attitude toward the problem, indicating that these students perceive purpose and agency in giving back to society. Volunteering could be employed as an active coping strategy that enables students to deal with stress by mobilizing action. The same focus is on stories related to assisting people who faced difficulties due to the war, revealing a proactive empathy and focus on collaboration. Few of those who decided to consider post-war revivals aim to depict hope and look forward to the future, demonstrating the importance of planning as a problem-solving coping strategy.

One of the questions was about the advantages of using digital narratives compared to traditional methods of learning material. The obtained results proved that the process of creating and perceiving digital narratives deepens students' understanding of the educational material. Students reported that they had to present their ideas through text, images, voiceovers, video, and music when designing digital narratives. This helps to expand the channels of information perception and opens up new ways of processing information, reflecting on it, and finding new ways of self-expression. These advantages highlight that students consider narratives a reflective tool that trains self-regulation skills and coping strategies of planning, goal-setting, venting, and positive reframing.

An important aspect of the research was the results concerning the development of students' emotional intelligence and their sensory and emotional self-expression while creating and demonstrating digital narratives. The majority of students noted that they noticed changes in their psycho-emotional state when working on digital narratives (choosing a topic, schematizing a digital narrative, selecting visual images, recording their audio, etc.). Some students felt sadness, inner tension, emotional excitement, anger, and sometimes shame; some said that some memories caused pain, tears, and mental relief. Most students (72%) admitted that the emotional expression of the problem catalyzed cognitive interaction with the topic. They felt an emotional urge to do something (to help, attract attention), inform, introduce themselves, place their narratives in the existing educational discourse, or identify and fill identified gaps in these discourses. Thus, the affective component of creating digital narratives becomes a stimulus that sets cognitive processes in motion and contributes to developing emotion-based coping skills.

The results obtained during the research give grounds for asserting that when designing digital narratives, there is a convergence of cognitive and affective dimensions of cognition. As Erickson (2018) outlines in her dissertation, using text, audio, video, and animation in digital stories makes the learning environment more appealing, positively impacting students' emotional learning. Listening to digital stories also promotes empathic learning because students are emotionally affected when listening to other's stories. Digital narratives foster perspective-taking and empathy among the students. Awareness of one's own positionality or interaction with the subject on an individual level can force students to extend the zone of emotional and intellectual comfort. Sometimes, this means that students are motivated to say what others do not want to hear, to talk about what hurts, and to talk about what has not been expressed before. Other students need to listen and understand those who were forced to remain silent due to various circumstances.

The second research question was how digital narratives contribute to developing coping strategies enhancing resilience. While analyzing students' stories and content analysis results, we observed significant differences in students' perceptions of coping strategies. Based on the results, it appeared that some coping strategies were more commonly reported than others. For example, active coping, problem-solving coping strategies, denial, and behavioral disengagement were reported by a relatively higher number of students. On the other hand, substance use, venting, humor, and religion were reported by a few students. These findings confirm that the students may have different preferences and tendencies when it comes to coping with challenges or stressors.

The content analysis results show how students view the relationship between coping mechanisms. Although certain ideas occurred in many situations, students operated within three realms of coping techniques. For instance, all students agreed that receiving feedback is crucial to coping. Students distinguished between constructive, supporting, and suppressive comments and used them appropriately after reflecting on their own experiences. Students emphasized the significance of learning how to respond to and give feedback. Another idea in the context of three domains was "wishful thinking." It is interesting to note that students' perceptions on this idea varied. According to those who utilize problem-focused coping, wishful thinking is constructive thinking that encourages motivation and an optimistic frame of reference. On the other hand, wishful thinking was a meditation that helped students who utilized emotion-focused coping techniques to manage their stress or worry. Wishful thinking was viewed as a method of procrastination and an escape from reality in terms of avoidance. Students also pointed out the importance of humor and mindfulness as coping strategies. Avoidance was considered denial to solve a problem caused by a fatal attitude toward life events and a lack of responsibility for one's own life.

Overall, the positive effect of digital narratives on the learning process and resilience development is confirmed by students' interview responses:

- 89% of students emphasized that digital narratives allow the expression of complex ideas by using multiple media in a tightly compressed format;
- 72% of students noted that they can succinctly present ideas, events, and broad cultural discourses using an appropriate combination of music and images;
- 37% of students paid attention to the compression of argumentation that occurs in digital narratives and claimed that digital narratives enriched the experience compared to traditional writing tasks
- 43% of students mentioned that digital storytelling provided opportunities to analyze the coping strategies employed by famous people and understand their outcomes. By examining how other people coped with difficulties, students gained insights into coping behaviors, resilience, and problem-solving techniques that they could emulate in their own lives.

The potential of using digital narratives as a restorative and teaching method cannot be underestimated from the perspective of actualizing the need to preserve a person's mental health. Digital narratives make it possible to reveal a person's values, desires, hidden dreams, and internal resources through the created content. It contextualizes not only experienced events, situations, and experiences gained but also how a person is perceived in the family, team, and social environment. Designing digital narratives helped students develop reflection, resistance skills, a sense of the power of their own opinion and voice, and a sense of confidence when proving and arguing their point of view.

5. Conclusions

The research proves that digital narratives are beneficial educational technology and a valuable way of creating restorative and constructive inter-student communication. In the process of creating digital narratives, students improve their digital literacy and gain an understanding of the discourse-related analysis of media products. Most importantly, this process brings about self-reflecting and coping mechanisms that are part of stress and anxiety management.

In addition, using digital narratives as a part of the teaching and learning process enhances conventional education and transforms it into an interactive, engaging, and personalized process. Through digital narratives, students are able to showcase their personality and uniqueness while at the same time allowing students to develop resilience and emotional intelligence. Moreover, digital narratives facilitate the connection between personality and academic learning, enabling students to develop coping mechanisms necessary for their academic experience and future life. Besides making learning interesting and effective, applying this approach prepares students to face future challenges with courage and strength. Further research should be aimed at

identifying the readiness of teachers of higher education institutions to use digital narratives in the educational process.

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