



Stories4All

Digital Storytelling For Inclusion

Report on Czech Survey Results

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Abstract

This study explores Czech students' perceptions, experiences, and training needs related to the use of digital storytelling (DST) in education. Using structured online questionnaire data was collected from 42 participants, primarily university-level students preparing for careers in teaching. The findings reveal that while most students had no prior formal training in DST and expressed low confidence in their ability to use it, the majority recognized its educational value. Digital storytelling was perceived as an engaging, creative, and inclusive teaching strategy with strong potential for promoting cultural competence and interdisciplinary learning, even in STEAM subjects. Challenges such as limited access to training and the time-consuming nature of content creation were frequently mentioned. Nevertheless, students expressed a clear interest in developing DST-related skills and using it meaningfully in future classroom practice. The report recommends integrating digital storytelling into teacher education through hands-on workshops, access to open digital resources, and pedagogical support to empower future educators in using storytelling as a transformative educational tool.

Executive Summary

This report presents the results of a survey focused on Czech students, primarily future educators, and their perceptions and experiences toward the use of digital storytelling in education. The study aimed to examine students' familiarity with DST tools, their confidence in using them, and their views on DST's educational effectiveness, particularly in the context of inclusion, social justice and STEAM learning.

The data were collected through a Czech-language online questionnaire distributed via Google Forms. The survey included both closed and open-ended questions and was completed by 42 participants. Most respondents were university-level students, with a significant proportion based in Brno. Key findings of the study include:

- **Limited prior experience:** Only one student had formal training in DST, and

71% had never used DST tools, indicating a significant training gap.

- **Low confidence, high interest:** More than half of respondents felt uncertain about their DST skills, yet the majority expressed interest in developing them further.
- **Perceived benefits:** Students identified DST as a creative, interactive, and engaging educational method with potential across subjects, especially in STEAM areas.
- **Social impact:** Participants recognized DST's potential to promote empathy, cultural competence, and inclusion.
- **Main concerns:** Students noted challenges such as overuse of technologies, the complexity of creating digital content, and the need to shift the perception of DST from a reward to a serious teaching strategy.

Based on these insights, the report recommends integrating DST into teacher training programs through hands-on practice, access to digital resources, and a focus on meaningful pedagogical application. With appropriate support, DST can become a transformative tool for enhancing learning and supporting inclusive and interdisciplinary teaching in Czech education.

Introduction

Digital storytelling (DST) has gained significant attention in recent years as a dynamic and engaging educational approach that integrates multimedia elements, such as images, sound and video, into narrative structures. This combination of digital media with the tradition of storytelling creates opportunities for learners to construct and express meaning in ways that are both personally relevant and pedagogically powerful. In educational settings, DST is not only used to enhance subject comprehension but also to promote creativity, empathy, and inclusive classroom practices (Smeda et al., 2014; Nunvářová et al., 2023).

Numerous studies have confirmed that DST can deepen students' cognitive engagement and emotional connection to learning content. As Wu and Chen (2020)

point out in their systematic review, DST has been applied across various educational levels and subject areas, from primary education to university teaching, highlighting its interdisciplinary potential. DST has been shown to foster critical thinking, cultural awareness, and reflective learning, especially when learners are encouraged to draw from personal or community experiences. Importantly, Cruz González (2021) in her literature review noted that many researchers have successfully used DST as a tool for giving voice to disadvantaged groups, including individuals with disabilities and ethnic minorities.

In the Czech educational context, DST is still emerging as a formal pedagogical method, although individual teachers and students are increasingly exposed to its tools and principles through informal digital platforms. Research conducted by Nunvářová et al. (2023) demonstrates that digital storytelling can improve learning outcomes even in analytically oriented subjects such as economics, indicating its value beyond traditionally expressive or humanities-based disciplines.

However, for digital storytelling to be successfully implemented in schools, future educators must be supported through structured training. Although DST is often seen as a motivational or entertaining element in the classroom, its real value lies in its ability to connect students with content through narrative. This report aims to investigate how Czech students, especially those studying to become teachers, perceive digital storytelling. It explores their familiarity with DST tools, their confidence in using them, and their opinions on its relevance to inclusive education, STEAM learning, and social justice themes.

Methodology

This survey was conducted to explore the perceptions, confidence levels, and experiences of Czech students regarding the use of digital storytelling (DST) in educational settings. A structured online questionnaire was designed to collect quantitative data. The survey aimed to capture participants' familiarity with digital storytelling tools, their views on its educational value, and the perceived challenges

and opportunities associated with implementing DST in the classroom.

The questionnaire was created in Czech language using the online platform Google Forms. It included a combination of closed-ended and open-ended questions (see Appendix A). Closed-ended items gathered demographic data, information on previous education and formal training in DST, as well as students' perceived effectiveness of DST across educational domains. Open-ended questions invited participants to reflect on personal experiences and suggest ways in which DST might enhance pedagogical practices.

Data was collected anonymously and participation was voluntary. Prior to starting the survey, all participants were provided with relevant information about the purpose of the study and gave their informed consent. The survey was distributed electronically and remained open for a period of 2 months. The sample (n=42) consisted mainly of university-level students from the Czech Republic, with a significant concentration of participants from Brno. The collected data were processed using Microsoft Excel and Google Forms. The results are interpreted and commented on by the author in the following sections of this report.

Findings

Demographic information about Respondents

The survey was completed by a total of 42 participants, most of whom were students currently enrolled in Czech educational programs. A significant proportion of respondents were in their final year of study, and several others indicated participation in language school programs after secondary school. Although some participants were engaged in earlier years of their study, the sample included a diverse range of educational levels.

The demographic composition suggests a relatively heterogeneous group in terms of academic standing. Based on open-ended responses, many students had already completed prior educational qualifications, including secondary school, language

programs, or initial university degrees. This demographic profile provides valuable context for interpreting the rest of the survey findings, particularly in terms of students' familiarity with educational methods and tools such as digital storytelling.

Background of using DST

The section exploring students' previous exposure to digital storytelling tools and training revealed limited formal experience in this area. Only one respondent out of 42 indicated that they had received formal training, citing a university course taken during an Erasmus study exchange and a making of bachelor's thesis on this topic.

In contrast, 12 students (28,6 %) reported that they had used digital storytelling tools or platforms in some form. The rest of the students (71,4 %) never used any of these tools. The tools mentioned were diverse, and we can divide them in four categories:

- creative and artistic tools (e.g., *camera, digital art, Vimeo video*),
- AI tools,
- online platforms such as *YouTube, Spotify, Stream.cz, Wattpad, Reddit*,
- interactive tools like *Twine* and *Zoom* for educational purposes

While these findings suggest that a portion of students had informal exposure to digital storytelling, it also underscores a training gap. The majority of respondents have not received guidance of DST in educational contexts. This points to a clear need for accessible training opportunities that not only introduce the concept of DST but also prepare future educators to implement it meaningfully in classrooms.

Confidence and training needs in DST

In the majority of cases, students indicated that they were unsure of their ability to create DSTs. Over half of the respondents (22 out of 42) reported feeling uncertain about their skills in this area, while 16 students (38,1 %) expressed moderate confidence (*a little certainly*). Only 4 participants (9,5 %) stated that they felt very confident in using DST.

When asked what type of training or support would be most useful for improving their

DST skills, students identified several key areas. The most frequently selected was *How digital storytelling can support critical thinking and creativity* (28 mentions).

Other often indicated answers were:

- Training in digital skills, such as photo and audio editing (10 mentions)
- Guidance on implementing DST in educational practice (9 mentions)
- Linking of digital storytelling to inclusive practices/ social justice/ empathy and support (6 mentions)

These findings suggest that students are especially interested in using DST not only as a technical tool but also as a method to foster deeper learning outcomes, such as creativity, innovation, and reflective thinking. Regarding the resources that students found potentially most helpful for developing their DST skills, two options were most popular:

- Open digital storytelling platforms (19 mentions - 45,2%)
- Open-access libraries of free multimedia content (18 mentions - 42,9%)

Other resources mentioned - access to quality hardware and AI-generated digital content, were mentioned significantly less frequently (both 7 mentions).

Taken together, the responses reveal a strong interest in building practical, technical, and pedagogical competence in DST. However, the high level of self-reported uncertainty also underscores the need for accessible, scaffolded training that builds confidence through hands-on experience and clear educational frameworks.

Perception of Digital storytelling as a tool in teaching

When asked about the essential components of a successful digital story, students highlighted several key features. These included emotional tension (17 mentions) and relevant examples or model situations (15 mentions). Other options like attention to detail and use of figurative language (e.g. metaphors, irony) were mentioned 10 times. One student commented on this question by saying that all components are important and it is not possible to choose just one. Since there were no significant differences between the frequency of each answer, we can say that all of these

components are important.

Students generally perceived DST as a beneficial educational method, though their views on its overall effectiveness were slightly varied. 19 students (45,2 %) considered storytelling to be very effective in the learning process, while another 19 students rated it as somewhat effective. Only a small minority (4 respondents) expressed uncertainty about its pedagogical value. But none of the respondents chose the ineffective or ineffective option.

When asked to identify the benefits of digital storytelling as a teaching tool, students selected a wide range of positive attributes. The most frequently mentioned advantages included:

- Creativity (14 mentions)
- Entertaining and effective learning/teaching tool (both 10 mentions)
- Interactivity and fun (both 9 mentions)
- Pleasant, innovative and suitable for children (all 7 mentions)

Other advantages like easy to watch, inclusive, empathetic and motivating were marked less frequently.

In terms of concerns, 38 out of 42 participants (90,5 %) stated they had no objections to using DST in educational settings. Only 4 respondents expressed concerns. While these individual comments were not uniformly detailed, they often mentioned issues such as overuse of technology, how to shift student perception from reward to learning tool, or the complexity (time requirements) of preparing digital materials.

Overall, students were positive about the integration of digital storytelling into education, highlighting both its emotional and cognitive impact. This relatively low level of concern suggests strong potential for further exploration of DST in classrooms.

DST and different subjects

Participants were asked whether they believed that digital storytelling could be integrated across various school subjects, such as art, mathematics, science, or

history. A majority of respondents (54,8 %) responded affirmatively, indicating confidence in the interdisciplinary potential of DST. However, 15 students (35,7 %) reported uncertainty, and 4 expressed doubts about its applicability across all subjects.

When asked more specifically about DST's usefulness in STEAM subjects (Science, Technology, Engineering, Arts and Mathematics), support was even stronger: 32 students (76,2 %) agreed that DST could serve as an effective tool for engaging learners in STEAM-related learning. Only 9 were uncertain, and just 1 respondent explicitly disagreed. These findings underscore a growing awareness among students that DST can be more than a language arts or humanities tool. Instead, it is increasingly being seen as a cross-curricular strategy.

Social inclusion, cultural competences and DTS

Students' responses reflect a generally positive perception of DST as a tool for promoting social inclusion and cultural understanding. When asked about the potential of DST to enhance students' cultural competencies, the majority expressed optimism:

- 7 students (16,7 %) considered it highly effective
- 22 students (52,4 %) found DST to be fairly effective
- 12 respondents (28,6 %) viewed it as somewhat effective
- Only one respondent regarded it as minimally effective
- Nobody choosed option completely inefficient

These results suggest that students recognize the value of DST in supporting intercultural awareness within educational contexts.

In an open-ended question, participants were invited to share examples of DST projects that could contribute to social justice topics, such as inclusion, diversity, and empowerment. While most did not respond in detail, five students provided concrete suggestions. These included references to projects centered on empathy, representation of marginalized voices (people with disabilities and bullied people), and raising awareness about human rights issues (people from war-affected areas).

Though the number of responses was limited, their thematic consistency indicates a shared understanding of DST's potential for advocacy and social change.

Additionally, students were asked how future teachers could be better prepared to use DST in ways that are inclusive. Here, seven students provided thoughtful suggestions, emphasizing the importance of emphasis on personal experience (incorporating real-life stories and emotions in teaching), engaging with diverse perspectives from colleagues and using online resources like AI or web courses. These responses underline the importance of professional development that equips future educators to use DST not only as a technological tool, but also as a medium for social impact.

Student interest and motivation

To assess students' motivation to engage further with digital storytelling (DST), the final question of the survey asked whether they would be interested in expanding their skills and knowledge in this area. The majority of participants demonstrated openness in further learning:

- 28 students (66,7 %) responded maybe, indicating moderate interest
- 12 students (28,6 %) responded definitely, showing strong enthusiasm
- Only 2 students expressed no interest in further developing their DST skills

These results suggest that although many students may not yet feel fully confident or experienced in using DST, they are willing to learn more. The strong overall interest in expanding DST competencies points to a valuable opportunity for educational institutions to introduce training programs, practical workshops or integrated coursework on digital storytelling, especially within teacher education. This motivation, combined with students' awareness of its educational and social potential, reinforces the relevance of incorporating DST into professional development pathways for future educators.

Discussion

The findings of this survey confirm that digital storytelling (DST) holds strong potential as a pedagogical strategy, especially in the context of fostering creativity, engagement, and inclusion among students in Czech educational settings. While participants reported limited formal training or experience with DST, they demonstrated an awareness of its interdisciplinary benefits and an openness to develop relevant skills.

Consistent with results from Wu and Chen (2020), who in their systematic review identified an increasing global interest in DST across educational levels and disciplines, Czech students in this study expressed belief in its cross-curricular applicability, particularly in STEAM subjects and in developing cultural competencies. Students displayed strong motivation to develop their DST competencies—especially in areas such as critical thinking, creativity, and inclusive practice. This aligns with Smeda et al. (2014), who mentions that DST fosters both cognitive and emotional engagement. Respondents in this survey similarly highlighted qualities such as creativity, empathy, interactivity, and engagement as DST's key strengths.

The Czech context is further supported by findings from Nunvářová et al. (2023), who showed that DST improved students' learning outcomes in economics-related subjects. Their research confirms that even in content-heavy disciplines, DST can enhance academic performance and learner motivation. This is especially relevant given that many Czech students in this survey had only informal exposure to DST tools and expressed an interest for structured training.

In terms of social inclusion and justice, students recognized DST as a means to amplify marginalized voices, develop empathy, and foster intercultural understanding. These insights support the conclusions of Cruz González (2021), who, in her systematic review, highlighted that many authors have explored the use of DST with disadvantaged or marginalized groups, showing its potential to foster empowerment, inclusion, and student agency.

Nonetheless, several barriers were identified in students' responses. Among the concerns mentioned were the potential overuse of technology and increased screen time, particularly for younger learners. Some students questioned how to reposition digital storytelling from being perceived as a reward or fun activity to being valued as a legitimate educational tool. Additionally, a few participants highlighted the time-consuming and technically complex nature of creating digital stories. These concerns echo findings from Smeda et al. (2014), who emphasize that successful implementation of DST depends not only on access to digital tools, but also on educators' ability to manage technological complexity and pedagogical integration, because no holistic pedagogical framework was provided. As it suggests, without adequate framework, even highly motivated educators may hesitate to adopt DST. In summary, this survey results confirms that while DST is still emerging in Czech educational contexts, it is perceived as a meaningful and socially responsive method. The findings resonate with other authors' work that DST can support transformative learning, cultivate creativity and bridge disciplinary boundaries.

Conclusion

This study confirmed that Czech students perceive digital storytelling as a valuable and engaging educational tool with cross-curricular potential, particularly in STEAM and inclusive education. Despite limited prior experience or formal training, students are aware of the potential of DST as a powerful educational tool and express a clear interest in developing their competencies in this area. Digital storytelling is not only perceived as engaging and creative, but also as capable of fostering deeper learning outcomes such as critical thinking, empathy, and intercultural understanding.

However, while students emphasized the benefits of DST for classroom interaction and entertaining teaching tool, they also pointed out several challenges—namely, the time required to create meaningful stories, the need to shift its perception from a “reward” to a legitimate teaching strategy, and concerns about technology overload.

The findings are consistent with international research, which emphasizes the transformative potential of DST when implemented thoughtfully and supported by appropriate training, resources, and pedagogical integration. Teacher training programs should integrate DST into their curricula through hands-on workshops, digital resource access, and pedagogical guidance. Supporting future educators in using DST not only technically, but also meaningfully and reflectively, can unlock its full potential as a valuable part of modern, learner-centered education in the Czech Republic and beyond.

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Appendix A

Survey Questions

1. Kdo formulář vyplnil? [otevřená otázka - e-mail].
2. V současné době jste v: 1. /2. /3. /4. / jiném ročníku studia?
3. Jedná se o vaše první vysokoškolské studium? [Ano; Ne].
4. Pokud ne, jaké další studium jste absolvoval/a? [otevřená otázka].
5. Absolvovali jste již dříve nějaké formální školení v oblasti digitálního vyprávění příběhů? [Ano; Ne].
6. Pokud ano, popište prosím, jaké školení. [otevřená otázka].
7. Používal/a jste již dříve nějaké nástroje nebo platformy pro digitální vyprávění příběhů? [Ano; Ne].
8. Pokud ano, prosím uveďte nástroje nebo platformy, které jste používal/a. [otevřená otázka].
9. Jak se cítíte jistí ve své schopnosti vytvářet a realizovat aktivity digitálního vyprávění příběhů?
[velmi jistě; trochu jistě; nejistě].
10. Jaký typ školení nebo podpory byste považovali za nejpřínosnější pro zlepšení svých dovedností v oblasti digitálního vyprávění příběhů?
(je možné uvést více odpovědí)
[školení v digitálních dovednostech (úprava fotografií/audia); více informací o historii/kultuře a výzkumu digitálního vyprávění příběhů;
jak lze digitální vyprávění příběhů implementovat do vzdělávací praxe; jak je digitální vyprávění příběhů spojeno s inkluzivními postupy/sociální spravedlností/empatii a podporou; jak může digitální vyprávění příběhů podporovat STEAM a další předměty;
jak může digitální vyprávění příběhů podporovat kritické myšlení a kreativitu;
jak lze digitální příběhy hodnotit z hlediska jejich efektivity; jiné].

11. Jaké zdroje by vám pomohly při dalším rozvoji vašich dovedností v oblasti digitálního vyprávění příběhů?

[otevřené platformy

pro digitální vyprávění příběhů; otevřené digitální knihovny s volně dostupnými fotografiemi / zvukovými soubory; přístup ke kvalitnímu hardwaru; digitální obsah vytvořený umělou inteligencí; jiné].

DIGITÁLNÍ VYPRÁVĚNÍ PŘÍBĚHŮ (DST)

12. Jaké jsou podle vás klíčové složky úspěšného digitálního příběhu?

[napětí; důraz na detaily; obrazná pojmenování (metafory, metonymie, ironie, atd.); příklady a modelové situace; jiné].

13. Jak efektivní je podle vás vyprávění příběhů v procesu učení?

[velmi efektivní; málo efektivní; neefektivní nebo málo efektivní; nejsem si jistý/á].

14. Vyberte prosím všechny výhody, které jsou podle vás spojeny s digitálním vyprávěním příběhů jako nástrojem výuky/učení.

[efektivní; příjemné; zábavné; snadno sledovatelné; vhodné pro malé děti; inkluzivní; empatické; interaktivní; kreativní; inovativní; motivující; poutavé; jiné].

15. Máte nějaké obavy nebo výhrady k používání digitálního vyprávění příběhů ve vzdělávacím prostředí?

[Ano; Ne].

16. Pokud ano, prosím vysvětlete.

[otevřená otázka].

17. Myslíte si, že by DST mohli učitelé využívat v jakémkoli předmětu?

(Např. umění, matematika, přírodní vědy, dějepis)?

[Ano; Ne; Nejsem si jistý/á].

18. Myslíte si, že nástroje digitálního vyprávění příběhů (DST) mohou být efektivní při rozvoji kulturních kompetencí studentů?

[Ano, mimořádně efektivní; Vcelku efektivní; Částečně efektivní;

Jen málo efektivní; Zcela neefektivní].

19. Můžete uvést nějaké příklady zkušeností/projektů v oblasti digitálního vyprávění příběhů, které mohou mít pozitivní dopad na nějaký problém sociální spravedlnosti?

(např. inkluze/ diverzita/ empatie/ kulturní kompetence/ posílení postavení atd.) Pokud ano, prosím stručně popište.

[otevřená otázka].

20. Myslíte si, že by DST mohli učitelé využít jako nástroj k aktivnímu zapojení žáků do rozvoje kompetencí STEAM (věda, technologie, technické obory, umění, matematika)?
[Ano; Ne; Nejsem si jistý]

21. Jakým způsobem mohou být podle vás budoucí učitelé lépe připraveni na zařazení inkluzivních a sociálně spravedlivých metod digitálního vyprávění příběhů do svých budoucích tříd?
[otevřená otázka].

22. Chtěli byste rozšířit své znalosti a dovednosti v oblasti DST?
[vůbec; možná; určitě]

Děkujeme!