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DIGITAL LIFE STORIES IN YEAR FOUR OF PRIMARY SCHOOL

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Abstract: In Romania, the curriculum for mother tongue education for grade three and four of primary school defines spoken and written text production in various communication situations as a general educational requirement and competence. (see the curriculum for competence-based teaching of the mother tongue approved by Ministerial Decree No. 5003 of 4 December 2014. Hungarian Language and Literature, grade three and four). This experimental study examines the impact of digital storytelling on children's text production skills.

Our aim was to design an interventionprogramme that develops primary school children's self-expression, text production skills, creativity but also their digital competencies. The goal is to use digital storytelling to develop children's composition skills, including staying on the subject, creating the connection between title and content, spelling, text appearance, and reaching the desired length.

In order to achieve our objective, we devised experiments involving two cohorts of children in year four of primary school who were given stories selected from Angi Máté's book *Volt egyszer egy…* (Once upon a time there was a…). Using these stories as a starting point, the members of the both groups created their own stories, the experimental group applying digital storytelling, while the control group applied the technique of collage.

Key words: digital storytelling, communication competence, text production skill, life stories, creativity

1. Introduction

Reception class builds on the spoken text production skills developed in nursery school, while in the first and second grade of primary school sentence building is used together with various text processing techniques in order to lay the groundwork for subsequent text production skills. It is these continuously developing text comprehension and production skills that ensure the ability of children to understand, analyse, and critically process texts created for various purposes, in different environments and by distinct methods and to produce texts adapted to the communication situation and to the audience as well. Written text production enhances communication competencies and cognitive skills because – whether we are talking to someone, holding a speech or writing a letter – we spend our whole lives producing texts. This is why communication culture and text comprehension and production competencies specifically should be stressed as early as in primary school as prerequisites of future successful learning. It is vital that the creativity and the text production competence of primary school children be developed in an enjoyable, adventuresome and interactive manner.

This includes the development of digital competence and of empathy through life stories. Samu (2004) postulates that the best results are achieved by using text types with a personal tone and draws attention to the fact that writing exercises play an essential role in personality development. It is our hope that the stories written by Angi Máté will create a cosy and intimate atmosphere that will provide the framework for beautiful life stories.

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2. Theoretical background

2.1. Digital storytelling

Storytelling is a tradition and a way to share knowledge and memories. It is a form of expression by spoken word that bears equal significance both to the storyteller and their audience, conveying the story of a person, a family or a community to various groups, cultures and age groups. Digital storytelling combines narrative with digital media (Robin, 2008), successfully bridging the gap between the ancient tradition of spoken word storytelling and multimedia technology.

Together with open teaching, digital storytelling efficiently connects digital and online learning environments and reaps the benefits of the learning environment offered by contact teaching (Lévai-Pap, 2015). This technique was first introduced by Joe Lambert et al. in 1994 in Berkeley, California (Lévai-Pap, 2015) and can be defined as a complex education method (Lévai-Pap, 2015). Up until now, research in this field has been mostly focused on assessing the impact of digital storytelling upon mother tongue and foreign language competencies, with results showing a remarkable development of written (Robinson-Green, 2011) and spoken text production skills (Zaragoza et al., 2011). Studies also evidence the fact that it enhances text production and comprehension skills, critical thinking and learning motivation (Ya-Ting & Wan-Chi, 2012). In our experimental study, we will focus on the impact of digital storytelling upon text production skills.

Digital storytelling (DST) enables us to narrate a story that bears significance to us by using information and communication technology (ICT) tools (Lévai, 2016). Thus, pupils who had been passive recipients of the learning process become active participants that author independent creations. Another definition views DST as a method of participation that makes use of audio-visual tools and digital technology to create and share autobiographical stories (Lanszki and Horváth, 2015). This will also be the focal point of the experimental part of our study: using Angi Máté's stories as a starting point, we will encourage our participants to create autobiographical stories.

Within the conceptual system of didactics Lanszki (2017) outlines DST as a complex teaching and learning strategy and a learning management method whose success greatly depends upon the openness of the school culture, upon the implementation of technology-based methodology and management styles that adapt educational innovation, as well as upon creating an integrated learning environment for pupils. Szemán and Szabó (2017) postulate that DST enables participants to get to know themselves better while discovering each other from a different point of view.

Twists of fate, memories, experiences, traditions, customs, social situations, artistic vision, but also societal and public health issues are the most popular and common subjects of short films created using DST (Lanszki, 2015b). Researchers Lanszki and Horváth (2015) argue that DST is mostly used with youngsters due to their familiarity with activities closely related to DST (sharing photos and videos online). DST may also be regarded as a new learning management method that harmonises traditional storytelling with the use of digital tools (Lanszki & Pap-Danka, 2017). Each storyteller should be able to create a coherent, personalised text but also to research their personal or family archives for suitable photos to accompany the story. The competent use of digital tools is paramount during the editing process that synchronises the story with the pictures and the music. DST empowers the storyteller to make use of their ability to plan and to control all aspects of film-making: gathering materials, creating the story, voice recording, cutting, editing, and post-production too.

2.2. Steps of creating a digital story

The first step is the introduction during which the storytellers get acquainted with the method itself, with the structure of stories and with the process of film-making. A relaxed, friendly atmosphere is essential to creative writing.

The second step, the writing process, begins with the story circle. The aim of the story circle is to help storytellers devise a storyline for their film in a mutually encouraging setting that respects confidentiality. The story circle is based on trust and the members of the circle may not pass judgement on each other's work. It ends once every member has found their own story and has drafted a first version of the storyline.

The actual writing of the story takes places in the third step, in which the author pens the story which they will read out loud and record. The story should be between 180 and 320 words long.

The fourth step of DST, voice recording, introduces us into the technical part of the process. Reading out loud and recording a written text is not always easy for the inexperienced. More often than not, we are bound to be dissatisfied with the result or we cannot read out the entire text without making mistakes. This, however, is not a problem, because cutting the recorded material allows us to correct our mistakes. One of the prerequisites of DST is an intelligible and authentic voice which enhances the value of the film. It is in this fourth step that pictures, photos, drawings, music and various effects are digitised. The effects used must be chosen carefully so as to not affect the intelligibility and general impact of the film.

The editing and cutting of the short movie are done in the fifth step. Cuts allow the correction of mistakes in the audio recording. Creativity is essential during this technical step and ensures the creation of a high-quality short film.

The last step of DST involves screening and sharing the end result. Digital stories are meant to be shared, thus watching the short films and giving feedback to each other constitute the final step that concludes the workshop (Lanszki, 2017).

The process of DST can commence only once the authors find a story that is significant to them and that they would like to share with others. The next step involves searching for appropriate photos and images to accompany the story, keeping in mind that the narration should be adapted to the selected pictures. The end result is shared with peers or even on social media.

According to Szemán and Szabó (2017), DST makes storytellers feel accepted and supported because it allows them to process their personal experience through pictures. The authors of DST creations also receive feedback from the viewers of their short films.

2.3. Digital storytelling in education

The new millennium has ushered in the increasing popularity of DST as an education method (Lanszki, 2017). Information society's digital turn lead to the adoption of this new technology both in formal and informal learning settings (Lanszki & Pap-Danka, 2017).

DST introduces a medium into education that is an unquestionable part of pupils' lives. This, in turn, might make the pupils perceive their educator as being more open towards them and less prone to frontal instruction (Lanszki, 2018). The point is that pupils do not use digital tools as an end in themselves, but in order to create original stories and unique multimedia products that pique the interest of their peers and enthuse them while raising awareness for the subject presented within the community of children (Lanszki & Pap-Danka, 2017).

Lanszki (2015b) postulates that the use of DST in the classroom as an education strategy boosts the willingness of pupils to actively cooperate, whereas the educator takes over the role of the facilitator. DST offers pupils much more than the mere competence of using digital tools. Educators soon realised that the method is excellently suited to not only become better acquainted with their pupils, but also to process curriculum contents (Lanszki 2017). Lanszki (2015b) also posits that the process of DST applies the principle of 'learning by doing, because pupils learn the syllabus while actively researching, creating and presenting their short films, all the while developing their digital competence and self-expression skills. One of the reasons why DST is so successful is that pupils get to experience the joy of creation, while the process itself unites storytelling and spoken information-sharing with the possibility of self-expression through pictures (Lanszki, 2017).

3. Research methodology

3.1. Research aim

The main aim of this research is to asses the impact of digital storytelling to three and four grade primary school pupils' text production competence.

Since the focus of our study is to assess the impact of DST, we designed and tried a competence-enhancing programme for primary schoolers that was meant to enrich their vocabulary, develop their written text production skills as well as to encourage efficient cooperation between them. One essential criterion of text production is that pupils be aware in day to day communication situations of the purpose of the text, the addressee and the communication situation. Our competence-enhancing programme was based on Angi Máté's stories published under the title *Volt egyszer egy…* (Once upon a time there was a…). Special attention was given to the variety of the tasks and to the different text types. These allowed children to find their own life story by reflecting upon the story they had heard as well as to find relevant pictures, to write the appropriate text and to process everything by using digital technology.

Another aim was to develop pupils' text production competence through DST, including staying on the subject, creating the connection between title and content, spelling, text appearance, and reaching the desired length. It was our hope that these creative tasks would enhance children's digital competence and creativity and that they would enjoy writing texts more.

3.2. Participants

48 fourth grade primary school pupils have participated in this research. They were divided in experimental and control group. Since our competence-enhancing programme required computer skills, the members of the experimental group were selected among those pupils that already had digital competencies, having participated in the previous school year in the trial of a spelling software on their personal tablets.

3.3. Research tools

During pretesting, we assessed the essays of the children participating in the study in accordance with a set of criteria elaborated by us, whereas their creativity was scored with the Torrance test.

3.4. Intervention program

Our programme was based on the selected stories from Angi Máté's book *Volt egyszer egy…* (Once upon a time there was a…). At first, the storytellers familiarised themselves with the method, the story structure, and with the process of film-making. The researcher created a cosy and relaxed atmosphere, which is absolutely vital in order to elicit authentic life stories.

The writing process begins with a story circle in which the teacher narrated the stories penned by Angi Máté. Listening to all opinions and encouraging pupils to speak up was very important in this stage because it ensured that each child identified a story that would become the framework of their film. In the story circle we listened to the idea of each pupil and offered advice at times, but we never passed judgement. By the end of the story circle all children had found their own story. The story circle was followed by individual work: each child drew the impressions left behind by Angi Máté's story and drafted the first version of their life story. The drawings were captioned with the words: 'The word silence makes me think of the following story'. The participants were allowed to amend and to complete their draft at home and were asked to subsequently record the final version. They also digitised their drawings at home or searched for images or personal photos to accompany the story. In a next step they added the voice recording of their personal story – on the subject of silence, for instance – to the series of images they had selected.

The members of the control group also worked with the stories of Angi Máté. They made collages to accompany the stories they had heard. At the end of the experiment, each member of the experimental group was handed out a DVD containing their own life story, whereas the members of the control group were given an illustrated book of their life story that they could take home. The children were read twelve stories in total from Máté Angi's book: Once upon a time there was a window…, Once upon a time there was a cold…, Once upon a time there was a darkness…, Once upon a time there was a mouse…, … a city, a flower, a hedgehog, a basement, a sky etc. The stories lead to the processing of personal experiences such as encounters, the joy of playing together, positive and negative traits, friendship, forgetfulness, desires, fears, gifts etc.

The end products of the children conveyed their personal experiences related to these topics which were transformed into a digital story by the members of the experimental group and turned into a collage by the control group. The stories read evoked different personal experiences in the participants and we noticed that the digital story format had a positive impact upon the willingness of children to talk about them. The fact that the parents participated in the selection of fitting photos from the family archive turned the creation of these short films into an activity for the entire family. Some parents expressed their gratitude at the end of the study saying that the activities had helped the family spend more quality time together. R. Sz., one of the pupils, reported that their father even reached for the camera and helped them to complete the project with photos he took in the city park.

4. Results and discussion

The results of the study show that the text production ability of the experimental group significantly improved. The results of the pre- and post-tests were analysed using a paired sample *t*-test that revealed a marked difference in the case of the experimental group, which might be attributed to our intervention. The comparison of the pre- and posttesting results of text production skills are presented in *Table 1*.

Table 1. *Comparing pretest and postests results with paired-sample t-test*

Groups		**Mean**	**Deviation**	**t-value**	**Significance level p-value**
Experimental group	Pre-test	12.33	2.03	5.98	0.00
	Post-test	14.62	1.66		
Control group	Pre-test	11.95	2.13	2.75	0.11
	Post-test	13.66	2.37		

We can observe that the difference between the two groups was insignificant in pretesting (0.37 points), but had increased in post-testing (0.96 points). The text production ability of the experimental group significantly increased (p=0.00). Although the same ability also improved in the case of the control group, but the increase was not significant (p=0.11).

The results demonstrate that today's generations are keener to work with digital technologies and that this method inspired them to spend more time on the texts they created. We also observed an improvement in the computer skills of the experimental group elicited by the fact that they frequently asked for help amongst each other during the process of digitalisation, they shared their stories, created a Facebook group where they could watch each other's stories and encouraged each other with kind words and likes.

The creativity of both groups was assessed using a Torrance test. The comparison of the pretest and posttest results regarding creativity are presented in Table 2.

Table 2: *Comparison of results regarding creativity using a paired sample t-test*

Groups		Mean	Deviation	t-value	Significance level p-value
Experimental group	Pre-test	26.27	11.77	3.93	0.001
	Post-test	34.18	12.91		
Control group	Pre-test	29.98	9.64	5.38	0.000
	Post-test	41.16	12.79		

Creativity increased significantly in the case of both the experimental (p=0.001) and the control group (p=0.000). However, the members of the control group scored higher in almost all areas of creativity, their development was more marked than in the case of the experimental group. This is unsurprising, seeing that their stories had not been digitised. They, too, had created their own life stories and had decorated them with creative illustrations. In both groups, the participants enjoyed working on their respective projects because they were the protagonists of the stories that allowed them to recall childhood memories and because they could also illustrate their stories. Thus, their learning motivation with regards to text production also increased.

5. Conclusion

In conclusion, the results show a significant improvement of text production skills in all variables measured in the case of the experimental group as compared with the control group. However, the control group achieved better results in creativity. Based on the fact that year-four pupils have sufficient digital skills to implement this learning method and especially in the light of the rapid spread of online education, it is worth introducing children to digital storytelling in a school with an appropriate infrastructure, opening a new way for them to teach each other through their stories. The traditional school curriculum could make room for an optional course on digital storytelling where children could get acquainted with this innovative method.

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