



ORJİNAL MAKALE / ORIGINAL ARTICLE

Balıkesir Sağlık Bilimleri Dergisi / BAUN Sağ Bil Derg
Balıkesir Health Sciences Journal / BAUN Health Sci J
ISSN: 2146-9601- e ISSN: 2147-2238
Doi: <https://doi.org/10.53424/balikesirsbd.989705>



Understanding Nursing Students' Experience Through Digital Storytelling

Aydanur AYDIN¹, Zeynep TATLI², Ayla GÜRSOY³

¹ Nursing Department, Faculty of Health Sciences, Gümüşhane University

² Fatih Faculty of Education, Computer Sciences and Instructional Technologies, Trabzon University

³ Nursing Department, Faculty of Health Sciences, Antalya Bilim University

Geliş Tarihi / Received: 01.09.2021, Kabul Tarihi / Accepted: 19.11.2021

ABSTRACT

Objective: The aim of this study was to explore both the student-created digital storytelling and the views of peer sharing of digital storytelling that reflect the clinical experiences of nursing students. **Methods:** The study employed an explorative qualitative design. The data were collected with a questionnaire containing the findings related to the process of digital story formation and SWOT analysis. After peer sharing, the effect of the digital storytelling on the clinical process was determined with a semi-structured interview form. The study follows the COREQ guidelines for qualitative studies. **Results:** The findings showed that the student-created digital storytelling was insufficient hardware, interactive and triggering way of communication. While the study also revealed that they had a lack of deeper thinking and product creation had a positive effect on self-esteem. **Conclusion:** Student-created digital storytelling seems to be effective in conveying the clinical experiences. Considering the fact that the acquired hardware contributes to a desired level of learning, it can be said that digital stories are the right tools for transferring sharing subjects. In addition, it can be said that an environment should be created for the students to become aware of their weaknesses and threats. In this context, it can be stated that the information obtained from the peer sharing of students contributed to both professional life and individual equipment during the study. The sharing of different clinical settings with students with the help of a technological tool makes the students feel more comfortable in the clinic. The digital story is a method that can be used by young people of similar ages, both in terms of students preparing their own experiences and being a technological product.

Keywords: Digital stories, Storytelling, Nursing experience, Nursing.

Hemşirelik Öğrenci Deneyimlerini Dijital Hikaye ile Anlama

ÖZ

Amaç: Bu çalışmanın amacı, hem öğrenci tarafından oluşturulan dijital hikaye anlatımını hem de hemşirelik öğrencilerinin klinik deneyimlerini yansıtan dijital hikaye anlatımının akran paylaşımına ilişkin görüşlerini keşfetmektir. **Yöntem:** Çalışmada, keşfedici bir nitel tasarım kullandı. Veriler, dijital hikaye oluşturma süreci ve SWOT analizi ile ilgili bulguları içeren bir anket ile toplanmıştır. Akran paylaşımının ardından dijital öykü anlatımının klinik sürece etkisi yarı yapılandırılmış görüşme formu ile belirlenmiştir. Çalışma, nitel araştırmalar için COREQ yönergelerini takip etmektedir. **Bulgular:** Bulgular, öğrenci tarafından oluşturulan dijital hikaye anlatımının yetersiz donanım, etkileşimli ve tetikleyici bir iletişim şekli olduğunu göstermiştir. Araştırma aynı zamanda öğrencilerin daha derin düşünme eksikliğine sahip olduklarını ve ürün yaratmanın benlik saygısı üzerinde olumlu bir etkisi olduğunu ortaya koydu. **Sonuç:** Öğrenci tarafından oluşturulan dijital hikaye anlatımının, klinik deneyimlerin aktarılmasında etkili olduğu görülmektedir. Edinilen donanımların istenilen düzeyde öğrenmeye katkı sağladığı düşünüldüğünde, paylaşım konularının aktarılmasında dijital öykülerin doğru araçlar olduğu söylenebilir. Ayrıca öğrencilerin zayıf yönlerinin ve tehditlerinin farkına varabilecekleri bir ortamın oluşturulması gerektiği söylenebilir. Bu bağlamda öğrencilerin akran paylaşımlarından elde edilen bilgilerin çalışma sırasında hem mesleki yaşama hem de bireysel donanıma katkı sağladığı ifade edilebilir. Farklı klinik ortamların teknolojik bir araç yardımıyla öğrencilerle paylaşılması, öğrencilerin klinikte kendilerini daha rahat hissetmelerini sağlamaktadır. Dijital öykü, hem öğrencilerin kendi deneyimlerini hazırlaması hem de teknolojik bir ürün olması açısından benzer yaştaki gençlerin kullanabileceği bir yöntemdir.

Anahtar Kelimeler: Dijital Hikaye, Hikaye, Hemşirelik Deneyimi, Hemşirelik.

Sorumlu Yazar / Corresponding Author: Aydanur AYDIN, Gumushane University, Faculty of Health Sciences, Nursing Department, Turkey

E-mail: aydin.aydanur@hotmail.com

Bu makaleye atf yapmak için / Cite this article: Aydın, A., Tatlı, Z., & Gürsoy, A. (2022). Understanding nursing students' experience through digital storytelling. *Balıkesir Sağlık Bilimleri Dergisi*, 11(1):26-33.

<https://doi.org/10.53424/balikesirsbd.989705>

©Copyright 2022 by the Balıkesir Sağlık Bilimleri Dergisi.



BAUN Sağ Bil Derg 2022 OPEN ACCESS <https://dergipark.org.tr/tr/pub/balikesirsbd>

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License

INTRODUCTION

Nursing education is the strategy of gaining professional experience in theory and practice. In particular, the training of applications requiring motor skills as well as professional knowledge is primarily taught in laboratories. Then, in order to transform this knowledge into practical skills and education is preferred in different areas where health care is provided (Benner, 2012b, Benner, 2012a). Students are expected to develop individual gains such as problem solving, practical thinking, determination of effective solutions, selection of these solutions and making the right decision with practical education (D'Zurilla TJ, 2001). The student is expected to have critical thinking, professional self-confidence, communication-management and organizational skills with these gains (Petty et al, 2020, Olvera et al, 2019).

Students can experience anxiety and stress during the practice-based training (Pulido-Martos et al., 2012). It is stated that students' experience of students causes lack of desired learning and communication problems while gaining equipment in clinical settings (Moore and Miller, 2020, Sudarmaji and Mulyana, 2020, Olvera, 2019, Aydın and Argun, 2010, Aydın, 2010). Creating an environment where the experiences of students with similar problems is shared is one of the methods included in the recommendations (Urstad et al, 2018). It is thought that the transfer of student experiences will contribute to the strengthening of communication and support individual gain and contribute to professional development.

Digital storytelling are one of the most widely used educational tools today (Kearney, 2011). Digital storytelling in which experiences are shared are used in many different professional fields (Tabieh, 2021, Christiansen, 2011) and in almost all age groups (Petty, 2021; Yocom et al., 2020, Chan et al., 2017). In the literature, the process of creating digital storytelling; students' creative thinking skills, imagination, research skills, improve their technological competencies, motivation and academic (Moreau et al, 2017, Duveskog et al., 2012, Chan et al., 2017), achievement is supported to support peer learning (Tatli, Ugur, & Cakiroglu, 2018). However, there are limited resources on the use of this method in nursing practice education.

Purpose of the research is to determine the opinions of students about the effect of sharing their clinical experiences with their peers on nursing experiences through digital storytelling. In addition, SWOT analysis was performed on the students to evaluate their individual development.

The research questions are

- *What are the (S) strengths, (W) weaknesses, (O) opportunities and (T) threats of the digital story preparation process for students?*
- *What are the students' views on the transformation of experiences gained in clinical practice into digital narrative method?*
- *What are the students' views on sharing experiences gained in clinical practice with peers?*

MATERIALS AND METHODS

The research design

The study employed an explorative qualitative design. Qualitative research is a research design with a flexible structure where there is no rule determined for the sample size, the sample size is decided according to the research question and purpose.

Participants

Typical case sampling was used in the study. Purposive sampling is a type of sample in which the researcher uses his / her own judgment as to who will be selected and the researcher chooses the ones most appropriate for his / her purpose. Typical case sampling is used to identify situations related to a topic (Roller, 2019). The research was completed with 17 students who had at least one term clinical practice experience, could use computers and participated in digital storytelling among the students studying at the Nursing Department of the Faculty of Health Sciences of a university. Clinical practice is carried out in the practice areas after the completion of theoretical training of the field courses expected to gain clinical practice in nursing education. In this context, students are expected to perform clinical practice for nine weeks in a period and to receive a passing grade.

Before starting the clinical practice, all the students included in the study were given the steps of preparing the digital history and the preparation process was given by the computer department experts. This training consists of four structured modules and includes practical application after two hours of theoretical training. In this training, scenario creation steps and scenario evaluations were explained. Students who completed this training were expected to write one of the situations they experienced during clinical practice. Seven weeks later, the scenarios collected from the students were evaluated by six experts with experience in the digital storytelling-making process. Expert assessments were returned to students for corrections. The editing of the scenarios that completed this process and converting them into digital storytelling were completed by the students under the supervision of the researchers.

The videos were presented to the group at a group meeting where all students preparing digital storytelling participated. During this presentation, students were asked to rate the process of digitizing their scenarios according to the stages of digital storytelling preparation. He was also expected to evaluate his own digital storytelling making processes with SWOT analysis. All students who gained this experience were put back into clinical practice. Qualitative interviews were conducted with all students who completed clinical practice. This approach was preferred because it can identify individual differences, various experiences and unique changes among students (Dede Y, 2014). In order to prevent data loss, voice recordings were taken and the interviews were completed in 28 to 34 minutes. The study was completed in 16 weeks in the plan shown in Figure 1.

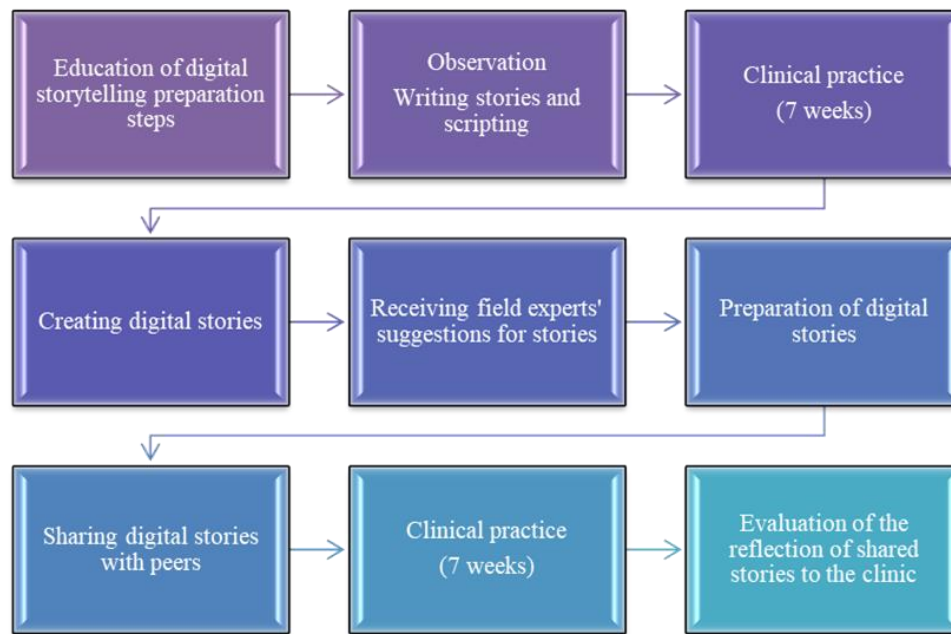


Figure 1. Application steps of the research.

Data analysis

In the analysis of the data, content analysis was used which allows indirect identification of human behaviors with written materials (Onwuegbuzie et al., 2012). The use of materials such as interview texts, diaries and documents in content analysis was preferred because it overlaps for the purpose of the research (Castleberry and Nolen, 2018). The data were themed by two researchers and the themes were grouped by consensus.

SWOT analysis

SWOT analysis was performed to determine the effects of digital history preparation process on students. In this context, students' ideas were grouped into opportunities, threats, strengths and weaknesses. Data obtained from the semi-structured interview form were grouped and evaluated by five experts.

Ethical approval

Authorization was obtained from the dean of the related faculty and consent of volunteer was obtained from the participants. Ethical approval was given by the Ethics Committee of the Scientific Research Faculty of Medicine (No.24237859-569).

RESULTS

Of the students in the sample group, 13 were female, four were male, and the mean age was 19.1 ± 2.4 . In the students' story evaluations, it was seen that there was a difference between the videos that reflected the emotion more, the effect of the sound used, the suitability of the background music to the story, the proximity of the event to the reality and experiencing a similar problem before. Emotional content (50.0%), the power of music (47.8%) and rhythm (46.0%) were found to be effective in

understanding the story. While watching the videos, it was determined that the students matched themselves with the nurse character and this situation caused them to evaluate their professional competences.

Students stated that 77.2% of the stories they had watched had experienced before, 88.6% had told someone and 83.4% had heard from someone. Stating that the problem in the stories was 59.5% lack of knowledge, the students stated that visual tools and patient education should be supported in order to solve this problem. Figure 2 presents opportunities, threats, strengths and weaknesses.

Strengths

Nursing students stated that they were able to transfer themselves better, developed self-confidence in the use of computers and became aware of their individual characteristics in the process of preparing digital stories. In this process, the students stated that digital stories appeal to many senses, facilitating the transference. In addition, it was seen that having worked in more than one hospital and having more experience to transfer the students felt good. At the end of the process, it was determined that presenting a digital story made them feel good. In addition, stress management, time management and focusing on results without reflecting their own negativity contributed positively to the process.

Weaknesses

They stated that they lacked knowledge in the technical equipment related to the process of digital story preparation, they could not express themselves sufficiently and were not aware of their own characteristics. In addition, it was found that having a timid personality structure affected the story preparation process negatively.

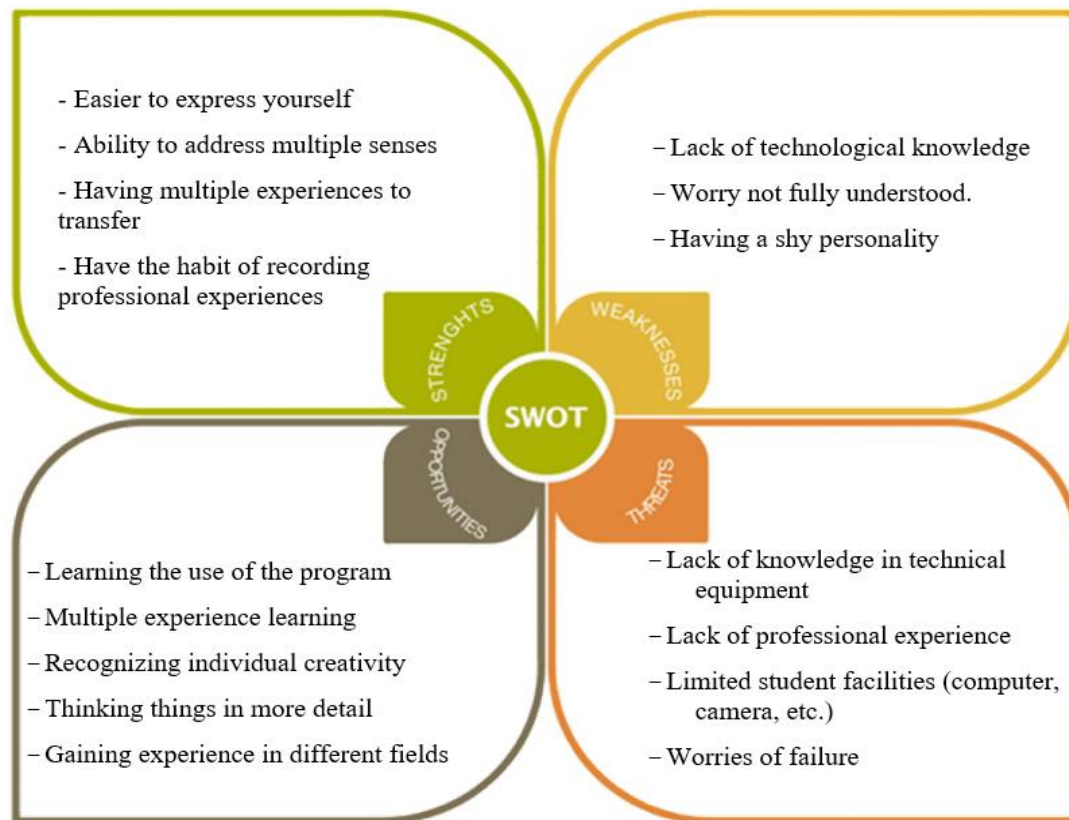


Figure 2. Result of the SWOT analysis.

Opportunities

They said that in the process of digital story preparation, students' knowledge and experience in different scientific fields contributed to the recognition of individual creativity. It was also seen that this process allowed him to think about events in detail and to have experience in different scientific fields.

Threats

In the preparation of digital stories, the students stated that they had a process which caused fear of failure and lack of control of technology. They also stated that the lack of equipment of the students and their inexperience during the application process create time pressure.

According to the content analysis, digital story preparation and professional experience sharing and professional experience sharing were grouped into three themes (Table 1). It was seen that the students explained the process of creating digital stories with codes of easy, difficult, not known, entertaining and interesting experiences related to the process. The students were evaluated in terms of video creation process, dramatic question, emotional content, use of sound, power of music, economy and rhythm. In this process, it was seen that there were hardware gains and awareness in a different field. It was determined that the use of a technological tool created different impressions in the students and the product they created was effective in gaining self-confidence.

After the peer sharing, students will be able to; empathy, understanding the situation and clinical adaptation. Clinical experience was found to be within the framework of empathy, clinical adaptation and perception of the situation. Students from clinical experiences said that the sharing allows them to have an idea about the environment and situations they do not know. During the clinical practice, it was found out that the students had problems in expressing themselves and telling the event in a holistic way. It was determined that experience sharing contributed positively to students' self-confidence and empathy. The fact that the development of these features was noticed by the students during the application was considered as a positive gain. In the theme of individual experiences students; to develop imagination, to increase the permanence of knowledge, to recognize the deficiencies in the use of technology, to develop a new learning method and analysis skills. Students' perception of using a technological product and creating a product as a success can be explained by hardware acquisition in different areas. It has been seen that the acquired equipment changes the level of realization of individual competencies. The acquisition of these skills coincides with the aim of the study and contributes to the coping methods of the students. In this context, it can be foreseen that the students will be equipped with methods of coping and having an idea about different problems will create gains in their professional life.

Table 1. Themes and codes of student experiences.

Themes and Codes	Samples from the answers given
Theme 1. Creating of Digital Storytelling	
Hard (13 person)	P3: "so I was afraid that I couldn't, but ... P4: "... I had a hard time picking the most music, I saw that the background music changes things a lot."
Not like known (11 person)	P8: "...I had a lot of things left to me, a lot of things to tell friends after the internship, but when I said summer I realized that I couldn't write anything ... P9: "... I was able to write a half page of an event that I told my friends for hours, I was very surprised and very bad to myself."
Easy (8 person)	P13: "I thought the script was the easiest part of this practice. I said I'm done, let's make a record, I've always understood that I forgot to relate these places. "
Interesting experiences (6 person)	P5: "...thought I didn't have any computer knowledge, and it made me feel very good that I made this video, including audio recordings and montage."
Entertaining (4 person)	P14: "...to produce something you need to elaborate the story and you have to think in different ways. This makes the clinical process fun. "
Theme 2. Professional Experiences after Peer-sharing	
Empathy (16 person)	P4: "...I felt it was more effective when I watched the video than I did, even I found myself in it."
Understanding cases (11 person)	P1: "Actually, I've listened to a few of them before, but when I was in the video, I saw that it was different than what I imagined." P13: "... my experiences from the stories made me strong in the clinic with more than one solution, and I believe that I can solve a similar problem with what my friends tell me."
Clinical adaptation (9 person)	P2: "For example, there were hospitals I had never been to, and watching the memories of those hospitals made me have ideas before I ever went there. The same goes for memories. "
Theme 3. Personal Experiences after Peer-sharing	
Improving imagination (9 person)	P7: "... now I feel happier, I watched some videos in amazement, there were places I said I would never think of, I know this will make me stronger than before .."
Enhancing retention of knowledge (8 person)	P1: "... not everyone can live in every situation. But in such an environment you have the chance to control all the events. So watching the stories made us stronger. " P6: "... last week I had a problem with my patient, just like in the video, I immediately remembered that story, never thought of what he had done. I immediately came to my head .."
Noticing deficiencies in the use of technology (6 person)	P17: "... the use of the program was limited and demanded a fee, but it made me think, but then I realized that I was able to do it by trying other ways, I felt very good at that moment .."
A new learning method (3 person)	P15: "...I was emotionally impressed by the videos of my friends, and I can say that it was more emotional when music was added." P8: "...I believe that when I come across something in the clinic, I can solve it without thinking, it makes me feel strong."
Enhancing analysis skills (2 person)	P4: "...I'm relieved to witness different solutions in the clinic, so I said that it can be solved .."

DISCUSSION

Nursing students encounter problems in clinics and they have to deal with these problems individually. In addition, students cannot get enough equipment to cope with these problems from theoretical courses and feel inadequate (De Jager, 2017). It is thought that identifying an effective

method for sharing experiences for the students who have problems in the clinic and fail to cope will contribute to the problem management. In our study, it was seen that the use of digital stories in students' sharing of experiences was more reflected on emotion, the effects of sound, background music, and suitability to the story affected the

proximity of the event to reality. Price's study states that the sharing of digital stories used in nursing education through peer education contributes to learning and is also remarkable with the use of technology (Price et al., 2015a). In another study, it is stated that the choice of technological methods appealing to many senses and giving them to students together with theoretical education affect permanent learning (Papathanasiou et al., 2014). Digital stories were found to be effective in visualizing the event and increasing self-confidence (Aytan, 2016). Rasmor stated that students who share their experiences contribute to the formation of self-awareness and identity (Rasmor, 2016). Based on these results, it can be said that it is an effective method to contribute to the development of self-confidence and empathy in the transfer of students' peer experiences through digital story.

While students can express themselves more easily in the stages of digital story preparation, it is seen that they have problems in the technological field. It was seen that digital stories could appeal to multiple senses and the number of experiences to tell made them feel strong while they were worried about not being able to tell enough. The students stated that they were not aware of their individual talents and that the timid personality structure had a negative effect on this stage and stated that it was an opportunity for them to learn how to use the program. While preparing the application, which offers the opportunity to learn about the experiences of his friends, he stated that the limitation of technological opportunities affected them negatively. In this context, it also provides the opportunity to develop the weaknesses of the application which is effective in gaining the students' individual awareness. It can be stated that the students who take this opportunity as an opportunity to be aware of their individual gains and take steps to improve them will have a positive effect on their professional life. It is stated that digital stories, which are stated as an effective method to share students' peer experiences, are effective in empathy and self-confidence (Chicca, & Shellenbarger, 2018). In our study, students stated digital stories as a way of learning that attracted attention and increased individual awareness. In one study, it was stated that preparing digital stories provides students with a unique learning environment (Rizvic et al., 2019). In another study, it was shown that the inclusion of digital stories in all stages from design to publishing has a positive effect on learning (Kearney, 2011). In the study of Mojtahedzadeh et al., He stated that digital stories are a form of learning that enables students in the field of health to work in different environments that enable the use of technology (Mojtahedzadeh et al., 2021). In the study of Price et al., It was found that nursing students could more easily understand the patients in the palliative care unit after digital stories and could apply the complex care service more easily (Price et al., 2015). It can be stated that the use of digital stories is an appropriate method for students who do not have enough nursing care experience to witness and learn all applications.

After the digital story sharing, it was found that the students felt strong in the clinic. In one study, it was pointed out that the first experiences of the students

constitute a good learning level and the provision of a good learning environment in the clinic positively affects learning (Jonsen, 2013). In addition, it was stated that the clinical experiences of the students increased their individual gains and were effective in providing adaptation to the business life after graduation (Paliadelis and Wood, 2016). In a study that emphasizes the use of digital stories in the maintenance of health education, it is stated that it enables students to acquire different equipment in the learning process (Stacey and Hardy, 2011). In another study, he/she states that digital stories are an effective method for students to gain creativity and different thinking skills (Price et al., 2015). It can be said that the gains of the students during the clinical practice will contribute to the professional life and the learning will be permanent. In this context, it can be said that digital story usage in nursing education can be effective and widespread as an educational tool.

It was determined that the students' sharing of experiences through digital story provided different scientific equipment and individual gain to permanent learning. Considering the fact that the acquired hardware contributes to a desired level of learning, it can be said that digital stories are the right tools for transferring sharing subjects. In addition, it can be said that an environment should be created for the students to become aware of their weaknesses and threats. In this context, it can be stated that the information obtained from the peer sharing of students contributed to both professional life and individual equipment during the study.

Limitations of study

The findings obtained from the research can only be generalized to nursing students studying at the faculty where the research was conducted. Since the research requires the ability to use a digital product, it may vary according to personal characteristics.

CONCLUSIONS

The study includes the first results regarding the results of sharing the professional experiences of students through digital stories in our country. It is also unique in terms of sharing of peer experiences and using SWOT analysis. In addition, the study has the value of a reference study for disseminating this method, which may affect individual and professional equipment, in our country. It supports permanent learning in terms of students' awareness of individual characteristics, acquiring equipment in different scientific fields and supporting peer transfer. It is predicted that supporting the theoretical education by transferring the clinical experiences given by the lecturers will have positive contributions to the professional life. This method, which can appeal to multiple senses, attracts the attention of today's young people.

It can be said that the transfers of experience that can be given integrated with the theoretical training before the application process will increase their adaptation to the clinical process and contribute to their professional competencies. There are problems in transferring practical information in maintaining health education.

Students share their problems in unprofessional environments and find right-wrong solutions. The digital story is a method that can be used by young people of similar ages, both in terms of students preparing their own experiences and being a technological product.

Acknowledgement

The authors would like to extend their sincere thanks to anyone who contributed to this study.

Conflict of Interest

The author declare no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Author Contributions

Plan, design: AA; **Material, methods and data collection:** AA, ZT, AG; **Data analysis and comments:** AA, ZT, AG; **Writing and corrections:** AA, ZT, AG.

REFERENCES

- Akça, M. A., Aytan, N., Unlu, S. 2016. Development of voice-aided animation program and story application. *Journal of International Social Research*, 9(42), 1185-1191. Original Work Published in Turkey [Turkish].
- Aydın, M. F. & Argun, M. Ş. 2010. Bitlis Eren Üniversitesi sağlık yüksekokulu hemşirelik bölümü öğrencilerinin hastane uygulamalarından beklentileri ve karşılaştıkları sorunlar.
- Aydın, M. F. A., M. Ş. 2010. The Expectations of Hospital Practices and Faced Problems of The Students in Bitlis Eren University, Health School, Department of Nursing. *Journal of Acıbadem University Health Science 1*, 209-213.
- Aytan, N. Ü., Süleyman 2016. Development of Audio Supported Animating Program and The Story Application *The Journal of International Social Research* 9, 1185-1191.
- Benner, P. 2012a. Educating nurses: A call for radical transformation—how far have we come? *Journal of Nursing Education*, 51, 183-184. <https://doi.org/10.3928/01484834-20120402-01>
- Castleberry, A., & Nolen, A. (2018). Thematic analysis of qualitative research data: Is it as easy as it sounds?. *Currents in Pharmacy Teaching and Learning*, 10(6), 807-815. <https://doi.org/10.1016/j.cptl.2018.03.019>
- Chan, B. S., Churchill, D., & Chiu, T. K. (2017). Digital literacy learning in higher education through digital storytelling approach. *Journal of International Education Research (JIER)*, 13(1), 1-16. <https://doi.org/10.19030/jier.v13i1.9907>
- Christiansen, A. 2011. Storytelling and professional learning: A phenomenographic study of students' experience of patient digital stories in nurse education. *Nurse education today*, 31, 289-293. <https://doi.org/10.1016/j.nedt.2010.10.006>
- Chicca, J., & Shellenbarger, T. (2018). Connecting with Generation Z: Approaches in nursing education. *Teaching and Learning in Nursing*, 13(3), 180-184. <https://doi.org/10.1016/j.teln.2018.03.008>
- D'zurilla Tj, N. A. 2001. Problemsolving therapies. In: KS, D. (ed.) *Handbook of Cognitive Behavioral Therapies*. 2 ed. New Yor.
- De Jager, A., Fogarty, A., Tewson, A., Lenette, C., & Boydell, K. M. (2017). Digital Storytelling in Research: A Systematic Review. *The Qualitative Report*, 22(10), 2548-2582. <https://doi.org/10.46743/2160-3715/2017.2970>
- Dede Y, B. I. 2014. Nitel Araştırmada Kavramsal Konular. In: B., D. S. (ed.) *Nitel Araştırma ve Değerlendirme Yöntemleri*. Ankara: Pegem Akademi.
- Duveskog, M., Tedre, M., Sedano, C. I., Sutinen, E. J. J. O. E. T. & Society 2012. Life Planning by digital storytelling in a primary school in rural Tanzania. 15.
- Kearney, M. 2011. A learning design for student-generated digital storytelling. *Learning, Media and Technology*, 36, 169-188. <https://doi.org/10.1080/17439884.2011.553623>
- Moreau, K. A., Eady, K., Sikora, L., & Horsley, T. (2018). Digital storytelling in health professions education: a systematic review. *BMC medical education*, 18(1), 1-9. <https://doi.org/10.1186/s12909-018-1320-1>.
- Moore, A. K., & Miller, R. J. (2020). Video Storytelling in the Classroom: The Role of Narrative Transportation. *Journal of Nursing Education*, 59(8), 470-474. <https://doi.org/10.3928/01484834-20200723-10>.
- Mojtahedzadeh, R., Mohammadi, A., Emami, A. H., & Zarei, A. (2021). How Digital Storytelling Applied in Health Profession Education: A Systematized Review. *Journal of Advances in Medical Education & Professionalism*, 9(2), 63-78. <https://doi.org/10.30476/JAMP.2021.87856.1326>.
- Olvera, H. A., Provencio-Vasquez, E., Slavich, G. M., Laurent, J. G. C., Browning, M., McKee-Lopez, G., ... & Spengler, J. D. (2019). Stress and Health in Nursing Students: The Nurse Engagement and Wellness Study. *Nursing research*, 68(6), 453-463. <https://doi.org/10.1097/NNR.0000000000000383>.
- Onwuegbuzie, A. J., Leech, N. L. & Collins, K. M. J. T. Q. R. 2012. Qualitative analysis techniques for the review of the literature. 17, 1-28.
- Rizvic, S., Boskovic, D., Okanovic, V., Sljivo, S., & Zukic, M. (2019). Interactive digital storytelling: bringing cultural heritage in a classroom. *Journal of Computers in Education*, 6(1), 143-166. <https://doi.org/10.1007/s40692-018-0128-7>.
- Roller, M. R. (2019). A quality approach to qualitative content analysis: Similarities and differences compared to other qualitative methods. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*, 20:(3) <https://doi.org/10.17169/fqs-20.3.3385>.
- Paliadelis, P. & Wood, P. 2016. Learning from clinical placement experience: Analysing nursing students' final reflections in a digital storytelling activity. *Nurse education in practice*, 20, 39-44.
- Petty, J., Jarvis, J., & Thomas, R. (2020). Exploring the impact of digital stories on empathic learning in neonatal nurse education. *Nurse Education in Practice*, 48, 102853. <https://doi.org/10.1016/j.nepr.2020.102853>.
- Petty, J. (2021). Using arts-based digital storytelling in neonatal care to enhance nursing students' empathy. *Nursing Children and Young People*, 33(2). <https://doi.org/10.7748/ncyp.2021.e1351>
- Papathanasiou, I. V., Tsaras, K. & Sarafis, P. 2014. Views and perceptions of nursing students on their clinical learning environment: teaching and learning. *Nurse education today*, 34, 57-60.

- Price, D. M., Strodtman, L., Brough, E., Lonn, S. & Luo, A. 2015a. Digital storytelling: an innovative technological approach to nursing education. *Nurse educator*, 40, 66-70. <https://doi.org/10.1097/NNE.0000000000000094>.
- Pulido-Martos, M., Augusto-Landa, J. M. & Lopez-Zafra, E. 2012. Sources of stress in nursing students: a systematic review of quantitative studies. *International Nursing Review*, 59, 15-25. <https://doi.org/10.1111/j.1466-7657.2011.00939>
- Rasmor, M. 2016. Digital Storytelling in Nurse Practitioner Education: A Beginning of Reflective Clinical Practice. Forms of Practitioner Reflexivity. Springer. <https://doi.org/10.1057/978-1-137-52712-7>.
- Sudarmaji, I., & Mulyana, A. (2020). Applying digital storytelling to improve indonesian high school students' visual memory and writing skill. *English Review*, 8(2): 255-264. doi: 10.25134/erjee.v8i2.2987
- Stacey, G. & Hardy, P. 2011. Challenging the shock of reality through digital storytelling. *Nurse education in practice*, 11, 159-164.
- Tabieh, A. A., Al-Hileh, M. M., Abu Afifa, H. M., & Abuzagha, H. Y. (2021). The Effect of Using Digital Storytelling on Developing Active Listening and Creative Thinking Skills. *European Journal of Educational Research*, 10(1), 13-21. <https://doi.org/10.12973/eu-jer.10.1.13>
- Urstad, K. H., Ulfby, K. J., Brandeggen, T. K., Bodsberg, K. G., Jensen, T. L., & Tjoflåt, I. (2018). Digital storytelling in clinical replacement studies: Nursing students' experiences. *Nurse education today*, 71, 91-96. <https://doi.org/10.1016/j.nedt.2018.09.016>.
- Yocom, D., Bashaw, C., Price, D., & Cook, M. (2020). Perceptions of digital storytelling in the classroom. *Teaching and Learning in Nursing*, 15(3), 164-167. <https://doi.org/10.1016/j.teln.2020.01.010>