Attitudes towards using digital storytelling to support teaching among teachers

by
Diana Anani
Ph.D. Student in Curriculum and Instruction- Abu Dis University , Jerusalem, Palestine
Prof. Ibrahim Arman
Al-Quds University, Jerusalem, Palestine

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Abstract:

The aim of this study is to identify teachers' attitudes towards using digital storytelling (DST) to support teaching amongst teachers at Al-Awqaf Schools1 in Jerusalem. To achieve this purpose, the researcher used a questionnaire composed of 23 items. This questionnaire was distributed to 27 male teachers and 91 female teachers. These teachers are from different age levels, teach different subjects to different grade levels. This study was conducted during the first semester of the academic year 2024-2025. The researcher used different statistical procedures which fit the collected data. The results of the study revealed that most of the teachers at Al-Awqaf Schools in the city of Jerusalem have positive attitudes towards using DST to support teaching. Moreover, the attitude of females toward using DST was more positive than the attitude of males. There were no significant differences in attitudes towards using DST among teachers due to age, taught subject nor to the students' taught level. Based on the results, the researcher recommends the following: First, schools are requested to offer courses to give teachers a chance to practice and improve their knowledge of using DST, its effects on learning and the media that can be used to operate and create digital stories. Second, teachers are required to pass their knowledge and experiences to their colleagues and students and to encourage them practice DST in classes for teaching and learning.

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[1] *Al-Awqaf Schools are those schools associated with the Jordanian Ministry of Education but are located in the city of Jerusalem.*

Keywords Digital Storytelling (DST), Attitudes, Educational Process, Information and communication technology (ICT), Al-awqaf Schools

1. Introduction

It is Important to include engaging methods within the educational process, in which the main aim is to attract students' attention at class and try to guarantee they enjoy the lesson through addressing long term memory. Storytelling is one of those methods that learners usually like and enjoy, and employing it in the educational process usually makes it more attractive to learners, helps in achieving the best educational outcomes and in the acquisition of new and useful information and skills.

The use of stories is not new in teaching and learning, as people used storytelling to teach values and skills. At the start this was done orally, where parents and teachers, and even storytellers used to transfer morals and knowledge through telling stories in order to convey certain messages. Then things started to develop, where print stories appeared; and people started reading written stories. Later on, where technology broke into all aspects of life, stories have evolved into digital stories and the term "*digital storytelling*" (DST) became more familiar.
As technology has a primary role in education, and using Information and communication technologies (ICTs) became essential, where it significantly influences the teaching process, it is important to study and consider teachers' attitudes and beliefs towards the usefulness of using ICTs effectively in the educational settings. Regarding this rapid technological development; traditional textual studies (like criticism and document analysis) can be expanded with coding, databases,

digitization, information visualization, multimedia publications, and text processing, (Barber, 2016).

To conclude, and while technology became a main tool used by teachers in classrooms to support the teaching process, DST almost became a must in addressing learners rather than using oral or print stories, as they are more engaging. So, what is meant by the term "*digital storytelling*"? How is it more engaging for learners? How can teachers use it to support the teaching process? And what are the attitudes of teachers in using digital storytelling in teaching?

This research aims to study the attitudes of teachers on using digital storytelling in teaching at class and focuses on investigating the attitudes of Al-Awqaf Schools in the city of Jerusalem towards using DST to support teaching.

1. Literature Review

Storytelling is a powerful pedagogical approach that could be used to improve learning outcomes in education, (Sharda, 2007). From ancient times up till the present time, storytelling was there as a significant educational tool used in order to pass knowledge and information from a generation to another. In the past, stories were used to pass traditions, heritage and even history to the next generations, (Smeda, et al., 2014). During that time, prehistoric people shared information about the environment, wildlife, food and any other aspect that affected their lives then; such as survival information. Over generations, this all was codified and expanded to include history, traditions, cultural mythology, etc. The narratives that resulted were shared from a generation to another through storytellers and that was the way all those stories were preserved, (Barber, 2016).

Over the past few years, many changes have appeared in the way stories were introduced or created as media develops, and

the way of conveying messages to others was also affected by this development. That is why nowadays storytelling is introduced but in a more digital way. Information and communication technology (*ICT*); such as digital cameras, cellphones and the wide applications they include, the use of technology in the classroom to help learners build their own knowledge and interact more actively concentrating on the concept that the learner should be the center of the educational system has increased the need to change using stories from the traditional way into a more technological way, (Smeda, et al., 2014).

According to Smeda, et al. "a digital story can be viewed as a merger between traditional storytelling and the use of multimedia technology", (2014). This indicates that the base for DST is the traditional story, so in order to create a digital story; we need a traditional one to build on.

To have a clearer understanding of what DST is, defining it would help. There are many definitions for the term DST, for instance, Robin (2006) defined it as "the idea of combining the art of telling stories with a variety of digital multimedia, such as images, audio, and video." He added that digital stories "bring together some mixture of digital graphics, text, recorded audio narration, video and music to present information on a specific topic". This leads to a conclusion that DST motivates and engages students, as a result of the use of audio, video, sound effects and music. Those elements address most of the senses of the learner, which as a result addresses the long term memory and makes learning more entertaining. That's why many teachers started to consider using digital stories while teaching, (Alismail, 2015).

In addition, Robin (2006) claimed that using and creating digital stories can generate interest, increase attention and motivation for students who he named a "*digital generation*"; which is true, as this is a technology-connected generation. If a teacher aims to reach their minds, the need to address their interests is essential.

So, to summarize, we can define digital storytelling (DST) as one of the important aspects of human communication that has been used for centuries to pass on experiences, knowledge and information from a generation to another, but in a digitalized way. Those stories have proved to attract people's attention and raise their emotional feelings, making storytelling become a powerful tool for conveying information, thoughts and knowledge, (Ginting et al., 2024).

Researchers claimed that teachers tend to use DST at class as they could feel a tangible effect on the learning process. The use of DST in class usually encourages students better participate and engage in discussions; which results in a more comprehensible content. It also provides teachers with a good way helping them present new concepts without consuming much time, resulting with letting students understand the difficult information with less time and less effort; which is a positive feature for teachers. Additionally, DST is a tool that provides teachers with adequate collaboration that could be used in classrooms and with students, it encourages teachers prepare the stories they want as they get better results in class, it also encourages them create digital stories while involving their students as part of this creation, which leads to letting students the center of the educational process, addresses long term memory and helps students get better results, in this way teachers feel that the efforts they are giving are leading for their

previously planned aims. This reveals the importance of using DST to help teachers improve learning and get a sufficient result at class; feeling that their effort was not in vain, (Alismail, 2015).

Sadik in his research found out that teachers could find a positive effect of using DST at class, despite the difficulties they might have faced. Through the interviews that he conducted, and in terms of teachers' attitudes towards the use of digital storytelling; data suggested that DST enriched the learning environment and the curriculum, interviewed teachers added that the students' learning experiences were creative and showed high motivating. This motivation resulted of students' excitement to use the web, using computers, cameras, in addition of connection with real-life problems. Teachers also believed that DST has an effect on increasing students' understanding of the curriculum, improve their collaboration. The attitude of students helping each other has increased, communication skills has also expanded as students engage in long-term storytelling projects. He claimed that it was noticeable that there were almost no weaknesses noted by the teachers in DST as a technology-oriented approach, (2008).

Furthermore, and in their research, Tiba et al. stated that teachers were motivated to use DST in a class as an effective tool for teaching and learning, and that teachers found out that DST involves many skills. But on the other hand, some teachers claimed that despite the positive effects they could see, they believe that the lack of resources, lack of training, low self-esteem in using ICTs are barriers that made them sometimes feel less motivated when considering to use DST in class. Others claimed that although using DST is more effective when teaching lower grades, but having larger burden on the teacher as

learners may not be able to deal with technological equipment as much as students in higher levels is the reason some avoid using DST. Some of the teachers stated that they do not have an adequate knowledge of ICTs, and here comes the necessity of having training courses to help them get over this issue. So, and even in schools with technological resource; teachers may still resist integrating digital storytelling in classes due to their beliefs or attitudes towards technology; or due to the need of training, (2015).

According to Sadik (2008) and in his interviews with teachers; he found some worries concerning the use of DST amongst teachers. Some were worried about the quality of student work, and the objectives required from their work where teachers usually emphasize on the direct effect, measuring that using exams. Teachers whom he interviewed believed that the DST projects need technical and computer knowledge but they faced difficulties at that side, never neglecting the lack of the technological equipment; i.e. computers, digital cameras, internet connection, etc. which discouraged teachers and students from successfully using ICTs that are basic in DST.

In conclusion, despite the negative aspects that teachers might face while using DST in teaching, studies showed that the positive aspects revealed that using DST is beneficial for both teachers and learners. Lazar et al. (2020) in their study to support teaching natural sciences and technology education within high education context concluded that despite of the negative side that teachers might face while using DST, the positive results of the use of DST in teaching they found in their research are more beneficial, motivating and engaging for both; teachers and students. They attributed that to the fact that both teachers and students nowadays belong to a new generation that prefer using

different resources and modern tools that are mostly technology oriented. This is applicable for both; male and female teachers, as Kaya & Akpunar (2018) in their study found out that there was no significant difference in gender due to the effects of DST, they added that female teachers had higher means than male teachers regarding the prospective of teachers towards using DST.

2. Significance of the study

Teachers usually use stories at class to support learning, teach vocabulary, comprehension, morals, new concepts, technology, natural sciences (e.g., physics, earth sciences, life sciences) and applied technologies subjects for different grade levels, etc. (Lazar et al , 2020). Teachers' interest, attitude and motivation for using digital storytelling to support teaching might differ from one to another, depending on teachers' gender, ages, the material they teach or even their years of experience. Based on this, teachers need to be aware of their interest and attitudes towards using digital stories in teaching, which on the other hand would be reflected on students' motivation and results and would address their long time memory; this would result to satisfaction for teachers. Thus, it is relevant to discover the attitudes of teachers towards using digital storytelling to support teaching amongst teachers in Jerusalem; and relevantly it would be circulated to a broader perspective and for teachers from different context.

3. Purpose of the Study

This study investigates the attitudes towards using digital storytelling to support learning among teachers at Al-Awqaf Schools in Jerusalem. Data collected would be used to determine whether there are significant differences in attitudes towards

using digital storytelling among teachers who teach different subjects to different grade levels.

4. Research questions

Main Question

• What are teachers' attitudes towards using digital storytelling to support teaching in Jerusalem?

Sub-Questions

• Are there any differences related to the gender on the attitudes of teachers in Jerusalem towards using digital storytelling to support teaching?

• Are there any differences related to age on the attitudes of teachers in Jerusalem towards using digital storytelling to support teaching?

• Are there any differences related to the grade levels taught on the attitudes of teachers in Jerusalem towards using digital storytelling to support teaching?

• Are there any differences related to the material taught on the attitudes of teachers in Jerusalem towards using digital storytelling to support teaching?

7. Limitations of the study

This study was limited to (118) male and female teachers who were randomly chosen from AlAwqaf teachers in the city of Jerusalem; to find out their attitudes toward using digital storytelling to support teaching. These teachers were teaching in the scholastic year 2024/2025. They were teaching different subjects.

8. Hypotheses of the Study

Hypothesis 1: There are no statistically significant differences at the significance level ($\alpha \leq 0.05$) in the mean scores of teachers' attitudes in Jerusalem towards using digital storytelling to support learning related to gender.

Hypothesis 2: There are no statistically significant differences at the significance level ($α ≤ 0.05$) in the mean scores of teachers' attitudes towards using digital storytelling to support learning related to age.

Hypothesis 3: There are no statistically significant differences at the significance level ($α ≤ 0.05$) in the mean scores of teachers' attitudes in Jerusalem towards using digital storytelling to support learning related to the grade levels taught.

Hypothesis 4: There are no statistically significant differences at the significance level ($α ≤ 0.05$) in the mean scores of teachers' attitudes towards using digital storytelling to support learning related to the material taught.

9. **Methodology**

The research design consisted of the following sections:

    1. Population of the study.

    2. Sample of the study.

    3. Instrumentation.

    4. Statistical analysis and results.

9.1 Population of the study

The population of the study consists of all Al-Awqaf schools in Jerusalem; 948 teachers (*815 female teachers and 133 male teachers*) who are teaching at the scholastic year 2024-2025.

9.2 Sample of the study

      A convenience sample of the study consisted of (27 male teachers and 91 female teachers) were selected according to gender and 12.45 % of the population.

Those teachers were chosen from different age level according to the following percentages: 56 teachers at the age 41-50 with a percentage of (47.5%), 29 teachers at the age of 31-40 with a percentage of (24.6%), 25 teachers at the age of 51-60 2ith a percentage of (21.2%) and 8 teachers at the age less than

30 with a percentage of (6.7%). The sample consisted of 84 (71.2%) teachers that teach natural sciences and 34 (28.8%) teachers teaching humanities. Finally, the sample consisted of 54 teachers (45.8%) teaching high school level, 26 (22%) teaching secondary level, 24 (20.3%) teaching the elementary level and 14 teachers (11.9%) teaching at university.

9.3 Instrument

Data were collected through an online questionnaire that was built based on the literature review. The first part of the questionnaire required personal information: gender, age, students' taught level and taught material. The second part of the questionnaire asked the teachers about their attitudes toward using DST to support teaching on the basis of five-point Likert scale. The questionnaire was divided into three areas (Attitudes, Effectiveness and Proficiency and Ability to Use). The questionnaire was distributed to teachers at Al-Awqaf schools in Jerusalem.

9.3.1 Validity and reliability of the instrument

To validate the questionnaire, the researcher gave it to experts who hold PhDs in education, some of their suggestions and modifications were incorporated into the questionnaire. The reliability was explored using Cronbach's alpha (α). The Cronbach's Alpha coefficient for the instrument was found to be (0.96); indicating an excellent level of internal consistency. This high reliability suggests that the items within the instrument are well-correlated and consistency measure the underlying construct. Consequently, the findings derived from this instrument can be considered highly credible and dependable. Given the robustness of this reliability measure, the instrument is deemed suitable for future research applications.

9.4 Statistical Analysis and Results

The following key has been used to judge the paragraphs of the questionnaires: An average of less than 1.67 indicates a low score; an average of 1.67 – 2.33, indicates a moderate score; an average of more than 2.33 indicates a high score.

10. Results

a. Results related to the main question: What are teacher's attitudes toward using digital storytelling to support teaching?

To answer this question, means and standard deviations of each item were calculated as shown in Table 1.

Table 1. Means and Standard Deviations of teacher's attitudes toward using digital storytelling to support teaching, Sorted by means

#	Items	Mean Scores	Standard Deviation	Estimation
Attitudes				
3	I believe that using digital storytelling helps develop students' communication skills.	4.08	0.71	High
2	I am interested in learning more about integrating digital storytelling into my educational practices.	4.19	0.63	High
4	I believe that digital storytelling enhances collaboration among students.	3.97	0.69	High
5	I believe that digital storytelling promotes teamwork among students.	3.97	0.69	High
1	I am aware of the concept of digital storytelling.	3.39	0.91	High
Total (Area 1)		**3.92**	**0.53**	**High**
Effectiveness				

6	I believe that digital storytelling can enhance student engagement in the classroom.	4.13	0.62	High
12	I believe that digital storytelling helps improve students' listening skills.	4.12	0.63	High
8	Digital storytelling encourages creativity and critical thinking among students.	4.07	0.68	High
13	I believe that digital storytelling helps improve students' understanding.	4.05	0.62	High
9	Students show a positive response to lessons that include digital storytelling.	4.05	0.64	High
7	Digital storytelling helps make complex subjects more understandable for students.	4.04	0.72	High
10	I believe that digital storytelling increases student interaction with study materials.	4.03	0.69	High
16	I believe that digital storytelling helps improve students' creative thinking skills.	3.98	0.65	High
11	I find that digital storytelling helps enhance students' critical thinking.	3.95	0.68	High
14	I use digital storytelling to motivate students to research.	3.84	0.81	High
15	I use digital storytelling to motivate students to explore.	3.83	0.83	High
	Total (Area 2)	**4.01**	**0.54**	**High**
Proficiency and Ability to Use				
23	I use digital storytelling to connect study materials to students' daily lives.	3.80	0.83	High

21	I believe that digital storytelling can be effectively used across various subjects.	3.77	0.83	High
17	I feel confident in using digital storytelling tools in my teaching (devices, software, applications).	3.75	0.89	High
22	I use digital storytelling to present new concepts in an engaging and exciting manner.	3.72	0.89	High
18	I feel confident in using digital storytelling techniques in my teaching (methods).	3.68	0.86	High
20	I regularly integrate digital storytelling into my lesson plans.	3.25	0.98	High
19	I have received sufficient training on how to use digital storytelling.	2.75	1.18	High
Total (Area 3)		**3.53**	**0.73**	**High**
Total		**3.84**	**0.77**	**High**

Table 1 shows that item "I believe that using digital storytelling helps develop students' communication skills. "got rank one in the attitudes' major with its mean value (4.08) and standard deviation (0.71). On the other hand, the item "I believe that digital storytelling can enhance student engagement in the classroom. "got rank one in the effectiveness major with its mean value (4.13) and standard deviation (0.62). Finally, the item "I use digital storytelling to connect study materials to students' daily lives. "got rank one in the proficiency and ability with its mean value (3.80) and standard deviation (1.18). The table also shows that the effectiveness area got rank 1 with its mean value (4.01). The attitudes area got rank 2 with its mean value (3.92). While the proficiency and ability to use area got rank 3 with its mean value (3.53).

The mean for whole Attitudes towards DST Questionnaire was (3.84), and it meets the estimation of Likert scale of high degree.

b. Differences Due to gender

To answer the first sub-question of the study: Are there any differences related to gender on the attitudes towards using digital storytelling to support teaching? The researcher used the t-test to analyze the data from the questionnaire.

Table 2. T-test of the Differences among the Means of Attitudes Level toward DST Due to Gender

	gender	N	Mean	Std. Deviation	t	df	Sig.(2-tailed)
Means	Male	27	3.5548	.66619	-3.429	116	.001
	Female	91	3.9311	.44144			

Table 2 shows that the means of the attitudes level toward DST for the males were (3.6) and the means of the attitudes level toward DST for the females were (3.9), and significant gender main effect (t = 3.4, p = 0.001).

c. Differences due to Age level

To answer the second sub-question of the study: Are there any differences related to age on the attitudes towards using digital storytelling to support teaching? An analysis of variance (ANOVA) was used to compare the differences in attitudes towards using digital storytelling to support teaching related to age. Table 3 and table 4 show the results.

Table 3. Means, Standard Deviations of Attitudes using digital storytelling to support teaching Due to Age

	N	Mean	Std. Deviation
Less than 30	7	3.7571	.76188
31-40	29	3.8900	.52986
41-50	56	3.8452	.41528
51-60	25	3.7828	.65371
More than 60	1	4.7000	.
Total	118	3.8450	.52319

Table 4. ANOVA in Attitudes toward using digital storytelling to support teaching due to age

ANOVA

Means

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.941	4	.235	.855	.494
Within Groups	31.085	113	.275		
Total	32.026	117			

Table 4. shows that there are no statistical significant differences in attitudes towards using digital storytelling to support teaching related to age. Thus, the null hypothesis is accepted and there are no significant statistical differences due to age level.

d. Differences Due to taught levels

To answer the third sub-question of the study: Are there any differences related to the grade levels taught on the attitudes towards using digital storytelling to support teaching? An analysis of variance (ANOVA) was used to compare the differences in attitudes towards using digital storytelling to

support teaching related to the grade levels taught. Table 5 and table 6 show the results.

Table 5. Means, Standard Deviations of Attitudes toward using digital storytelling to support teaching related to the grade levels taught.

	N	Mean	Std. Deviation
Primary	24	4.0017	.44403
Secondary	26	3.7442	.43695
High School	54	3.7722	.59565
University	14	4.0443	.41305
Total	118	3.8450	.52319

Table 6. ANOVA in Attitudes toward using digital storytelling to support teaching related to the grade levels taught

ANOVA

Means

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.695	3	.565	2.124	.101
Within Groups	30.330	114	.266		
Total	32.026	117			

Table 6. shows that there are no statistical significant differences in attitudes towards using digital storytelling to support teaching related to grade levels taught.

e. Differences due to taught stream

To answer the fourth sub-question of the study: Are there any differences related to the material taught on the attitudes towards using digital storytelling to support teaching? The researcher used the t-test to compare the differences in attitudes towards

using digital storytelling to support teaching related to the grade levels taught. Table 7 shows the results.

Table 7. T-test of the Differences among the Means of Attitudes Level toward DST Due to taught stream

	Stream	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Means	Humanities	84	3.8444	.48913	-.019	116	.985
	Natural Science	34	3.8465	.60722			

Table 7 shows that the means of the attitudes level toward using DST for humanities teachers were (3.84) and the means of the attitudes level toward using DST for natural sciences teachers were (3.85), and significant stream main effect (t= 0.019, P = 0.985).

11. Discussion of the results

The main purpose of the study was to investigate the attitudes of Al-Awqaf teachers in Jerusalem towards using digital storytelling to support teaching by asking them about their opinions. The results revealed that the respondents realized the necessity of using digital storytelling in teaching and they reported their positive attitudes towards using DST. These results seemed to be in agreement of the results of Sadik (2008) in his research where he found out that teachers had positive attitudes towards the efficacy of using DST at class. The results are also in accordance with Tiba, et al (2015) who noted that teachers were motivated to use DST in a class as an effective tool for teaching and learning, (*see table 1*). Thses results show that teachers are influenced with the technological revolution the world passes through. It might also be due to the demands of the new generation they teach, a digitalized generation that spends

most of the time with technological devices whether to learn or for entertainment.

Regarding gender this study showed different results than the study conducted by Kaya & Akpunar (2018); as in their study they found out that there was no significant difference in gender due to the effects of DST, while the present study showed that there are differences due to gender and thus the hypothesis regarding gender was refused and the alternative hypothesis was accepted on to the favor of the gender with higher mean; that is female teachers (*see table 2*). This difference could be to the fact that female teachers have better technology skills than male teachers. It might also be due to sociological aspects, as it is said that females enjoy reading, telling, retelling and using stories more than males do. Females also tend to spend more time while working and searching for resources than men do. In our context, which is also might be applicable to many countries with the same financial levels, males at Al-awqaf schools in Jerusalem tend to go to other jobs besides teaching due to financial difficulties and low salaries.

Regarding age level, the material taught and the taught grade level, the study revealed that there are no statistical differences regarding these aspects, which is an accordance with Lazar et al (2020) study where they found no tangible differences due to similar aspects. This could be due to the fact that all teachers at Al-Awqaf schools in Jerusalem are within the same atmosphere as all schools are located in the center of the city, they teach the same curriculum and face similar problems. In addition, they all

get the same training and courses and are all asked to perform similar tasks with students at classes. To add, principals and supervisors at these schools put high pressure on teachers regarding the use of technology at class, and teachers' evaluation is largely based on using ICTs in class.

12. Conclusions and recommendation

12.1 Conclusions

The study found a generally positive attitude toward using DST. Moreover; the following brief conclusions were also made: 1. In general both males and females in the city of Jerusalem have positive attitude towards using DST in teaching. 2.Teachers from different age levels have positive attitudes towards using DST in teaching. 3. The taught level does not affect teachers' attitudes towards using DST in teaching. 4. The taught stream does not affect teachers' attitudes towards using DST in teaching. From these conclusions, attitudes towards using DST in teaching could be a call for other researchers to prove or refute the above mentioned conclusions.

12.2 Recommendations

Based on the conclusions made, the following points are recommended:

1. The ministry of Education and schools are recommended to offer courses for teachers helping them improve their understanding of the term DST and the way to apply them in classes or even to create DST when needed.

2. Teachers are recommended to encourage their students to watch and create digital stories as much as possible to become better at using and applying DST in learning.

3. Researchers are recommended to carry out further studies on teachers' attitude towards using DST in teaching.

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