The Impact of Digital Storytelling on EFL Learners' Oracy Skills and Motivation

Abdorreza Tahriri

Department of English Language and Literature,University of Guilan, Rasht, Iran

E-mail: atahriri@gmail.com

Maryam Danaye Tous

Department of English Language and Literature, University of Guilan, Rasht, Iran

E-mail: Maryam.dana@gmail.com

Solmaz MovahedFar (Corresponding Author)

English Department, University of Guilan, University Campus 2, Rasht, Iran

E-mail: Solmaz_9999@yahoo.com

Abstract

The present study was conducted to investigate the impact of digital storytelling (DST) on EFL learners' oracy skills and their motivation towards the use of DST instruction. Thirty intermediate EFL learners were selected based on their performance on an Oxford Placement Test (OPT) and were randomly assigned into two groups (one control and one experimental group) each containing 15 participants. Three instruments, listening and speaking tests as pre-post tests, and a motivation questionnaire, were utilized to assess the participants' oracy skills prior to and after the experiment. To analyze the data, Analysis of covariance (ANCOVA) and multivariate analysis of covariance (MANCOVA) were run. According to the findings of the study, DST participants outperformed the control group in terms of oracy skills and motivation after the treatment. The findings highlighted the need for instruction through the implementation of digital software as a vital component of language instruction that is recommended to be taken into consideration in EFL curriculum.

Keywords: Computer-Assisted Language Learning, Digital Storytelling, Oracy Skills, Motivation

1. Introduction

Modern world is characterized by rapid technological changes. In fact, this world is marked by various characteristics including access to large quantity of information, and sudden changes in technology tools. In modern technological world, Computer Assisted Language Learning (CALL) is a new area worthy of consideration in language learning studies. "In addition, technology can be a tool used to create a more student-led and expletory environment"(Hett, 2012, p. 3). Therefore, it is important for teachers to employ technology in the classroom to engage in oracy instruction, promoting listening, and speaking skills.

Storytelling is one of the versatile functions of digital media. In fact, using digital media to tell a story is not only a way to put together thoughts and ideas; it is also a way to share a particular story with family, friends, and potentially the world. By emerging new technologies, and by considering its role in the educational settings, a new form of storytelling has emerged. As such, students are provided with new educational tools."One such tool, which is increasingly used in higher education, is digital storytelling, i.e. multimedia digital narratives"(Bou-Franch, 2012, p. 82).Digital storytelling (DST) is of paramount significance for teaching concepts and information. According to Meadows (2003; cited in Hung, Hwang,& Huang, 2012), digital stories are regarded as short, individual, and multimedia stories.

As a matter of fact, digital storytelling can be considered as a pedagogical tool for teachers to work on different areas of language in order to generate students' interest and attention. As Michalski, Hodges, and Banister (2005) mentioned, "Digital storytelling involves telling stories using multimedia technologies, providing a format for students to put their thoughts together, visually, aurally, and kinesthetically"(p. 2). Digital stories provide opportunities for student's control of learning process, boosting their learning confidence, and learning motivation.

According to Hung, Chao, Lee, and Chen (2012), enhancing students' learning motivation is important for the teaching and learning of new knowledge because motivation influences how instructors and students interact with learning materials. Needless to say, there are many benefits in using DST such as developing communication skills, learning to ask questions, expressing opinions, and improving the language and computer skills. Considering this fact, technological situation should be created for students in order to make them more technologically literate designers, learners, and thinkers.

On the one hand, to improve the students' level of reading, writing, speaking and listening, DST as a creative language technique has to be integrated into language curriculum. On the other hand, it is crystal clear that learning is enhanced in all educational setting through oracy. As such, this study investigates the effect of using DST on the improvement of EFL learners' oracy skills and their motivation.

1.1 Statement of the problem

Issues of how technology influences learning and achievement in the classroom have been examined for the past few decades. For example, Clark (1983; cited in Campbell, 2012, p. 386) mentioned that "media have no more effect on learning than a grocery truck has on the nutritional value of the produce it brings to market." He was also concerned about the temptation to compare media conditions to no media conditions in an attempt to justify their use.

According to Jacobsen (2001), "many teachers worldwide are not able to adopt technology for teaching and learning tasks" (p. 488). According to Sheingold and Hadley (1990), a great number of teachers believe that technology integration is a demanding, time consuming and resource- intensive task. Dexter and Riedel (2003) also pointed out that the effectiveness of technology integration into education mainly depends on its potential to involve students into learning. However, others believe that by using meaningful integration of technology such as DST, it might be beneficial to help learners to construct their own meaning from thinking. According to Kozma (1994), computers might have some features that can alter the nature of learning and teaching. Their view encourages the study of computers and other educational media use in the classroom for their potential to foster better achievement and bolster students' attitudes toward schooling and language in general (Tamin, 2011). In fact, practical guidelines are required to assist teachers in integrating their technology into their curriculum.

Many educationists felt the need to establish an approach, encompassing talking, and listening. As reported by Wilkinson (1965), oracy is a term coined by Davis and Atkinson's collaboration with him. The importance of oral competency has now been highlighted by its sociological influence. Oracy and democracy are closely tied. (Wilkinson, 1990; cited in Malherbe, 1995). On the other hand, the debate about the role of technology in education has not been fully resolved. The present research is an attempt to explore the effect of DST on EFL learners' oracy skills and motivation. Even though digital storytelling has been practiced for more than two decades, a limited amount of research has been conducted on this issue, especially as it has been used in educational settings. However, the effects of integrating DST on promoting these skills in Iran has not been investigated yet.

1.2 Significance of the study

This study may help teachers by providing them a new perspective on the integration of technology into their syllabus that may result in a shift in technology use. By attempting to provide a clear picture of what and how teachers integrate DST, one can learn about how to facilitate meaningful use of technology into schools and motivate students.

In addition, the findings of the study can be of use to syllabus designers and EFL instructors. Also, teacher and syllabus instructors can benefit from the findings of the study and develop a better understanding of the role of CALL software instruction. Although Iranian Educational system has made great attempt in its general educational area, growth in technological supports that facilitate educational advances, have been slower. The use of computer software and hardware has not been fully explored. It can be considered as an important point that encouraging Iranian teachers to integrate technology into the curriculum may lead them to provide active learning situations in classroom. In addition, no previous study has examined the potential of computer-based multimedia applications in general, or DST, in particular in Iran.

1.3 Objectives of the study

This study pursues the following objectives:

1. Investigating the impact of DST on improvement of Iranian female EFL learners' oracy skills;

2. Comparing conventional types of language instruction and DST instruction in enhancing Iranian female EFL learners' motivation.

1.4. Research questions and hypotheses

Based on the purposes of the present study, the following research questions drive the present study:

Q1. Does digital storytelling (DST) have any impact on oracy skills of female EFL learners at pre-intermediate level?

Q2. Does digital storytelling (DST) enhance the motivation of pre-intermediate female EFL learners in an oracy course?

Regarding the aforementioned research questions, the following null hypotheses have been formulated:

H_0. DST does not have any impact on oracy skills of female EFL learners at pre-intermediate level.

H_0. DST does not enhance the motivation of pre-intermediate female EFL learners in an oracy course.

2. Review of literature

With the advent of technology, the quality of teaching along with learning has become superior. Digital storytelling (DST) emerged from the work of Joe Lambert and Dana Atchley at the Center for Digital Storytelling (CDS) at U.C. Berkley in 1993 (Robin, 2008). Thus, DST emerged as a powerful storytelling tool. According to Liu, Tong Zhou, Lu, and Sun (2014), storytelling is a teaching method which is based on a carefully chosen story to show and explain the things that teachers want students to know. Furthermore, this teaching method helps students think deeply about ideas,

characters, feelings, and experiences that cover the whole story. It is believed that DST has the potential to enhance oral skills. According to Normann (2011), these oral skills can be pronunciation, intonation, stress, rhythm, and pacing. In line with this fact, improving listening skill is the most important point. First of all, in the process of DST, students who fear listening to their voice, find themselves in a vulnerable situation when their recordings are being presented. According to Jakes and Brennan(2005 cited in Abdollahpour & Asadzadeh, 2012, p.41),"information literacy in listening, visual literacy, being creative in speaking and taking risks, and using the latest technology to communicate effectively can all be achieved when students actively participated in creation process of digital storytelling".. In addition, encouragement and support by instructors should not to be neglected. In a study by Solverg (2003), students enjoyed using computers and digital software and he found it to be a positive motivation for students and an indicator of students' achievement, and their learning.

A few numbers of studies have been conducted on the impact of DST on oracy skills from 1980s and 1990s until now. According to Dorner, Grimm, and Abawi (2002), compared to conventional storytelling, DST audiences are viewed not only as listener, but also as active learners who can interact and shape the story.

Another study which was conducted by Maier and Fisher (2006) demonstrated the successful integration of DST in a middle school classroom. Sadik (2008) conducted an experiment to investigate DST as an integrated approach. The result of the study indicated that the digital story projects implemented by Egyptian teachers supported students' understanding of specific content in an academic course. In addition, the result showed that teachers were willing to use DST content and provide more effective instruction.

A small number of researches show the impact of DST instruction on learners' motivation. For example, in a study which was conducted in New Zealand by McKinnon, Nolan, and Sinclair (2000), they investigated student attitudes toward computer use and motivation. Their data were gathered through an attitude survey, a motivational questionnaire, and interviews. The findings demonstrated an overall enhancement of student motivation.

In another study which was conducted by Yang and Wu (2012), they evaluated the effect of DST on academic achievement for English language learning, critical thinking and learning motivation and announced positive outcomes on all variables. It is found that DST has been treated as an effective approach to promoting oracy skills and motivation in classrooms; however, the effects of integrating DST on promoting these skills in Iran have not been investigated yet.

3. Methodology

3.1 Participants

The participants of the study were randomly selected from the population of female pre-intermediate-level learners studying at a private language institute in Guilan province. The selection of the institute was done based on convenience sampling. The participating students whose age ranged from 12 to 16 years old were selected. The decision to select teenagers came up from the fact that this is the age when most Iranian teenagers start their language learning.

Upon the administration of Oxford Placement Test, 30 learners were selected and assigned to either control or experimental groups randomly. Therefore, the resulting sample consisted of 15 students for the control group and 15 students for the experimental group. The experimental group received DST instruction as its treatment, while the control group was taught based on the conventional type of instruction.

3.2 Instruments and Materials

For the purpose of this study, the following instruments were used:

1. The Oxford Quick Placement Test (2001): It was administered for selecting homogeneous samples. The test consists of 60 items which provide a practical way of grading students and assessing their level of general English proficiency and the standard time allocated to the test was 60 minutes

2. Listening Tests: Anglia Examination Syndicate' (2006) listening test was administered at first as a pretest in order to determine the participants' level in terms of listening and the 2007 version was administered as a post-test in order to check the improvement of listening skill.

3. Speaking Test (Cambridge University Press, 2010): The speaking test consists of five questions were used for the interview. A parallel version of the test was used as a post-test to gauge the participants' progressive improvement after offering treatment in speaking skill.

4. Motivated Strategies for Learning Questionnaire (MLSQ): a motivation questionnaire was administered to evaluate learning experience of the students in the experimental and control groups and their viewpoints on DST and conventional instruction respectively). The students were required to answer the 43 multiple-choice items in 43 minutes.

5. Digital Storytelling software: This software which belongs to 'Up and a Way' new series was used in this study as digital storytelling software. These series include six levels of stories which is developed by Oxford University Press in 2004. There are four stories in this software. The third level one was used for the purpose of this study, as the level of students was pre-intermediate. Each part of this software consists of some new words which are related to the stories and some post-listening fill-in-the-blanks questions which are related to the stories played digitally in the classroom. Through playing one of these stories in class, the images of the story are shown via PowerPoint on the board digitally. The accents of stories are in American and British accents. The third level was the one used for the purpose of this study, as the level of students was pre-intermediate. It is intended for students who need further practice in understanding simple stories. This software has some benefits such as high-interest topics that engage and motivate

students. In addition, it has natural-sounding recordings that reflect everyday situations, and easy-to-use, task-based activities.

3.3 Procedure

To ensure that the instruments are reliable, their reliability was first examined. The values of Cronbach alpha for two versions of listening test, and motivation questionnaire were .74, 71, and .83 respectively which were all higher than the minimum required (i.e., .70). To determine the rater reliability of speaking tests, interrater reliability employing Cohen's Kappa was calculated. Cohen's kappa coefficient is a statistical measure of inter-rater agreement. It is considered to be a more robust measure than simple percent agreement calculation as κ takes into account the agreement that occurs by chance. The statistic of Kappa for speaking tests exceeded .6. This reveals that that the strength of agreement was *good* (Altman, 1991).

To carry out the experiment, first, the Oxford Quick Placement Test (OPT) was administered to 60 EFL female learners studying English at a private language Institute in Guilan to ensure their homogeneity in terms of their language proficiency. The placement test contains 60 items and the participants were required to answer them in 60 minutes. According to the results of placement test, 30 participants at pre-intermediate level were selected. Then they were randomly assigned into control and experimental groups, each consisting of 15 students.

A speaking pre-test was carried out to determine the prior speaking knowledge of participants before offering the treatment to the experimental group. Listening test was administered to both control and experimental groups. In addition, they were assured regarding the anonymity and confidentiality of their responses and they were aware that the test scores would not affect their course grades. As all participants in the two groups were more or less at the same level according to their oracy skills, they comprised the research sample. In addition, in the same session, the motivation questionnaire was also given to students to be filled out. Due to the fact that the participants were at pre-intermediate level of language proficiency, the motivation questionnaire was translated into Persian and the students filled in the Persian version of the questionnaire. Moreover, in order to make sure that the validity of translation was ensured, the Persian version of the motivation was also translated into English by two different EFL instructors.

In the last session of both groups, a posttest as a listening proficiency test and a speaking posttest were used for both groups to evaluate the improvement in their listening and speaking skills. To measure speaking skill, the speaking test consisting of five questions that were specified for pre-intermediate learners was used. To gain a thorough understanding of the integration of digital storytelling into learning, a set of questions were asked of each student. To elicit students' reactions about learning through conventional (non-digital) and digital instruction, speaking test was conducted finally as the post-test. The participants were required to answer the questions in order to find out about the effectiveness of the digital and non-digital instruction. The answers of students were scored from 0 to 20. This process lasted between ten to fifteen minutes for each student. The participants were required to choose the most appropriate option from among all options in listening test. In addition, the motivation questionnaire (MSLQ) was administered after treatment in order to check the participants' level of motivation after the treatment sessions were over. Ultimately, after collecting the data, the results of pretests and posttests were taken into consideration to determine whether or not the integration of DST instruction would help enhance the participating learners' speaking and listening ability and their level of motivation.

In what follows, instruction of DST for experimental group and the conventional type of instruction to the control group are explained in detail:

3.3.1 DST Instruction (The experimental group)

The experimental group met twice a week for eight sessions and each session lasted for one hour. In the first session, one of the researchers elaborated in detail the purpose of study, and the concept of DST. The materials to be used in the classroom were introduced as well. Materials included "Up and a Way" software which consists of four stories and some fill-in-the-blank items. From the second session up to the seventh session, the contents were taught to the students in this group in the following way: the instructor had warm-up phase first, then she explained some new words of the new story and gave some examples. After that the students listened to one story from "Up and a Way" via DST software for one time which was recorded in a real situation. While the stories were played by DST software, the wonderful picture of stories were shown on the wall via PowerPoint. Afterwards, DST software read some questions of stories in a digital manner and the students were required to answer the related questions. After listening to the stories, the students were required to write what they understood on the paper. From session two up to the seventh session, the students were divided into two groups of A and B. After that, they were required to paraphrase one by one what they heard in the story for more clarification in order to practice speaking skills. In some sessions, they had a role play which was related to the topic of stories. In each session, they followed the the same steps as indicated here.

3.3.2 Conventional (Non-Digital) Type of Instruction (The control group)

The approach of teaching instruction to the control group was different from that of experimental group, although material taught in both groups was the same. The control group was required to improve their oracy skills by rote learning and based on a conventional way in which the stories were introduced. Similar to the experimental group, all the participants took part in their classes two days per week for one hour for eight successive sessions. While in the experimental group, listening to stories in order to write correct answers to questions was taught with DST software, in the control group, teaching of material was conducted on traditional type by the course instructor and not by any digital software.

All the participating students in this group were informed about the purpose of the study in advance. Each session the teacher made a copy of story on the paper and she handed out them among the students. Each session, the students were assigned one story to read at home. This group was instructed traditionally through the use of stories in a non-digital manner. In fact, in each session, the teacher herself read the story by some gestures and body movement, some rising and decreasing in voice, and all the students listened to their instructor. During the sessions, the learners in control group were required to tell the summary of the stories chosen by their teacher based on teacher instruction. There was no DST software at all in this class. They were just required to listen to the questions of the teacher in the story, and just choose the correct answer and fill in the blanks. After that, they made a summary of stories and explained about them. Therefore, in this class, DST software was not used and everything was done by the course instructor.

3.4 Data Analysis

The data were collected through a Placement Test as a pre-test, a listening and speaking as pre-posttest, and a motivation questionnaire. Then, the data were analyzed through the Statistical Package for Social Sciences (SPSS, version 22) to find out the impact of DST on EFL learners' oracy skills and motivation. To assure the internal consistency of the aforementioned listening tests and the motivation questionnaire, Cronbach s alpha test was run.

Considering the number of variables in this study (one independent variable, and two dependent variables, Oracy and motivation), the multivariate analysis of variance (MANOVA) was conducted.In addition, Covariance analysis (ANCOVA) was conducted to investigate any statistically significant difference between the performance of control and experimental groups regarding oracy skills and their motivation.

4. Results

To use covariance analysis, a number of assumptions must be considered. Kolmogorov-Smirnov test was run to check the normality assumption of the scores obtained through the speaking and listening post-tests and motivation questionnaire scores. Table 1 presents the information concerning normal distribution of these variables.

Table 1. Kolmogorov-Smirnov Test

		Post-Listening	Post-Speaking	Post motivation
	N	30	30	30
Normal Parameters	Mean	16.80	16.67	170.23
	S.D	2.644	2.657	19.913
Most Extreme Differences	Absolute	.142	.192	.111
	Positive	.113	.105	.111
	Negative	-.142	-.192	-.100
Test Statistic		.142	.192	.111
Asymp. Sig. (2-tailed)		.128	.056	.200

As it could be concluded, the level of significance for the dependent variables of the study is larger than alpha level (.05) and consequently the scores related to the dependent variables of the study are normally distributed. Therefore, the first assumption to use covariance analysis was met.

The following table displays the descriptive statistics regarding the speaking, listening and motivation scores prior to and after the administration of the treatment for both experimental and control groups.

Table 2. Descriptive Statistics (Pre- and Post-Treatment for Both Groups)

	GROUP	N	Min.	Max.	Mean	Std. Deviation
Control	Pre-listening	15	10	19	15.20	2.731
	Post-listening	15	12	18	15.07	2.187
	Pre-speaking	15	10	19	15.27	2.604
	Post-speaking	15	11	18	14.80	2.366
	Pre-motivation	15	135	171	151.93	11.158
	Post-motivation	15	140	172	155.33	10.445
Experimental	Pre-listening	15	12	20	16.60	2.501
	Post-listening	15	14	20	18.53	1.807
	Pre-speaking	15	12	20	16.20	2.678
	Post-speaking	15	16	20	18.53	1.246
	Pre-motivation	15	121	192	166.67	18.117
	Post motivation	15	150	205	185.13	15.380

As the table 2 denotes, there are differences between experimental and control groups regarding listening, speaking, and motivation questionnaire on pretests and posttests. The mean and standard deviation of control and experimental groups on listening pretest were (M=15.20, SD=2.731), (M=16.60, SD=2.501) respectively. As given in the table, the mean of

control group on the listening post-test was (M=15.07) with a standard deviation of (SD=2.187). In addition, the mean of experimental group on the listening posttest was (M=18.53) with a standard deviation of (SD=1.807).Therefore, it can be observed that the mean of experimental group increased more than that of the control group on the pretest and posttest of listening.

According to the table, the mean of control group on the speaking pretest was (M=15.27) with a standard deviation of (SD=2.604). Regarding the performance of experimental group on the speaking pretest, the mean score was (M=16.20) with a standard deviation of (SD=2.678). In addition, the mean of control group on the speaking posttest was (M=14.80) with a standard deviation of (SD=2.366) and the mean and standard deviation of experimental group on posttest speaking were (M=18.53, SD=1.246). Therefore, it can be concluded that the mean of experimental group on the speaking posttest increased compared to that of the control group.

Regarding the performance of control group on motivation pretest, the mean score was (M=151.93) with a standard deviation of (SD=11.158). In addition, the mean of experimental group on motivation pretest and the standard deviation were (M=166.67, SD=18.117). As the table shows, the mean of control group on the posttest motivation was (M=155.33) with a standard deviation of (SD=10.455). In addition, the mean of experimental group on motivation posttest was (M=185.13) with a standard deviation of (SD=15.380). Therefore, it can be concluded that the mean of experimental group on the post-test motivation increased more than that of the control group.

According to the results of Kolmogorov-Smirnov Test, the Pearson correlation was used to investigate the relationship among the dependent variables in order to check the multicollinearity assumption.

The following table (Table 3) displays the correlation between the dependent variables of the study.

Table 3. Results of Pearson Correlation

		Post-listening	post-speaking	Post-motivation
Post-listening	Pearson Correlation	1	.628**	.521**
	Sig. (2-tailed)		.000	.003
	N	30	30	30
Post-speaking	Pearson Correlation	.628**	1	.545**
	Sig. (2-tailed)	.000		.002
	N	30	30	30
Post Motivation	Pearson Correlation	.521**	.545**	1
	Sig. (2-tailed)	.003	.002	
	N	30	30	30

**Correlation is significant at the 0.01 level (2-tailed).

One of the assumptions for using the variance analysis is the lack of existence of Multicollinearity between the dependent variables. To investigate the lack of multicollinearity, the correlation between each pair of dependent variables should not exceed .75 following a more strict suggestion. .As it could be noticed from table 4.3, the correlation coefficient between all pairs of variables is less than .75 and consequently the above-mentioned assumption has been observed.

Another assumption regarding using covariance analysis is the homogeneity of the matrix of the dependent variables Covariances. This assumption is usually investigated through employing Box's test. The following table shows the related results:

Table 4. Box's Test of Equality of Covariance Matrices

Box's M		16.36
F		2.41
df1		6
df2		5680.30
	Sig.	0.13

As it could be seen the level of significance resulted in this test equals .13 which exceeds .05 and therefore with a 95 % degree of probability, the above-mentioned assumption has been met.

So far the three main assumptions for using covariance analysis were observed in the study. To investigate the impact of DST on learners' oracy skills and motivation using covariate covariance, it is important to nullify the effect of pretest scores on the post-test results. To do so, the obtained scores of the pretests were inserted into the covariate variable model. The output of the multivariate tests conducted is presented in the following table.

Table 5. Multivariate Test

Effect	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	0.778	26.83	3.0	23.0	.00
Wilks' Lambda	0.222	26.83	3.0	23.0	.00
Hotelling's Trace	3.50	26.83	3.0	23.0	.00
Roy's Largest Root	3.50	26.83	3.0	23.0	.00

As table 5 displays, the results obtained through the covariance multivariate analysis show that the F amount in all the above-mentioned tests is statistically significant (p= .0). Thus, it could be concluded that between the scores of control and experimental groups, a significant difference exists, at least in one of the dependent variables. To probe this difference further, in what follows, the univariate covariance is employed.

The main assumption underlying univariate covariance analysis is the homogeneity of the dependent variances in the experimental and control groups. To ensure the homogeneity and establishing the assumption Levene' Test was run.

Table 6. Levene's Test of Equality of Error Variance

	F	df1	df2	Sig.
Post-listening	1.179	1	28	.287
Post-speaking	5.120	1	28	.132
Post-motivation	.013	1	28	.910

According to the results of table 6, the above mentioned assumption is observed as the homogeneity of the dependent variances in the experimental and control groups can be established (Sig.> .05). Table 7 below summarizes the results of between-subject effects:

Table 7. Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
GROUP	Post-listening	29.763	1	29.763	49.899	.00	.666
	Post-speaking	47.430	1	47.430	39.519	.00	.613
	Post-motivation	1631.054	1	1631.054	26.869	.00	.518

As the result of table 7 indicate, the differences obtained between groups for the three variables is significant (Sig. <.05). Thus, the assumption that there is homogeneity in the scores of the participants after nullifying the effect of the pretests is rejected. According to the means of the scores in table 7, it could be concluded that using DST has enhanced both oracy skills and the motivation of the participants. As it could be noticed in the column of Partial Eta Squared in the table 7 above 66.6 % of the change in listening scores ($\eta 2$=.66), 61.3 % of the change in speaking scores ($\eta 2$=.61) and 51.8 % of the change in the motivation level were due to the effect of DST($\eta 2$= .51) respectively. Larger values of partial eta squared indicate a greater amount of variation accounted for by the model effect, to a maximum of one.

As it could be noticed, both null hypotheses of the study can be rejected and it could be concluded that DST enhances both oracy skills and the motivation of female EFL learners at pre-intermediate level.

5. Discussion

This study sought to investigate the impact of DST on oracy skills and motivation of female EFL learners at pre-intermediate level. To this end, a randomly selected sample of 30 EFL female learners was taken from the whole population of pre-intermediate-level learners studying at a private language institute. Upon administering the pretest, in the form of listening and an oral speaking test, the participants were found to be at pre-intermediate level. A questionnaire regarding language learning motivation was also administered both at the beginning and at the end of the course, the results of which was used to ascertain the effect of DST on the motivation of the participants as well. Finally, to see if the treatments had a statistically significantly impact on the oracy skills of participants, a posttest, similar to that of the pretest was administrated. Regarding the first research question which investigated the impact of DST on EFL learners' oracy skills, the results indicated that the experimental group outperformed the control group in terms of the listening and speaking post-test scores. Actually, it was sought to figure out whether there is any significant difference between the performance of students who were exposed to DST type of instruction (experimental group) and those who were exposed to conventional type of classroom (control group). The results of data analyses showed that the DST type of instruction had a statistically significant effect on EFL learners' oracy skills.

This study is justified by the considerable growth of experimental group's mean score compared to that of the control group on the listening and speaking post-test (see table 2 and table 7). This finding is in congruence with a number of other similar studies. As it was mentioned in the literature review, Dogan (2007; cited in Robin & Mcneil, 2012) found that teachers who used DST in their classes believed that their students' technical, research, presentation, organizational and oracy skills improved. In addition, the findings provide evidence for Dorner' (2002) claim. He stated that compared to conventional storytelling, DST audiences are viewed not only as listeners, but also as active learners who can interact and shape the story. The positive effects of DST in the foreign language classroom are numerous. For example, Freidus and Hlubinka (2002) examined the use of DST in a work environment. Their study revealed that the process allowed participants to articulate purpose by distilling meaning to a wider audience. The results of the study by Standley (2003) also showed that within the last 10 years, digital cameras, editing software, authoring tools and electronic media outlets such as DST, have encouraged teachers to utilize many more approaches and tools than ever before to help students to construct their own knowledge and idea to present and share them more effectively. In addition, the results of the present study are in line with those of Schiro (2004) who used DST to teach students algorithms and problem solving through several stages of learning in order to help them develop mathematical skills. He mentioned that digital stories, with other materials like worksheets, not only present mathematical skills that students need to learn but also situate the mathematics in a context that is interesting and engaging. In addition, the findings of this study are in line with that of Cangelosi and Whitt (2006) who stated that storytelling in an online learning environment is an effective and efficient educational approach, which helps students learn through sharing, reflection and interpretation of stories. Also, Hibbing and Rankin Erickson (2003) stated that the use of multimedia in instruction assists learners to retain new information as and helps them to comprehend difficult materials.

The results confirmed that DST instruction had positive impact on EFL learners' motivation at pre-intermediate level. A small number of studies have found the impact of DST instruction on learners' motivation. The results are in line with the finding of Dogan and Robin (2008; cited in Robin & Mcneil, 2012). In this study, they pointed out the teacher interviews during which teachers stated the increased technical and presentation skills of the students along with their better engagement and increased learning motivation. Furthermore, in a qualitative exploratory case study, Dumova (2008) found an increase in motivation and self-esteem as students developed ownership over the digital videos they created and the same results were gained through the same research project through reviewing students' replies to a motivation questionnaire.

The findings are also in line with the result of the study conducted in New Zealand by McKinnon, Nolan, and Sinclair (2000), who investigated students' attitudes toward computer use and motivation. Their data included an attitude survey, a motivational questionnaire, and interviews. The findings demonstrated an overall enhancement of student motivation. In addition, results of the study by Solverg (2003) showed that students enjoyed using computers and digital software and he found it to be a positive motivation for students and an indicator of students' achievement, behavior and their learning. As indicated, several studies have shown that technology can influence academic performance at every grade level and improve students' motivation, attitude, and their interest. There is a wide range of the ways through which motivation can lead students toward being more successful.

The same findings were reported by Dogan (2007; cited in Robin & Mcneil, 2012) who argued the impact of DST on leaner's motivation. He found that the teachers who used DST in their classrooms reported that DST process had positive effects on students' motivation and engagement levels. In addition, the finding provides evidence for Yang and Wu's (2012) claim. They evaluated the effect of DST on academic achievement for English language learning, critical thinking, and learning motivation and reported positive outcomes on all variables.

6. Conclusions and Implications

The data were collected and analyzed to achieve two research objectives and answer the related research questions. The first research question was proposed to investigate the impact of DST instruction on pre-intermediate EFL female learner's oracy skills. The results showed that DST instruction had a positive impact on their oracy skills. Thus, the first null hypothesis of this study was rejected.

The second research question aimed at exploring the impact of DST instruction on pre-intermediate EFL female learners' motivation. The results showed that DST instruction had a statistically significant impact on the participants' motivation. The findings showed that the majority of participants had positive views towards DST instruction. As already mentioned in the Discussion section, these findings support the results of other studies in which most of the participants had consensus on the positive effect of DST instruction on their language learning. Therefore, the second null hypothesis of this study was also rejected.

The results revealed that there was a statistically significant difference between the scores of the experimental and control groups on the post-test, i.e., after introducing treatment for experimental group and conventional type of instruction for control group. In fact, the experimental group outperformed the control group on the post-test. This may lead to the conclusion that the difference between the two groups are, largely, due to the treatment which was DST instruction. Besides, the experimental group's responses to motivation questionnaire provided evidence for the superiority of instructing DST over the conventional type of classroom.

Although some studies have been done on the impact of DST on the EFL learners' literacy skills; however, none of them considered DST instruction in improving both speaking and listening skills known as oracy skills; as such, the findings of this study could provide new insights for those dealing with foreign language teaching, such as material

developers, curriculum designers, educational institutions, language teachers, and test developers. First and foremost, the findings of this study indicated the plausibility of the application of DST in enhancing learners' motivation.

With regard to the importance of developing curricula for students, curriculum designers incorporate varied learning standards and instructional objectives into the curriculum. This study and its findings highlighted the need for instruction through which learners receive due exposure to digital instruction. In this regard, the implementation of digital software is vital and can be taken into consideration in Iranian EFL curriculum.

Educational institutions including schools and higher education institutions should pay more attention to digital learning of materials in classes and consider the focal role of technology in general and DST in particular. The educational institutions should direct their attention to the educational philosophy which is learner-centered; that is, the suitable methodology and practices should be adopted based on the interests and needs analysis of the learners at every level of education. Moreover, the principles and methods underlying the existing curriculum need to be critically reviewed. In addition, instructors can help students to improve their fluency in digital type of classroom by conducting practical tutorials and using different kinds of exercises. They can develop multimodal environment that are appropriate for our multi-media age but within the realities of their schools' resources and students' development In addition, the skilled development of teachers ought to offer continuous opportunities for teachers to align technology with the curriculum and collaborate and learn from peers who integrate technology into the teaching of alternative subjects. Consistent with the integrated curriculum approach, the skilled development of teachers will benefit from DST to assist teachers to create the connection between the subject they teach and alternative subjects to produce a lot of meaningful context for learning. Moreover, DST may encourage teachers to organize their own stories.

7. Suggestion for further research

More specific issues can be put forward as suggestions for future studies:

The present study just measured the improvement of oracy knowledge through DST instruction. Measuring both literacy and oracy knowledge learned through DST instruction remains a fertile ground for further research. This study suggests that other studies be conducted in the future to explore the probable impacts that DST instruction can have on other language skills such as reading, and writing.

Since the present study was conducted on only EFL female learners, the same study can be conducted on EFL male ones to see the potential effect of DST instruction on their oracy skills and motivation. The number of sample of the study could be larger in future studies. Only 30 participants were selected for pre-test, treatment sessions, and the related post-tests. Additionally, as the present study was conducted in an academic context and with pre-intermediate level EFL learners, further research is needed to be done in other learning contexts considering advanced level.

As stated above, the provision of storytelling has not been regarded as an essential part of the pedagogy of oral and aural skills. This was formerly done through more conventional types of storytelling and the related literature bristles with numerous studies attempting to elucidate the strengths and weaknesses of such ways of supplying feedback. In recent years, however, there has been a dramatic shift in this area towards more alternative ways of providing students with more modern and technologically accompanied ways of practicing speaking and listening skills and this seems to be transforming, at least to some extent, the oral/aural pedagogy.

The present study aimed at casting light on the effectiveness of one of these alternative storytelling types, that is, DST. The related literature concerning background and the correlation of DST with motivation, and oracy skills, nevertheless, seems to be scanty and far from conclusive. Interested researchers could, thus, further delve into the effectiveness of DST on the achievements of writing, and even vocabulary learning of EFL learners. Therefore, the current study suggests more studies on this issue with different levels of proficiency, different age groups, and wider context.

References

Abdollahpour, Z., & Asadzadeh, N. (2012). The impact of exposure to digital flash stories on Iranian EFL Learners' written reproduction of short stories. *Canadian Journal on Scientific and Industrial Research, 3*, 40-53.

Altman, D. G. (1991). *Practical statistics for medical research*. London: Chapman and Hall.

Bou-Franch, P. (2012). Multimodal discourse strategies of factuality and subjectivity in educational storytelling. *Digital Education Review, 22,* 80-91.

Cangelosi, P. R., & Whitt, K. J. (2006). Teaching through storytelling: An exemplar. *International Journal of Nursing Education Scholarship, 3*(1), 1–7.

Campbell, T. A. (2012). Digital storytelling in an elementary classroom: Going beyond entertainment. *Procedia-Social and Behavioral Sciences, 69,* 385-393.

Dexter, S., & Riedel, E. (2003). Why improving preservice teacher educational technology preparation must go beyond college's walls. *Journal of Teacher Education, 54*(4), 334–346.

Dorner, R., Grimm, P., & Abawi, D. (2002). Synergies between interactive training simulations and digital storytelling: a component-based framework. *Computers and Graphics, 26*, 45–55.

Dumova, T. (2008). Using digital video assignments as a tool for active learning. *The International Journal of Learning, 14*(12), 63-71.

Freidus, N., & Hlubinka, M. (2002). Digital storytelling for reflective practice in communities of learners. *SIGGROUP Bulletin, 23*(2), 24-26.

Hett, K. (2012). Technology- supported literacy in the classroom: Using Audio books and Digital Storytelling to enhance literacy. *Illinois Reading Council Journal, 40*(3), 3-5.

Hibbing, A. N, & Rankin-Erickson, J.L. (2003). A picture is worth a thousand words: Using visual images to improve comprehension for middle school struggling readers. *The Reading Teacher, 56*(8), 758-770.

Hung, C.-M., Hwang, G.-J., & Huang, I. (2012). A project-based digital storytelling approach for Improving students' learning motivation, problem-solving competence and learning achievement. *Educational Technology & Society, 15*(4), 368–379.

Hung, I. C., Chao, K. J., Lee, L., & Chen, N. S. (2012). Designing a robot teaching assistant for enhancing and sustaining learning motivation. *Interactive Learning Environments, 21*(2), 156-171.

Jacobsen, M. (2001, April). *Building different bridges: Technology integration, engaged student learning, and new approaches to professional development.* Paper presented at AERA 2001: What We know and How We Know It, the 82nd Annual Meeting of the American Educational Research Association, Seattle, WA.

Kozma, R. (1994). Will media influence learning: Reframing the debate. *Educational Technology Research and Development*, *42*(*2*), 7-19.

Liu, Y., Tong Zhou, Y., Lu, H., & Sun, J. (2014). A preliminary study on the application of storytelling among hospice care interest group. *International Journal of Nurse Sciences, 1*(4), 75-78.

Maier, R., & Fisher, M. (2006). Strategies for digital storytelling via tabletop video: Building decision making skills in middle school students in marginalized communities. *Journal of Educational Technology Systems, 35*(2), 175-192.

Malherbe, N. (1995*). A critical analysis of importance of oracy in the classroom, with particular reference to secondary school in the cape education department*. Retrieved from http://eprints.ru.ac.za/3785/1/MALHERBE-MEd-TR95-35.pdf

McKinnon, D. H., Nolan C. J., & Sinclair, K. E. (2000). A longitudinal study of student attitudes toward computers: Resolving an attitude. *Journal of Research on Computing in Education, 32*(3), 76-85

Michalski, P., Hodges, D., & Banister, S. (2005*)*. Digital Storytelling in the Middle Childhood Special Education Classroom: Ateacher's story of adaptations. *Teaching Exceptional Children Plus, 1*(4) Article 3. Retrieve from http://escholarship.bc.edu/education/tecplus/voll/iss4/3

Normann, A. (2011). *Digital storytelling in second language learning*. Masters thesis. Norwegian University of Science and Technology. Faculty of Social Sciences and Technology Management.

Robin, B. (2008). *Digital storytelling: A powerful technology tool for the 21st classroom*. Retrieved from http://digitalstorytellingclass.pbworks.com/ f/Digital+Storytelling+A+ Powerful.pdf

Robin, B.R., & McNeil, S.G. (2012). What educators should know about teaching digital storytelling. *Digital Education Review, 22*, 37-51.

Sadik, A. (2008). Digital storytelling: A meaningful technology-integrated approach for engaged student learning. *Educational Technology Research and Development*, *56,* 487-506.

Sheingold, K., & Hadley, M. (1990). *Accomplished teachers: Integrating computers into classroom practice*. New York: Center for Technology in Education, Bank Street College.

Schiro, M. (2004). *Oral storytelling and teaching mathematics: Pedagogical and multicultural perspectives*. Thousand Oaks, CA.: Sage.

Solverg, A. (2003). Computer-related control beliefs and motivation: A panel study. *Journal of Research on Technology in Education, 35*, 473-487.

Standley, M. (2003). *Digital storytelling using new technology and the power of stories to help our students learn and teach.* Cable in the Classroom. Retrieved from http://www.ciconline.org/home

Tamin, R. (2011). What forty years of research says about the impact of technology on learning: A second-order meta-analysis and validation study. *Review of Educational Research, 81,* 4-28.

Yang, Y-C., & Wu, W-Ch. (2012). Digital storytelling for enhancing student academic achievement, critical thinking, and learning motivation: A yearlong experimental study. *Computers and Education, 59*, 339-359.