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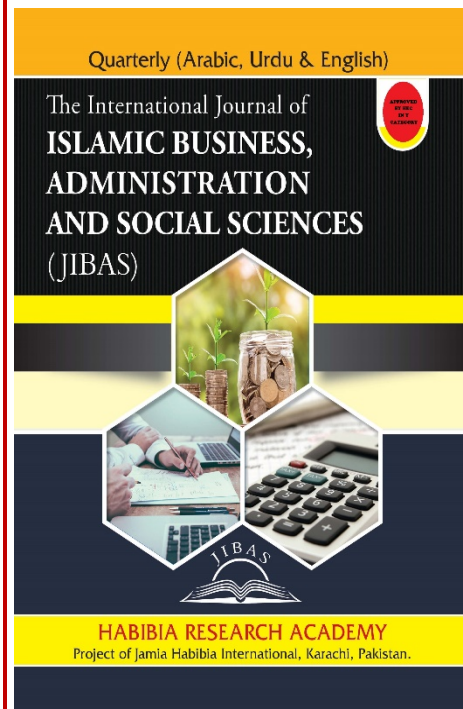
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TOPIC:

‘ONCE UPON A TIME’ IN DIGITAL AGE: IMPACT OF DIGITAL STORY TELLING ON LISTENING SKILLS OF ESL LEARNERS

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'ONCE UPON A TIME' IN DIGITAL AGE: IMPACT OF DIGITAL STORYTELLING ON LISTENING SKILLS OF ESL LEARNERS*Riaz Hussain, Muhammad Zeeshan Khan, Muhammad Asif,***ABSTRACT:**

The revolutionized modes of presenting information have made this century the age of Information Technology. In today's world, technological advancements are being used in education. Different websites are offering their services for educational purposes. Several websites and software packages are being used for language teaching and language testing purposes. In this context, digital storytelling has the potential to increase the listening skills of ESL learners in Pakistan. Storytelling has always remained a vibrant part of different cultures. The art of storytelling is one of the ancient arts of human history and digital storytelling is the modern expression of this ancient art. A digital story can be based on anything that uses digital technology to describe a narrative. The present study tries to survey this dynamic tool of teaching language in the context of the 21st century's social, cultural, and educational developments. The current study followed a mixed-method approach and employed both quantitative and qualitative techniques. The quasi experimental phase of the study was conducted to explore the effect of digital storytelling on the listening skills of ESL learners. 50 learners of BS class were taken as the sample for the present study. The quasi experimental phase of the study was based on a single group pre-test and post-test technique. The quantitative data was analyzed statistically through SPSS. In the results, the value sig. 0.000 shows that there was a significant improvement in the listening skills of the ESL learners. The current study finds that digital storytelling has a significant impact on the listening skills of ESL learners. The interviews with 15 ESL practitioners yielded insights about the responses and perceptions of the ESL teachers about digital storytelling. The ESL teachers who participated in the study were of the view that trainings on the use of digital storytelling should be imparted to the teachers

KEYWORDS: *Digital Storytelling, Listening Skills, Digital Learnin*

INTRODUCTION: The direct results of the technological advancements are the facilities of this century which are increasing our ability to learn about the use of these technological products. The learners of today's world are now growing up with all these digital products. They seem to think and perceive the world differently. Digital products have become an essential part of their lives. Digital technology can develop an impressive learning environment. Digital tools have the potential to tell stories to technology-savvy learners. A digital story can be anything that uses digital technology to describe a narrative. Robin (2008) is of the view that digital storytelling has emerged as a powerful tool for teaching and learning but still, it has not gained much importance in the teaching and learning process. McLellan¹¹ regards 'digital storytelling' as an emerging field of study in higher education. As the following figure (Fig.1) shows that traditional storytelling can be transformed with the help of digital tools of multimedia, text, images, audio and video

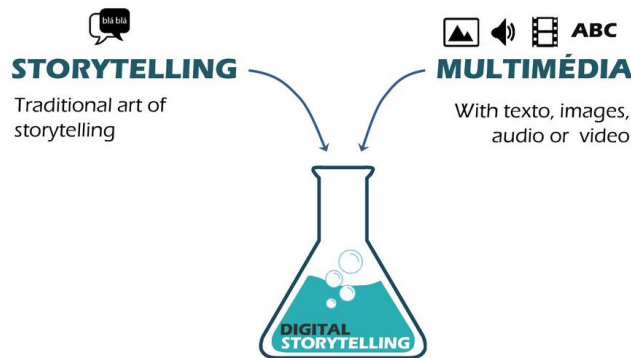


Figure 1 Creation of Digital Storytelling

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[Retrieved on June 16, 2019](#)

Xu, Park, and Back²¹ are of the view that now stories are shifted to the online environment. That is why digital storytelling has become a new way of learning. Digital storytelling is a delightful presentation of a purposeful short movie created by using different multimedia tools to present a narrative. Different multimedia components include text, pictures, recorded audio narrations, music and videos are combined by using different software tools that present a specific theme and a particular narrative.

What is a Story? According to Walter²⁰ a story is a description of series of real or imaginary events which are intended to entertain people. A story is a connection of words connected through the chain of thinking and the perceptions of events. A story can be of many types. It can be written or spoken. It can provoke imagination through words. Stories can reveal the past and give a vision for the future. Everyone can learn through stories by sharing and communicating in informal contexts. In the past, there were traditional types of stories that were not in written form and presented events with the help of gestures and expressions. Storytelling is a distinctive way of describing personal experiences. Technology, as in all areas, is integrated quickly into training activities. One of the approaches that will contribute to the integration of the teaching-learning process with technology is digital storytelling (Malita & Martin; Robin)¹²

According to Kieffer, McIntosh and Pederson⁹, traditional storytelling is considered to be the best teaching approach. Digital storytelling is the art of integrating digital technologies like computers, the internet and multimedia to express one's feelings and emotions. The length of digital stories can be 2-10 minutes. Digital stories can serve as tools for attracting learners and developing the interest of the learners in the learning process.

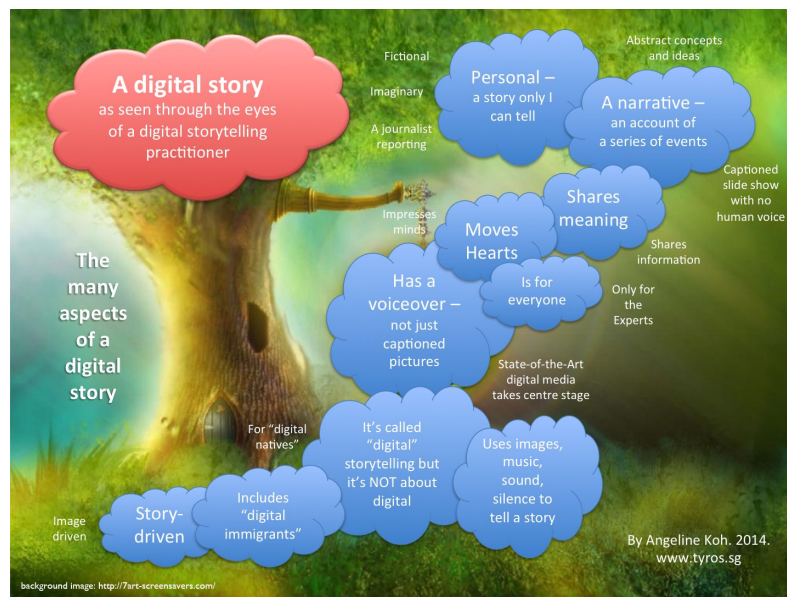


Figure 2: Aspects of a Digital Story

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As figure 2 shows, a digital story shares meaning and information. It moves hearts. It uses images, music, sounds and silence to tell a story. A digital story is image-driven.

Digital Storytelling; Effective Instrument for Teachers & Learners

In the field of education, digital stories can be used in different ways by teachers and learners. Robin¹⁶ argues that digital storytelling is a technological application allowing teachers to use technology in the classroom efficiently and to create good educational content. Ausubel² is of the view that a digital story is a sequence and link between the new knowledge and the information which previously existed in the mind of the learner. Ohler¹³ argues that the purpose of digital storytelling is to help the teachers motivate the learners through different types of technological products to create their own stories. Digital stories involve all basic language skills in the process of teaching and learning. Digital stories are important for the learners. The learners are required to connect their field of education with technology (Akkoyunlu)¹ Inceelli⁸ argues that five elements make a digital story. These elements are: Media, Mobility, Context, Relationship and Communication. A digital story can serve as an effective instrument for the learners through which they can develop their own stories and enhance their learning. In the development process of digital storytelling, the learners choose the topic and analyze it, and then develop a specially selected point of view and transform this point into a story by adopting seven basic elements of a digital story. By using modern technology, the learners can publish their own digital stories on the Web, which provides the learners an opportunity to share their stories and ideas with their peers to get a good experience. Sharing ideas and experiences through digital storytelling

is one of the benefits of digital storytelling, however, there are many other benefits of digital storytelling as well, as figure 2 below shows :

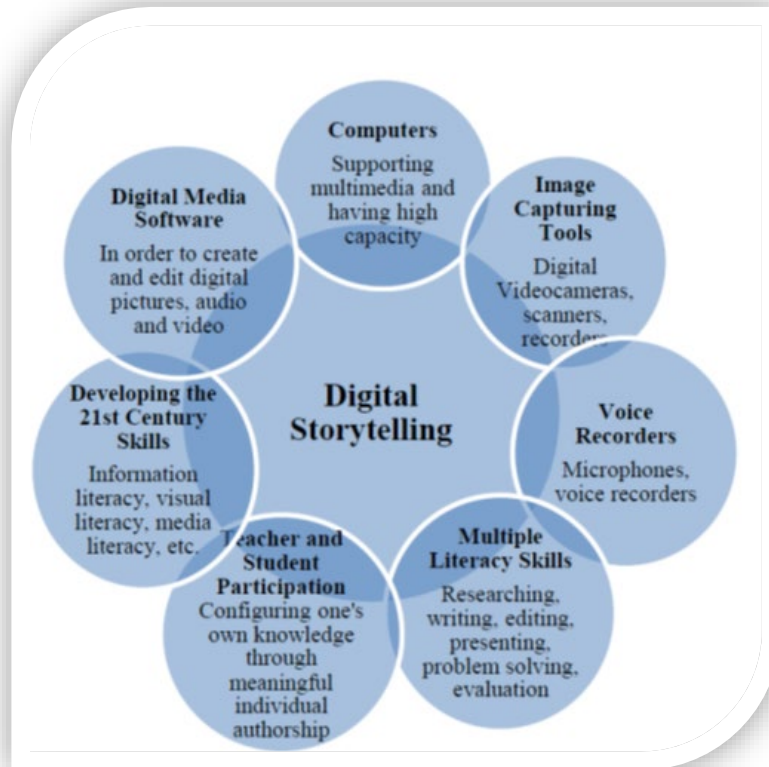


Figure 3 Creating Digital Storytelling Advantages

As shown in figure 3, digital storytelling has many advantages for both learners and teachers. It helps to develop necessary skills for using modern technologies like computers, image capturing tools and voice recorders. It helps to enhance multiple literacy skills for researching, writing, editing, presenting, problem-solving, and evaluation.

Listening Skills & Digital Storytelling

Listening skill is the most critical one among all the language learning skills. In a general setting of language learning and teaching, listening activities are expected to take 65% to 90% of the total time but despite that most learners seem to have very poor listening skills. Listening skill is one of the essential language learning skills but still, it is often seem to be ignored by the teachers and learners. Instructional guidelines are provided for the other three language learning skills (reading, writing, and speaking). It appears that teachers' expectations regarding listening skills are that the learners can develop this language learning skill on their own. There is no need for instructional consideration for this particular skill. A misconception on the part of the teachers is that the learners don't need

the instructional attention for the enhancement of listening skills in the way the other language learning skills are needed.

Syafrayadin and Salniwati¹⁹ concluded in their research that digital storytelling enhances listening and speaking ability in various text genres. Among all the other different techniques for sharing knowledge and information, storytelling is the only technique that is effective and time-honored. The world has changed now and many new different techniques have been developed but storytelling still has the importance as it had earlier. The compatibility of storytelling with this modern technological world gave itself a new dimension which is called digital storytelling. Storytelling keeps all the nearby eyes and ears towards the storyteller and keeps the listener active and attentive and listening is all about the attention and understanding. Hung, Hwang, and Huang⁶ determined that project-based learning through digital storytelling can enhance the learners' motivation, problem-solving competence, and learning achievements. Digital storytelling, among all the other techniques used for the improvement of listening skills, is most innovative, advanced and of course, a modern technology that can enhance the listening skills of the learners.

Persky and Brazeau¹⁴ state that it is a fact that in a globalized world where knowledge and interactions for teaching and learning are progressing day by day, the world is progressing with the use of science and technology. Modern technology is playing its important role in the field of education. In today's world, children grow up using computers, internet, and mobile phones. All these technological products seem to have become an essential part of human life.

Digital Storytelling & Application of Dual-coding Theory

Dual-coding theory was presented by Allan Paivio in 1960. The Dual-coding theory is a theory of cognition which demonstrates how human brain process auditory and visual information. According to Allan Paivio, the human brain has two separate systems for the processing and representation of audio and visual information separately. As the human brain can process linguistic items like speech and images at once, it can enhance teaching and learning capability. In stereotypical teaching practices, teachers provide knowledge to their learners only through verbal input, hence, learners can't get more benefit from it and it's difficult for them to comprehend and learn it and then apply this new knowledge in their daily learning environment. When the teachers apply this dual-coding theory, they use audio-visual aids for teaching and giving new knowledge to the learners which makes it very easy for them to learn and memorize it and apply this new knowledge in their daily activities of learning. The reason behind this phenomenon is stated in the dual-coding theory. According to dual-coding theory, when both audio and visual items are given for learning the same knowledge then both audio and visual processing systems of the brain process that same knowledge at the same time, as a result, the enhanced understanding and quick memorization of the knowledge occurs.

Dewi, et al³ stated that digital storytelling attracts the minds of the learners and shows them the path of creativity. The implementation of digital storytelling in teaching and learning

can be a good application of the dual-coding theory. Frazel⁴ suggested digital storytelling as a tool for teachers to encourage learners for the creative use of technology. Teaching through digital storytelling can enhance the teaching and learning process. As digital stories consist of both audio and visual aids, therefore, they channelize greater resources of human brain system than other teaching inputs which contain limited input.

Digital Storytelling & Application of Cognitive Theory of Multimedia Learning

The cognitive theory of multimedia learning states that there are two different systems in the human brain for processing information: one is the auditory system and the other is the visual system as mentioned in the dual-coding theory. Both of these systems of the human brain have a certain capacity for processing information and learning is a continuous process of processing and managing information. According to the theory of multimedia learning, learners can learn more effectively and proficiently through both words and pictures rather than only with words. The combination of words and pictures is not enough to accomplish the goals of the cognitive theory of multimedia learning. The goal of this theory is to use instructional media in the light of how human mind works. Digital storytelling seems to epitomize main precepts of this theory.

Rettberg¹⁷ used a more precise academic approach by investigating the interdisciplinary origin of digital storytelling. He attempts to comprehend the relationship between storytelling and digital media. It has opened the gates of debates on digital storytelling in the academic discourse which includes educational science, aesthetic and literary perspectives on narrations, and sociology of media.

Hess, et al⁷ exclaimed that digital storytelling provides many choices on the part of the teachers to deliver lessons for the learners to collect information. Digital storytelling is a technique that helps the teachers and learners with a better understanding and long-term memorization of the new information, topics, and concepts with quick learning. The goals of the cognitive theory of multimedia learning can be obtained by the use of digital storytelling in the learning and teaching process. The use of digital storytelling activates both systems of processing information in human minds. As each system has a specific capacity to process information, the learners can get more benefit through this technique of teaching and learning.

Smeda, Dakich, and Sharda¹⁸ state that digital storytelling is an effective tool to integrate instructional messages with learning activities to create a more engaging and exciting learning environment. Storytelling is not a new term as a language learning technique but digital storytelling has become a new pedagogical educational tool for the language learning process. As traditional forms of storytelling are used practically in the same way digital storytelling is used by educators as an instructional instrument. They use it regarding curriculum and learning strategies. These learning strategies are called learner-centered strategies.

Objectives of Digital Storytelling

Digital storytelling emerged in the 1990s with the establishment of the digital storytelling center by Lambert and Atchley. The digital storytelling center aimed to give guidance to people who were more devoted and motivated to share their personal experiences. In the next stage, JLambert put these seven elements into the following category.

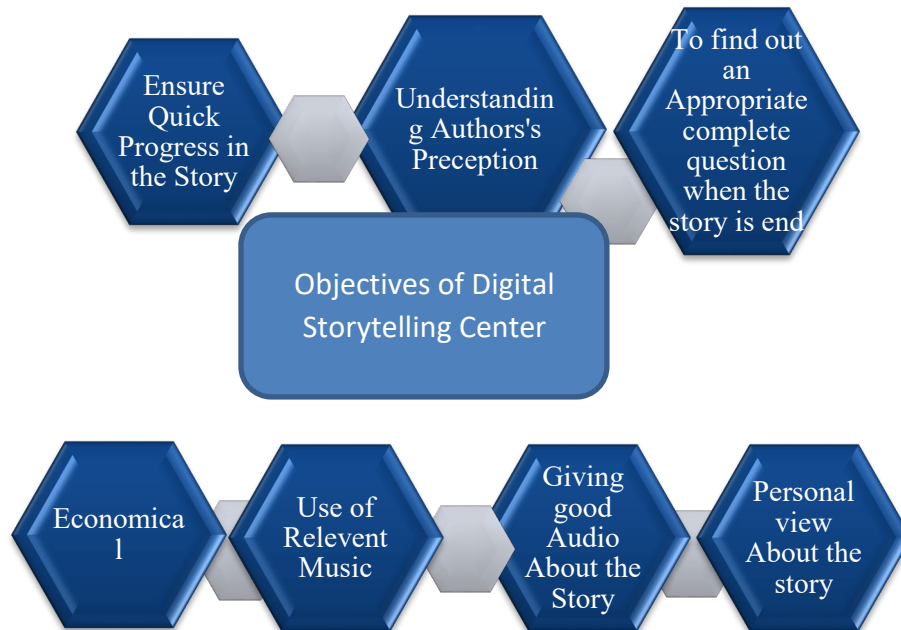


Figure 4 Objectives of Digital Storytelling

RESEARCH METHODOLOGY

The study followed a mixed-method approach including an experimental phase and interviews conducted among ESL teachers. The data through both the tools was collected at the Islamia University of Bahawalpur. The experimental approach refers to finding out the cause-effect relationship among various variables. Gribbons, Barry and Herman, Joan⁵ are of the view that:

Experimental designs are especially useful in addressing evaluating questions about the effectiveness and impact of programs. Emphasizing the use of comparative data as a context for interpreting findings, experimental designs increase our confidence that observed outcomes are the result of a given program or innovation instead of a function of extraneous variables or events (p.1).

In quasi-experimental research, the use of methods and procedures is similar to an experiment but the conditions and the experience of the participants lack some control.

This kind of study lacks random assignments which include pre-existing factors such as variable that is not manipulated or does not include comparison/control group. When a researcher doesn't manipulate a factor in the study like a quasi-independent variable, this typically means that the study is a type of quasi-independent research design. This design is structured similar to an experiment except it consist of one or both of the following:

- It includes a quasi-independent variable.
- It lacks an appropriate or equivalent comparison/control group.

Single Group Pre-test Post-test

In a quasi-experimental research design the same dependent participants are observed before (pre-test) and after (post-test) a certain treatment. The score obtained before the treatment and the score obtained after giving the treatment can be measured. The results can be determined by equating the difference between pretest and posttest scores. The advantage of this type of research design is that the scores of the same participants before and after the treatment can be measured using the same scale. Thus, the same procedure was adopted, before giving the treatment, a pretest was conducted among the participants and their score was calculated. After the particular treatment, the same test was conducted again and the score was calculated.

Research Questions

1. What is the impact of digital storytelling on the listening Skills of ESL learners?
2. What is the effect of digital storytelling on male or female learners separately?
3. What are perceptions of ESL teachers about the use of digital storytelling in ESL classrooms?

Data Collection Tools

The researchers employed two tools for data collection: experiment and interviews. We start with the experiment. Interviews will be discussed later.

Experiment

As explained earlier, approach used for this study was experimental in nature and the research design was quasi-experimental, so the tool developed for this study was "One-Group Pretest Posttest design". This design is used to find out the measurements of experimental treatment i.e. the effect of an independent variable on the dependent variable on a single group of participants.

1. Pretest takes measures before the experimental treatment.
2. Post-test takes measure after the experimental treatment.
3. Pretest and Posttest must comprise the same content.
4. Only a single group is given an experimental treatment.

To measure the language learning skills of the learners is not an easy task. That's why the researchers took the help of TOEIC listening tests to measure the listening skills of the learners accurately and get correct results. TOEIC tests are available on the website <https://www.ets.org/toEIC>. One listening test was taken from this website and was applied for both pretest and posttest. For experiment and treatment purposes, some digital stories

were created by the researchers themselves, while the other digital stories used in this study were taken from the website titled 'Educational uses of Digital Storytelling' <https://digitalstorytelling.coe.uh.edu/>. The website permits free access to all the materials and digital stories.

Analysis of Quantitative Data

The quantitative data were analyzed using Statistical Package for Social Sciences (SPSS 20). The tests were marked and graded manually. T-Test was applied for the single group pre-test post-test experiment to get accurate results. The pretest and posttest both were marked separately and the results of each test were kept separately.

ANALYSIS OF PRE-TEST

In table 1 it can be observed that the number of participants is 50 and the average score of the learners in the pre-test is 16.02 with an Std. Deviation of 4.048. Std. Error Mean is 0.572. The average score of the pre-test shows that the listening skills of the ESL learners were slightly above the intermediate level.

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Pre Test Marks	16.02	50	4.048	.572
Post Test Marks	19.96	50	3.959	.560

Table 1 Description of the statics of the Pre-test

ANALYSIS OF THE POST-TEST

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Pre Test Marks	16.02	50	4.048	.572
Post Test Marks	19.96	50	3.959	.560

Table 2 description results of the Post-Test

While in table 2 the average Post-Test score of the learners is 19.96 with Std. Deviation of 3.959. Std. Error Mean is .560. The average scores of the post-test show that there is a quick and significant improvement in the performance of ESL learners.

CORRELATION OF PRE-TEST AND POST-TEST

		N	Correlation	Sig.
Pair 1	Pre Test Marks & Post Test Marks	50	.783	.000

Table 3 Correlation of the students

In table 3, the Correlation between pre-test and post-test is 0.783, and the value of Sig is 0.000. According to the statistical rules if the p-value is less than 0.05 then, the Correlation will be highly significant. This table shows that the p-value is 0.000 which means the correlation between pre-test and post-test is highly significant.

PAIRED DIFFERENCE BASED ON GENDER

Gender	Paired Differences					t	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Male Pair 1 Pre Test Marks - Post Test Marks	-3.826	2.691	.561	-4.990	-2.662	-6.819	22	.000
Female Pair 1 Pre Test Marks - Post Test Marks	-4.037	2.638	.508	-5.081	-2.993	-7.951	26	.000

Table 4 Paired Gender Difference

Table 4 describes the paired differences of the tests based on gender. From the statistical observation, it can be noted that the mean of the experiment for male participants is -3.826 with the Std. Deviation of 2.691 and Std. Error Mean .561. The T-Value of the test is -6.819 and the df value is 22 while the value of Sig. (2-tailed) is .000 which shows that it's highly significant. From the statistical observation, it can be noted that the mean of the experiment for female participants is -4.037 with the Std. Deviation of 2.638 and Std. Error Mean .508. The T-Value of the test is -7.951 and the df value is 26 while the value of Sig.

(2-tailed) is .000 which according to the statistical rules, shows that it's highly significant. This shows that the impact of digital storytelling on both male and female participants was approximately equal.

Major Findings of the Quasi-experimental Phase of the Study. In this study, the total number of the participants was 50 and all the data collected from them was useable for the analysis as it was manually entered on the spreadsheet. All the participants were from the same class that's why it could be assumed that they were from the same age group. After analyzing the data, the major findings of the researchers are mentioned bellow

1. Digital Storytelling has a significant impact on the listening skills of ESL learners.
2. Digital Storytelling affects male and female students equally which shows that this technique is suitable for both gender.

Interviews: The present study was a mixed-method research. According to King and Horrocks¹⁰ the most important research tool of the qualitative research is interview. The second major tool for this study was interview. Interviews were conducted among teachers of English language to obtain data about their perceptions regarding the use of digital stories in language teaching. So, the researchers designed a thirteen-point semi-structured interview which focused on different themes related to study such as teaching through digital storytelling, use of multimedia in the classrooms, problems faced by the teachers while using modern teaching methodologies and suggestions for further improvement of the ESL classrooms. The researchers recorded the interviews in audio files. The interview data was collected from the 15 teachers of the Department of English of the Islamia University of Bahawalpur.

Analysis of Qualitative Data: For the analysis of qualitative data, the researchers transcribed interviews and worked out patterns and themes in the qualitative data. The process of analyzing interviews is described as under.

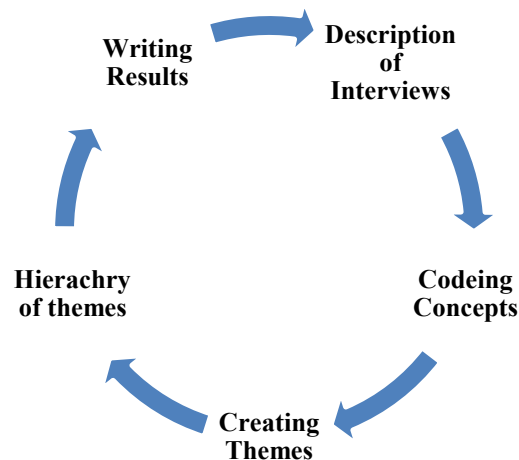


Figure 5 Process of Analysis of Qualitative Data

Results of Interviews:

The qualitative data yielded the following results.

From the analysis of gathered data it was noted that most of the teachers were using multimedia tools in their classes at the time of interviews but all of them were not using digital tools for the sake of using digital stories in the classrooms. The results of the interviews show that oral stories were still being used to engage the classes for different pedagogical purposes. Teachers used different moral and historical stories to engage their class to boost their interest. However, the teachers told these stories orally in the classrooms. This shows that they were not aware of the digital stories. All the respondents emphasized the need for the digital classrooms. Despite living in the modern world, a good number of classrooms in state-run institutes in Pakistan were not equipped with the modern teaching and learning technologies at the time of interviews, according to the perceptions of the teachers or respondents. The university respondents were of the view that they are trying very hard to make the environment of the class comfortable for learning and teaching process but digital resources should be provided. They were of the view that one of the reasons behind not using the digital technology in teaching and learning processes was lack of resources. Teachers did have enough resources to teach the learners through digital technology. The respondents opined that with the inclusion of digital technology in the learning and teaching process, a new start to collaborative lesson planning could commence. In this way, the classrooms could be transformed from teacher-centered to learner-centered. All the respondents gave much importance to the need of the collaborative lesson planning. Collaborative lesson plan includes different kind of activities for the learners which are supervised by the teachers. Collaborative lesson planning is much more important when it comes to ESL classrooms. The respondents were of the view that that digital storytelling could boost the creativity and collaborations among ESL learners. Most of the participants suggested that digital storytelling should be included in the teachers training programs. As most of the teachers are not aware of this modern technique. Digital storytelling should be adapted for both pre-service and in-service trainings both.

Juxtaposing Research Questions with Answers:

In the findings of the present study, the researchers found the answers to all the research questions. The comparison of research questions and findings is given in the form of a table below:

Research Questions	Answers
What is the impact of digital storytelling on the listening skills of ESL learners?	Digital storytelling has a significant impact on the listening skills of ESL learners.
What is the effect of digital storytelling on male or female learners separately?	Digital storytelling affects male and female students equally. It shows that this technique is suitable for both genders.
What are perceptions of ESL teachers about the use of digital storytelling in ESL classrooms?	The results of the interviews show that the ESL teachers were aware of the importance of storytelling in language teaching and used the same in language teaching but they were of the view that they should be imparted trainings on the use of digital storytelling in ESL classrooms.

Conclusion: It is concluded that digital technology has a significant impact on language learning and the teaching process as it has its impact on every other field of life. The results of the analysis of the collected data (value of sig. was 0.00) show that digital storytelling has a significant impact on the listening skills of ESL learners. The learners in general and ESL learners, in particular, can learn more effectively and quickly through digital storytelling. Modern digital technology is improving the capability of learners. As digital storytelling has significantly enhanced the listening skills of ESL learners, it should be a part language teaching tools and strategies. The ESL teachers who participated in the study opined that they should be trained about how to use digital storytelling in their language teaching.

Implications of the Results: It's an obvious fact that among all four language skills (reading, writing, speaking, and listening) the skill which is instructionally ignored is listening skill. The instructors as well as the learners don't pay any particular attention to improve their listening. The present study shows that listening skills can be improved quickly through digital storytelling.

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