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The Effect of Digital Content on Listenig Skills in Middle School Turkish Teaching

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Abstract
The course of development of technology, its speed in the recent period and the point it has reached have led our relationship with technology to become a necessity rather than a choice. In this respect, teaching activities that are not intertwined with technology and do not include digital elements will remain as practices that will not go beyond the interest and expectations of students who are the subject of educational environments. This study, which examines the effect of digital content on listening skill in secondary school Turkish teaching, is at an important point in terms of showing the effect of digital elements on listening skill, which is the first learning channel of human beings and will continue until death, and which should be carefully emphasized in terms of forming the basis for other language skills. The sample of this study consists of 60 students in the seventh grade of a secondary school in Elazığ province. In the study, mixed research method was preferred as the method and sequential explanatory design was preferred as the design. Quasi-experimental design was used in the quantitative part of the study and phenomenology design was used in the qualitative part. In the quantitative part of the study, there was one control and one experimental group. In order to obtain quantitative data within the scope of the research, the Listening Skills Scale developed by Yalçın & Özcan (2022) was applied to the control and experimental groups as pre-test and post-test. The experimental and control groups were determined according to the pre-test results of the students participating in the study. In the qualitative part of the study, data were obtained from interviews with the students and these interviews were analyzed by content analysis. The results of the study showed that there was a significant difference between the listening skill scale scores of the students in the experimental and control groups in the post-test application in favor of the experimental group, there was a significant increase between the pre-test and post-test scores of the listening skill scale applied to the control group, and there was a significant difference between the pre and post-application listening skill scale scores of the experimental group. Considering the results obtained from the interviews, it was seen that listening practices enriched with digital content facilitated comprehension, digital content practices improved listening skills and created a desire to participate in new activities. At the end of the study, suggestions were made for researchers, educators and related institutions.

Keywords: Digital content, Listening activities, Listening skills, Middle school students, Multimedia

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Introductıon

Listening, which starts in the womb (Güneş, 2017, p. 83), seems to be the first activity (Gündüz & Şimşek, 2014, p. 22) after the first contact with the world. In this respect, listening is an important means of success, learning (Tayşi & Özbay, 2016) and accumulation of what is learned (Gündüz & Şimşek, 2014, p. 22). In addition to being a learning tool, listening has a high level of importance for the development of comprehension, mental, emotional and social skills (Güneş, 2017, p. 84). Listening is one of the primary learning channels that form the basis for all language skills. In this respect, it is a skill that should be carefully emphasized and planned with a deliberate teaching process. Listening is also a challenging language skill. In this respect, it is essential to keep the student's motivation at a high level. In order to overcome this challenging situation, the preparation of successful and interesting listening activities (Brown, 2006) is a matter that teachers should pay attention to.

In the literature, listening skill is considered to be a skill with a very low importance value among language skills. As the main indicator of this situation, the number of learning outcomes in the Turkish Language Teaching Program is a clue for us. Listening skill, which has the lowest number of learning outcomes after speaking, has a structure in which teachers only read a text or make students listen to a sound saturation and then have them do the activities. The main underlying reasons for this are the perception that students acquire listening skills naturally and on their own (Özbay & Melanlıoğlu, 2012) and the idea that there is no need to spend too much time on the instructional side (Doğan, 2010). In addition, the fact that teachers do not have sufficient equipment and infrastructure to enrich listening practices and that they succumb to the general opinion about listening can be said as other reasons. Listening as a skill affects students' formal lives not only on its own but also as a basis for other language skills. The process of language acquisition starts with listening (Özbay & Melanlıoğlu, 2012) and listening skill affects other learning areas such as reading, speaking and writing (Güneş, 2017) and students' learning. Woottipong (2014) stated that a child receives a large amount of verbal input through listening before developing speaking, writing and reading skills, and that these skills develop later as the child matures. For this reason, listening skills should be developed at the first stage of learning, it should be kept in mind that listening is a skill like other language skills on which it is based and that listening skills, like all other skills, can be developed through intentional teaching and purposeful practices (Palmer, 2014). Attempting to present listening texts in an abstract structure only as a sound element stands as an obstacle in the development of listening skills for this age group of students who tend to perceive the concrete more easily. Considering the perception and learning differences of today's students, it has become a necessity to go beyond traditional teaching methods.

Born into technology in a sense, children of this period have technology at the center of their lives. This generation, also known as the digital generation, whose very existence is based on technology, tends to meet all their vital needs over the internet. Eating and drinking, shopping, traveling, communication, and many other needs can be met over the internet. In addition, this generation's relationship with technological devices is at a high level. Although Generation Z, who feel incomplete or lonely without cell phones, tablets, computers, etc., are sometimes called technology addicts, technology remains a standard element of life for this generation. Similarly, even if they are far away from their friends, family or people they care about, they can keep in touch with them through technology (Altunbay & Bıçak, 2018) and continue their communication virtually. Considering that this generation can deal with many different jobs at the same time, use mass media effectively, and access information quickly (Kırık & Köyüstü, 2018), the importance of transferring information and meeting the expectations of the relevant generation in the materials presented once again emerges.

Today's students, who take an active role in the learning process, acquire knowledge in different ways. In fact, the existing technology and technological tools and internet access have moved the student from a passive state in which the student is at the center and the student is active in the learning process and can intervene in the process, which serves the constructivist teaching process. Students of the digital age are in a desire to learn through materials containing pictures and videos, which push the text to the second plan (Türel, 2019). Technological devices also offer these students, whose individual characteristics and learning styles are different (Türel, 2019), opportunities to choose from. With these opportunities, today's students have developed a structure that can constantly renew their knowledge, determine their learning preferences, analyze and develop critical thinking skills.

Learners of the digital age have a number of specific expectations and skills stemming from their digitalized lives. Learners now prefer to experience information instead of just hearing it. In addition to learning by doing and experiencing, it is observed that they create a learning experience in the form of learning by trying, failing or succeeding. In our time, individuals can access various solutions to any action they cannot do or any problem they

cannot solve by using the internet. According to Türel (2019, p. 94), in our age, it is more important to have the skills of accessing information and integrating the information to make it usable rather than knowing.

Another reflection of the developments and changes in the learning process is the reorganization of learning environments or, in other words, teaching environments. The adaptation of technology to teaching environments not only increases motivation for both teachers and students in the teaching and learning process, but also brings great richness to teaching environments (Ciğerci & Gültekin, 2019). The cheapening and ease of the cost of applying these technological developments to teaching environments has led many countries to turn their faces to these developments, learning environments have been designed accordingly and educational policies have changed in this direction.

When we look at the subject specifically in terms of the learning environment, equipping these environments with technological tools and equipment that can attract the attention of students and meet their needs will provide more effective learning. Multimedia that includes more than one of the elements such as text, graphics, sound, animation, video, etc. with a video that is watched or a voice recording that is listened to (Türel, 2019, p. 257) significantly increases learning and understanding since it is a system that effectively combines elements such as seeing, listening and reading, which are among the ways of learning and obtaining information for people (Çakmak, 1999). Thanks to the multimedia that activates the static lesson environment (Benzer, 2019), the concepts to be taught and the texts related to the information to be given can be supported with visual elements and music, and the learning process can be made more effective. Multimedia tools have a facilitating structure that saves students from the boredom of a monotonous lesson, as well as providing the opportunity to explain a subject that has not been understood for a long time in a short time, and saves people time (Akın & Çeçen, 2015).

As a result of all these developments and the inability to respond to the demands and expectations of the society and the educated population in particular, change has become a necessity for educational institutions in a sense, and this has led to a change in educational programs. The first examples of this change started to be seen in the 2005-2006 academic year. A new learning area called visual reading and visual presentation was added to the curriculum and visual reading and visual presentation acquisitions were included in the other areas of the 6th, 7th and 8th grades. Visual reading refers to reading, understanding and interpreting shapes, symbols, pictures, graphics, tables, body language, nature and social events, mass media and information technologies other than written texts (Erkunt & Akpınar, 2002). Visual presentation is the sharing and transferring of this reading, understanding and interpretation with others. Digitalization reconsiders the components involved in the learning process within the framework of changing paradigms; it defines new roles for the teacher, learner, learning environment and learning material (Erdem & Erol, 2021, p. 18). Now, the traditional terms of instructional materials have been replaced by hypertexts, motion graphics, video, animation, simulation, augmented reality (Sakman, 2020), which contain content that can appeal to multiple senses. According to Gündüz & Şimşek (2013), the most effective learning is the learning in which the most sensory organs are active. In this respect, the permanence of learning is possible with the inclusion of many sensory organs in the learning process and the successful realization of the learning activity is possible only if these sensory organs are active in the process (Hakkoymaz, 2020). From this point of view, the preparation of teaching materials to be prepared in line with these principles in a way to appeal to many sensory organs, especially in listening texts, instead of just giving classical listening texts, these elements will be supported by visual elements and different auditory elements will meet student expectations and increase students' success.

For all these reasons, it has become a necessity to prepare digital content suitable for learning for today's students who have technology at the center of their lives and meet most of their needs through digital tools and the internet. In this context, the aim of this research is to determine the effect of digital content on listening skills in secondary school Turkish language teaching. In line with this purpose, the hypotheses whose answers are sought throughout the research are as follows:

- There is a difference between listening skill pre-test scores between experimental and control groups.
- Classical listening skill practices have an effect on listening skill development.
- Listening practices and activities created with digital content have an effect on students' listening skills.
- There is a difference between the post-test scores of listening skills between the experimental and control groups.
- What are the students' views on listening practices enriched with digital content and digitalized listening activities?

Method

In this section; research method, study group, data collection tools, research process and data analysis are given.

Research Method

This study, in which the effect of digital content on listening skills was examined, was planned as a mixed methods research. Mixed methods research is methodologically defined as the combination of quantitative and qualitative methods using the postpositivism view as a basis, and then combining the results obtained from both methods (Toraman, 2021). The aim of mixed methods research is to compare and discuss similar or different results obtained from quantitative and qualitative data by providing data diversity, and to ensure that the results obtained with qualitative or quantitative data complement and explain each other.

In this study, since it was aimed to explain the quantitative data with the findings obtained by collecting and analyzing qualitative data after collecting and analyzing quantitative data, an explanatory sequential mixed methods research design was used as the design. In the explanatory sequential mixed methods research design, it is aimed to explain quantitative data with qualitative data after obtaining and analyzing qualitative data and obtaining and analyzing quantitative data (Creswell & Plano Clark, 2017).

The quantitative dimension of the study was designed as a quasi-experimental study. The active variable in such studies with control and experimental groups means that at least one group will be the experimental group and there will be a control group without an experimental application (Gliner et al., 2015).

Phenomenological design was used in the qualitative dimension of the study. In the qualitative part of the research, data were obtained through semi-structured interviews with students and these interviews were analyzed by content analysis.

Population and Sample

The population of this study consists of 7th grade middle school students within the Ministry of National Education in Elazığ province in the 2021-2022 academic year. The sample of the study consists of 7th grade students of a secondary school within the Ministry of National Education within the borders of Elazığ province, which was determined by random method. There are 60 students from two branches, one experimental and one control group, in the sample of the study. Twenty-nine of these students were in the experimental group and thirty-one were in the control group. The demographic information of the students participating in the study is given in the table below.

Table 1. *Demographic information of the participants*

		N	Percent
Gender	Female	25	41,7
	Male	35	58,3
	Total	60	100
Mother's education level	Primary School	14	23,3
	Middle School	21	35,0
	High School	11	18,3
	University	14	23,3
	Total	60	100,0
Father's education level	Primary School	18	30,0
	Middle School	30	50,0
	High School	7	11,7
	University	5	8,3
	Total	60	100

Of the 60 students who participated in the study, 25 (41.7%) were female students and 35 (58.3%) were male students. The mother's education level of the students was high school graduate with 21 students and 35 percent. The remaining distribution according to mother's educational status is 14 university (24%), 14 primary school (24%) and finally 11 secondary school (18.3%).

The distribution of the students participating in the study according to the father's educational status variable is high school graduates with a rate of 30 people and 50%. This distribution is followed by university graduates with 18 people and 30%. Next, 7 people (11.7%) are middle school graduates and 5 people (8.3%) are primary school graduates.

The results of the independent samples t-test conducted to determine whether there was a significant difference between the listening skill scale scores of the experimental and control groups in the pre-application are shown in the table below.

Table 2. Independent samples t test results of the control group and experimental group in the pre-application

	Groups	N	$\overline{X}$	SS	t	p	Cohen'd
Listening skill	Control	31	120,25	9,88	,134	,894	,035
	Experimental	29	119,82	14,63			

Sd= 58

According to the table above, which shows the independent samples t test results of the control group and the experimental group in the pre-practice, there is a difference in the mean scores of the control group and the experimental group in the listening skill in the pre-application ($\bar{x}$ control=120,25; $\bar{x}$ experiment= 119,82). The result of the independent groups t test conducted to determine whether this difference was significant or not was t=-0,134 and this difference was not significant (p>0,05). According to this result, it was seen that there was no significant level difference between the control group and the experimental group students, and the students in the two groups were at a similar level in terms of listening skills. The fact that Cohen's d value, which shows the effect power of the data, has a very low level of effect power confirms this situation. In this sense, it can be concluded that the control and experimental group students formed before the experimental process are equal in terms of listening skills, so the effect of digital content, which is a quasi-experimental process, on students' listening skills can be investigated.

Study Group

The study group for the qualitative dimension of the research consists of nine students. The students to whom the semi-structured interview form was applied were determined on the basis of volunteerism and the interviews were finalized after the data reached fulfillment.

Data Collection Tools

In this study, which is a mixed methods research, the Listening Skills Scale was used to obtain quantitative data and a semi-structured interview form was used to obtain qualitative data.

Quantitative Data Collection Tool

In order to obtain quantitative data within the scope of the research, the Listening Skills Scale developed by Yalçın and Özcan (2022) was applied to the control and experimental groups as pre-test and post-test. The listening skill scale is a five-point Likert-type scale consisting of 32 items. In the development phase of the scale, an item pool of 45 items was first created, expert opinion was taken and as a result, 8 items were removed from the pool and a form with 37 items was created. This form was administered to 1334 5th, 6th, 7th and 8th grade students from 12 different schools in the Aegean Region during the 2021-2022 academic year. After the application of the relevant scale, test-retests were conducted and EFA and CFA analyses of the collected data were conducted. According to the results obtained, it was proved that the KMO value was .93, the scale had a reliable and valid structure as a result of the CFA analysis, and a total of 32 one-dimensional statements measured the listening skills of secondary school students. There were no reverse coded items in the scale.

The KMO values obtained as a result of the application of this scale to the control and experimental groups in this study are given in the table below.

Table 3. *Cronbach's Alpha values of the listening skill scale in the pre- and post-application*

	Pre-application	Post-application
Listening skill scale	0,779	0,857

As seen in the table above, the scale has an acceptable level of reliability.

Qualitative Data Collection Tool

A semi-structured student interview form was used to collect data for the qualitative dimension of the study (Appendix 1). A total of 12 questions formed as a result of the literature review were presented to an associate professor and a doctoral academic with a doctorate degree in the field of Turkish education for expert opinion. In line with the opinions of the experts, it was decided that the qualitative data collection tool would consist of 6 questions. In order to reach students' opinions on listening practices and activities enriched with digital content,

students were informed about the application before the one-to-one application, voice recordings were taken to prevent data loss and these voice recordings were transcribed.

Research Process

This section provides information about the implementation and data collection processes. The timeline of the applications of the listening skills scale to obtain quantitative data and the semi-structured interview form applications to obtain qualitative data are shown in Table 4.

Table 4. *Implementation Schedule of the Study*

Date	Hour	Content
5-8.04.2022	08.20-9.50	Information / Pre-Test Application
11-15.04.2022	08.20-9.50	Listening Practice
18-22.04.2022	08.20-9.50	Listening Practice
25-29.04.2022	08.20-9.50	Listening Practice
5-6.05.2022	08.20-9.50	Listening Practice
9-13.05.2022	08.20-9.50	Listening Practice
16-20.05.2022	08.20-9.50	Listening Practice
23-27.05.2022	08.20-9.50	Listening Practice
30-31.05./1-3.06.2022	08.20-9.50	Listening Practice
4.06.2022	08.20-9.50	General Evaluation/ Post-Test Application
6.06.2022	08.20-9.50	Conducting Interviews

Quantitative Data Collection Process

For the listening skills scale and semi-structured interview form applications applied to the students participating in the study, firstly, the ethics committee approval of Fırat University numbered 1431 and dated 06.01.2021 was obtained. After obtaining the approval and permission from Elazığ Provincial Directorate of National Education dated 04.04.2022 and numbered 79137285-605.01-E.47030475, the Listening Skills Scale developed by Yalçın and Özcan (2022) was applied to the control group and the experimental group as a pretest in order to reach quantitative data. In the next stage, the control group was made to listen to the listening texts; Cahit Arf, İlk Çocukluk, Artık Antarktika'da Buz Dağlarının Arasındayız, Kırkpınar'a Adını Veren Kırk Yiğit, which are included in the MoNE (2021) Turkish Textbook at two-week intervals, and the activities related to the texts were done through the textbook. The experimental group was made to listen to/watch the digital versions of the same listening texts developed with digital content via the smart board in the classroom at two-week intervals. The digital versions of the activities of each text were also made by the students on the smart board. At the end of the eight-week period, the listening skill scale was administered again as a post-test.

Table 5. *Implementation Process of the Study*

Group	Pre-application	Application	Post-application
Control Group	Application of the Listening Skills Scale as a pre-test	Implementation of the usual course	Application of the Listening Skills Scale as a post-test
Experimental Group	Application of the Listening Skills Scale as a pre-test	Implementation of digital content-based teaching	Application of the Listening Skills Scale as a post-test

Content Preparation Process

In the process of preparing digital content, four listening texts (Cahit Arf, İlk Çocukluk, Artık Antarktika'da Buz Dağlarının Arasındayız, Kırkpınar'a Adını Veren Kırk Yiğit) in the Turkish textbook for the 2020-2021 academic year were selected to create digital content. The process of preparing the contents was realized as follows:

1. A script was first written for the selected listening texts.
2. In the script, which was created by being stick to the text, the points of the text that were wanted to be emphasized were focused on in accordance with the level of the students.
3. Visuals and background music were selected considering the type of digital content (animation, timeline...).
4. Vector or high-resolution jpeg images that can be edited more easily were preferred when selecting images.
5. The selected visuals were edited in Adobe Photoshop and Adobe Illustrator programs according to the storyboard flow, the scenes to be created were determined, made ready for animation and converted into video animation in Adobe Premiere program.
6. During the process of creating the draft storyboard scenes of the determined scenes, the opinion of a visual design expert was taken to examine the scenes in terms of suitability for the age level and technical aspects. The

drawings used in the storyboard creation process were obtained from websites that provide royalty-free and free stock image services.
7. For the voiceover used in the video animations, the relevant audio file was added to the video by adhering to the voiceover created by the Ministry of National Education.

Qualitative Data Collection Process

In order to obtain qualitative data, a semi-structured interview form was applied to the volunteer students in the experimental group at the end of the experimental period. Open-ended questions were included in the interviews, the interviews continued until data fulfillment was reached, and the interviews were terminated at the end of 9 students because data fulfillment was determined in order to avoid repetition. The interviews with the students were audio-recorded to avoid data loss and these audio recordings were later transcribed.

Analysis of Data

This section provides an explanation about the analysis of quantitative and qualitative data..

Analysis of Quantitative Data

In this study, which is a mixed methods research, the "Listening Skills Scale" applied as a pre-test and post-test was used to obtain quantitative data. As a result of the application of the listening skills scale of Yalçın and Özcan (2022) to the control and experimental groups, the data were entered into the SPSS 27 package program and after the validity and reliability analyzes of the data were performed, the kurtosis and skewness coefficients of the obtained data were examined in order to determine which statistics could be used. Since the kurtosis and skewness coefficients obtained were between +/- 1 values, it was determined that they showed a normal distribution. In this respect, parametric tests were applied in the statistics performed.

Analysis of Qualitative Data

The analysis of the qualitative data of the study was obtained by transcripts of the interviews conducted with the students. In order to process the data obtained from the interviews more deeply and discover the themes, content analysis was conducted. The data obtained from the interviews conducted in the content analysis study is interpreted according to the data obtained at the end of the study (Yıldırım, Şimşek, 2008). The interview data transcribed in the study was transferred to the Word program and the analysis was started after the approval of the students. The approved data was processed descriptively by the thesis advisor and the researcher. The data obtained from the interviews were analyzed under the themes of ***digital content increases focus and interest, it is easier to understand with digital content, digital content ensures permanence in learning, digital content improves listening skills, participation in the course becomes easier thanks to digital content, it creates a desire to participate in new activities..***

Validity and Reliability

The capacity of reliable research results to reflect reality has been emphasized by Fraenkel et al. (2012, p. 166). In this study, the answers to the examined questions were examined by three Turkish education experts and one measurement and evaluation expert. The researcher shared the findings regarding the Turkish lesson focused on listening skills taught with digital content with the experts and made arrangements according to their feedback. The method of the research, the characteristics of the examined documents, the reasons for their selection, and the analysis methods have been explained in detail by Creswell & Miller (2000) and Johnson (1997). Transferability, i.e. the applicability of the obtained results in similar situations, has been addressed by Fraenkel and his team (2012, p. 107). The research stages have been examined comprehensively in the relevant sections. Internal reliability tests whether different researchers will reach similar conclusions using the same data set (Fraenkel et al., 2012, p. 165). In this study, the collected data were analyzed comprehensively by the researcher in accordance with the problem situation and the research topic. Internal validity, that is, the steps taken to strengthen the reliability and credibility of the study, are explained in detail during the data collection process. The responses obtained from the participants' interview records are presented with direct quotes in the findings section. The researcher aimed to increase the internal validity of the study by using interviews as a data collection tool. External reliability refers to the detailed consideration of the research process (Fraenkel et al., 2012, p. 103). In this context, the research process is described in detail in the relevant sections and the results were reviewed by three experienced Turkish education experts and two Turkish teachers.

Ethical Approval

Ethical permission (Date: 04.01.2021-Number No: 14) was obtained from the Fırat Üniversity Social and Human Sciences Research Ethics Committee for this research.

Findings

In this section of the study, the findings regarding the pre-test and post-test scores of the experimental and control groups regarding the quantitative data and the findings obtained through semi-structured interview questions regarding the qualitative data and the comments regarding these findings are included.

Findings and Comments on Quantitative Data

Findings and comments regarding the first sub-problem

The results of the independent groups t-test conducted to test the hypothesis that "There is a significant difference between the listening skill scores of the control group and the experimental group in the last application", which is the first sub-problem of the research, are summarized in the table below.

Table 6. *Independent groups t test results between the control group and the experimental group in the post application*

	Groups	N	$\overline{X}$	SS	t	p	Cohen's d
Listening Skill	Control	31	122,80	14,79	-2,186	,033	-,565
	Experimental	29	130,96	14,06			

Sd= 58

As seen in the table above, in the last application, there was a difference between the mean scores of the control group and the experimental group in listening skills ($\bar{x}$ control = 122.80; $\bar{x}$ experimental = 130.96). According to the independent groups t test result conducted to determine whether this difference was significant, the value of t = -2.186 was found and it was seen that this difference was significant ($p < 0.05$). According to this result, it shows that the listening skills of the experimental group students were significantly higher than the control group. Accordingly, it was seen that the digital content application contributed positively to the development of the students' listening skills. In other words, it was revealed that the listening application supported by digital content led to a more successful result than classical listening in the development of the listening skills of the seventh grade middle school students. With the value of Cohen's d = 0.565, it was seen that the data had a medium level of effect power.

Findings and comments regarding the second sub-problem

The results of the dependent groups t-test conducted to test the hypothesis of the second sub-problem of the study, "There is a significant difference between the pre-application and post-application listening skill scores of the control group", are summarized in the table below.

Table 7. *Dependent groups t test results between pre-application and post-application in the control group*

	$\overline{X}$	N	SS	t	t_p	Cohen's d	r	r_p
Pre-application	120,25	31	9,88	-3,228	,003	-,580	,754	,000
Post-application	125,90	31	14,70					

Sd= 30

When the table above is examined, in the light of the data obtained in the pre- and post-application of the control group, differences were observed between the mean scores of the pre- and post-application in the control group ($\bar{x}$ pre=120.25; $\bar{x}$ post=125.90). According to the result of the dependent groups t test conducted to determine whether this difference was significant or not, the value of (t=-3,228) was found and it was seen that this difference was significant according to ($p<0.05$). According to this result, it was seen that the students' post listening skills were significantly higher than their pre listening skills. Thus, it was seen that the practices in the control group improved the listening skills of the students positively. When we looked at the effect power of the data, it was determined that (Cohen's d= 0,580) value had a medium level effect power. According to the correlation analysis (r=0,7549; $p<0,05$), it was concluded that there was a high level relationship between pre-listening skills and post-listening skills. This means that the students who scored high in the pre-practice also scored high in the post-practice. Accordingly, it can be said that the classical application in the control group improved the listening skills of the students. It was determined that there was a significant increase in the listening skills of the students as a result of the 8-week application with the classical method.

Findings and comments regarding the third sub-problem

The results of the dependent groups t-test conducted to test the third sub-problem of the study, "There is a significant difference between the listening skill scores of the experimental group in the pre- and post-application", are summarized in the table below.

Table 8. *Dependent groups t-test results between the pre- and post-application in the experimental group*

	$\overline{X}$	N	SS	t	t_p	Cohen's d	r	r_p
Pre-application	119,82	29	14,63	-4,992	,000	-,927	,650	,000
Post-application	130,96	29	14,06					

Sd= 28

When the table above is examined, a difference was observed in the listening skills scores of the experimental group between the pre and post intervention ($\bar{x}$ pre=119,82; $\bar{x}$ post=130,96). According to the result of the dependent groups t-test conducted to determine whether this difference between the averages was significant or not (t=-4,992) and it was determined that this difference was significant according to the value (tp<0,05). Accordingly, it was concluded that the students' listening skills improved significantly in the post-application of the experimental group. This means that the application in the experimental group significantly increases the listening skills of the students. When Cohen's d value (Cohen's d= 0,927) was examined for the power of this increase, it was seen that it had a very high effect power. This shows that the practices in the experimental group effectively improved the listening skills of the students. At the same time, when the correlation between the pre- and post-application of the experimental group was examined (r=0.65; Rp<0.05), it was seen that the correlation was significantly positive. This positive correlation is an indication that those who scored high in the pre-practice in terms of listening skills scored high in the post-practice, and those who scored low in the pre-practice scored low in the post-practice. Therefore, this correlation shows that the practices in the experimental group positively affected the listening skills of the students. Cohen's d value also supports this result with a high level effect value. These results show us that listening practices in teaching environments contribute to the development of students' listening skills even if they are done with the classical method and support the claim that listening skill is a skill that can be developed. In this context, no matter which method and technique is used, listening practices will contribute to the development of students' listening skills. In addition, the results obtained from the findings also show that digital content applications improve students' listening skills at a rate much higher than classical applications. This situation shows that students are prone to digital elements and that they give more positive feedback to trainings with elements they are not unfamiliar with.

Findings and Comments on Qualitative Data

Findings Regarding Qualitative Data

Digital content increases focus and attention

The participants' statements about the impact of digital content on the educational process show that such content significantly improves students' learning experiences. Digital content includes visual and audio elements that attract students' attention, allowing them to be more focused and attentive. Visual supports in particular help students understand and remember information more easily, and they also help increase students' motivation and interest by adding innovation and variety to the educational process. Participant statements (n=7) supporting these findings are given below;

"These digital contents taught me to listen more easily, I learned to focus more, I became more motivated while listening... The reason we learned these in class may be that, for example, it enabled us to focus more, to extract more from it, to understand, to hear with understanding, to work with understanding." (Azra)

"*Yes, because it was more... I was interested in it, I felt a desire to listen to it more, to see it more. Well, it contributed... It increased my focus, yes.*" (Hamza)

"*I couldn't focus much before because there were no visuals, but... it got better with listening because there were visuals.*" (Belinay)

"*I listened to it seeing it as a human being, my focus increased.*" (Beren)

"*I am more attentive with visual content, my interest has increased.*" (Nisa)

"*Studies done in a digital environment are always fun and more interesting in my opinion because we always come across them in books, but when some teachers explain them with support explanations like boards, it is good. Technology is a little more fun.*" (Eylül)

"*When there are pictures, my interest increases a little more... I am more attentive..*" (Enes)

It's easier to understand with digital content

The contributions of digital content to the learning process are clearly understood from the participants' statements. Participants emphasize that digital content provides easier and more effective understanding. Participants also state

that they understand themselves and others better and communicate more effectively. Participants' statements supporting these findings (n=8) are given below;

"*Watching digital content, in other words doing it visually, helps us much more than listening, we understand it more that way and it becomes more useful.*." (Hamza)

"*The reason why we learn these things in class is that it may have helped us to focus more, to get more out of it, to understand, to hear with understanding, to work with understanding. Digital content helped me to listen, to understand well; it helped us to understand more; it helped me to extract the main idea, the main feeling*" (Azra)

"*I learned that it was more useful for the lesson, I could listen to the lesson better and it helped me understand the lesson better. ... It is easier to understand because we see emotions, expressions and gestures in the visuals.*." (Beren)

"*When I was listening to it, it didn't stick in my mind, but when I was watching it, I started to understand it more, it started to stick more*." (Belinay)

"...it helped us understand more by enriching it both visually and through sound.." (Ali Ekber)

"Mmm, helped me understand the lesson better, and I also got to know the scientists in the texts better. ... I understood the lesson better, I could answer the questions better. Actually, I understood the text better when I listened and watched like this..." (Emine)

"*I learned that our imagination can work faster and produce more content in a digital event with visuals. This makes it easier for me to understand.* " (Enes)

"*It helps people understand more easily and comfortably as it comes to life in the human eye while it is being created as an image.*." (Tuana)

Digital content ensures permanence in learning

Based on the participants' statements, the effect of learning with digital content on retention is seen. Digital content combines visual and auditory elements, making the learning process more effective and permanent. Participants emphasize that visual elements play an important role in understanding and remembering. The integrated use of visual and auditory elements enriches students' learning processes and allows information to remain in long-term memory. Participant statements supporting these findings are given below;

"*If it weren't for the visual, I wouldn't be able to remember anything... Thanks to the visual, some things came to my mind and I was able to answer the questions there. When we process the lesson with digital content, the questions become easier and stay in our minds faster when we watch rather than read .*" (Hamza)

"*Watching was also more useful, when we watch it, it stays in our minds more, but when we listen to it, it stays in our minds more in pieces. When we listen to it, as I said, most things can slip our minds, that's why we have difficulty finding the main idea, we can have difficulty answering, but when we watch it, it stays in our minds more, I think it's better and more effective by seeing.*" (Nisa)

"*When we use more than one of our visual, auditory and even five senses, it becomes more memorable and enjoyable. As a result of these digital activities, I learned to reinforce what I learned, to listen and watch more carefully, and I observed that it is remembered better when I reinforce it with visuals, (pauses) not just audio. It became more memorable because it was remembered more visually.*." (Eylül)

"*I didn't remember anything while listening to it, but it became more memorable while watching it*." (Belinay)

"*It is explained better, I mean better, more than reading a book, I mean there are visuals, we can remember some things from the visuals*." (Ali Ekber)

"*Mmm, because it is a bit more visual with digital content, it is more memorable because it stays in my mind visually; I think both are better together because it supports it with audio, like not forgetting memories in events all the time.*." (Emine)

"*Well, when... when... when you listen to the sound, it's even more like this, uh, when it's illustrated, it's like this, or rather, you understand it even more, I mean when you see the picture, but without the picture, it's a bit like this, you can't understand it much, it just stays in your mind a little... but when you listen to the sound with the picture... I mean, with pictures, it stays in our minds even more like this. With animations, it can stay in my mind even more like this."* (Enes)

Digital content improves listening skills

Learning with digital content makes significant contributions to students in areas such as improving listening skills, increasing attention and perception, effective use of visual and auditory elements, self-assessment and content comprehension. In this way, students make more meaning from the information they listen to and learn more effectively. Audio-visual elements in digital content help students to understand information better and listen more effectively. Participant statements (n=8) supporting these findings are given below;

"*Digital content helped me to listen, to understand well; it helped us to understand more; it helped me to extract the main idea, the main feeling*." (Azra)

"*I think it had beneficial results, our attention skills improved and our hearing and auditory skills got better.*" (Nisa)

"*It made me listen and see better; it made me listen and see some people better*." (Ali Ekber)

"*It has improved my listening skills... the way I understand things has also improved*." (Enes)

"*I think it has an impact on listening skills; I compare myself, 'Can I listen to this?'*." (Tuana)

Digital content facilitates class participation

Dijital içerikler sayesinde öğrenciler, dersi daha iyi anladıklarını ve ders katılımlarında artış olduğunu belirtmişlerdir. Bu artış, öğrencilerin derslerde daha etkileşimli olmalarını ve sorulara daha etkin bir şekilde cevap vermelerini sağlamaktadır. Dijital içerikler, öğrencilerin ders materyallerini daha iyi anlamalarını sağlayarak, derslere daha aktif katılımlarına olan tanımaktadır. Bu bulguları destekleyen katılımcı ifadelerine (n=6) aşağıda yer verilmiştir;

"*I listened to my teacher better, made more eye contact... I saw an increase in my class participation*." (Tuana)

"*when I could answer the questions, I participated in the class more. Because, as I said, I could participate in the class better. Thus, my oral grades would also increase.*" (Sena)

"*I have seen an increase in understanding and participation in the lesson, I remember it better, I think it is better and more effective by seeing it.*" (Nisa)

"*I was able to answer your questions too.*." (Ali Ekber)

"*Yes, the classes became more enjoyable and everyone's participation increased*." (Hamza)

"*Digital content helped me to listen, to understand well; it enabled us to participate more; it helped me to extract the main idea, the main feeling*." (Emine)

Creates a desire to participate in new activities

Participants express their satisfaction with digital content activities and their positive attitudes towards such activities. Participant statements show that participants want to participate in new digital content and trainings. Student statements supporting these findings are given below;

"*Of course I will join because these are starting to seem very interesting to me.*" (Azra)

"*…if something new is done, I would like to participate.* " (Belinay)

"*Yes, I would like to participate... it helps me learn some things and makes me more interested*." (Emine)

"*My interest in such things may increase even more, I will participate.*." (Enes)

"*It is better to do new things and discover new things.*" (Hamza)

"*More self-confidence and courage goes into this, yes I would like it, yes*." (Tuana)

"*I would like to participate because I know that it is a more productive, more pleasant purpose for our learning.*" (Beren)

"*It's not like a dream, but why not design digital content according to emotions and ideas, for example, if you think of something, why not open it accordingly, so it's a good idea*." (Eylül)

Discussion, Conclusion and Recommendations

In this section, discussion, conclusions and recommendations are given in the light of the quantitative and qualitative data obtained as a result of the research.

In this study, which is a mixed method research, the results of quantitative and qualitative data and the results of the measurement tools used to obtain quantitative and qualitative data are examined under separate headings.

Results and Discussion of Quantitative Data

Statistical analyses were conducted to determine whether there was a significant difference between the control and experimental group listening skills scale pre and post-test scores and between the control group pre and post-test scores and the experimental group pre and post-test scores.

Conclusion and discussion on the first sub-problem

Although there was a significant difference between the control group and the experimental group in the first sub-problem related to whether there was a significant difference between the scores of the listening skill scale in the control group and the experimental group in the pre-application, the analysis led us to the conclusion that this difference was not meaningful. Accordingly, we can say that the students in the experimental and control groups were at a similar level in terms of listening skills at the beginning. These results can be accepted as an indication that the data emerging in the experimental and control groups at the end of the application were not caused by a negative effect arising from student levels.

Conclusion and discussion on the second sub-problem

The results related to the second sub-problem, which examined the difference between the control group and the experimental group listening skill scale scores in the post-application, showed that there was a difference between the two groups and this difference was meaningful. According to these results, digital content applications to the experimental group students contributed positively to their listening skills. Compared to the control group where a classical listening and listening activity was applied, a significant increase in the development of listening skills was found in the experimental group where listening and listening activities enriched with digital content were applied. This situation shows that although classical applications contributed to the development of students' listening skills, they did not have as significant an effect as digital content applications, and that different applications such as applications supported by digital elements should be included for the development of the skill. The difference between the two groups, which were found to be at the same level at the beginning, shows that new methods and techniques should be employed, that students have different expectations in learning environments, and that old approaches do not contribute to new generation students at the desired level.

Conclusion and discussion on the third sub-problem

The application related to the third sub-problem shows that there is a difference between the pre- and post-application listening skill scores of the control group, and the analysis shows that this difference is meaningful. This result indicates that the classical listening practices also improved the students' listening skills. The determining factor here is the strength of the increase in skill development. The power of effect analysis of the data shows that there is a moderate effect. This result, although the method of the training is important, is a valuable data in terms of showing that students' skills improve to a certain extent under all circumstances when it comes to training. In addition, the analysis shows that the students' skill levels increased in proportion to their initial skill levels, and that the students who scored high in the pre-application also scored high in the post-application.

Conclusion and discussion on the fourth sub-problem

The results of the fourth sub-problem, which examined the difference between the experimental group's pre- and post-application listening skills scores, indicate that there is a meaningful difference between the experimental group's pre- and post-application listening skills scores. The results of the application show that the applications significantly increased the listening skills of the students. In addition, the power of effect analyses are also important in terms of showing that this increase in listening skills has a very high power of effect. Besides, the skill levels of the students in the pre-application were maintained in the post-application and the increases were parallel in this respect.

All these results show that listening practices, which have been applied from past to present, create an effect on the student for the development of the skill and improve the student's listening skills. However, listening practices enriched with digital content led to a high level of development in contrast to previous methods. These results obtained are an indication that formal or informal learning and teaching processes have to adapt to the opportunities offered by digital technology (Yazar, 2019) due to the impact of digital life on all learning tools in this century, and that practices suitable for the requirements of the age should be substituted rather than classical methods in order to develop skills at the desired level. In the studies, it is stated that smart boards, which offer a media environment, contribute positively to listening education with new content, and even just combining visual and auditory elements (Tanrıkulu, 2017) is seen as a positive development for students' listening skills. In addition, in the studies examined, it was also determined that multimedia applications in the poetry genre were effective in improving students' listening comprehension skills for the text (Dedebali, 2014), and digital content elements such as video contributed positively to students' language learning, students' listening skills and improved their language skills (Woottipong, 2014). In a simpler approach, Mayer & Moreno (2002) stated that words and pictures are better than words alone to support students' comprehension and emphasized the importance of engaging multiple senses. In a study on the effectiveness of animations in the context of digital content (M & Tyagi, 2018), it was reported that the use of animation improves academic performance at the primary level, even in developing countries; animation is a unique combination of auditory and visual elements in the transmission of messages, and education through multiple channels makes the communication process effective even for students from different socio-economic backgrounds. In a study by Woottipong (2014), which examined the effect of using video materials, it was concluded that listening instruction using authentic video material improved students' listening comprehension skills due to the combination of visual images and sound that stimulated students' perceptions.

Conclusion and Discussion on Qualitative Data

Conclusion and Discussion on the Findings Obtained From the Interviews

Digital content increases focus and interest

Developments in technology have created some changes in communication methods and communication environments. Education also needs to keep up with this change and update itself. In light of the findings, it is concluded that digital content, which includes visual and auditory elements, increases students' interest in the lesson and helps them focus, compared to the limited interaction in traditional methods. Making environments prepared by using educational technology more sensory environments increases student motivation (Akkoyunlu & Yılmaz, 2005). In his study on early reading and writing skills, Soyuçok and Kartal (2017) also mentioned that motivation and desire will increase in students who are introduced to the right software and digital resources, but designs that do not meet the needs of learners will affect the student in the opposite direction. Öztürk also concluded in his study in 2019 that interest in the lesson increases with digital content. Hennessy et al., (2007) stated that the motivating effect on the learner is easily observed when realistic applications are used. When the literature is examined, it is seen that the use of technological elements as course materials increases not only the students but also the motivation of teachers and teacher candidates. In this direction, Gaffney (2010) mentioned in his study the positive effect of teachers who have digital usage competence in incorporating digital curriculum resources into their own courses on students and teachers. Tekinarslan et al. (2015), who conducted research on teacher candidates, concluded that digital content has a positive effect on the contribution to learning and interest-motivation sub-dimensions. In addition, there are many studies in the literature indicating that digital use increases interest and motivation (Alkan 2011, Baran 2010, Çaka 2018, Yıldırım 2018, Öztürk 2019).

It's easier to understand with digital content

Educational technology, which is the result of the integration of technology and education, provides students with great convenience in reaching the desired outcomes by providing interactive and active learning environments in the teaching of the four basic language skills. The findings of the study in question are in line with this and are similar to many studies in the literature. Baran (2010) concluded with his study in primary schools that abstract concepts are concretized and students' understanding becomes easier with the use of interactive smart boards. It is seen in Keçeci's (2018) study that digital content has a positive effect on topics that students find boring and have difficulty understanding. Another study that concluded that multimedia applications make children's understanding easier belongs to Akın (2015). Ciğerci (2015), who measured children's listening skills with activities based on digital stories, revealed that this method created a significant difference in the ability to understand what they listened to. Similar to the study in question, Karasakaloğlu & Bulut (2012), who statistically demonstrated that listening texts should be supported with visual elements, compared traditional methods with digital methods and reached the positive effect of digital use on learning. Şahin (2015) conducted a similar study on short films and reached data supporting the results of the research. Sejdiu (2017) also thinks that multimedia appealing to both the eye and the ear has a positive effect on listening-based learning and facilitates comprehension. In their study on the listening skills of 6th grade students, Dedebali & Saracaloğlu (2017) revealed that the listening comprehension score of the experimental group created a significant difference in digital use. When the literature is examined, it is seen that there are many studies supporting the result of the study (Arono 2014, Safranj 2015).

Digital content ensures permanence in learning

Interface applications developed with digital content increase students' interest and motivation in the lesson and facilitate the permanence of the skill. The results of the study indicate that when digital content is used in educational environments for its intended purpose, the focus on the lesson will increase, learning will be enriched and permanence will increase (Alkan, 2011). In the study investigating the effect of digital resources on language learning of prospective teachers, Kartal (2010) also reached the conclusion that learning is more effective and permanent. Akın (2015) tried to determine the permanence of students in listening comprehension and reached the conclusion that teaching with multimedia applications increases permanence. Şahin (2015) also stated that visual and auditory elements provide permanence, supporting the findings of the study. In Woottipong's (2014) study evaluating listening skills through video, it is seen that students use the information they acquire for a long time. Tsou et al., (2006) established a website where multimedia-supported stories were told and examined the effect of multimedia-supported videos on recall and concluded that it significantly facilitated retention. The study by Debebali & Saracaloğlu (2017) shows that digital content has a positive effect on retention as well as on listening comprehension in the experimental group. When the literature is examined, it is possible to see results supporting the research in question in similar studies conducted in different disciplines and in the same field (Yılmaz & Özgür 2012, Kert & Tekdal 2004, Öksüz & Ak 2009).

Digital content improves listening skills

Visual and auditory elements in digital content help to understand information better and listen more effectively. It is seen that listening, especially among the four basic language skills, is ignored because it is more abstract than other skills and is considered an innate skill like speaking (Çiftçi 2001). It is necessary to try different ways to reach the gains of listening skills and develop this skill in students. Because studies show that an individual spends 42% of the time he/she is with people listening (Tuncer, 2008). Since listening is a communication element that is significantly affected by psychological and social factors, many factors such as the visuality of the message source, how the communication tool is used, and the purpose for which it is listened to can change the quality of listening (Çiftçi 2001). At this point, the study reveals the positive effect of digital content on this skill. In line with the findings of the study, teachers in Karoğlu's (2015) study concluded that digital storytelling is beneficial for students' language development. In the study conducted by Gümüş (2019), it was concluded that student groups who were applied to listening texts with audio and visual stimuli were more successful. Again, when the data of this study are examined, it is seen that audio and visual supported materials directly contribute to listening skills and indirectly to the development of other language skills.

When the literature is examined, there are also studies that reach the opposite conclusions. Çiftçi et al. (2013) stated that digital content has many benefits for students, but it will have a negative effect on students' reading, writing, listening and speaking skills..

Digital content facilitates class participation

Students who need to answer text-based questions after listening activities can be more active in the lesson because they understand the text better with digital content. As interaction with the lesson increases, listening comprehension increases and enables them to answer questions effectively. Chen et al. (2011) integrated many gains into digital learning content in their studies and determined that students' participation in the lesson increased. Kılıç (2013) similarly mentions the positive effects of digital content on students' active participation in the lesson. Rudd et al. (2009) determined in their research that teachers believe that digital content provides more participation from learners. Öztürk (2019) also stated in his study that digital content increases participation, but criticizes the point that it directs students to individual learning rather than collaborative learning.

Creates a desire to participate in new activities

The positive effect and satisfaction that digital content evokes in students increases their desire to participate in new digital content. Students who see that they understand more easily and that their interest and motivation towards the course increase, request different activities in this direction. When we look at new generation approaches, we see that methods that support the student's individual learning process, stimulate the student's desire to learn, and appeal to more sensory organs are more effective. Digital content positively motivates students towards new activities on digital platforms as it contains the features that such approaches are based on.

Conclusion and Recommendations

This section includes the results and recommendations of the research.

Recommendations

The results of this study, which measured the effect of digital content on listening skills in secondary school Turkish teaching, are as follows:

• There is no significant difference between the pre-test scores of the students in the experimental and control groups on the listening skill scale. This result shows that the students in both groups were at a similar level in terms of listening skills before the application.

• There was a significant difference in favor of the experimental group between the listening skill scale scores of the students in the experimental and control groups on the post-test application. Accordingly, the listening practices enriched with digital content positively affected the students' listening skill scores.

• There is a significant increase between the pre-test and post-test scores of the listening skill scale applied to the control group. Accordingly, the listening practices that were not innovative and were carried out with classical methods, although not very strong, positively improve the students' listening skills.

• A significant difference was found between the pre-application and post-application listening skill scale scores of the experimental group. This difference shows that the experimental process positively improved the listening skills of the students in the experimental group.

• As a result of the data obtained from the interviews, it was determined that digital content practices increased focus and interest.

• The data obtained from the interviews show that listening practices enriched with digital content facilitate comprehension.

• As a result of the data obtained from the interviews, it was seen that digital content applications in listening skills ensure permanence in learning.
• As a result of the interviews, the data obtained reveal that digital content applications improve listening skills.
• According to the results of the data obtained from the interviews, listening applications enriched with digital content facilitate participation in the lesson.
• As a result of the data obtained from the interviews, it was seen that digital content applications create a desire to participate in new activities.

Recommendations
Based on the results obtained from the research, recommendations for educators, institutions and researchers are as follows:

Recommendations for Educators
• Considering that listening is a skill that is the basis of learning and can be developed, it is suggested that different listening applications (news and weather bulletins, announcements, directions, advertisements, etc.) should be used for this development.
• Since presenting listening texts to students only in the form of an audio file has a limited effect on the development of the skill, the use of listening content enriched with visual elements can be recommended.
• Since the current listening practices are far from attracting the interest of today's students, the use of listening practices enriched with digital elements is recommended.
• Teachers can be recommended to do different listening activities without depending on the textbook.
• In the textbooks, listening skill acquisitions are included only through listening texts. As such, listening skill is isolated. Since both listening and other language skills complement each other, it is recommended that language skills be given to students in a mixed manner.

Recommendations for Institutions
• Since developing digital content and integrating it into listening practices may not be the same challenge for every teacher, it is suggested that digital listening content should be provided ready-made with the textbook.
• In-service trainings can be organized to improve in-service teachers' perceptions of listening skills and their competencies in teaching listening skills.
• Considering the existing number of listening skill acquisitions, it can be suggested to increase the number of listening acquisitions for the development of the skill and, in parallel, to increase the number of listening texts and activities in the textbook.
• Considering that digitalized listening activities attract students' attention and they participate more actively in the lesson with the applications made on the smart board, it is recommended that the activities should also be transferred to digital.
• Listening texts are difficult for students to perceive. The fact that the words in the texts consist of words that students have not encountered before will lead to interruption of listening. In this respect, listening texts should be selected from current texts as much as possible and texts in which the words belonging to today's Turkish should be used.
• Listening activities that students can access on EBA should be included.

Recommendations for Researchers
• Since the research covers students in the 7th grade level of secondary school, it is recommended that further research be conducted with students in other age groups and grade levels.
• This research was conducted in Elazığ province. Studies covering different provinces can be conducted.
• In the literature, studies investigating the effect of digital content on listening skills are very limited. For this reason, different studies can be conducted to measure the effect of digital content on listening skills.

Author (s) Contribution Rate
Authors contributed equally.

Conflicts of Interest
There are not any potential conflicts of interest.

Ethical Approval
Ethical permission (Date: 04.01.2021-Number No: 14) was obtained from the Fırat Üniversity Social and Human Sciences Research Ethics Committee for this research.

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