

Developing Materials for EFL University Students' Listening Comprehension Using Podcast

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Abstrak

Tujuan dari penelitian ini adalah untuk mengembangkan lembar kerja mendengarkan mahasiswa yang belajar bahasa Inggris sebagai bahasa asing yang ideal untuk mendukung peningkatan pemahaman mendengarkan mereka menggunakan Podcast sebagai sumber audionya. Ini adalah studi penelitian desain pendidikan yang melibatkan siklus berulang analisis dan eksplorasi; desain dan pembangunan; serta evaluasi dan refleksi. Untuk melakukan penelitian, peneliti harus menganalisis dan menggali masalah nyata yang dihadapi oleh praktisi pendidikan atau siswa. Peneliti menggunakan kuesioner terbuka sebagai instrumen untuk menganalisis masalah. Peneliti menemukan bahwa mahasiswa bahasa Inggris menghadapi masalah yang berkaitan dengan keterampilan pemahaman mendengarkan mereka. Setelah itu, tahap desain dan konstruksi dilakukan untuk membangun sebuah intervensi sebagai solusi dari masalah yang sebenarnya. Peneliti merancang lembar kerja pemahaman mendengarkan dengan menggunakan media podcast atau sumber audio sebagai intervensi yang dirancang berdasarkan kebutuhan siswa yang dihadapi pada tahap analisis dan eksplorasi. Kemudian lembar kerja yang dirancang melalui beberapa proses evaluasi dan proses revisi pada tahap evaluasi dan refleksi. Setelah evaluasi proses, produk atau intervensi melalui pengujian empiris untuk menguji nilai praktisnya. Hasilnya mencerminkan bahwa lembar kerja yang dirancang sangat ideal untuk mendukung peningkatan keterampilan mendengarkan pemahaman mahasiswa bahasa Inggris.

Kata Kunci: Pemahaman Mendengarkan, Lembar Kerja, Podcast, Penelitian Desain Pendidikan.

Abstract

This research is aimed to develop an ideal EFL university students' listening worksheet to support the enhancement of their listening comprehension using Podcast as the audio source. This was an educational design research study involving the iterative cycle of analysis and exploration; design and construction; and also, evaluation and reflection. To conduct the study, the researcher had to analyze and explore the real problem which was encountered by the educational practitioners or students. The researcher used open-ended questionnaire as the instrument to analyze the problem. The researcher found that the EFL university had faced the problem dealing with their listening comprehension skill. After that, the design and construction phase were done to construct an intervention as the solution to the real problem. The researcher designed a listening comprehension worksheet using podcast as the media or the audio source as the intervention which was designed based on the students' needs encountered on analysis and exploration phase. Then, the designed worksheet was through some process of evaluation and revision processes in evaluation and reflection phase. After the evaluation of the processes, the product or intervention was through the empirical testing to test its practical value. The result reflects that the designed worksheet is ideal to support the enhancement of EFL university students' listening comprehension skill.

Keywords: Listening Comprehension, Worksheet, Podcast, Educational Designed Research.

INTRODUCTION

Listening is a crucial skill in language acquisition and communicative purposes due to innate human acquires language from hearing others and it serves the language learners input for their language insight (Ahmadi, Seyedeh, 2016; Khuziakmetov & Porchesku, 2016; Masalimova et al., 2016; Nunan, 2001; Syahabuddin & Rizqa, 2021). In language acquisition, people or language learners receive the listening input and then they process the input by connecting information with their current

insight that they have in order to form a meaning (Syahabuddin & Rizqa, 2021).

Furthermore, listening skill is significant for the enhancement of other skills in which listening becomes the first step for language learners to get exposures to the target language (Ahmad Mousavi & Iravani, 2012). As Nunan (2001) and Sadiku (2015) had affirmed that listening skill may perform simultaneously with speaking skill in which having good proficiency in listening means well in speaking proficiency. Gilakjani & Ahmadi (2011) and Volkova (2015) claimed that the contemporary advancement of English listening is acclimatized on the

communicative competence. Thus, to reach the communicative competence in listening, the language learners should acquire the comprehensible input (Ahmadi, Seyede, 2016; Nunan, 2001). The students or language learners may get the comprehensible input by connecting what they have listened and then comprehending the meaning to the passage or text of the listening practice. This process of understanding the meaning of listening is called as listening comprehension skill (Syahabuddin & Rizqa, 2021)

According to Gilakjani & Ahmadi (2011), listening comprehension is a process of listeners in forming a meaning by utilizing the hints from their current knowledge and contextual information which is done actively and consciously. Khuziakhmetov & Porchesku (2016), Masalimova et al., (2016), and Namaziandost et al. (2019) claimed that mastering listening comprehension is innate and significant step to acquire English as a foreign language. Hasan (2000) added, "Listening comprehension delivers the right conditions for language achievement and development of other language skills". Moreover, Ahmadi & Seyede (2016) said that enhancement of listening comprehension skill may assist the students or language learners to get comprehensible input and succeed in learning language. Masalimova et al. (2016) asserted that teaching and learning listening comprehension is very necessary in advancing foreign language communicative competence, such as linguistics competence, speech competence, cultural competence, cognitive and educational competence, socio-cultural competence, adaptive competence, and discourse competence.

Despite of the importance of listening comprehension skill, teaching listening in EFL class is often neglected than other skills, for instance speaking, reading, and writing (Ahmadi, Seyede, 2016; Gilakjani & Ahmadi, 2011; Ahmad Mousavi & Iravani, 2012). Nunan (2001) described listening skill as a Cinderella skill in which it is often underestimate by its older sister, speaking skill. Other than that, the language learners or students might find out that many course books or curricula in university is more emphasizing the grammar, vocabulary, and reading than in listening comprehension skill. So, the teacher follows the guidance in course book (Abbas Pourhossein Gilakjani & Ahmadi, 2011).

Moreover, another idea is explained by Ahmadi & Seyede (2016) and Syahabuddin & Rizqa (2021) in which they stated that mastering listening comprehension skill is difficult for the EFL students which it needs more efforts from the teacher in making efficient listening exercises. The reason of listening comprehension skill is difficult for the EFL students because it is also known if listening comprehension includes complex task, for instance, identifying the sound, intonation, stress of words,

and catching the meaning of what they have listen to (Namaziandost et al., 2019). Thus, it is necessary to define the right materials such as developing listening materials and the right learning media to facilitate the EFL university students in the process of teaching-learning listening comprehension.

In developing material for language learning, Tomlinson (2012) defined it as any attempt of the teachers or lecturers to assist the teaching-learning process by using or developing any sorts of materials, such as videos, course books, flash cards, worksheets, or any other printed or unprinted materials for supporting the language teaching-learning process. Furthermore, he explained that material development encompasses all process that is done by the implementers in producing or/and using language learning materials, including the process of material design, adaptation, production, evaluation, research, and exploitation. In developing materials for listening comprehension skill, as it has been mentioned before, the materials should be proposed to the communicative competence of EFL university students (Gilakjani & Ahmadi, 2011; Masalimova et al., 2016; Volkova, 2015). Therefore, to develop communicative competence in listening comprehension skill materials, the materials have to be aimed to foster their communicative aspect (Ahmadi & Seyede, 2016). According to Ahmad Mousavi & Iravani, (2012), in overcoming this situation, the implementers should develop authentic materials which is more alike to native-listening materials.

Authentic material means written or oral materials which are utilized in daily life of the foreign native speakers (Rogers & Medley, 1988). However, the fact that the EFL university students may not be always presented a native speaker in their teaching learning process must be considered. This statement was also strengthened by the preliminary study that had done by the researcher. It found that most of 15 EFL students from State University of Surabaya need to hear an authentic audio from the English spoken native speakers to train their listening comprehension. Fortunately, the enhancement of technology can help any problem, including this language teaching and learning problem. Eisenlauer (2020) and Guillén-qGámez et al. (2019) claimed that the advancement of technology may help EFL university students in learning and acquiring English. It is also said that technology supports in increasing students' four skills, including listening skill (Kalanzadeh et al., 2014). Therefore, the researcher will use kinds of technology to support listening comprehension in this study.

As the technologies grow widely these days, Podcast is seen as an appropriate media technology by the researcher for the EFL university students in acquiring listening comprehension for the academic context due to there are

some previous researches, such as from Rahman et al. (2018), Syahabuddin & Rizqa (2021), and Yoestara & Putri (2019) which have investigated that Podcast is an effective media platform in teaching both listening and listening comprehension. According to Lowman (2014), podcast is an audio file in which it has similar characteristic to radio broadcasting. Drew (2017) clarified that podcast is an audio recording file which can be shared to the customers directly through some media devices, such as Smartphone, computers or laptops, and portable music players. Drew (2017) also said that in education, podcast might be used as best design technology in improving the students' learning experiences. In teaching-learning English, podcast is considered to be effective media due to it has authentic materials in which it may bring the students to get closer to the target language and easy to modify for the teaching-learning process (Rahman et al., 2018). Besides, podcast is easily downloaded and shared with variety of interesting topics. In line with the discussion above, some recent studies related to podcast and English language teaching and learning such as from Rahman et al. (2018), Syahabuddin & Rizqa (2021), and Yoestara & Putri (2019) have investigated the use of podcast in listening comprehension skill, Gilakjani & Ahmadi (2011) have investigated the factors that affecting EFL students listening comprehension, Lacina (2008) have investigated learning English with iPods, teaching English using podcast to support EFL students' motivation (König, 2021; Moss et al., 2015). However, there has not been research which particularly discuss in developing or designing a material for EFL university students' listening comprehension using podcast as the media or the source the listening audio.

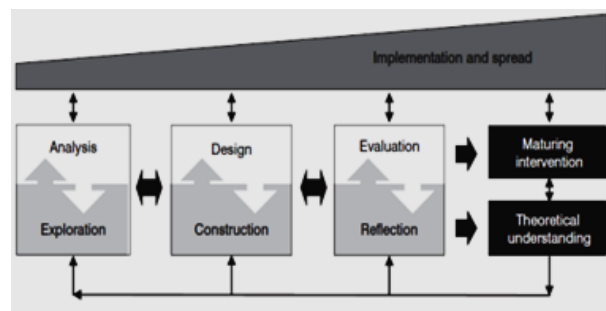
Therefore, to fill the gap between the prior studies and the students' need of authentic listening material, the researcher had been formulated a research question: How is an ideal worksheet for EFL university students' listening comprehension using podcast as the media?

METHOD

By reviewing the research question, the researcher chose Educational Design Research for the research design in this study due to the researcher conducted research in developing material for EFL university students' listening comprehension using podcast. McKenney and Reeves (2018) defined educational design research as research methodology which focuses in developing the usable knowledge in which it builds during the research involving the participants' insights. The usable knowledge results useable products such as for educational practice that is constructed in natural settings, for instance online learning environment, school classroom, EFL listening class, etc. Then, the products are shared to other researchers or

practitioners (e.g. teachers or lecturers) through presentations, conference, journal articles, or the spread of interventions to be used or to build certain understanding.

Figure 1. Educational Design Research (McKenney & Reeves, 2012)



There is a generic model or structure of design research in education which the researcher must follow in conducting the research. There are some shapes and arrows in each step or stages which those have their own meanings. For the squares, those represent the three main stages. The arrows between other elements show the iterative and flexible aspects of the process. It is iterative due to the outcomes of some elements in every stage feed into others over time. It is flexible due to the researcher can take any different pathways beside the general flow that has been demonstrated. The dual focus arrows on the rectangles of practice and theory which composed clearly respectively represent the scientific and practical outputs. The generic model demonstrates a single, integrated, research and design process, in which it offers the implications of being use-inspired. The trapezoid shows implementation and spread, indicating that the interaction with practice is present from the beginning, and that the capacity rises over time. The bidirectional arrows show that what occurs in practice impacts both ongoing main processes and ultimate outputs (thus contextually becomes responsive), and vice versa.

RESULTS AND DISCUSSION

Results

After the data had been collected and analyzed by the researcher, here the researcher presents and discusses the results.

There are three main stages or phases and two types of outputs in the generic model of educational design research. The first phase is analysis and exploration which is aimed to analyze and explore the real problem of the education. The second phase is design and construction where the researcher develops or designs the interventions as the solution to solve the problem. The third phase is evaluation and reflection in which the researcher evaluates and reflects the design frameworks or products to reach the

goal of the intervention. The last are the maturing intervention and theoretical understanding outputs of the research.

The Analysis and Exploration Phase

It has mentioned by McKenney and Reeves (2018) that in this phase the researcher starts to identify and diagnose the real problem in more open-ended way besides composing the literature review to get the relevancy of the study and strengthen the understanding of the context, problem, and also the relevant topic. Here, by collaborating with the practitioners of the education problem, which are the EFL university students from State University of Surabaya or UNESA especially the students in the third semester because they have fulfilled the criteria as the students who have taken the listening class, it built up the better understanding of the addressing problem, the target context, and fulfilled the need of the stakeholder to frame the intervention as the solution to the real problem. The researcher used open-ended questionnaire which was shared through Google Form as the instrument to get the data discussing the students' experiences and perceptions toward the listening class that they have attended, the material they used to use, and their desires of the listening material along with the media they wanted to apply in the listening class.

To sum up the results, the analysis and exploration phase have shown that the EFL university students who have attended the listening class asserted that a listening class is very important to improve their comprehension about English. However, the EFL university students stated that they were not so good in listening skill and needed to level up their skill. To increase their listening skill, a listening class which has proper listening material and media was necessarily to support the enhancement of their listening comprehension skill. The students suggested that the material or worksheet should be measurable with update interesting topic related to daily life and various kinds of listening activities so it would not be boring. Moreover, they recommended to use a media which has clear sound, interesting topic, and authentic sounds like English native speakers to elevate their listening comprehension.

The Design and Construction Phase

As the researcher had obtained the data from the open-ended questionnaire towards the EFL university students' problems and needs in listening class, the researcher started to design and construct the intervention as the solution of the problem. As McKenney and Reeves (2018) has stated that in design and construction phase the researcher took some ideas to design and construct an intervention as the solution by creating a conceptual model

with the rational, purposeful, and available knowledge, but the conceptual model was not been tested before. Here, the researcher endeavored to design or develop a product in form of a worksheet to support the enhancement of the EFL university students' listening comprehension skill. The design of the worksheet followed the results provided in the analysis and exploration phase and combined with some theoretical inputs which were relevant to address context of the problem.

Considering the results, the researcher designed a worksheet with Podcast as the media for listening. The researcher decided Podcast from the *Spotify* platform as the proper listening media because it represented the students' need for authentic English native speakers' sound. The researcher chose a podcast discussing a topic about "Healthy Lifestyle" from *polyglossa.com* on its 20th episode. The topic was chosen by the researcher based on its actuality related to daily issues, the importance or message for the students, and the attraction to the topic in which those aspects were needed in the analysis stage. Other than that, the speaker of the podcast spoke in natural way or unscripted with 24:35 minutes of duration. So, it emphasized the value of the authenticity of the podcast.

After deciding the podcast and the topic, the researcher started to design the worksheet. The worksheet was design considering the bottom-up and top-down processing skills. Lee (2022) explained that bottom-up process covers forming a linguistic meaning of a content of the discussion, while top-down process covers the effort of people using their current knowledge to build or support their understanding of the discussion. The worksheet that was designed by the researcher consisted of five exercises. The first exercise was matching the words with its definitions in which the words had relation with other exercises. This first exercise was implicated the bottom-up processing skill of the listening comprehension worksheet. Moreover, there were more four exercises. Those were the second exercise composed of five numbers of multiple choices based on the Podcast; the third was giving label of *True (T)* or *False (F)* for each of five statements based on the Podcast; the fourth exercise was giving brief answers for five questions based on the Podcast; and the last exercise was a self-reflection exercise in which the EFL university students should give some reflections about their healthy and unhealthy lifestyle treats of diet, exercise or workout, and mental health which they should fill the table given with examples of each categories. The second until the fourth exercises belonged to the top-down processing skill where those exercises trained the students to hone their existing insight to establish their comprehension of the discussion.

For the layout and the design of the worksheet, the researcher chose to add some pictures related to the topic

of the podcast. There were some animation pictures that depicted a healthy lifestyle. For the title, the researcher chose an animation of a family running together and the researcher made the picture little bit more transparent so that the title could be put on it. Then, the researcher wrote the objectives of the study in a rectangle shape. After that, there was an animation picture that was placed on the right top corner of the first page of the worksheet which inscribed "Healthy Lifestyle" in which it was written in a love shape. There were also three animation pictures that the researcher put as the background of the first, second, and third page and those pictures were made little bit more transparent.

As the worksheet was divided into three parts, which were before, while, and after listening, the researcher gave some instructions to do the exercises. Firstly, the researcher marked the different parts by bolding each part. Then, the researcher gave the imperative sentences of each exercise by giving "*italic*" style to emphasize what should the students do in the exercises. The researcher also gave the sign of minutes when the time of each exercise would be discussed in the podcast. Besides, the researcher used *Times New Roman* font with 12 of font size from the first until the third page. Lastly, the researcher did not forget to put the link of the podcast in the last part of the page.

The Evaluation and Reflection Phase

In this phase, the designed worksheet or the tentative intervention of the solution was going through some iterative cycles of evaluation and reflection processes. According to McKenney and Reeves (2018), in evaluation and reflection phase, the intervention that had been developed or designed was tested by empirical testing. Here, the researcher used the empirical testing to validate the designed worksheet or the intervention whether the exercises of the worksheet could support the students to enhance their listening comprehension or not by conducting an online listening test via Zoom Meeting. However, before the researcher tested the designed worksheet, the researcher had to do some validation towards the worksheet's design, objectives, audio selection, text selection, learning activities, task instruction, and the assessment using an evaluation rubric.

In this phase, the researcher did some activities to validate the intervention or designed worksheet to reach its goal. There were self-evaluation, the first students' validation, the second students' validation, and an online experimental listening test via Zoom meeting.

a. Self-evaluation

In the self-evaluation phase, the researcher rechecked the product that had been designed. The purpose was to revise

some mistakes in the worksheet related to the grammar errors, the instructions, the punctuations, capitalizations, misspelling, and the content of the worksheet. The researcher also checked if the worksheet's contents either resumed the whole discussion of the Podcast or not. This was done in purpose of building the engagement of the worksheet and the Podcast. So, if the EFL university students did well on the worksheet by answering the questions, it meant they got the point that being discussed in Podcast. It also implied that the worksheet has succeeded supporting the enhancement of the students' listening comprehension skill. After the designed worksheet being revised by the researcher, it was given to the EFL university students to be evaluated then validated.

b. The First EFL University Students' Evaluation or Validation Toward the Designed Worksheet

In this phase, the designed worksheet was evaluated by the students in terms of the worksheet's design, objectives, audio selection, text selection, learning activities, task instruction, and the assessment using an evaluation rubric. It was generally fine with those aspects. Almost all students commented that the objectives were relevant with the students' needs, those are possible to achieve the target abilities, and possible to be carried out. However, there was feedback from a student about the choice of words that was used in the objectives.

For the audio selection, the students gave positive feedback in applying the podcast as the audio because they thought that the audio is relevant with the objectives, the length of the audio is good, the audio is authentic, and it is neither too hard nor easy. For the text select, all the students agreed that the text selection is relevant with the objectives, the length is fine, it has a high authenticity, and the difficulty level is appropriate (not too hard or easy). Then, almost all students commented generally that the learning activities are fine. However, there was still feedback from a student about the relevancy of a learning activity with the learning objective. After that, for the task instruction, the students commented that the instruction has been varied, but there was some feedback toward its clarity and accuracy. The next after the task instruction was the assessment. All the students agreed that the assessment has fulfilled all the aspects, which are the relevancy, format, instruction, variation, and the reflective practice.

Although in most of the aspects such as objectives, audio selection, text selection, learning activities, task instruction, and assessment did not have many complains and those got some little feedback from the students, those were different with the design aspects. Complains were done mostly on the color and picture arrangement which

influenced the readability of the text. The students complained that the colors of the pictures are too bright or contrast with the title and text in which the researcher tend to place the picture as the background on the title and on all pages. So, it was hard to read. The students suggested that the pictures can be placed beside the text, on the bottom left, or on the bottom right of the text. If the researcher still wanted to place pictures as the background, they suggested that the researcher must less powering the pictures by lowing the opacity of the pictures. Besides the students complains about the design of the color and picture arrangement, there were some little feedbacks about the margin, paper size, and the font size.

After the students evaluated the designed worksheet or the prototype of the intervention, the researcher revised or redesign it based on the comments or the feedback that had been given by the students. The researcher revised almost all the aspects of the worksheet such as the design, objectives, learning activities, and task instruction. Those aspects were given little revision based on the students' feedback such as clarifying the section of each activity or exercise, not giving much "*italic*" mode instead just giving it to the imperative sentences showing how to do some exercises, and also removing or revising an objective.

However, the design aspect was the part that had undergone the most revisions or redesigns. The researcher substituted the animation pictures with non-animated pictures related to "healthy lifestyle" and using grey color as the main theme so that it would feel the sense of compactness. The researcher gave clear delimiter of the left margin on each page. The placement of the title had not been in the background of the picture of the cover again, instead it was placed in the middle which was between the picture of the cover and the objectives using dark grey color. Besides, the researcher still placed the pictures as the background of the text, but the transparency had been reduced until it reached 10 – 15 % transparency and it used non-animated pictures about healthy lifestyle. After that, for the aspect of objectives, the researcher corrected the last objective as it was "*Students are able to share their lifestyle*" into "*Students are able to reflect their healthy and unhealthy habits*" in which it occurred based on the student's feedback which stated that the last objective was not in line with what the students had to do in the last exercise. Moreover, the researcher removed the second objective that was "*Students are able to identify the information they are listening from the podcast*" due to the researcher thought that the third objective had been represented the value of the objective.

c. The Second EFL University Students' Evaluation or Validation Toward the Designed Worksheet

After the designed worksheet or the intervention had been revised or redesigned based on the EFL university students' feedback, the second evaluation was conducted to accomplish the target of the intervention. Here, the instrument of evaluation rubric for the worksheet was also used for the second time. The researcher shared the new design of the worksheet along with the evaluation rubric to the students online via *WhatsApp Group*. The evaluation was done toward the same aspects of design, objectives, audio selection, learning activities, task instruction, and assessment. The results of the second evaluation showed that almost all aspects had reached the satisfaction. For the design aspect, it had been good and fulfilled every part of the design aspect, but there was still little revision toward the picture on the cover and the color of the font could be little bit darker.

The learning objectives aspect was good. It was relevant to the students' needs, has a high enough possibility to achieve the target ability, and it was possible to be carried out. For the audio selection, the result was the same as the first evaluation. There was no problem with the audio selection. It had been relevant with the objectives, the length was fine, the audio was authentic, and the audio was not too hard or easy. The text selection was also the same as the previous evaluation. There was not should be changed from it. For the learning activities, those were just right and did not need to be revised while the tasks instructions were getting better. Furthermore, for the assessment was right and had no problem just like the previous one.

After the second evaluation had done, the researcher did the second revision or redesign toward the worksheet or the intervention. This process was a state of the validation toward the designed worksheet in which it was a statement that the designed worksheet was ready to be tested empirically to value its practicality. It was also a sign that the output of maturing intervention was almost complete as the solution to the educational problem that have been encountered by the EFL university students.

d. Online Listening Comprehension Test Via Zoom Meeting as the Empirical Testing to Evaluate the Practical Value of the Intervention or Designed Worksheet

After the designed worksheet along with the Podcast as the audio source had been validated through some evaluation processes using the evaluation rubric, an online listening comprehension test was held via Zoom meeting to evaluate the practical value of the intervention or designed worksheet by looking at the results of the students' achievements after doing the exercises of the designed worksheet. The researcher used the scoring rubric as an instrument to give the score to the students' worksheets

where they had done the exercises. The researcher also used the table of scores' categories as the instrument to indicate the achievement that the students had reached based on their scores. According to McKenney and Reeves (2018), the empirical testing is used to test the practical value of the design framework or manufactured intervention which is perceived as the solution of the real problem. Besides, it also asserted that the result of the empirical testing could be seen as a critical reflection of the intervention which has been combined with the empirical findings that had been applied in designing the framework of the intervention. Then, the reflection can be drawn to conclude the output of theoretical understanding of the intervention.

In this online listening comprehension test, there were 15 English Education students in the third semester from State University of Surabaya who involved in this test. The researcher took the English education students in the third semester because they had fulfilled the criteria as the EFL university students who had experienced in attending listening class. The designed worksheet was shared in form of soft files to the students. Before the test was begun, the researcher gave some instructions to the students. After that, the researcher played the Podcast while the students listening and answer the questions on the worksheet.

The result of the test indicated that the designed worksheet using Podcast as the media had proved its practical value by supporting the enhancement of the EFL university students' listening comprehension. It was proven by the students' achievements in obtaining good scores with the average score of 90. The result of the students' scores could be seen in the pictures below.

Figure 2. The Analysis of the Result of Students' Worksheets

The Analysis of the Result of Students' Worksheets		
The Scores of EFL University Students' Listening Comprehension Worksheet Using Podcast as the Media		
Number	Name	Score
1.	Bunga Basyaasya Pebsrikova	95
2.	Ferindah Heny Nurjayanti	95
3.	Salsabilla Fitrotun Nada	95
4.	Nirmala Dewi Shakti Aji	95
5.	Jihan Inayah	94
6.	Stefanny Florencia Elman	92
7.	Mochamad Farid	91
8.	Anataya Nurfitriah Tasyawfi	90
9.	Aulia Annisya Rachma	90
10.	Isfina Zamnuba Arifah	90
11.	Annisa Devi Hapsari	87
12.	Dyah Sitorismi P	87
13.	Ervina Fadjarachmanda	86
14.	Farahdiba Rahma Lutsita	81
15.	Emy Rosida	72
Mode		95
Median		90
Mean		89

Figure 3. Category of the Scores

Category of the Scores	
Category of the Alphabets	Range of the scores
A	100 – 95
A ⁺	94 – 89
B ⁺	88 – 84
B	83 – 79
B ⁻	78 – 74
C ⁺	73 – 69
C	68 – 64
C ⁻	63 – 59
D	58 – 54
E	53 – 0

*Minimum passing grade is "B"

As the reflection, from the data above, we might see that almost all the students obtained good scores for their listening comprehension worksheets. They earned the average category of "A" until "B" for their scores. Only one student got the lowest score of 72 scores, it was the category of "C⁺" with the minimum passing grade of "B⁻". From this, we may conclude that the designed worksheet has been ideal for the students. The students' achievements are also indicated that the worksheet that has been designed as the intervention using bottom-up and top-down processing skill strategy had been successfully in connecting the students' comprehension of the Podcast to the worksheet that they had done. Here, we may imply that the students understood the whole discussion comprehensively which was being discussed in the Podcast with the support of the worksheet.

The Maturing Intervention and the Theoretical Understanding Outputs

From the initial phase of analysis and exploration until the evaluation and reflection phase, the researcher has produced the maturing intervention and theoretical outputs from developing an ideal listening comprehension worksheet using podcast as the audio source for the EFL university students. The maturing intervention is in form of the EFL university students listening comprehension worksheet using podcast in which its practical value had been tested. The maturing intervention or the product that has been produced can already be used by the educational practitioners in which they are from the same field to be practiced in their listening class or it can inspire other material developers to develop or design a listening worksheet. Besides the maturing intervention output, the researcher also has obtained a theoretical understanding output. The theoretical output was acquired from the conclusion of the empirical testing result which was considered as the reflection process. It concluded that

applying the bottom-up and top-down processing skill strategies which was combined with the podcast as the authentic audio source to construct the learning activities or exercises are effective to support the enhancement of EFL university students' listening comprehension competence. This theoretical understanding output is beneficial for researchers who want to conduct a study in the same field.

Discussion

Based on the result of the online listening comprehension test, it can be concluded that the designed worksheet or the intervention using Podcast as the media could support the enhancement of EFL university students' listening comprehension skill. This result was also aligned with some previous studies. Abdulrahman et al. (2018) and Fardavoodi et al. (2020) had observed that the utilization on the media of podcast that had been used has substantial influence on the EFL students' listening comprehension. They found that after the students had the listening test using podcast and it reinforced the students' achievements.

There were some arguments of both researchers which showed that the podcast could cause the reinforcement of the students' achievements. At first, researchers agreed that the utilization of podcast may boost the students' high motivation in learning English as a foreign language. The statement was also supported by some reasons mentioned in the Abdulrahman et al. (2018) and Fardavoodi et al. (2020) researches. The first reason was that the podcast which present varied features might encourage the students' creativity to enlarge their listening capability. The creativity was formed by the students' imaginary process to figure the pictures of the person and the discussion they were listening into their heads which may lead them to their enrichment of vocabulary and also study new things where it was difficult to find in conventional learning situation (Abdulrahman et al., 2018). Besides, Fardavoodi et al. (2020) considered the reason of the high motivation came up due to podcast which was perceived as a complimentary tool to provide favored educational resources could be enjoyable for the students.

Second, podcast brought the effectiveness in assisting the students listening comprehension class. The effectiveness of the podcast was divided into the efficiency of time and easiness of its portability (Abdulrahman et al., 2018; Fardavoodi et al., 2020). The teachers could give the learning materials with the podcast audio file that had been chosen to the students inside the classroom in the time of the learning process. Meanwhile, the teachers also could arrange an asynchronous or synchronous online class and prepare the learning materials and the audio file of the podcast that students should download from everywhere they were.

Abdulrahman et al. (2018) and Fardavoodi et al. (2020) also noted that some aspects should be remarked. They underlined that using podcast as a media for EFL students' listening comprehension required teachers or educators to be recognizable with the technology so that they could turn up with proper idea and strategy utilizing podcast with good preparation to acquire the satisfactory result. Indeed, the teachers should decide the proper lesson topic with the podcast audio file, proper instructions, the possibility of technology provide for the class, time management, and the teachers' frequency using the technology.

Beside the utilization of the podcast as a media or authentic audio source for listening comprehension, the designed worksheet which used the bottom-up processing and top-down processing strategies also has essential influence on the succeed of EFL students' listening comprehension. These processing strategies were combined by the researcher in the designed worksheet. It turned out with satisfactory result. It could be seen by the quantitative data in form of students' achievements after they had an online listening comprehension test with the average of 89 from 100 listening score. Besides, the effectiveness of applying the processing strategies on the designed worksheet had been explained by Abbas Pourhosein Gilakjani and Sabouri (2016) in their research.

Abbas Pourhosein Gilakjani and Sabouri (2016) explained that the bottom-up and top-down processing skill strategies are the results of schemata information processing. Schemata are described as guiding structures in comprehension process. Moreover, schema implies as a data formation of common concepts or ideas stored in memory (Abbas Pourhosein Gilakjani & Ahmadi, 2011). The students or listeners utilize the schema to comprehend the text by utilizing the abstract textual structure in which the listeners might process the new input by utilizing the situational and linguistic clues to extract schemata. If there is a conformity between the new input or information and the schema, then the students will comprehend text. Abbas Pourhosein Gilakjani and Sabouri (2016) explained further that the activation of bottom-up process is built by the new input that passes into the system over schemata. This process is related to the students' or listeners linguistic knowledge. For top-down process, it utilizes the background knowledge or prior knowledge for comprehending the context of a message. If the new input is unknown for the listener, the listener just can use the linguistic knowledge due to the schemata are not extracted. Hence, it is risky to only use top-down processing for the students or listeners, but it is better to combine both bottom-up and top-down processing which is named as interactive process (Abbas Pourhosein Gilakjani & Sabouri, 2016).

CONCLUSION

The findings of developing material (worksheet) for EFL university students' listening comprehension using podcast acknowledged that the process of designing an intervention as the solution cannot occur once. However, it is necessary a real iterative process of redesign to reach the target. It is very significant in involving the education practitioners in educational design research in every phase from the analysis and exploration phase until the evaluation and reflection phase. The researcher involved the educational practitioner in all phases which are analyzing and exploring the education problem, designing the intervention as the solution, and some processes of evaluating and reflecting the intervention.

The empirical testing is done to test the practical value of the intervention or the product as the solution to the real problem. In this case, the researcher had done an online listening comprehension test. From the test, it can be concluded that the success of developing a listening comprehension worksheet for the EFL university students does not only depend on the design of the framework, but also it depends on the media or audio that the researcher used and the strategies that had been applied to construct the learning activities.

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