

**HALAMAN PENGESAHAN THESIS**  
**THE EFFECT OF DUOLINGO APPLICATION TOWARD STUDENTS**  
**LISTENING ACHIEVEMENT OF SEVENTH GRADE STUDENTS**  
**AT SMP NEGERI 1 PASARIBUTOBING**

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TANGGAL UJIAN : 19 APRIL 2024

Dinyatakan telah memenuhi syarat dengan hasil A dan dengan ini pula

yang bersangkutan memperoleh gelar

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# CHAPTER ONE

## INTRODUCTION

### 1.1. The Background of Study

In the world, learning English is increasingly needed by people in Indonesia the world of work and the era of globalization, due to the introduction and mastery of science and technology are usually written in English and delivered in English. We can see that from education, work, to daily life, English is increasingly being used. There are many advantages if we ask for English language skills. Currently in Indonesia it is also mandatory to include an English language proficiency certificate. The aim is to prove that language skills are mastered because learning or communication processes in the workplace often involve language.

According to Nyoman Tri Darma Putra et al (2020:2) argues make the case that teaching and studying languages, like English, is made possible by the Internet, a global communication tool. There are a variety of locations and web pages available on the internet that can be used for research. Web pages are arranged based on domains (vocabulary, grammar, phonetics), as well as the language skills (speaking, listening, reading, and writing) that are taught. The researcher concluded that now we need to take advantage of global media such as the provision of accessible internet. because with advances in technology it is becoming easier for us to do our work, therefore we have to be smart in choosing good media for us.

According to Flowerdew and Miller (2005:35). Listening is a skill that deserves equal treatment with the others, both in the classroom and in the preparation of language teachers. Listening should have an important place in teaching learning English because it is impossible for the people to speak without listening first.

According to Feyten in Vasiljevic (2010:41) Listening is used more than 45% in Communication. According to Rost (1994: 51) listening is vital in the language classroom because it provides input for the learner. Without understanding input at the right level, any learning simply cannot begin. It means listening is very important in learning English.

However, listening skill for comprehension is not easy as well. Zheng (2009:21) mentioned ten problems that are very common for EFL students such as: speaking rate distraction, unable to recognize words they knew, new vocabulary, missing subsequent input, nervousness, sentence complexity, background knowledge, anxiety and frustration, and unfamiliar pronunciation

**Table 1.1 Student's Score Preliminary Observation at  
SMP Negeri 1 Pasaributobing**

<b>No</b>	<b>Students Initial</b>	<b>Total of correct Answer</b>	<b>Score</b>
1	A	6	24
2	AL	10	40
3	AG	13	52
4	CS	6	24
5	F	15	60
6	GS	10	40
7	HF	15	60
8	R	9	36
9	SS	13	52
10	ST	17	68
11	HM	10	40
12	JS	15	60
13	KS	13	52
14	MM	6	24

Total Score = 656

Total Data = 14

Mean = 43.73

Based on the data above, it shows that the majority of class VII students at SMP Negeri 1 Pasaributobing experiences difficulty in learning to listen in his understanding. The factors are several problems which the author has mentioned above. Lack of facilities to practice their listening skills and uninteresting way of teaching listening skills is a common problem students face when using them more than 45% in communication. This proves how important listening skills are in everyday life communication, especially in learning English. There are several applications that can be used by teachers, namely the Duolingo, Ling, and other applications while learning to listen. Specifically now digital learning is needed because students study from home to curb it spread of viruses. To overcome this, teachers must replace conventional teaching styles bring meaningful change in this time of crisis. In the teaching and learning process, Teachers need media to convey material easily.

Duolingo is a free language-learning platform, which can be accessed through the web ([duolingo.com](https://www.duolingo.com)) or as an application on mobile devices. It is a very popular program for language learning, with around 300 million learners and still counting. Husnur et al. (2020: 31) Duolingo has some features that resemble a game, which will engage learners in learning the language. First, it has a skill tree that consists of some lessons that users can go advance through and unlock the next skill. Each lesson contains 10 to 15 exercises with various types of exercise. Another feature of Duolingo is the leader board, which is activated if the user adds a friend to his

list. Duolingo has a store, which the currency is called Lingot, which users can use to purchase additional skills, bonuses such as freeze or customize the appearances of Duolingo, the owl mascot. Duolingo also has a feature on the web called Duolingo for School where the teacher can create virtual classrooms to see the Duolingo's curriculum content, to monitor students' progress and to set assignments for in class activity or homework (Stringer,2016 :66 \. In this study, Duolingo is seen as an application with a gamification feature for learning a language.

The Duolingo app employs an effective learning strategy by integrating a highly motivating system. It incorporates game-like elements to provide incentives, resembling a computer game where learners progress through distinct levels of the language tree. Each level mastery unlocks the subsequent lesson, and users engage in diverse exercises, including multiple choice, writing, and speaking via the microphone. Duolingo emphasizes drills and repetitive practice, embracing the "play and learn" concept to make language acquisition comfortable and enjoyable for users across various demographics, offering a momentary escape from daily routines.

Researcher choose the Duolingo application because it was proven by several researchers who succeeded in solving problems using Duolingo a new application with junior high school students. The researcher aimed to improve the purpose of writing students' mastery by using the Duolingo application and observing it effectiveness findings from this study indicate a notable impact of the Duolingo application on enhancing students' knowledge proficiency. The application is contextual. This approach turns students more active and enthusiastic, and students do it do not cause boredom as they do in conventional teaching methods. Teachers

can take students' attention is better and enriches their learning with alternative media by using this application.

Based on the explanation above, the author was very interested in conducting this research because the Researcher that currently, most students use this application as a medium to learn more English, so the author decided to choose this research entitled “The Effect of Duolingo application Into Students Listening Achievement Of Seventh Grade at SMP Negeri 1 Pasaributobing

### **1.2. The Problem of the Study**

Based on the background above, the Researcher can solve the research problem as follows: “Does the Duolingo application affect listening achievement of seventh grade students at SMP Negeri 1 Pasaributobing?”

### **1.3. The Objective of Study**

The objectives of this research is to find out whether the Duolingo application affect listening achievement of Seventh grade students at SMP Negeri 1 Pasaributobing.

### **1.4. The Scope of The Study**

There are several types of applications for Listening, namely Goretta Stone, Duolingo, and Lingq. In this research, researcher focuses on the Duolingo application and find out the function of the Duolingo application to improve Listening achievement

### **1.5. The Significant of the Study**

By carrying out this research, the Researcher is expecte to be able make a contribution to teachers, students, schools and other researchers. The findings in this research are expected to be theoretically and practically significant.

### **1.5.1. Theoretically**

The Researcher can provide theoretical information to prospective researchers about the effect of the Duolingo application on students' listening skills at the high school.

### **1.5.2. Practically**

#### 1. For Teachers

Researchers hope that the Duolingo application can help teachers in teaching English in particular and also overcome the problem of students' difficulties in learning to listen in English.

#### 2. For students

Researcher hopes that the Duolingo application will be a fun medium so that students can enjoy activities in class and at home. Therefore, the Duolingo application can be used by students anywhere and at any time because it will help their writing skills and can be used in everyday life.

#### 3. For next Researchers

it is hopes that this research can provide new knowledge for future researchers to conduct better research regarding the teaching and learning process, especially listening skills. It is also hope that the research findings can become a reference for future researchers to conduct similar research.

#### 4. For Schools

To find out the differences in students' English learning using the Duolingo application, so that the school can facilitate students in using this software as a useful learning medium for students.

## 1.6 The Hypothesis

The hypothesis is the researcher's conclusion regarding the study's likely outcomes. The research's interim findings must be cross-checked against the acquired data. This study uses two types of variables, the first is Duolingo Application, which serves as the "X" variable, and the second is the students' writing ability, which serves as the "Y" variable.

The following Research hypothesis is provided in relation with this study idea: "The effect of using the Duolingo application will improve students' exposition writing skills."

The following is a description of the hypothesis:

1. **Ha:** There is a significant effect of Duolingo application into students' listening achievement at SMP N 1 Pasaributobing.
2. **Ho:** There is no significant effect of Duolingo into student's listening achievement at SMP N 1 Pasaributobing.



## **CHAPTER TWO**

### **REVIEW OF LITERATURE**

#### **2.1. Theoretical Framework**

In this chapter the researcher wants to explain further about the theory related to my title and the explanation here was based on experts applied in research. Through the opinions of experts, The Researcher avoided misunderstandings. The theories discussed in this chapter are theories that support the understanding of the problems formulated in chapter one.

#### **2.2. The Concept of Listening**

##### **2.2.1 The Definition of Listening**

Brown (1994: 247) state that listening in language learning can hardly be overestimated. Through reception, we internalize linguistic information without which we could not produce language. The definition of listening skill can be concluded as the skill in understanding the meaning of behind spoken language. When people listen, they identify the sound or the utterances of what the speaker says, and the use their prior knowledge to make complete sense of what they hear when finally their understanding takes form from the process of listening. Most of the people generally listen to confirm their expectation or to get information, detailed information or specific information.

According to Brown (2007:3), listening is an active process in which listeners select and interpret information which come from auditory and visual clues. It means that in the comprehension process of spoken language, the listeners only use part of the incoming information while interpreting the information, listeners use

their background knowledge. In forming the understanding of the spoken language, the listeners have to overcome some difficulties or problems whether it is the internal or external problem. Internal problems can be referred to the prior knowledge of the listener, while the external problem can be referred to the situation of the listening process. To overcome the problems, the listener needs to practice their listening more often, gets much exposure as possible to the spoken English language such as through English movies, English songs, international news, etc., and familiarize themselves to the English language itself.

Based on the definition above, Researcher concludes that listening comprehension is a complex, active, and conscious process by which the listener can get the message from the speaker's utterance. It is clear that listening is very important part of learning English and very important skill indeed in daily communication. Through listening people can understand the purposes of other speech, and it is hoped that the listeners can give responses properly

### **2.2.2 The Process of Listening**

Listening is assuming greater and greater importance in foreign language classrooms. There are several reasons for this growth in popularity. Devito (2010 :84) The process of listening occur in five stages. They are hearing, understanding, remembering, evaluating, and responding.

#### **1. Hearing**

It refers to the response caused by sound waves stimulating the sensory receptors of the ear; it is physical response; hearing is perception of sound waves; you must hear to listen, but you need not listen to hear (perception necessary for listening depends on attention). Brain screens stimuli and permits only a select few

to come into focus these selective perceptions is known as attention, an important requirement for effective listening.

## 2. Understanding

This step helps to understand symbols we have seen and heard, we must analyze the meaning of the stimuli we have perceived; symbolic stimuli are not only words but also sounds like applause and sights like blue uniform that have symbolic meanings as well; the meanings attached to these symbols are a function of our past associations and of the context in which the symbols occur. For successful interpersonal communication, the listener must understand the intended meaning and the context assumed by the sender.

## 3. Remembering

Remembering is important listening process because it means that individual has not only received and interpreted a message but has also added it to the mind's storage bank. In Listening our attention is selective, so too is our memory what is remembered may be quite different from what was originally seen or heard.

## 4. Evaluating Only active listeners participate at this stage in Listening.

At this point the active listener weighs evidence, sorts fact from opinion, and determines the presence or absence of bias or prejudice in a message; the effective listener makes sure that he or she doesn't begin this activity too soon; beginning this stage of the process before a message is completed requires that we no longer hear and attend to the incoming message-as a result, the listening process ceases. 18 e. Responding This stage requires that the receiver complete the process through verbal and/or nonverbal feedback; because the speaker has no other way to determine if a message has been received, this stage becomes the only overt means

by which the sender may determine the degree of success in transmitting the message.

Listening itself is a process of interpreting meaning of the spoken language. Richard (2003:103) states that there are two process in meaning interpretation activity that happens in listening. These processes are:

1. Top-down Process

Top-down listening is a point of view that sees listening is a skill that built up from complex skill in which the listeners use what they know of communication context —the situation which cause language be used- to predict what the message will contain. It involves the listeners in going from the whole —their prior knowledge- to the parts. On other words, top-down process refers to the use of background knowledge in understanding meaning of a message.

2. Bottom-up Process

Bottom-up listening is the process of listening where the listeners assemble the message piece-by-piece by the speech stream, going from the parts to the whole. On the other words, bottom-up listening is the process of listening which use the incoming input as the basis for understanding message.

3. Interactive process

If listening involves both bottom-up and top-down processing, it follows that some sort of model that synthesizes the two is required. This we have in the so-called interactive model, as developed, most notably, by Rumelhart (1975:31). According to Rumelhart, whose theory was developed within the

context of reading, but which applies equally well to listening, language is processed simultaneously at different levels. In this parallel processing, phonological, syntactic, semantic, and pragmatic information interact, although it is not clear exactly how

### **2.2.3. Difficulties in Listening**

Students often find difficulties in learning listening skills. There are some problems in listening faced by the students in common.

First is difficulty to distinguish sounds. One problem that students have is distinguishing individual sounds and word boundaries in the stream of speech. Students might not distinguish between different sounds in English, for example words like —shel, —seel, and —seal. As a result, they cannot interpret the sound accurately.

Second is the difficulty to make inferences from the listening text. Learners have greater difficulty to make inferences than determined the information directly from the listening text. Students do not realize that listening is not good enough since they must think about what they hear as they hear it.

Third is the students limited vocabulary. For students who study English as a foreign language, the unknown words can be a barrier to get the information from the text they listened. One problem that all people speaking a foreign language have experienced is that they get left behind trying to work out what a previous word meant. As a result, they are failed to get the next information from the listening text. Fourth is the difficulty in concentrating It is caused by some factors. One of the factors is that the students are not interested with the listening materials. Another factor is the unfamiliarity with the sounds, words, and sentences. When the students

are not interested or are not familiar with the materials, they will consider that the materials are difficult.

### **2.2.3. Teaching Listening Activities**

Listening activities are usually subcategorized as pre-listening, while-listening, and post listening activities, (Buck G, 2001:54).

1. **Pre-listening Activities** Schema theory provides strong evidence for the effectiveness of pre-listening activities which includes the outline for listening to the text and teaching cultural key concepts. Listening teacher may select certain words, difficult grammatical structures and expressions to be explained through the discussion about the topic, and may also ask students to predict the content or what speakers are going to say, based on the information they have already got. The teacher could follow with a listening comprehension activity; such as two people having a conversation about their daily life. Students must answer true or false questions based on the previous listening activity. An example of controlled practice activity could be a drill activity that models the same structure or vocabulary.
2. **While-listening Activities** Listeners who participates activity in the listening experience are more likely as construct clear and accurate meaning as they interpret the speaker's verbal message and nonverbal cues. During the listening experience students verify and revise their predictions. They make interpretations and judgements based on what they heard. Listening teacher may ask students to note down key words to work out the main points of the text. Students answer comprehension the question while listening to the text and select specific information to complete the table to be provided with the

text. While listening activities usually have some of the following purposes: to focus student's comprehension of the speaker's language and ideas; to focus the students' attention on such things as the speaker's organizational patterns; to encourage students' critical reactions and personal responses to the speaker's ideas and use of language. An open ended activity could follow that allows students to have the freedom to practice listening comprehension in the class about their daily life and asking for the further information. Listening comprehension should begin with what students already to know so that they can build on their existing knowledge and skills with activities designed on the same principle.

3. **Post-listening Activities** Post listening activities are important because they extend students' listening skill. Post listening activities are most effective when done immediately after the listening experience. Well planned post-listening activities offer students opportunities to connect what they have heard to their own ideas and experiences and encourage interpretive and critical listening and reflective thinking. As well, post listening activities provide opportunities for teachers to assess and checking student's comprehension and clarify their understandings; to extend comprehension beyond the literal level to the interpretive and critical levels. Different comprehension question can be assigned for students to discuss after listening. students then swap information to complete the whole class chart, correlating what each student has heard to arrive at the big picture. If there are any questions that remain unanswered during the first or second listening, and after the information swap activity, the whole class can listen to the tape again. The students will then try to find the

answer to the questions that have not been previously understood, rather than the teacher providing the answer straight way.

### **2.3. Duolingo Application**

Duolingo is a language-learning platform-accessible both as a website and as an Android or iOS app--which launch for general public use just over four years ago, in June, 2012. It can be considered to fall under the category of Mobile-Assisted Language Learning (MALL), which itself can be categorized as a branch of ICT called M- (or Mobile) Learning. According to Patrick, Artificial Intelligence is the study of the computations that make it possible to perceive, reason, and act.<sup>12</sup> It means, the computer can analyse and do something according to the program.

Furthermore, Elaine Rich asserts that Artificial Intelligence (AI) involves the exploration of enabling computers to perform tasks currently executed more proficiently by humans. AI has the capability to execute a range of tasks typical in our daily routines, essentially mimicking human actions. As per britannica.com, Artificial Intelligence (AI) refers to the capacity of a digital computer or computer-controlled robot to carry out tasks typically linked with intelligent beings.

The term is commonly used to describe the endeavor of creating systems that possess human-like intellectual processes, including reasoning, discovering meaning, generalizing, or learning from past experiences. Duolingo, a language-learning platform available on the web and as an app for Android and iOS, was introduced to the public just over four years ago in June 2012. It falls within the realm of Mobile-Assisted Language Learning (MALL), a subset of Information and Communication Technology (ICT) known as M- (or Mobile) Learning.



### 2.3.1. Characteristics of Duolingo Application

Duolingo is a free app created by Luis Von Ahn and Severin Hacker in November 2011. Its slogan is “Free language education for the world.” According to its website, it has more than 30 million registered users. It offers several languages for English speakers as well as others for non-English speakers (Pilar Munday, 2016, P.6-8). In the desktop version, the app has different areas:

- 1) The “tree”, which contains skills, each represented by a node that changes color from grey (indicating that a skill has not been started), to a color like red, blue or green (you have started the lessons within the skill), to gold (you have mastered all the lessons and vocabulary for that specific skill). Note that the gold color can “turn” back to another color if the algorithm of Duolingo establishes that you need to go back and review those nodes because you have forgotten the vocabulary or because enough time has elapsed. Duolingo has not, up to now, published the content of the tree. The only way to find out is to complete the tree yourself. These are the components of the tree: 66 Skills. Some examples of these are: Food, Animals, Plurals (for beginning nodes) to Modal Verbs, Subjunctive Past, or Past Imperfect (for the more advanced nodes). 329 Lessons. Each skill has several lessons, which can range from one to eleven. Each lesson covers about seven or eight words. Each completed lesson gives 10 XP (points). 1571 Words.
- 2) Words: A list of the words the user has studied or already knew. Each word is accompanied by a strength bar, which indicates if the word is still strong in your memory or if it is time to practice again, according to Duolingo’s algorithm. You can also review these words through flashcards.

- 3) **Activity:** Duolingo works similarly to a social network site. You can follow other students, and other people can follow you. The activity stream shows not only what you and the people you follow accomplish in Duolingo (levels opened) but also if you or they have made a comment in the discussion board. All the people you follow and you yourself appear on a “leaderboard” list, which shows the XP (Duolingo points) that you obtain weekly. This is reset every Sunday at 7:00 pm Eastern Standard Time (United States).
- 4) **Discussion:** In this area, users can post discussions about topics that interest them. A discussion will also be created if there are questions about any of the activities completed during the lessons, in which case users negotiate meaning among themselves. The discussions are divided according to the language you study, and there are also general discussion areas, like the one recently opened for educators (this will be discussed in more detailed later). Discussions are voted up or down (similar to places like Reddit), so the more popular ones are more visible. It is also the area where the creators or moderators of Duolingo post important messages to the community.
- 5) **Immersion:** This area is for more advanced students. Anyone can upload a public document in any language and the community can start translating it. Users can offer suggestions for better translations or can just make general comments. Users get XP points for translating either their own documents or helping with other documents already uploaded to the site. They also get lingots (see below for a definition) if their translations are up-voted by other users.
- 6) **The Lingot Store:** “Lingots” are the currency that Duolingo uses to reward its users. You get lingots when you complete a skill node or maintain a streak of

days using the site. Users can also “reward” other users with lingots in the Discussion area. With lingots you can buy several things, like a “freeze streak” which will allow you to miss a day and not lose your streak, some silly outfits for the Duolingo owl (the program’s mascot), or, more important in my opinion, a progress quiz, which shows you on a scale of 0 to 5 where you currently stand in your studies.

### **2.3.2. Teaching Listening by Using Duolingo Application**

Lidya Maldini Putri et al (2018: 416) Duolingo has a good learning strategy because it greatly motivates learning systems using game mechanics strategies to create guard incentives for students to learn. Built up very similar to computer games where participants have to pass a certain level. A student passes through the language tree level. The next lesson can be opened after the learner has mastered the previous material. Users can complete various types of exercises including many options, writing, listening and also speaking through a microphone. Duolingo uses exercises and recurring exercises in the lesson. Duolingo deliberately brings the concept of "play and learn" to be able to create a comfortable and enjoyable learning atmosphere.

Duolingo serves as a tool to improve students' English listening skills, emphasizing the importance of strong motivation in the learning process. The researchers aim to introduce Duolingo as a means to facilitate English language learning. Firstly, Duolingo contributes to increased motivation, making the learning experience more enjoyable. Second, it helps students acquire new words easily through attractive visuals and various features while studying the audio they hear.

Duolingo can be used individually in class after the teacher has presented relevant material. Practical and systematic steps guide students in learning to listen to students, enabling teachers to align the material with the government curriculum. The process of teaching listening using the Duolingo application involves several steps.

- 1) Providing material to students based on English books without using the Duolingo application. Students can listen to simple audio in English.
- 2) Once students understand how to listen in English, give students some practice. Students can be asked to write sentences.
- 3) After the material is presented to students, they must prepare to learn new

To make it easier for Readers to understand the function of each part of the Duolingo application, there are several steps that can be taken in classroom learning activities as follows:

1. First, to use the application on a cell phone, students can download it on Google Play or App Store and install with the Android/iOS operating system. Users can create an account or access activities without an account. However, users can only save their progress by creating an account
2. After creating an account, students can choose English to learn and immediately start activities.
3. Then, students can take placement exams to advance to more advanced units. The learning experience is broken down into themed units starting with “Basics”
4. Lastly, students can access their progress through lessons or units. Each lesson contains about 10 to 20 questions that focus on improving writing through

skills. When each lesson has been completed well, it will add a level to the next lesson and then be unlocked and get a crown

In class, teachers can start class by providing material based on English books and how to use the Duolingo application. Then, students can be asked to determine the meaning of the words. So, students first gain a general understanding and knowledge about writing. After that, students can start using the Duolingo application and choose the topics to be given or are free to choose topics according to their wishes.

### **2.3.3. The Advantages of The Duolingo Application**

According Munday (2015: 123) There were several advantages of Duolingo as a medium of learning in the classroom. The advantages include:

1. Duolingo is a language learning media that can be used to increase levels of active learners in teaching teaching-learning process. It can be because Duolingo incorporates some gamification aspects in learning with, it can motivate and engage learners in learning with Duolingo. The material that learning for game usually difficult to forget, it can be because the learners enjoy in learning.
2. Duolingo can create homework so besides learning in the classroom, Duolingo also can support to make students practicing to improve their vocabulary with Duolingo at home. Based on research done by Munday shows that if A1 student 84.8% agreed that homework with Duolingo is better than other types of homework
3. Duolingo can be accessed anywhere and everywhere, so teachers are not difficult to implemented it in indoor learning or outdoor learning. It is a media

learning language as well which allows the learners to learn wherever they have internet connection and whenever they feel like it

#### **2.3.4. Disadvantages of the Duolingo Application**

Every media for learning definitely have positive and negative sides according to the situation and condition of learning. There are some disadvantages of using Duolingo as media in learning writing:

1. Duolingo is an online learning medium so it is difficult to apply in class if there is no student cell phone
2. If they want to use the Duolingo application in class, they must prepare an internet quota and projector
3. Using the Duolingo application in class and using a projector can hinder learning and wasting class time.
4. The Duolingo application provides random tests

#### **2.3.5. Listening Learning procedures through the Duolingo Application**

According to Rully (2022:2) learning media is with the Duolingo application able to make its users excited and happy, Duolingo offers many conveniences when Practicing individually, Duolingo also provides voice features that can make it easier for users to hone English listening content. Sekreningsih Nita et al (2023:2) agreed that Duolingo as an English learning application has a positive impact on others helps a lot in terms of memorizing vocabulary and grammar as well as pronunciation and the translation.

Teachers must choose appropriate learning media to solve the problems students face when learning language. The Duolingo application can be the most helpful medium for teachers to overcome these problems. Writing is a major

component of the Duolingo app, and it is highly recommended for teaching writing to students. The researcher's experience using learning English through the Duolingo application can help students improve their English writing skills. The importance of the Duolingo app in learning is quite clear; the activities are appropriate, and there are some combined exercises. The Duolingo application is a teaching tool that is predicted to be successful in stopping traditional classroom teaching. A strong network connection is required to view the Duolingo application.

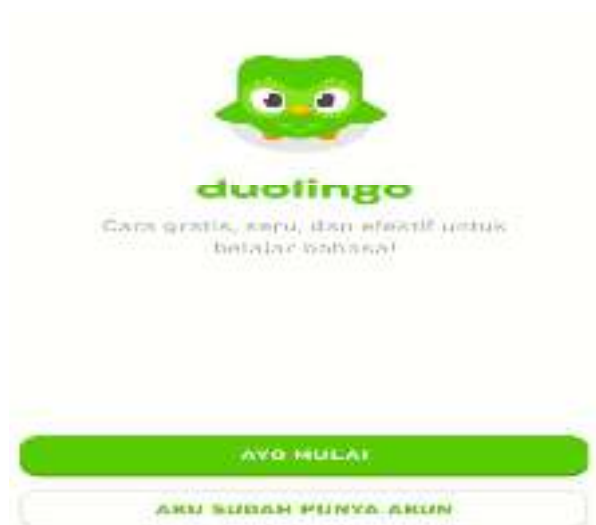
The Duolingo app provides three benefits for students. First, because it offers interesting aspects, the Duolingo application helps students increase their motivation to learn. Second, because it offers interesting picture elements for studying listening. Third, students can use the Duolingo application to learn the meaning of the words they hear. After the teacher provides the lesson content, students can use the Duolingo application. Students can acquire a new language through practical procedures and logistics.

The following is the procedure for using the Duolingo application

- 1) Students can installed the Duolingo application on Application Store and Google play, and then install it using the Android/iOS operating system. Users can create accounts or access activity without an account. However. only users who create an account can save their progress in accessing the application



2) Open the Duolingo application and choose “Let’s get started “





3) Select the language you want to learn and speak it



4) How do you know about us? Choose Tv, YouTube, Google, Facebook, Google Play, TikTok and other



5) Help Us Find out your Level (Click just start learning)



6) Why are you Studying English? (click support my education)



7) This is what you can achieve (choose to cultivate study habits)



8) Choosing a target ( typical click 15 minutes day )



9) After that, Students are Given question or short examinations to determine how far their English has improved



10) "Create a Profile "Students are able to create Their accounts using Their Google email addresses



- 11) Taking Part exams to move up for more advanced level. Experiences of learning are broken down into themed units that start with “Basic and can range from thematic vocabulary such as “Past Perfect “and “Subjunctive Past “



#### 2.4. Previous Related Study

Several previous related studies have been found regarding this research and have been observed.

First, research conducted by Lidya Maldini and Aulia Islamiati in 2018 and the title "*Teaching Listening Using Duolingo Application*". This research uses quantitative research design because there are or related to data collection using numerical and statistics. The objective of this study is significantly improves students' listening skills. This research used pre-experimental design and quantitative research method. This study involves 799 consisting of 24 classes in

SMKN 2 Karawang and the author takes only one class of 36 students in X- Tata Boga 3 Class. Furthermore, the data taken from pretest and posttest results to find out whether using Duolingo apps improves students' listening skills. The collected data were analyzed using SPSS 24 version. This study found that test of normality consist the data of pretest is (0.076) and the data of posttest is (0.200) in 33 samples. In addition the value of Sig. (2-tailed) 0.000 because of the value of the Sig value. (2-tailed)  $< 0.005$  it can be concluded that using of Duolingo Applications can improve students' listening skills and also able to make the teaching list motivate students in learning English. Keywords: Teaching, Listening, Duolingo Application. The contribution of this research to researcher is used as a reference for my title.

The second research by Siti Niah and Pahmi was conducted in 2019 and Students in Pekanbaru entitled "*The Utilization of Duolingo to improve the Speaking and Listening skills of Junior High school* " They discussed using the Duolingo application to help second-language learners. The method used in this research is Experimental and Quasi Experimental Design with one group pretest-posttest design. This study uses quantitative research methods with the ASSURE model (Analyze, State, Select, Utilize, Require, and Evaluate). The result obtained from the use of duolingo in class VIII.1 on speaking and listening skills of the "t" value with df 31 at the 0.05/5% level is 2,042, while the results obtained from using duolingo in class VIII.2 for speaking and listening skills of the "t" value with df 27 at the 0.05/5% level is 2,052. The results of each ability show that the students' speaking ability of class VIII.1 is  $5.5 > 2,042$  and their listening ability is  $4.48 > 2,042$ . The students' speaking ability of class VIII.2 is  $5.17 > 2.052$ , while their

listening ability is  $5.10 > 2,042$  (the "t" table is each greater than the "t" value). This demonstrates that the use of Duolingo to improve speaking and listening skills in junior high school students is proven to be effective. The contribution of this research to a researcher is used as a reference for my title.

Then, the Third research was carried out by Umniyah Juman Rosyidah et al. in 2019 and entitled was "*Gamification in Duolingo App On Improving English Listening Proficiency of Junior High School Students* ". This study aimed at investigating whether the use of gamification in Duolingo App can improve the listening proficiency of junior high school students in English. This research uses quasi-experimental design with quantitative approach. The data is collected using test and observation and analyzed using SPSS 26 App. The results show that the sig. (2 tailed) indicated is 0.002 meaning that there is difference between post-test of experiment class and control class. They also said that concluded that gamification in Duolingo app affects English listening proficiency of junior high school students. This study has some limitations, and further research involving different educational levels, media, and longer experiment duration is necessary to obtain detailed and reliable results that can be applied to the broader population. The contribution of this research to a researcher is used as a reference for my title.

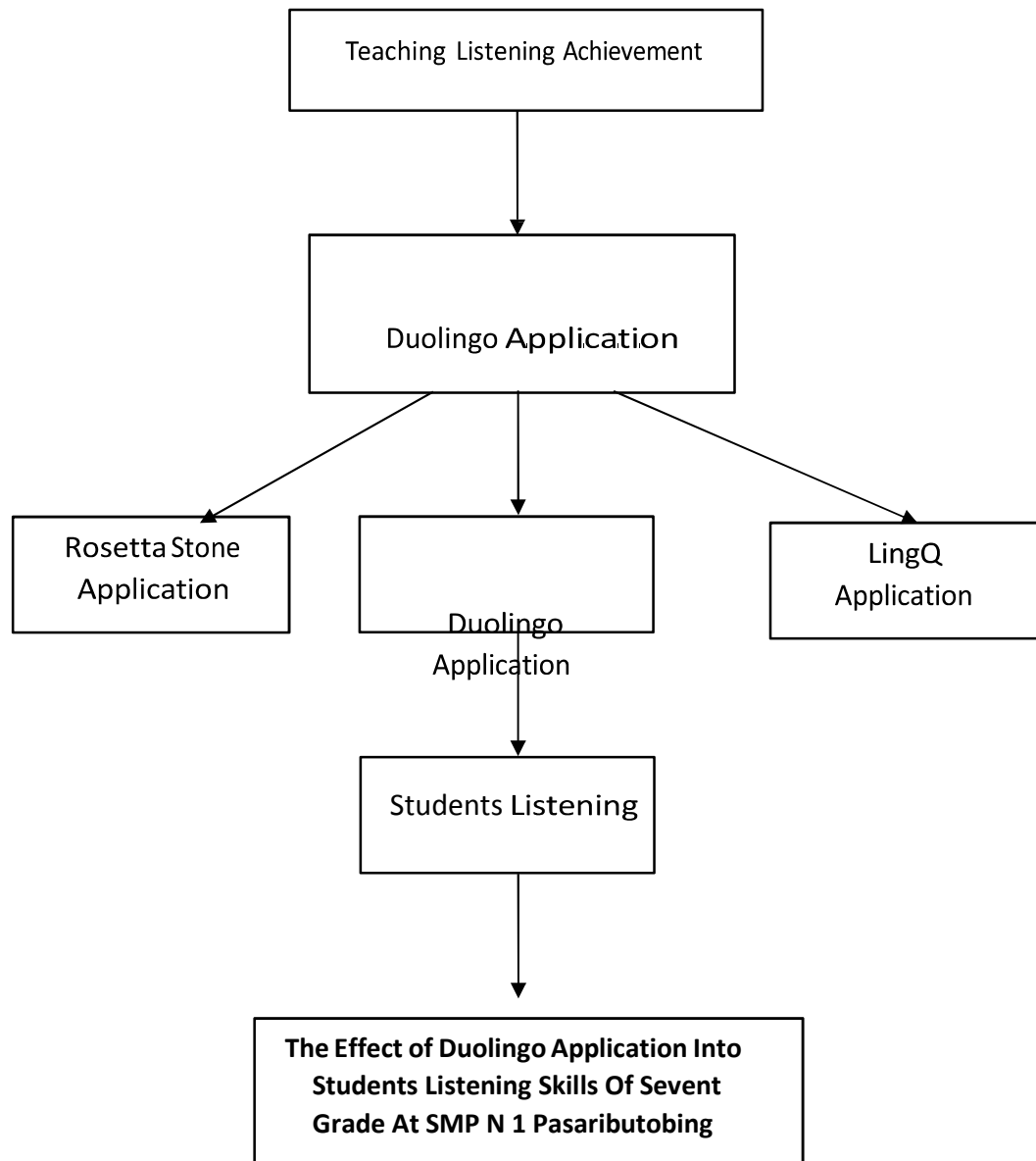
Based on the research results above, it can be concluded that the differences in the first research is teaching listening using the Duolingo application, while the second research uses Duolingo to improve speaking and listening. In addition, in the third study, the use of gamification in the Duolingo application can improve junior high school students' listening skills in English. What this research has in common with the four previous studies has the same goal, namely improving

students' listening skills by using the Duolingo application. Based on previous research, this inspired researchers to conduct their research. Engaging Applications to learn in teaching listening. Researcher was interested in research " The Effect of the Duolingo Application on the Listening Achievement of Grade Seven Students of SMP Negeri 1 Pasaributobing."

## **2.5. Conceptual Framework**

The researcher explained the conceptual framework for this research was that there are types of applications that can be used for listening achievement, such as the Rosetta stone, Duolingo, lingq applications. In this research, researchers used the Duolingo application, which is an example of a technology-based learning application or media, namely the Duolingo application. The Duolingo application is very suitable for learning English, especially in the field of listening. The Duolingo application was used at SMP N 1 Pasaributobing school, and the students who will be researched are tenth-grade students.

The Duolingo application is increasingly popular because it can improve writing skills in English language teaching. We can see from the number of people who download this application. Using Duolingo is more effective because Duolingo has interesting features like other games that can attract students' attention. Using Duolingo is considered an effective and fun process for teaching writing skills because it allows students to practice and express their latest ideas through the Duolingo application. Learning using the Duolingo application is very helpful and motivates students to develop their knowledge in writing in English.



**Figure 2.5 The Effect of Duolingo Application Into Students Listening Skills of Sevent Grade At SMP N 1 Pasaributobing**



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Research Design**

There were some research design that can be used in conducting a research. There were; descriptive qualitative, descriptive quantitative, classroom action research, and experimental quantitative. This research used experimental quantitative research.

According to Ary (2002:301) states that an experimental design is the general plan for carrying out a study with an active independent variable. The research design was a whole decision that involves studying the topic, informing the decision that the researcher's philosophical assumptions lead to the research (Cresswell, 2014:41). “The Effect of Duolingo application into Students' Listening Achievement of Seventh Grade at SMP Negeri 1 Pasaributobing”.

In this research the class divided by 2 groups. The first groups was the experimental groups and the second class was the control groups. Therefore, the writer used the same materials and tasks but with a different treatment for control and experimental group. In experiment groups, the writer used Duolingo application as a media in teaching listening. While in control groups the writer did not used the Duolingo application as the media.

Thus, this research used statistical data to analyze the findings in the end of this research. This research used Quasi-experimental designs. Quasi-experiment was the kind of experimental design which test a hypothesis. White & Sabarwal stated that it had known how well it achieves its objectives, as measured by a prespecified set of indicator. It will be explained on table 3.1

**Table 3.1 Graphic Sequence of Quasi-Experimental Study**

Group	Pre-test	Treatment	Post-test
Experimental (VII-A)	X	X	X
Control (VII-B)	X		X

### 3.2 The Population and Sample

In This study, the researcher determined the population and sample. The Study's sample and population

#### 3.2.1 The Population

According to Sugiyono (2017:117), the population is a generalization of objects or subject that have certain characteristics and quality of their set by investigation to be learned and then drawing conclusion. Based on the definition above, the population of this research were the Seventh-grade students at SMP Negeri 1 Pasaributobing .There were three classes namely : VII-A ,VII-B,and VII-C. The number of class VII-A 29 students, Class VII-B 29 Students, and Class VII-C 30 Students. The totals of students were 88 Students.

#### 3.2.2 The Sample

Sample referred to a subset of the population selected to represent the entire population used as material for analysis. Part of this population was used for research. According to Sugiyono (2017), jenuh sampling is the method of sampling utilized in this investigation. The jenuh sampling method involves selecting samples from the whole population. When the population was quite small less than 30 people jenuh sampling was frequently used. So the sample used in this study were 2 classes. The total number of students in the first graders of SMP Negeri 1

Pasaributobing is 88 students. The 58 students involved 2 classes with 29 students in class VII-A and 29 students in class VII-B each. The researcher was take class VII-A as an experimental group and VII-B as a control group. The reason the researcher chose this class was because it was in line with the problems the researcher had explained in the background and had the same number of students. This problem can be seen from the students' scores on the Final English Exam VII at SMPN 1 Pasaributobing.

### **3.3 Instrument of Collecting Data**

Sukmadinata (2010:230) states that the research instrument is a measurement test, because it contains questions and statements whose alternative explanations have certain standard answers, right and wrong or an answer scale. This research used a listening test as the instrument of the study for the mobile phone, Duolingo application, speaker, and answer sheet

### **3.4 Procedure of Collecting Data**

In Carrying out the exercises of the test, there were three steges in conducting experimental research, that was first is Pre-test, second is treatment and third is post -test.

#### **3.4.1 Pre-test**

After the pre-test was given to students, it was continued with treatment activities. The experimental group was treated using dictation techniques, as opposed 33 to the control group, which got formal teaching. At this stage, 2 meetings were held. In each meeting, the researcher used the same procedure. The steps for carrying out the treatment in the experimental group can be shown below:

### 3.4.2 Treatment

The experimental group and control group were given the same material but in different ways. The experimental group was given the Duolingo application as treatment, while the control group was given the conventional method. Here the researcher knows students who use Duolingo and students who don't use Duolingo.

**Table 3.4.2 Treatment**

Activities	Teacher Activities	Students Activity
First Day and Second Day	<ol style="list-style-type: none"> <li>1. Give a greeting to all of students.</li> <li>2. Give and explain the material.</li> <li>3. The researcher gives assignment papers to students in the form of listening assignments which contain incomplete dialogue scripts according to the audio.</li> <li>4. At normal speed, the teacher will play the audio for the first audio.</li> <li>5. The teacher then plays the audio at a slightly slower speed.</li> <li>6. The teacher then plays back the audio from Duolingo three times at normal speaking speed and arranges it according to intonation and punctuation.</li> <li>7. The teacher instructs students to stop after completing the audio content and gives them a minute or two for final correction. They must then take out the audio source material and transcribe the transcription themselves.</li> </ol>	<ol style="list-style-type: none"> <li>1. Students response greeting.</li> <li>2. Students pay attention to the material presented.</li> <li>3. After being given the question sheet, students are given the opportunity to skim before the listening test begins.</li> <li>4. Students pay attention to the rules of work on this test.</li> <li>5. Students start listening to the reading of the first and second text and students start writing what they hear.</li> <li>6. Students check the results of their answers carefully and make the last changes.</li> </ol>

### **3.4.3 Post-test**

In order to assess the influence of the treatment by contrasting the results of the pre-test and post-test, the researcher administers a post-test that comparable to the 20 pre-test to determine the effect in students' listening comprehension ability. The researcher in this instance requested that the students complete a listening comprehension ability exam. Students had to listen carefully and accurately to a discourse throughout this test. While listening, students answer to fill in the blanks of the dialogue text to complete the dialogue made by the researcher and then recheck the answers that have been filled in again.

### **3.4.4 Validity of test**

In quantitative research, validity is really important to know how valid data is. Based on Brown (2004: 22) validity is the extent to which inferences made from assessment results are appropriate, meaningful, and useful in terms of the assessment.

In this research, the researcher used content validity they are: pre-test and post-test were given to both classes (experimental and control class). In both the pre-test and post-test, the researcher gave a test in which the test was made in the form of essay questions and the questions were taken from Junior High School textbooks that had proven validity. Content validity refers to the extent to which an assessment instrument is relevant to, and representative of, the targeted construct it is designed to measure.

## **3.6 Technique for Analyzing Data**

After calculating the data from the test, the data analyzed by using some steps, they were:

1. Calculated the score of the pre-test and post-test in the experimental and control groups.
2. Tabulated data from the scoring of the experimental and control group.

To know the differences between the experimental and control group, a comparative analysis technique used by applying the t-test for the independent sample formula. The formula of t-test was present as follows:

$$t = \frac{M_x - M_y}{\sqrt{\left[ \frac{D_x^2 + D_y^2}{N_x + N_y - 2} \right] \left[ \frac{1}{N_x} + \frac{1}{N_y} \right]}}$$

$$t = \frac{M_x - M_y}{\sqrt{\left[ \frac{D_x^2 + D_y^2}{N_x + N_y - 2} \right] \left[ \frac{1}{N_x} + \frac{1}{N_y} \right]}}$$

Where:

t = the effect

$M_x$  = mean of the experimental group

$M_y$  = mean of the control group

$D_x^2$  = the deviation square of the experimental group

$D_y^2$  = the deviation square of the control group

$N_x$  = the sample of the experimental group

$N_y$  = the sample of the control group.

