Junior High School Students' Perception toward The Use of Duolingo as A MALL (Mobile Assisted Language Learning) for Learning English Grammar

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ABSTRACT

The purpose of this study is to describe how students' perception on the using English learning media, especially cellular-based grammar using Duolingo, identify the advantages and disadvantages of the Duolingo application as a grammar learning medium and analyze what aspects have improved in students after using Duolingo as their learning medium. The subjects in this study were 30 first grade students at SMP X. The method used in this research is descriptive qualitative by describing the experiences that occur in the research subjects. The data was collected using a closed questionnaire filling technique and interviews with several randomly selected students and then the existing data was analyzed qualitatively with several steps; data reduction, data display, and drawing conclusions. The results of this study show; (1) students give positive perceptions in using Duolingo as their learning medium in two aspects, the first aspect is the effectiveness of Duolingo as a medium and their interest in using a medium. In terms of media effectiveness they feel that Duolingo is a medium that can be used anywhere and anytime. (2) Another finding indicated that students feel that there is a positive side of Duolingo where they can use it anywhere and anytime, but with a negative side in terms of internet connection. (3) The aspect that improves after students use Duolingo is that they feel more interested and motivated to use English in their daily lives

Keywords: Duolingo, Perception, Learning English Grammar

ABSTRAK

Tujuan dalam penelitian ini adalah untuk mendeskripsikan bagaimana persepsi siswa dalam menggunakan media pembelajaran bahasa inggris terkhusus grammar berbasis seluler menggunakan Duolingo, mengindentifikasi manfaat dan kekurangan aplikasi Duolingo sebagai media pembelajaran grammar dan menganalisis aspek apa saja yang meningkat dalam diri siswa setelah menggunakan Duolingo sebagai media belajar mereka. Subjek dalam penelitian ini adalah 30 siswa kelas satu di SMP X. Metode yang digunakan dalam penelitian ini adalah kualitatif deskriptif dengan menggambarkan pengalaman yang terjadi pada subyek penelitian. Data yang dikumpulkan menggunakan teknik pengisian angket tertutup dan wawancara kepada beberapa siswa yang dipilih secara acak kemudian data yang sudah ada dianalisis secara kualitatif dengan beberapa langkah; reduksi data, penyajian data, dan penarikan kesimpulan. Hasil dari penelitian ini menunjukan; (1) siswa memberikan persepsi positif dalam menggunakan Duolingo sebagai media pembelajaran mereka dalam dua aspek, aspek yang pertama adanya keefektifan Duolingo sebagai media dan rasa ketertarikan mereka dalam menggunakan

sebuah media. Dalam hal efektifitas media mereka merasa bahwa Duolingo merupakan sebuah media yang dapat digunakan dimanapun dan kapanpun. (2) Siswa merasakan adanya sisi positif dari Duolingo dimana mereka dapat menggunakannya dimanapun dan kapanpun, namun dengan sis negatif dalam hal koneksi internet. (3) Aspek yang meningkat setelah siswa menggunakan Duolingo adalah mereka merasa lebih tertarik dan termotivasi untuk menggunakan bahasa Inggris dalam kehidupan sehar-hari.

Kata-Kata Kunci: Duolingo, Persepsi, Pembalajaran Grammar

INTRODUCTION

Since language is what allows us to converse about language efficiently, learning appropriate grammar is crucial. Grammar identifies the individual words and word groups that make up sentences in practically every language, not just English. Even as young children, we can construct sentences as humans. However to able to discuss how sentences are put together, the kinds of words, and word groupings that go into them needs grammar. Grammar also helps to understand for making some sentences and paragraphs clear and interesting, pleasant and precise. Errors in the use of several formulas in grammar often occur in some students in Indonesia. Many of whom do not understand correctly grammatical materials. As EFL (English Foreign Language) students they need a lot of learning grammar properly and correctly because sometimes there are similarities with Indonesian as the main language for every student in Indonesia which makes them confused in practicing grammar material in English as their foreign language (Ghorbani & Ebadi, 2020). The pre-research conducted by researchers where many students at SMPX experienced difficulties in learning English, especially in grammar skills, where many students when explained by their teachers were unable to respond and memorize quickly some formulas in grammar. Therefore teachers can use interesting media and help students understand a lesson in depth such as using technology-based media. Jaelani and Sutari, (2020) stated that the concept of learning in this century has been linked to the quick growth of technology, as technology develops, it is more used in teaching and has a significant impact on education. The increasing access to mobile devices, Mobile-Assisted Language Learning (MALL) approach could maximize communication in the classroom through the connection of the learners (Pegrum, 2014).

Ghorbani and Ebadi (2020) said that MALL has become an interesting field of research for a scholar since the beginning of the 21st century. MALL (Mobile-assisted Language Learning) is reviewed as an extension of both mobile learning and computer-assisted language learning (Stockwell & Hubbard, n.d.). MALL is popular with the definition of mobile learning "learning at any time and anywhere" (Hwang & Tsai, 2011). However, MALL is often used as a mobile device that is almost used by all students in Indonesia and they can access anything in it anytime and anywhere without any trouble because all their mobile devices are already in their hands. A study by Ajisoko (2020) stated that the industrial technology revolution in today's teachers in teaching must coincide with the integration of technology because today's students already have information technology devices that they can easily access in their hands. Teachers must adapt them in any learning especially English with existing technology

in the easiest way, and this Duolingo application can be one of the most effective applications in improving English learning. And even though many people said Duolingo is a modern-looking gaming app but in the reality, most of the activities are necessary to complete the lesson traditionally are based on translation, dictation, and pronunciation (Munday, 2015). In this study the researcher wants to know how the students' perceptions are in using technology in the form of the Duolingo application in learning grammar, because in previous studies by Fadda and Alaudan (2020), Ajisoko (2020), Jaelani and Sutari (2020) and Utami (2020) they examined how students' perceptions about using Duolingo in learning English in general and skills vocabulary. Therefore, the novelty in this study focuses more on students' perceptions of using Duolingo in learning grammar specifically and the grammar aspects that improve after using Duolingo.

LITERATURE REVIEW

Perception

According to Devito (2011) perception is a process that makes the observer aware of the number of stimuli or stimuli that affect the senses. Meanwhile, according to Sarwonon (1938) perception is an ability that people have in organizing an observation, and this ability includes the ability to distinguish, group, and focus on something that is being observed. Previous experts, Soraya (2018) argues that perception is a process of understanding or giving meaning or information (stimulus). This stimulus can be obtained by the process of sensing an object, event, or relationships between symptoms which are then processed by the brain. In psychology, perception can be understood as the study of central processes that provide coherence and unity of sensory input or (*peripheral processes*) (Jon E. Roeckelein, 2014). From several opinions of experts about perception, it can be concluded that perception is an act of a person using the senses he has to describe an understanding of what he already knows through the experiences he has felt. Seeing from some understanding of perception from several experts, it can be understood that perception has a nature where this perception is in the mind of every individual. This perception is also always in the form of knowledge, therefore this perception is not an object but a perceiving person. According to Soraya (2018) that one person's perception is different from others, so what is easy for us is not necessarily easy for others, and what we think is clear may seem confusing to others. Before the perception process takes place. First, it starts with the sensing process, that is, when the individual receives stimulation through the senses, the ear, hearing, and nose sensing devices are used as the organ of reception, the tongue as a means of taste, the skin, especially the palms, as a means of touch all of which are sense organs used to receive external stimuli, individual. With this, a perception is a sensitive tool that connects an individual with the outside world (Yanti, n.d.). So, in the context of this perception, it must be seen and understood how each individual's intra-personal level communicates between individuals by looking more clearly at the nature of the perception itself.

1. **Factors Influencing Perception**

Wilson (2000) suggests that several external and internal factors influence perception, including the following:

a. External factors include *concreteness* or an abstract idea that is difficult to perceive compared to the object itself. *Novelty* is a new thing that is more interestingly perceived than other things. *Velocity*, or rapid acceleration to stimulate the emergence of perception quickly and effectively. And *Conditioned stimuli* or conditioned stimuli.

b. An internal factor that influences perception is *motivation*, motivation will affect people's perceptions such as stimulation to respond to rest. *Interest* is an interesting thing that will get more attention than uninteresting. *The need* is a need for certain things and will be the center of attention. *The assumption*, this can also affect perception according to experience by seeing, feeling, and so on.

According to Walgito (2010), several factors influence student perceptions, and there are two factors, namely external and internal. Explanation of each factor:

a. Internal Factors
   1) Attention. Attention is an important psychological factor because this attention can highlight characteristics of a student, both from within and from outside the individual, which can help in teaching and learning activities by involving concentration and awareness.
   2) Interest. Interest is a person's interest in an object outside himself without coercion. The greater a person's interest in the object, the more effort he puts in.
   3) Experience. Experience is also important because experience can lead to a stimulus that can lead to self-perception, and a good experience will lead to a positive perception of oneself. Something in the future and bad experiences will harm perception.
b. External factors
   1) Teacher. A good relationship between teacher and students will generate positive perceptions of students in every teaching and learning activity.
   2) Learning methods. Appropriate and effective learning methods can help students get the lessons given by the teacher easily and understand so that the learning objectives can be achieved and the atmosphere of teaching and learning activities become more enjoyable.
   3) Subject material. Easy learning materials will cause positive perceptions, and material that is considered difficult will generate negative perceptions.
   4) Facilities and infrastructure. Complete and well-functioning infrastructure facilities can support the teaching and learning process activities and increase student learning motivation.

5) School environment. A conducive school environment that meets health requirements and is comfortable to use for teaching and learning activities can optimally support the teaching and learning process and student development.

6) Friend. Good interactions with classmates or colleagues can improve motivation and encourage them to participate in learning in an active and fun way.

Duolingo

Munday (2015) said that 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", users can learn languages for free while simultaneously web translating (Ajisoko, 2020). 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. This app is a free language-learning application. "Duolingo is the world's largest online language learning platform. We use science and adaptive learning language techniques for more enjoyable and effective learning experiences, and we are free. Our application was first recognized as Apple's iPhone App of the 2013 and Google Play's Best of the Best 2013 and 2014." Duolingo for school guide book (2016). According to Duolingo About us: Approach, (2021); Viberg & Gronlund, (2012) Duolingo offers around 95 languages to learn, and users can also study in languages other than English. In other words, Duolingo users can choose what topics they will study according to the language background they have. The way the Duolingo app works is differentiated in the form and ways of organizing it, and the material system offered in Duolingo is more specific to topics such as food, family, and travel, each topic introduces several grammar and cultural concepts with a mastered class but the material in Duolingo is more about introducing new vocabulary and drills. This Duolingo app looks like a game, but in general, it's not a real game. Because Duolingo is an application that is in the form of a game but has a strong connection with education, especially in learning languages such as English. Duolingo is designed in an attractive way for language learning so that students don't get bored easily with what they are learning and students can work effectively and efficiently with just one hand in the shape of a mobile phone as a MALL.

1. **The Areas of Duolingo**

   In the desktop version, this app Duolingo has different areas (Munday, 2015):

   a. **The "tree"**. Within this tree, several skills must be completed, each of which is grayed out indicating that the skill has not yet been started to be worked on. Up to red, blue, or green to indicate that learning on Duolingo has started in ability. And the golden color if you have completed and mastered the skills given in Duolingo, but this golden color can change to the previous colors if the Duolingo algorithm determines by reviewing that you have to go to the previous stage because you have forgotten the vocabulary or the time has passed. And to date, Duolingo has

not published the tree content, and the only way to find out is to complete the tree itself. And these are the components of the tree:

- 66 Skills. Some examples are Food, Animals, plurals (for starting a node) to Modal Verbs, Subjunctive Past, or Past Imperfect (for more advanced nodes).
- 329 Lessons. Each skill has multiple lessons, which can range from one to eleven. Each lesson includes about seven or eight words. Each completed lesson gives 10 XP (points).
- 1571 Words.

b. **Words**: A list of words that the user has learned or already knows. Every word is accompanied by a power bar, which shows if the word is still strong in your memory or when it's time to practice again, according to the Duolingo algorithm. You can also review these words via flashcards.

c. **Activities**: Duolingo functions similarly to social networking sites. You can follow other students, and others can follow you. The stream of activity not only shows what you and the people you follow achieve on Duolingo (levels unlocked) but also if you or they have commented on the discussion board. Everyone you follow and you appear on the "leaderboard" list, which displays XP (Duolingo points) you earn every week. It resets every Sunday at 19:00 Eastern Standard Time (United States).

d. **Discussions**: In this area, users can post discussions on topics of interest. Discussions will also be made if there are questions about any of the activities completed during the lesson, in which case the user can negotiate meaning among themselves. Discussions are divided according to the language you are learning, and there are also general discussion areas, such as the one recently opened to educators (this will be discussed in more detail later). These discussions vote up or down (similar to places like Reddit), so which one is more popular is more visible. It is also an area where Duolingo creators or moderators post important messages to the community.

e. **Immersion**: This area is for more advanced students. Anyone can upload public documents in any language and the community can start translating them. Users can offer suggestions for better translations or can simply make general comments. Users earn XP points for translating their documents or helping out with other documents that have been uploaded to the site. They also gain lingots (see below for definitions) if their translation is voted on by another user.

f. **Lingot Shop**: "Lingots" is the currency Duolingo uses to reward its users. You earn lingots when you complete skill knots or maintain a day streak using this site. Users can also "reward" other users with lingots in the Discussion area. With lingots, you can buy some items, such as a "freeze streak" which lets you skip a day and not miss a streak, some ridiculous outfits for the Duolingo owl (the

program's mascot), or, more importantly, in my opinion, a progress quiz, which shows you on a scale of 0 to 5 where you currently stand in your studies.

2. The Advantages and the Disadvantages of Using Duolingo Application

Using MALL with several applications on mobile phones, one of which is Duolingo, definitely has advantages and sometimes some disadvantages are bound to be encountered in using applications, especially language learning applications. Here are some of the advantages of using Duolingo:

a. Duolingo can help students develop their knowledge of learning, especially learning English.

b. Duolingo helps students learn languages in a more fun and interesting way so that learning runs effectively.

c. Groves, Hopkins, and Reid (2015) argue that language learning apps are free and promise all kinds of advanced features that can increase student motivation in learning, especially Duolingo.

d. Muddin, n.d said that Duolingo can be accessed anywhere and everywhere, and this app can allow students to learn the English language easily.

Another thing with the positive impact that can be obtained when learning to use Duolingo, and some negative effects or disadvantages can be obtained when learning to use Duolingo:

a. Lack of internet connection can be a big problem to run the app (Mataniati, 2019). For example, maybe some students can easily access a language learner via their mobile phone due to smooth internet flow, but what about students who live far away from the internet and who have difficulty acquiring knowledge of the language through application media on mobile phones?

b. Gupta (2020) argues that learning apps often lack features. Although many apps offer language learning, not all of them are of good quality and have complete features to help students in the learning process. The Duolingo app doesn't support video features, even though videos do one of the media that will greatly motivate students in learning a language because with videos students can see, observe, and listen as a whole to what they are learning.

MALL (Mobile-Assisted Language Learning)

Pegrum (2014) said that over the last 15 years, the use of mobile technology has increased rapidly and significantly, mobile internet devices have now exceeded and exceeded traditional desktop and laptop use. with the development of cellular technology, one of which is MALL (Mobile-Assisted Language Learning), in this sense, we take the notion of Kukulska-Hulme and Shield (2008) which state that MALL is the use of smartphones and other mobile devices technology in language learning, especially in situations where portability and learning lie offers certain advantages.

Learning English previously used a technological device also called CALL, but this CALL has been reproduced into a MALL which makes it easier to learn languages easily. According to Tai and Ting (2011) said that the technology that adapts language learners from CALL to MALL makes m-learning more varied and more special in form. MALL was developed in a form that is optimal and suitable for language learning, as stated by Shortt et al., (2021) that Mobile-Assisted Language Learning or MALL is a mobile device technology that focuses on the context of language learners. Many studies on MALL show the benefits of using MALL in language learning in several language skills (Ko & Lim, 2022), such as listening (Salih, 2019), vocabulary (Seibert Hanson & Brown, 2020), reading (Loewen et al., 2019), and writing(Aghajani & Zoghipour, 2018). Ko and Lim (2022) explained that increasing access to mobile devices such as MALL (Mobile-Assisted Language Learning) can help maximize communication in class as well as communicating during learning.

1. **Effectiveness MALL**

Burston (2015) revealed that MALL makes it possible to deliver learning material anywhere and anytime, and only once can provide learning feedback, this MALL can also support all formal and informal learning, enhance independent or collaborative learning, and assist in providing media coverage in learning. the spread of mobile devices in the world has been widely found such as smartphones, cellular phones, pocket electronic dictionaries, MP3 and MP4 players, iPods, data-travelers, digital cameras, personal digital assistance devices, laptops, netbooks, iPods, tablets, e-readers, and handheld game consoles that can support easier learning and provide greetings for teaching and learning to be done digitally wherever and whenever so that the world becomes a *"mobility"* virtual learning space (Chen, 2017; El-Hussein & Cronje, 2010; Şad & Göktaş, 2014). From the several mobile devices above, it can be seen that mobile devices are now developing in line with the development of science, as well as MALLs which are language-learning tools that assist in language learning. There are several studies from (Vasselinow, 2009) with the Rosetta Stone application and (Vasselinov & Grego, 2012) with the Duolingo application which found that language learning outcomes are favorable for users, leading to the claim that these programs offer equal or greater effectiveness than face-to-face foreign language courses.

Learning Grammar

Literature says that grammar is very close to linguistics, such as syntax and morphology, as Thornbury (1999) says that grammar is partly the study of language and what forms (or structures) may exist in a language. Grammar can also be observed as prescriptive or descriptive. Prescriptive grammar is traditional but nowadays it's quite archaic because it doesn't describe the language as it is used (as descriptive grammar which emphasizes that language change changes permanently. According to Ur (1988) grammar can be defined as manipulating and combining words so that they become longer units of meaning. He also

stated that grammar knowledge is very important to learn as a language learner. Woods (1995) points out that writers try to explain grammar, it was already discussed in the 19th century that grammar is divided into four main sections - orthography, etymology, syntax, and prosody.

From several definitions of grammar by several experts, grammar itself is knowledge or knowledge that is very important to learn as a rule in understanding a foreign language, including English. Therefore grammar is also the most concern as a means of using words and some writers also include writing systems in grammar. Therefore, grammar is a very complex material in learning foreign languages, especially English, so grammar is often the starting material taught by a teacher with all different methods and strategies so that students understand and can understand an English reading or expression.

1. **History of Grammar in Learning**

    Richards and Rodgers (2001) describe it later, in the 19th century that there was a Reform Movement against grammar-translation methods that were already established. This movement was launched because of a new need for methods and approaches. Many innovations in language teaching and methods occur and oral proficiency is supported by this reform. In this case, there are also several authors inspired by that method, where children use their native language for learning (first language acquisition) and many of them also consider teaching language in a context very important. (Richard and Rodgers, 2001) that the linguist Henry Sweet defined the progress of method in language teaching into some steps:
    - Selecting the material that should be taught
    - Describing the process based on four basic skills in language (speaking, reading, listening, and writing)
    - Defining the limits of the subject matter
    - Arranging the materials from simple materials into complicated material

    At the beginning of the 20th century, new research on language teaching was carried out. Linguists in the US point out that there is no single method that can guarantee excellent results in learning and hands-on the method so popular in Europe was criticized. In the 1920s and the 1930s, the so-called British approach to teaching English was developed and the foundations of *audiolingual* and the theory of the spoken approach were established. Since the 1960s, many new methods and approaches have emerged and each is specific in terms of goals, methods taught, and strategies. And the prolific stage of developing methods and approaches is from the 1950s – 1980s, many new methods and approaches emerged during that period and teachers or language instructors were aware of the fact that choices made suitable and effective methods are essential for quality language teaching.

2. **Types of Grammar**

Many linguists remind us that there are different types of grammar, and the difference is about the ways how to describe and analyze the structure and the function of language itself. And there are some definite differences between descriptive grammar and prescriptive grammar. Specialist researchers in descriptive grammar reveal the rules that underline words, phrases, and sentences. While prescriptive grammar is more for editors and teachers to try to enforce the rules that they believe in using the rules of the language.

a. Comparative Grammar

This type of grammar is the study of related languages' grammatical systems and their comparison. A capacity of language that gives an explanatory basis for how a human being can learn a first language" is the focus of current comparative grammar research (R. Freidin, 1994).

b. Generative Grammar

Generative grammar is a model of the psychological system of unconscious information that underpins a speaker's capacity to create and interpret utterances in a language and is known as a theory of competence (F.Parker and K. Riley, 1994).

c. Metal Grammar

The in-brain generative grammar that a speaker uses to create a language that other speakers can understand.

d. Pedagogical Grammar

Grammar instruction and analysis tailored to second-language learners. The term "pedagogical grammar" is ambiguous. The term is frequently used to refer to (1) pedagogical process, which is the explicit treatment of target language system components as (part of) language teaching methodology, (2) pedagogical content, which is information about the target language system presented in reference sources of various kinds, and (3) combinations of process and content.

e. Universal Grammar

The intrinsic set of categories, procedures, and principles that underlies all human languages. A theory of the organization of the learner's initial mental and cognitive state, or a theory of the human faculty for language, can be derived from the linguistic principles of Universal Grammar when seen collectively (S. Crain and R. Thornton, 2000).

METHOD

The researcher used qualitative methods. Qualitative research is research that places more emphasis on the process analysis of inductive thinking processes related to the dynamics of the observed natural phenomena relations and with scientific logic (Gunawan, 2017). The researcher used qualitative research which is descriptive analytic in which the data obtained such as the results of observations, interviews, or document analysis were compiled by

researchers at the research location and not set forth in the form of numbers (Gunawan, 2017). The subjects were 30 students from grade 1 SMPX for the 2022/2023 academic year. 30 students were randomly selected to become research subjects for about a full month to practice and apply Duolingo as one of the MALLs in learning English at school. The researcher chose students or subjects to be studied randomly to know how their English skills were, especially in grammar abilities, with their different backgrounds. the researcher wanted to find out how their experience was when using Duolingo as a learning medium for technology-based brands on mobile phones to learn grammar in class or outside of class after being trained for 1 month. And the researcher got different data by using interview instruments and questionnaires by asking about their experiences while using the Duolingo application. The researcher used two primary instruments, the first instrument are questionnaires and interviews, and one second instrument is documentation.

The researcher used two primary instruments, the first instrument are questionnaires and interviews, and one second instrument is documentation. The researcher used a questionnaire to collect data by gathering answers to the object under study briefly. The researcher could gather information from respondents and usually comprises some topic-related written questions. According to Babbie (2008) a questionnaire is described as a collection of questions and other things intended to elicit relevant data for the study. The interview that will be given to the research object is in the form of several questions orally related to their experiences using the Duolingo application as a MALL medium in learning grammar. The interview here is not just a formal question but be preceded by several informal questions because interviews in qualitative research are conversations that have a purpose and are led by several informal questions (Gunawan, 2017). In addition to conducting questionnaires and interviews for data collection, the researcher will use documentation instruments by documenting their activities using the Duolingo application in learning grammar in the form of photos or videos. In this study, the researcher conducted research for about one full month with details every first week to test how well they understand grammar before using the Duolingo application and learning the Duolingo application, the second week by asking them to use the application and start working on the questions in it, The third week is still the same as the second week, and in the last week the researcher asks students to fill out a questionnaire and interview.

RESULTS

The researcher presented the data that had been taken from two instruments that researchers used, namely questionnaires and interviews were distributed to the object of this research to 30 students 7th grade students of SMP X, in research on student perceptions of using Duolingo as a medium in grammar learning. Researcher gave several questions contained in one questionnaire with a total of 17 questions with 5 alternative answers and 5

interview questions to 5 student samples who were asked about their experiences after using Duolingo for half a month in and out of class.

Table 1. Result of Questionnaire

NO	Question	STS	TS	BS	S	SS	JML
	The Effective Media for Learning						
1.	Duolingo mudah digunakan dalam pembelajaran Bahasa Inggris	-	-	5	11	14	30
2.	Duolingo mudah digunakan untuk mempelajari grammar Bahasa Inggris	-	1	4	14	11	30
3.	Duolingo bisa di akses dimanapun dan kapanpun untuk mempelajari Bahasa Inggris	-	1	4	15	10	30
4.	Soal-soal grammar Bahasa Inggris dalam Duolingo mudah dipahami	-	-	13	13	4	30
5.	Soal-soal grammar Bahasa Inggris dalam Duolingo menarik	-	-	7	16	7	30
	Disadvantages of Duolingo						
6.	Duolingo dalam pembelajaran grammar Bahasa Inggris membosankan	8	13	9	-	-	30
7.	Duolingo kurang bermanfaat untuk mempelajarai grammar Bahasa Inggris	12	16	1	1	-	30
8.	Duolingo sulit digunakan jika tidak ada koneksi internet	-	2	9	11	8	30
9.	Duolingo mempersulit saya dalam mempelajari grammar bahasa Inggris	-	15	14	1	-	30
	Students' Interest						
10.	Saya tertarik belajar menggunakan Duolingo karena memudahkan saya memahami grammar Bahasa Inggris dengan baik	-	-	8	13	9	30
11.	Belajar menggunakan Duolingo memberikan kesempatan untuk saya lebih efektif dalam belajar	-	-	7	19	4	30
	Advantages of Duolingo						
12.	Dengan Duolingo saya dapat mempelajari grammar Bahasa Inggris dirumah dengan mudah	-	-	6	13	11	30
13.	Belajar menggunakan Duolingo membuat saya mengetahui materi grammar baru	-	-	6	18	6	30

14.	Belajar menggunakan Duolingo membuat saya	1	1	16	11	1	30
	Students' Motivation						
16.	Saya merasa lebih termotivasi belajar menggunakan Duolingo	-	1	10	14	5	30
17.	Duolingo membuat saya lebih bersemangat dalam belajar grammar Bahasa Inggris	-	1	12	13	4	30

1. Based on the five statements provided to students, not all students felt the effectiveness of the Duolingo application as a medium for learning English grammar, where there were 15 students who answered neutrally which showed that they did not feel that the questions in Duolingo could be easily understood by them and they also felt that the questions they found in Duolingo is not much different from what they get in classroom learning. and there were 2 students who gave negative perceptions by assuming that they did not feel that the questions in Duolingo were easy but they also found difficulties in some questions and they gave the perception that for them Dulingo could not be fully used anywhere and anywhere to learn English because of their difficulties in using it is not like other gmes-based learning applications. Regarding the effectiveness of Duolingo used by the students during learning as a medium in learning grammar. The interviewee performed differently in producing their minds, students answered with some of their perceptions that they felt the effectiveness of Duolingo when used with the ease of the questions in Dulingo that are easy to use and the many features that help them and the students also felt that Duolingo was an effective learning application where they could find it easy to use it to learn English especially grammar material which they could not understand before. But, they also felt that they are constrained in terms of internet connection. The results that the researchers got from the student's excerpt answers *"During the period of studying grammar with Duolingo, Duolingo was very effective to use but sometimes there were problems with the internet connection."*

2. The statement given showed that the majority of students use their grammar skills when carrying out their daily activities but there were 13 students who gave a neutral perception that they used English grammar on a daily basis because for them using English grammar required a long learning time. And in the aspect of their love for grammar lessons there are almost half the number of students in the class giving a neutral perception that after learning grammar in Duolingo it's just like learning grammar in class and the questions given in Dulingo are almost the same as the questions that exist in the nature of learning in class. The researcher also gave interview questions to students regarding whether they used English in their daily life because they were motivated after using Duolingo. Students' perceptions showed a positive attitude because they felt motivated because they want to re-learn or repeat the material provided in Duolingo and practice or use some of the vocabulary and some

simple tenses that they have learned in Duolingo. Researcher get answers to this in the students' answers to the questions given *"With Duolingo, I am motivated to use English in my daily life and I can distinguish between words or sentences that I should use in everyday life".* Researcher also provided statements regarding how they think the Duolingo application is problematic when used from the questions given 4 students answered that they gave a negative perception that Duolingo could not be used in the absence of an internet connection, but there was one student who answered that an internet connection was not a problem in using Duoling. Therefore, it can be concluded that for some students internet connection problems are not a serious problem when they use Duolingo. This was found by researchers in excerpt student answers *"Duolingo is easy to use to study and learn grammar and I have no problems when using it".*

3. The percentage above shows that students felt excited and motivated to continue learning English with Duolingo for several reasons, like Duoling is an interesting application, although there were still a few students who don't feel motivated or excited after using Duolingo or some students answered neutrally that they were not very motivated after using Duolingo because they felt that Duolingp was the same as what they learned in class. Students were also given a question in the interview about their perception after using Duolingo, From the students' answers after using Duolingo, all students gave positive perceptions where they felt after using them they were more diligent in learning English grammar and were motivated to use some of the simple tenses they had learned in Duolingo. However, the thing about the internet connection made the two students who answered had difficulty using Duolingo. Such results can be in the student's excerpt answer *"after using Duolingo I feel that grammar students learn easily and interestingly thanks to Duolingo and I am motivated to continue learning grammar"* and *"I enjoy using Duolingo because it's very interesting and there are lots of pictures so I enjoy using it as a medium for learning grammar, but I'm bothered by the internet connection I have when it's finished I can't use Duolingo.*

DISSCUSSION

The results of research findings have been taken from the distribution of questionnaires with 17 questions for 30 SMPX students and 5 questions for 5 students as samples in the study. In answering the first research question about students' perceptions of Duolingo media as a learning medium, many students had differences in answering the questionnaire given with different perceptions according to what they understood about an experience they had experienced (Soraya, 2018). Perceptions given by students regarding the experiences they experienced while using Duolingo were influenced by internal and external factors experienced by them with several factors (Wilson, 2000).

The effective aspect of this Duolingo media as a language learning media in handheld telecommunications (Kukulska-Hulme & Shield, 2008). Students provide answers to the questions that they performed a positive perception toward the use of Duolingo as MALL.

They gave a positive perception of the Duolingo language that was easy to use according to their experience (Walgito, 2010). Besides that, Duolingo is easy to use and makes learning more special and varied (Tai & Ting, 2011). Duolingo as one of the applications in mobile phones as a language learning tool is also easy for them to use wherever and whenever they like with proof of the questionnaire answers given to them with positive answers (Burston, 2015). Students also gave neutral perception where they did not really feel that the questions in Duolingo were easy for them to understand because they thought those questions were the same as what they found in english grammar lesson at the class.

In terms of their interest in using Duolingo, they showed a positive response to use Duolingo where this aspect of interest is one of the internal factors that occur when students explain their perceptions or experiences of using something (Walgito, 2010). The results of the questionnaire given to students regarding their interests stated that the application helped them learn grammar and made them active in everything they had learned. Students' interest has a positive impact because they have used Duolingo which helps them towards learning English, especially in better grammar skills. But, there were some students who gave perceptions that Duolingo did not make them feel more active in learning English grammar because they felt that Duolingo was an application in the form of games that is the same as the other learning application.

In using an application on a mobile phone, there are many positive and negative sides, in the case with using the Duolingo application which is used in English language teaching for junior high school students. Where in using Duolingo for one month during the training period they found several positive and negative sides. Their response to the Duolingo application varies according to how they feel, most of them have positive perceptions of toward the use of Duolingo is to use wherever and whenever according to their conditions and Duolingo makes it easy for them to learn English easily (Mudin, 2018). Besides being easy to use anywhere and anytime, Duolingo also helps students get used to being active in using English in their daily life. Where in the results of the interviews conducted with the five students all of them answered that after using Duolingo they felt motivated to actively speak English by using a little English or using some of the vocabulary obtained in Duolingo and teaching students what they had learned . The various features available in Duolingo make positive things for its users to be motivated in learning (Groves, Hopkins & Reid, 2015).

The negative side of advantages that students performed when using Duolingo is also obtained by them, where most of them feel that what they are worried about when using applications that are on a handheld is the lack of internet so that which interferes with their learning to use Duolingo. Where almost all brands are concerned about this internal connection can create big problems that can interfere with their use of learning time (Mataniati, 2019). The disconnection of the internet connection, if they don't have an internet quota on their cellphone, doesn't only happen to the Duolingo application but can happen to other applications that require an internet system to play it (Gupta, 2020). But, there were some

students who did not really care about the internet connection as a problem in their learning to use an application.

Motivation is an important factor in perception because with motivation students will get a stimulus to respond to an experience that they have done (Wilson, 2000). All students who were asked several interview questions by the researchers in this study felt that they were motivated to use the English language and some grammar tests they had learned because Duolngo is an interesting application for them and an application that is free to use to study wherever and whenever they want. (Munday, 2015). The attraction or excitement of this Duolingo application makes students have a positive perception of using Duolingo, and another factor is the ease with which the Duolingo application can be used by students and the form of the application contained in a mobile phone which helps maximize learning communication inside the classroom and outside the classroom (Ko & Lim, 2022).

CONCLUSION

The research has answered three research questions based on the result of filling out the questionnaire and conducting an interview with the students. Most of the students gave positive perceptions of using Duolingo as a learning media for them based on two aspects, the first was the effectiveness of the media and students' interest in the media. In terms of the effectiveness of Duolingo media as grammar learning media, they agreed that Duolingo is easy to use anytime and anywhere and it is also easy to use for learning grammar as well as several features in Duolingo that make it easier for them to understand existing grammar learning based on a game. In the aspect of students' interest in MALL such as Duolingo, students had a positive perception of using Duolingo. They felt attracted to this Duolingo media because of the convenience of Dulingo and the features presented which can help them learn easily and efficiently they thought positively that with Duolingo they were more active in learning English more specifically in learning grammar inside and outside the class. And it helped them to complete some material that they did not understand before.

The use of media revealed positive and negative sides, especially in the learning media used by students. Using Duolingo provided students a positive perception, they felt that learning grammar is more accessible and understandable to them with Dulingo. Another positive thing they also felt was that with Duolingo they felt more curious about English grammar materials. With Duolingo, students also felt that they were starting to like grammar and Duolingo also helped them to practice English in their daily activities, especially grammar, such as being able to distinguish between words, sentences, and the use of several simple tenses in the class and daily activities. On the other positive side of Duolingo, students demonstrated a slightly negative perception that Duolingo is a media form and an interesting application for them. But, there were internet connection problems that students felt if they didn't have a network caused by the lack of quota or Wi fi connection they had for their internet connection activate the Duolingo application as their media in learning. And this made it difficult for them to use Duolingo if they didn't have an internet connection on their

smartphone or other devices. The aspect that increases after students used the Duolingo application was that they were more motivated to study grammar more diligently and they felt more excited about learning grammar. They also had a positive perception of what they experienced after using Duolingo where they felt that Duolingo helped them to understand grammar materials that were not previously understood. They understood and the students also thought that Duolingo was an interesting application with various pictures and features for learning grammar. And suggestions for further research can examine the effectiveness or perceptions of students and teachers in the use of other technology-based learning applications such as BuSu and Memerise which are the same as Duolingo as a whole with a wider sample which is more interesting for students to be more motivated and interested to continue learning in all language training especially English so that the benefits of research can be used in several aspects of English learning abilities broadly for teachers or students.

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