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| RESEARCH ARTICLE

The Use of Kuki Chatbot Application to Improve English Achievement

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| ABSTRACT
The use of digital media is one of the topics recommended in the Platform Merdeka Mengajar (PMM), a teacher-independent learning platform and a benchmark in the implementation of the Curriculum Merdeka. In this study, the researcher used an artificial intelligence called a chatbot Kuki application. Chatbots are automated conversational agents that can interact with users in natural human language and provide support anytime, anywhere. Kuki is an embodied Artificial intelligence bot designed to befriend humans in the Kuki, formerly known as Mitsuku. The researcher first carried out pre-observation to show students' English achievement. The result is that students' English achievement is still in the low category. Mostly students stated that media in learning is a factor in low achievement. The objectives of this study are to find out: 1) whether the use of Chatbot Kuki can improve students' English achievement. ,2) students' engagement in applying the Kuki Chatbot, 3) Students' perception of the usage of chatbot Kuki and how learning steps are taken by using chatbot Kukis, and 4) The steps of Learning English by using Kuki Chatbot in the class. The research conducted Qualitative research by using two classes, namely Experimental and Control classes. Both of the classes are given a pre-test and post-test to see the students' achievement. The student's engagement is based on three dimensions: cognitive, behavioural, and emotional engagement. Student engagement is observed by an observation sheet; students' perceptions are used in a Likert scale analysis, and a validation test is performed to see the learning steps in using the Kuki Application. The result of the study is that there is an improvement in students' English achievement in experimental classes. The Students' engagement is active, and the perception of the students is positive. The English achievement of students in class IX of SMP 3 Alla Enrekang is improved.

| KEYWORDS

Kuki Chatbot, Application, Improve, English Achievement

| ARTICLE INFORMATION

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1. Introduction

Today, in the world of education, information technology has penetrated many subjects, including English subjects. Information technology plays a large role in learning English, especially in today's digital era, where learning has moved from school to the internet. Technology also plays a major role in building quality education.

The importance of technology in the learning process is emphasized by (Stosic, 2015), explaining that technology plays three roles in education, namely as a lecturer/instructor, as a teaching tool, and as a learning tool. The role of technology also applies to learning English. Learning English, whose main goal is to equip students with good communication skills, also requires the involvement of technology (Barreto et al., (2018) & Klimova et al., 2023). Materials that involve knowledge of English and academic theory about English itself can be more easily taught and accepted by students using technology.

The amount of English teaching is still one of the biggest problems English teachers face; the effects of such a situation can be seen during the teaching and learning process (Songbatumis, 2017). According to Badriah in Sonya (2019), a crowded class is

widely recognized as one of the difficulties in teaching English. Among other things, the crowding of classrooms can make it difficult for teachers to maintain order in the classroom, which ultimately results in an uncomfortable learning environment for students (Safar et al., 2021).

In Indonesia, most teachers use textbooks as teaching material guidelines. However, some teachers experience difficulties due to the lack of available books. Combined with teachers who do not have other appropriate instructions in the book and meet the criteria for using teaching materials in their classes. Although there are many textbooks in schools, most of these books do not interest students. For example, books that have too many sentences or awkward pictures hinder or reduce students' motivation to learn ((Chen et al., 2019).

Teaching English in schools (facts and implications) in Singapore, Malaysia, the Philippines, and even Vietnam, although the level of English proficiency really affects the quality of human resources. Diyanti (2021), which is the core of President Joko Widodo's second-term government development efforts, states that the low awareness of the importance of English education in Indonesia is due to several factors, including inequality in educational issues.

Indonesia's English proficiency remains low, ranking 74th out of 100 countries in the 2020-2020 EF English Proficiency Index, or EF Education First, an international education company focused on academic language, cultural exchange, and educational travel. The researcher found the results of observing in South Sulawesi, especially in Enrekang district, in class IX students of SMPN 3 Alla that the achievement in learning English was still low. The average value is 60. This value is a sufficient category or still needs improvement based on Permendikbud No 18A, 2013.

The low achievement at SMPN 3 Alla was found from the results of observations using a questionnaire. The result is that the dominant respondent chose that the learning media presented by the teacher is less attractive (the number is 50%). Then 36.4% stated that the reason was because the teacher's way of teaching was boring. The rest is 13.6%, which indicates the material is less interesting. From the data findings, it was concluded that the cause of the failure of learning achievement in class IX of SMP 3 Alla Enrekang was the presentation of media, which was not interesting and boring. Media, in this case, is a form of facility and infrastructure used by teachers when teaching, and researchers associate it with technology-based media, which is also a school obstacle to improving the quality of student learning. Technology-based learning is also a school obstacle in improving the quality of student learning.

Based on the findings from observations about the causes of low English learning achievement at Alla 3, the researchers offer a solution: a digital application based on Artificial Intelligence that can be used as a student partner in learning English interactively. This Artificial Intelligence is known as the kuki.ai chatbot application. Wardani and Kuncoro (2022) state that interactive multimedia can be used to improve the English learning outcomes of students with different learning styles. Researchers will also look at the impact or influence of one of the interactive media called cookies, kuki.ai, in improving students' English learning.

Mobile technology-aided learning improves perceived competence and achievement (Zhonggen, 2018). Mobile learning has received popularity among learners and teachers due to its flexibility and easiness. It has been in effective use in a number of universities throughout the world. Interactive Learning Network, including the application of PCs and corresponding technology, was used for pre-and post-tests at Canada College and San Francisco State University (Zhonggen 2018). The use of artificial intelligence is needed in learning English because it can have a positive effect on its users (Jiahui Huang et all (2021). The use of

artificial intelligence helps overcome difficulties in learning English more effectively. One of them is the use of the interactive environment kuki.ai as online self-learning. Kuki (which is short for Mitsuku) was created by Steve Worswick using Pandorabots' underlying AI chatbot technology (Medina & Ferrer, 2022). Steve currently serves as Kuki's lead developer and Head of Conversational AI at Pandorabots and its subsidiary ICONIQ, which owns and is responsible for further developing and commercializing Kuki. Haristani [2019) analyzed different types of chatbots and pointed out six advantages: decreased language anxiety, wide availability, multimodal practice, novelty effect, a wide variety of contextual vocabulary, and effective feedback. In another review, Radziwill and Benton [2017] examined some attributes and quality issues related to chatbot development and implementation. The authors took into consideration factors such as efficiency, effectiveness, and satisfaction and concluded that chatbots could positively support learning but also be used to engineer social harm (misinformation, rumors).

Some research that has been done previously concerns chatbots as an interactive learning medium Using Chatbots as AI Conversational Partners in Language learning. Medina and Ferrer examined the knowledge, level of satisfaction, and perceptions concerning the integration of conversational AI in language learning among future educators. interacted autonomously with three) conversational agents (Replika, Kuki, Wysa) ((Medina, & Ferrer, 2022). The author noticed that The analysis yielded positive results regarding perceptions concerning the integration of conversational agents in language learning, particularly about perceived ease of use (PeU) and attitudes (AT), but the scores for behavioral intention (BI) were more moderate. The findings also unveiled some gender-related differences regarding participants' satisfaction with chatbot design and topics of interaction. Meanwhile, my research was on how junior high school students perceived the use of AI as an independent online learning medium by focusing on only one conversation agent, namely kuki.ai, in learning English.

2. Literature Review

This chapter discusses, among other things, previous research-related findings, some pertinent ideas, a conceptual framework of the research, and a Hypothesis.

2.1 Previous Research-Related Findings

Some research was conducted on using chatbot applications. One of them is Hakim & Rosmania (2022). The study used descriptive methods to describe the process of learning English using chatbots and to determine students' perceptions of using these chatbots to improve their communication skills in English after talking to the chatbots: Eliza, Alice, Mitsuku/Kuki, Andy, and Talk Points: Concepts, feelings/confession, daily activities, hobbies, lectures, COVID-19 pandemic, etc. The result obtained is the most preferred chatbot. ANDY Chatbots have positive semantic representations and no negative connotations. Least Popular Chatbots: For ELIZA, the ELIZA chatbot, there are many more negative meaningful expressions than positive ones.

In line with research conducted by Chieng Wu Lai (2022) on Artificial Intelligence Markup Language (AIML) and leveraging the widely used communication software LINE ChatBot, this research aims to build an innovative contextual English learning environment that improves learners' speaking and listening skills. As a result, the research showed that utilization of LINE ChatBot, a contextual learning environment, slightly improved the performance of both groups of students, but no significant difference was found. On the other hand, speaking anonymously improved extrinsic motivation in both the experimental and control groups. In short, the contextual learning environment based on LINE ChatBot greatly improved learners' English speaking and listening skills. Furthermore, a competitive element to LINE ChatBot effectively increased learners' intrinsic motivation to learn English.

Research on the use of artificial intelligence was also carried out by Ismail, oktadela, and Rian (2023). The purpose of the research is to develop a chatbot application for learning English structure using social media. A major consideration in using social media as a learning tool is that during this pandemic, most student community activities will use social media or online-based learning facilities. Social media is, therefore, not new to the general public and is considered to be the best alternative that can be used as a means of teaching structured English materials. Facebook used the Chat Fuel feature to develop a chatbot that learns the structure of English. Using chatbot techniques automatically helps learners when they are having difficulties. The ELA-bot or English Learning Assistant Bot helped students of the university to learn the structure of English.

Another research done by Daeun Han (2021) aims to conduct English teaching using AI chatbots, which are quickly becoming a buzzword among the whole society, and to evaluate students' learning experiences based on student's answers for analysis qualitatively revealed. As a result of the study, students' English skills, including speaking and listening, improved, their motivation and attitude towards learning English changed, interest in learning English increased, fear of learning a foreign language decreased, and difficulties related to speed and chat language difficulties and chat response limits, while Haristiani (2019) found that learners are interested in using chatbots because they could use chatbots anytime anywhere. She also observed that the students were more confident in their learning activities when they used chatbots compared to when they talked to human tutors. In line with this, Haryanto (2017) also found that his EFL students were enthusiastic when they were introduced to AI in their learning.

2.2 Some Pertinent Ideas

2.2.1 Concept of Learning Achievement in Kurikulum Merdeka (IKM)

The definition of Learning outcomes is records of success or maximum potential that a person achieves after completing a learning effort (Riswanto, 2017). Learning achievement is expressed by symbols, numbers, letters, or sentences that can reflect the results achieved by each student over a certain period of time, and it can be said that learning is the result of learning activities related to the changes achieved by students.

Meanwhile, according to Muhibbin (2017), learning achievement is the disclosure of learning outcomes in all psychological domains that change as a result of experiences and student learning processes. The realm of psychology referred to here is the cognitive domain (thinking intelligence), the affective domain (emotional intelligence), and the psychomotor domain (muscle movement/mixture).

Learning success cannot be separated from learning itself. Learning is a process that is carried out by a person to achieve a new behavior change as a whole based on his own experience in interacting with his environment (Slameto, 2015). Therefore, learning is the process of forming learning achievement. Maximum learning leads to high achievement. Furthermore, Andriani et al. (2018) argue that learning achievement is the result obtained by a person after carrying out learning activities, while learning is essentially a person's conscious effort to meet their needs. The success of learning is usually indicated by the results of tests or grades given by the teacher.

From the series of definitions above, the concept is packaged into a regulation in Balitbangbuk No. 028 of 2021 Learning Outcomes of PAUD-SD-SMP-SMA-SMK-SLB (New Curriculum). Therefore, Balitbangbuk No. 028 Year 2021 Learning Outcomes of PAUD-SD-SMP-SMA-SMK-SLB in Mobilization Schools is a new curriculum that is being implemented in a limited manner in mobilizing schools. Learning outcomes are learning competencies that must be achieved by students at each stage of development for each subject in PAUD units, basic education, and secondary education.

Based on the experts' understanding of learning outcomes above, it can be concluded that learning outcomes are the result of the learning process, which is achieved through measurement with test equipment or other instruments related to students and labeled with symbols, numbers, letters, or sentences that represent. Their learning outcomes can be reflected. This has also been supported by Balitbang no 28 no 2021 on the Free Learning Curriculum.

2.2.2 The level of impact of learning achievement.

An evaluation should be done to find out the learning achievement of students. The learning achievement has several functions as follows:

i. Indicators of quality and quantity of knowledge that students have mastered.
ii. Symbol of satisfying curiosity.
iii. Material information in educational innovation.
iv. Internal and external indicators of an educational institution.
v. It can be used as an indicator of the absorption of students.

2.2.3 Artificial Intelligence

1) Artificial intelligence definition.

Artificial Intelligence or AI is a simulation of human intelligence applied to a computer system or other machine device so that the device has a way of thinking like humans (J. E. Korteling et al., 2021. The goal of educational technology is to change and influence the classroom. Learning is the goal, while teaching is the means to achieve that goal (Valarmathie Gopalan et al., 2017). The teacher must understand the learning objectives to achieve the intended goals.

The word AI consists of the words "artificial" and "intelligence." The word "artificial" is something that is not real, simulated, but not entirely fake regarding being a scam. While "intelligence" is a complex term. One can define it in various ways, such as logic, self – awareness – learning, emotional knowledge, planning, conscience, and creativity. (Drigas, et al,. 2021). Intelligence is something that can replace genuine items because the former has better qualities in a certain context. Another definition of AI is artificial intelligence (AI), which is a computer science technology that explores the analysis and development of smart machines and apps. It is the science of having a machine to think and behave like a human being who is intelligent. (Fitria, 2021)

Artificial intelligence was introduced by John McCarthy in 1956 at the Dartmouth Conference. He is a professor at the Massachusetts Institute of Technology. At the conference, they explained.

"Artificial intelligence is how to know and model human thought processes and design machines so they can mimic human behavior. "(Shabbir & Anwer, 2015). " Smart " means having knowledge plus experience, good reasoning (how to make decisions and take action) ". Another opinion put forward by Avron Barr and Edward E. Feigenbaum:
" Artificial Intelligence is a part of computer science that studies (in the sense of designing) intelligent computer systems, namely systems that have the characteristics of thinking like humans."

Simply put, artificial intelligence can be defined as the process of simulating human intelligence in a machine that has been programmed through a computer system. In general, the existence of artificial intelligence, as stated by Winston and Prendergast (1984), aims to make machines smarter, understand what intelligence is, and make machines more useful.

2) The Purpose of Artificial Intelligence (AI)
The purpose of AI is to imitate human cognitive activity, such as learning, reasoning, decision-making, and self-correction (Geetha R, 2018). As a result, devices that implement AI can do at least one of four things:

i.Acting Humanly – The system can act like a human.
ii.Thinking Humanly – The system can think like a human.
iii.Thinking Rationally – The system can think rationally.
iv.Acting Rationally - The system can act rationally.

Artificial intelligence is a technology that requires knowledge, just like humans. AI needs experience and data to increase its intelligence (Yingying Zhang et al., 2020). The main points of the artificial intelligence process are learning, thinking, and self-correction. Artificial intelligence must learn to enrich its knowledge (Mata et al., 2017). Artificial intelligence learning is not always human, but it learns itself based on AI experiences when humans use it. One of the newest is ChatGPT. This Open Artificial intelligence (AI) based chatbot tool stands out because of its function, which can answer questions flexibly or not rigidly like a robot. *Artificial intelligence (AI) or artificial intelligence is engineering technology that enables computer systems and software to be made and programmed* to "think" like humans and imitate their actions (Surya, 2018).

3) The impact of artificial intelligence on humans
Artificial Intelligence brings significant benefits to various fields, including education. Artificial intelligence has been proven to help teachers with assignments and also make teaching and learning easier. On a broader scope, Artificial intelligence (Machine Learning) helps education systems and development more quickly and practically (Lijia Cheni et al., 2020). Artificial intelligence can carry out tasks performed by humans by presenting learning instructions as requested, can look for references to certain learning resources, and is capable of carrying out administrative tasks such as assessment, budgeting, managing school human resources, personalizing students, and other routine tasks (Francesco Pedró,2020).

Artificial Intelligence in Education Practically, Artificial Intelligence can be applied in the field of education with various functions, such as;

i. Personalization: Artificial intelligence can act as a personal assistant. Artificial intelligence can customize teaching and learning for each student. AI systems can help create a learning profile for each student based on their needs. Artificial intelligence can personalize learning according to the abilities, learning styles, and learning abilities of each student. This makes it easier for each student to understand the material and solve their learning problems more effectively.
ii. Voice Assistant allows students/teachers to interact with AI through sound (verbal). Voice Assistant will provide certain information according to the questions asked by voice (Yajing Xue and Yijun Wang,2022). The existence of this Voice Assistant means that students do not have to ask the teacher when the teacher is not there. Voice Assistant will present information in various forms, such as voice, text, images, and even videos. Even the VA will wake you up like an alarm, remind you of study time, and even recommend books that are suitable for reading. Examples of Voice Assistant products that are commonly used today are OK Google (Google), Cortana (Microsoft), Siri (Apple), and others. This system allows students/teachers to interact with AI through voice (speaking). The voice assistant provides specific information based on voice questions. The presence of this VA means that students do not need to ask the teacher when the teacher is not present.
iii. Assessment
Like humans, artificial intelligence can also do tasks that you have been doing manually (Susan Michie, 2017), for example, correcting quizzes or exam questions. The programmed artificial intelligence system will check student test results quickly and accurately automatically (Cuibi Yang et al., 2020). AI will give scores, correct wrong answers, provide explanations about the material, and even recommend some tips so students can improve their learning.

The existence of Artificial intelligence means teachers no longer have to correct student test results manually and repeatedly. Teachers can focus on other, more important matters. An example of applying this AI technology is the one on the kejarcita.id platform. The 'Quiz' feature allows teachers to make questions/quizzes more easily according to the desired subject, level, and level of difficulty. When students finish completing quizzes, the system immediately publishes quiz results along with scores, wrong answers, discussions, and rankings of all students in the class. Teachers and students can also save or print quiz results for documentation and evaluation.

iv. Administrative Tasks

Teachers also have to carry out administrative tasks at school, For example, preparing reports, preparing learning needs and budgets, making lesson plans, and answering questions from parents and others. For broader needs, artificial intelligence systems can support school budget processes, management of information on new student admissions, teacher absence systems, and management of educational institutions more practically and automatically (Grezegorz, 2022). Apart from that, Artificial intelligence has many other functions, such as creating curriculum, presenting content, automatically finding lecturers for online material, etc.

2.2.4 Chatbot Application

Chatbots are computer programs that can perform automated tasks and function on messaging platforms (Fitria et al., 2023). Chatbots use artificial intelligence (AI) to mimic human conversations (Dale, 2016; King, 2023). Chatbots are automated conversational agents that can interact with users in natural human language and provide support anytime, anywhere. Artificial intelligence chatbots help users conduct discussions that mimic real life. Let's say your users are not predetermined, and you run into a problem that a rule-based chatbot can't solve. If so, these dialogues can help. Artificial intelligence chatbots work like software that automates tasks (Grudin. J & Jacques. R, 2019). Some AI-based chatbots use historical records of communications to improve their intelligence and are trained by voice assistants. As a result, persistent user issues may improve over time. Language and technology experts also communicated frequently with the bots to reduce the lack of solutions, and these long sessions gave the bots knowledge of all the situations they might encounter online (Gupta. S & Chen. Y, 2022).

a) What is the Kuki chatbot?

Kuki is an embodied Artificial intelligence bot designed to befriend humans in the Metaverse (PA Smith – 2023). Kuki, formerly known as Mitsuku, is a chatbot developed by Steve Worswick using Pandorabots AIML (Artificial Intelligence Markup Language) technology. This product is a Turing test contest called the Loebner Prize, which he won five times (2013, 2016, 2017, 2018, 2019) and holds the world record. Kuki can chat via online portals, such as Facebook Messenger, Twitch group chat, Telegram, Kik Messenger, and Discord. It was also available on Skype but has been removed by its developers. This Artificial intelligence also has accounts on Instagram, TikTok, YouTube, and Twitter and has games on Roblox (Nalbant, K. G, 2022). The Mitsuku chatbot 2005 depicts an 18-year-old woman. The chatbot is said to be from Leeds, England. It is mainly based on semantic signals. Break down phrases and sentences into "cores" and "wildcards" to understand and learn from conversations.

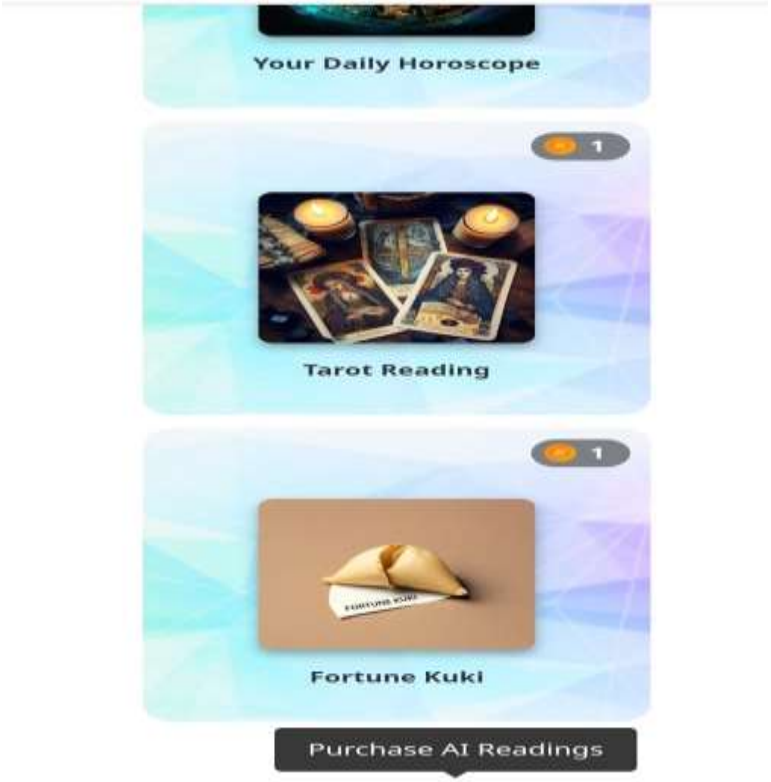
b.) The use of the Kuki.ai application as a medium for learning English.

Kuki (formerly known as Mitsuku) is one of the smartest artificial intelligence he's ever had. Chatbot (Petter et al., 2022). Pandorabot's ate-of-the-art Artificial intelligence chatbot is the standard to aim for when developing future chatbots. Conversing with Kuki is almost the same as interacting with humans (Jose, Belda Medina, 2022). Kuki's architecture is an example of the capabilities of the Pandorabots platform (Schommer, 2020). Includes features that remind users of their personality. The users can repeat the same answer to the question based on these characteristics. Kuki can interact with users to make chats more fun and interesting. Pandorabot's features include symbol reduction, a sophisticated bot personality targeting cycle, chat log retention, and an application API (Gentsch, P. 2019).

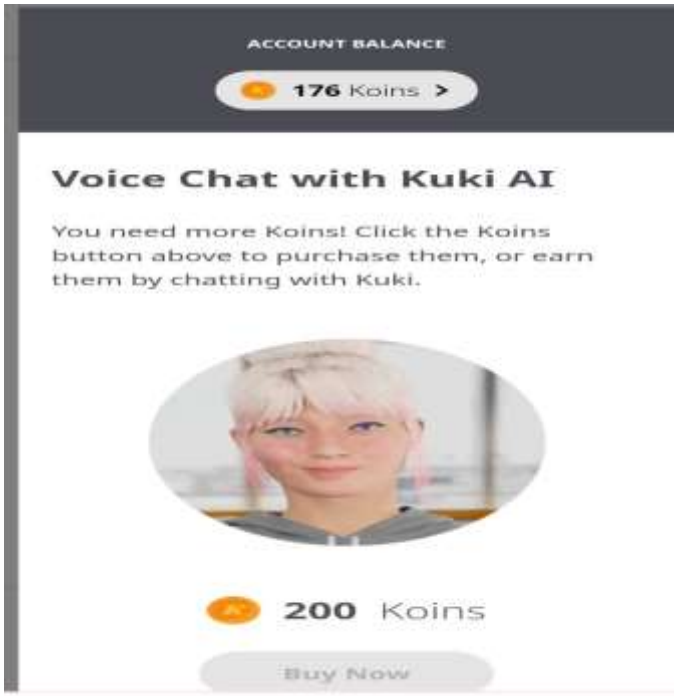
2.3 How Does Kuki Chatbot Work?

Chatbots are a subset of chatter bots, which are the results of artificial intelligence (AI) training. A chatbot is a computer program that simulates human conversation using text chat, voice chat, or both. The first speech was produced by an online AI bot named Kuki. It was born with the intention of interacting with people in the metaverse. Prior to that, Kuki was acquainted with Steve Worsick, the Mitsuku. Steve Worsick uses Pandorabot technology to develop the chatbot Kuki. This has the record for winning the Loebner Prize in Tes Turing competitions, spanning the years 2013 through 2019.

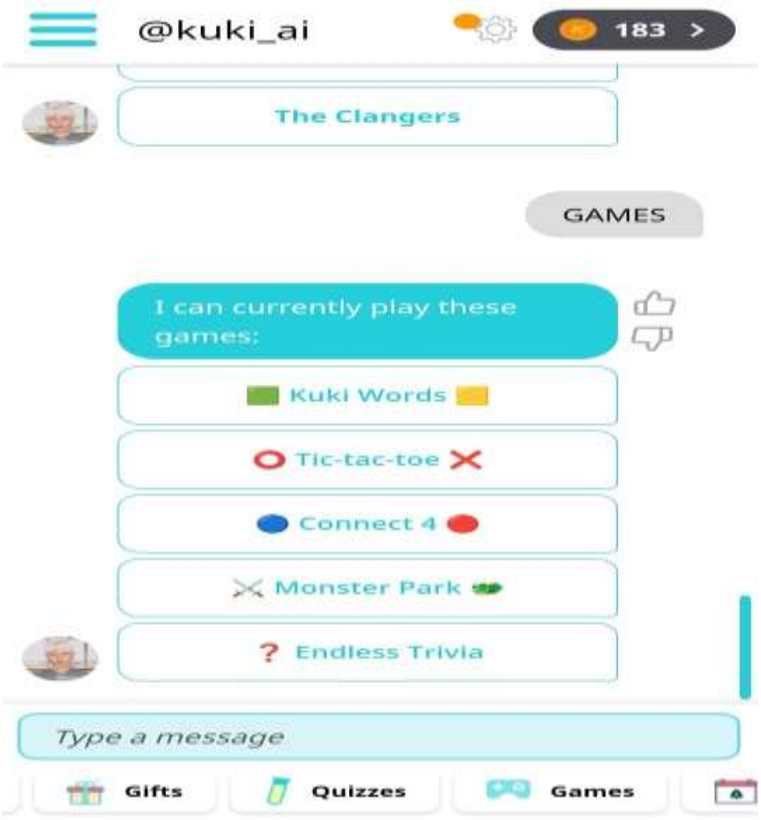
AI chatter to understand what is being said; Kuki possesses natural language comprehension skills as well as artificial intelligence (AI) knowledge. Kuki chatbot is able to provide some needed information. For example, one can use chatbots to predict a person's future mood. A chatbot will provide you with a list of movies that are recommended in plain English. Chatbots are capable of providing daily overviews.

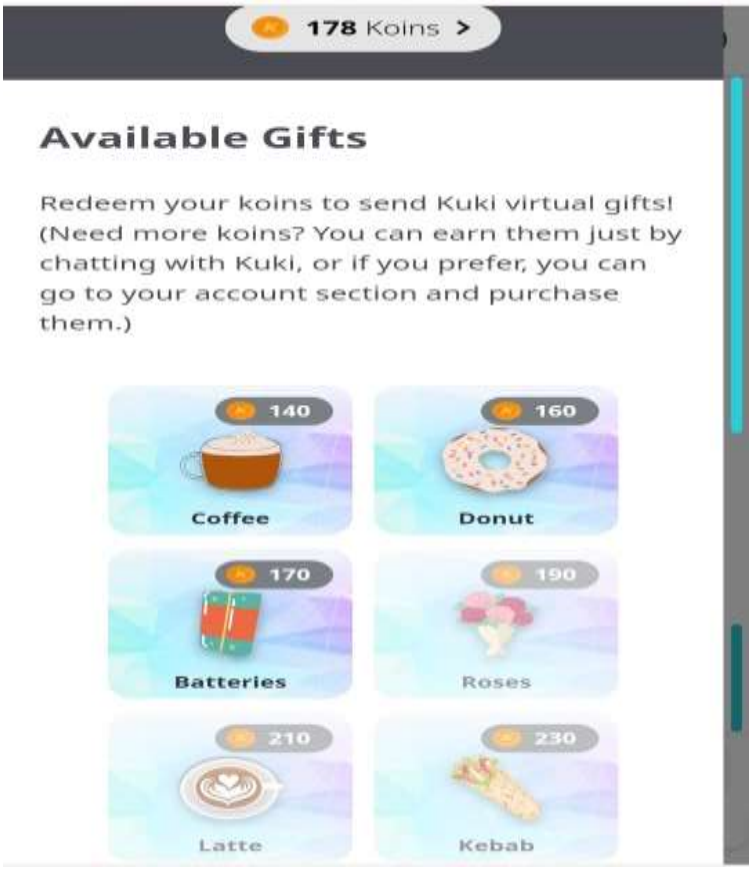


Kuki chatbot also offers features that will make it easier for us to ask questions than with other chatbots. Kuki's voice chat feature can provide an opportunity to interact with AI privacy while still obtaining understandable results. But this feature needs to be purchased with 200n, which we can do by playing their game or by putting them within soft ware. Another feature that we may observe with the Kuki AI chatbot is the AI education that is provided to all individuals. This AI reading feature consists of three distinct sections: the Daily Horoscope, the Three Tarot Card Reading, and the Fortune Cookie, where you can discover creative and witty ideas.



In the end, Kuki will provide an alternative game to discourage players. Games are divided into eight categories, and Kuki text is where we play with characters that can help increase user text quality. The second is the classic game of Tic Tac Toe, which is very straightforward. Connect 4, the fourth game, will test your ability to stay calm by connecting your three fingers without making a potong. Last but not least is Monster Park, which is the most exciting one offered.





In summary, the Kuki A.I. chatbot has different features and UI depending on the price and plan. Still, it's worth trying out the free plan, depending on your tastes. Kuki chatbot is considered to be one of the smartest chatbots with artificial intelligence (Medina & Fereer, 2022). It is both website-based and application-based for a variety of devices. Kuki shows increased user engagement when used for streaming purposes. Budget-friendly and feature-rich, Kuki by Pandorabots is perfect for your website (Petousi, 2021).

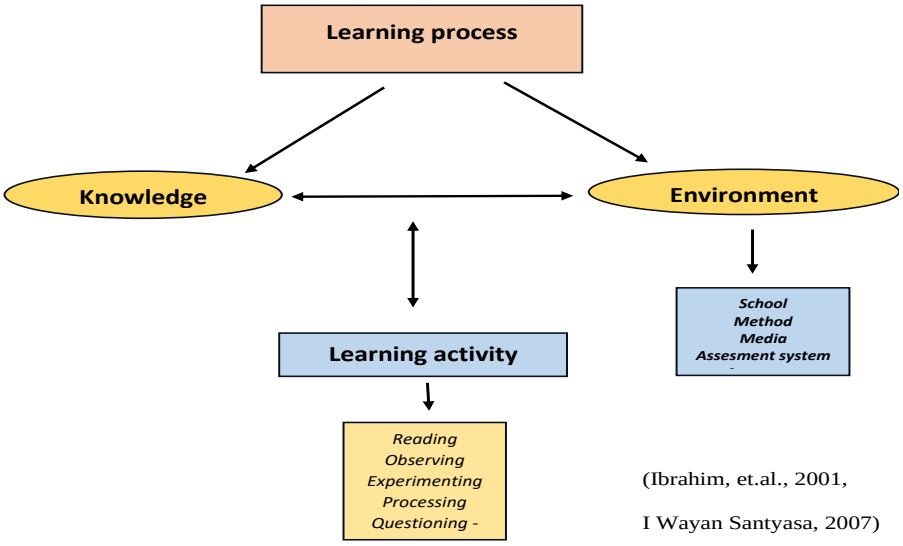
2.4. Concept of developing a learning framework in the classroom.

In recent years, the use of information and communication technology in education has become increasingly widespread among the public in primary, secondary, and higher education, although the variety and priority of its use in educational institutions is different. The presence and progress of ICT in the current era of global communication have created opportunities and expanded interaction between lecturers/teachers/experts and (students), between (students), and learning resources that can occur anytime, anywhere without space and limit that time.

In addition, using ICT to convey and present learning materials and ideas can be more interesting and fun. On the other hand, the presence of ICT as a new technology challenges educators and teachers to manage it so that they can select and use ICT effectively and efficiently in the teaching and learning process they lead. In this case, teacher professionalism lies not only in the ability to teach students but also in the ability to manage knowledge and the environment (including schools, methods, media, assessment systems, and facilities and infrastructure) to support student learning activities to facilitate so that it becomes easier (Ibrahim et al., 2001, & Santyasa, I, W. 2007). The development of information and communication technology has also made it possible to use various types of media simultaneously in the form of multimedia learning. The use of interactive multimedia content that includes audiovisual components (audio and screens) to convey learning material can attract students' attention to learning (Winarto, 2020). Interactive multimedia can also provide opportunities for students to do pretend experiments and explore to provide learning experiences rather than hear descriptions/explanations from the teacher.

Learning media contains information that can be in the form of information or as a way for students to carry out learning activities (reading, observing, experimenting, processing questions, answering questions, etc.) (Vina Serevina, 2018). Therefore, the learning environment is closely related to learning resources. Learning resources are anything that students can use to expedite the learning process and achieve their learning goals effectively and efficiently (Hafizul Fahri Hanafi, 2017). All of these are very important in

the learning process because learning is a process that leads to change, which occurs as a result of experience and increases the potential for improved performance and future learning. The change in the learner may happen at the level of knowledge, attitude or behavior. The following chart describes the learning process initiated by Ibrahim and Santyasa.



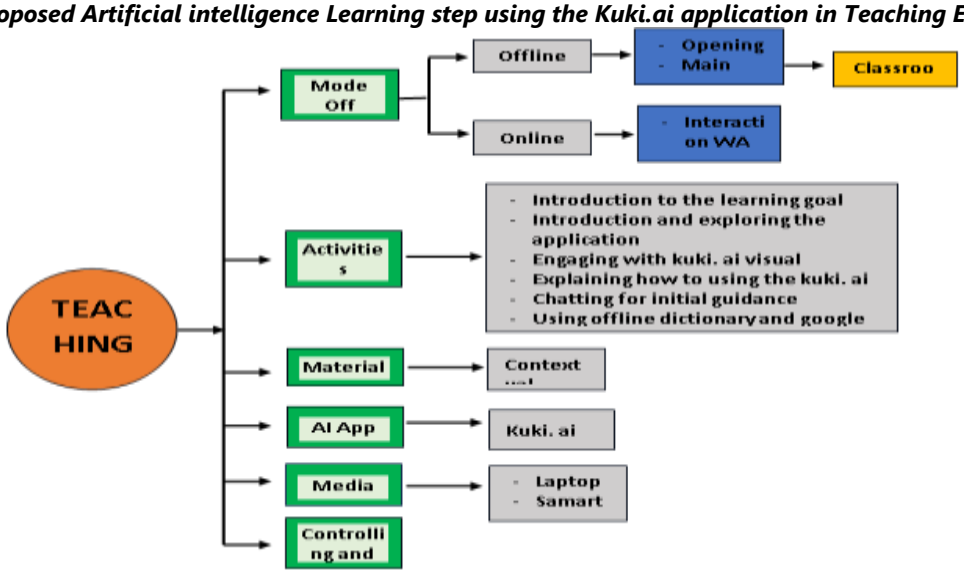
(Ibrahim, et.al., 2001,

I Wayan Santyasa, 2007)

Figure 2.1 Learning Process in the class

Based on the concept of artificial intelligence by Mehrotra (Fitria, 2021), Artificial intelligence (AI) is a computer science technology that explores the analysis and development of smart machines and apps and the science of having a machine think and behave like a human being who is intelligent. It is supported by Kuki.ai as one of the applications in line with the concept of developing a learning process in the class, stated Ibrahim (2001) and I Wayan (2007). Enhancing the concept, the researcher proposes a design for teaching English using artificial intelligence.

The proposed Artificial intelligence Learning step using the Kuki.ai application in Teaching English.



2.5 Engagement

The definition of learning engagement is the ability to participate, motivated and behaviorally, in an effective learning process (sailer, M & Homran, L 2020). In education, student engagement refers to the level of attention, curiosity, excitement, optimism, and passion that students display when learning or receiving instruction, which is also wide to the dynamic level (Jana et al. 2019). However, in many contexts, student engagement also refers to how leaders, educators, and other adults can "engage" students to

participate more fully in the management process and school decision-making, in the design of curriculum and learning opportunities, or in the civic life of a community (Irene et al., 2018).

In the field of education, the term student engagement has gained popularity over the past few decades, possibly due to a better understanding of the role of intellectual, emotional, behavioral, and certain physical and social aspects of student engagement. social development (Havik, T & Westergård, E 2020). A variety of studies have been referred to as "non-cognitive factors" or non-cognitive skills (e.g., motivation, interest, curiosity, responsibility, determination, retention, attitude, work, habits, self-regulation, social competence, etc. (Kendal, 2023)

Table 2.2: Some aspects indicating students' engagement.

Engagement	Positive engagement	Non – engagement	Negative Engagement
Behavior engagement	Attends lecturer Participates with enthusiasm	Skips lecturer Without excuse	Boycotts, picklets, or disrupt lectures.
Emotional	Interest	Boredom	Rejection
Cognitive	Meets or exceeds assignment requirements	Assignment late, rushed or absent.	Redefines parameters for assignment.

Trowler (2010)

2.6 Perception

Student perception refers to students' opinions of their experiences as demonstrated in quantitative and/or qualitative studies. Perception is a course of action by a person based on information held by observation through the five senses. Perception is also information obtained from activities, environments, and processes that understand something and can help others who need the information they want to know. Mismara (2019), in her research, argues that perception is the recognition of an individual's understanding through sensory information about how a person reacts to that information and how people use that information to communicate with the environment around them.

In the theory of perception, according to Demuth (2013), perception is a process of acquiring information, including two main groups: direct perception theory (bottom up) and indirect perception theory (from top to bottom down). Direct perception (bottom up) is information or tangible facts through which sensory qualities determine or influence our final perception. Sensory input is people's opinion of something or an experience that happens to us and determines further processing. Meanwhile, indirect (top-down) perception is the comment below the knowledge that we have without expertise.

According to Qiong (2017), the perception process consists of three stages: Selection, organization, and interpretation. The first step is selection. In the first stage of cognitive processes, we turn environmental stimuli into meaningful experiences. The second step is organization. At this stage, we have to arrange them in many ways according to specific patterns of meaning. During this cognitive stage, we will know the shapes, colors, textures, sizes, etc., of the social and physical events or objects we encounter. Finally, the third stage of perception is interpretation. At this stage, it refers to the process of determining the meaning of the selected stimuli. Once the selected stimuli have been classified into structured patterns, we can try to understand these patterns by assigning them meaning. These three aspects include: behaviors, emotions, and perceptions. The three main aspects are behavioral. It involves student actions. Pietarinen et al. **(**2014) argue that behavioral participation requires the cooperation and active participation of students in social groups, classroom interactions, teaching and learning processes, school and home activities, and other activities. school-related extracurricular activities. Second, emotions relate to students' responses to learning. Emotional involvement includes enthusiasm, satisfaction, and excitement (Tongsu, 2018). Finally, awareness. Cognition associated with student psychology in learning. Pietarinen et al. (2014) suggested that cognitive participation refers to students' ability in learning activities, including the ability to self-regulate.

Definition of Perception According to Mouly, perception is how people see or understand something from their own point of view. Experience. The above theory is supported by Gibson, who defines perception as a process involving the reception, organization, and interpretation of stimuli. According to Baron and Byrne, "social cognition" is the process by which we seek to understand others. Goldstein also states that perception is also a conscious sense of experience. According to Huffman, perception is how an individual perceives may differ from another. In addition, Dermuth (states that Perception is a process used by individuals to influence and interpret perceived meaning to give meaning to their environment.

A student who stays at a university or another place for student experience is the basic and most important resource in the teaching and learning process. Students can learn from teachers, while teachers cannot teach without students. All learning processes always

start with perception. According to Brown, perception is defined as the perception and interpretation of sensory information. Perception can take sensory information and do something meaningful with it.

2.7 Types of Perception

In determining student perception, there are cognitive categories that are divided into:

a. Positive perception is a precious gift that prepares you with the confidence and strength to embrace the world, endure crises, and focus outside of yourself. It increases relationship-building and dedication to others.

a. *The negative perception* is that they are willing to focus on their own desires, strive to achieve, and prove self-worth.

2.8 Conceptual framework of the research

The conceptual framework underlying this research is given in the following diagram:

A. Input

1. The low achievement in English for the students in SMP 3 Alla was found from the result of observations using a questionnaire. The data findings show that the main cause of the failure of learning achievement in Class IX students was that the presentation of teaching media was not interesting and boring. Based on the findings that cause low achievement of students, the researcher offers the use of Artificial Intelligence media, namely the Kuki.ai chatbot.
2. Learning achievement is the record of success or maximum potential that aa person achievers after completing a learning effort (Riswanto, 2017). Others stated that Learning achievement is expressed by symbols, numbers, letters, or sentences that can reflect the results of learning activities related to changes achieved by students (Putri et al., 2020). These definitions can be references for the researcher to explore the impact of Kuki. Ai in improving the Learning achievement of the students.
3. Kuki.ai chat bot is one of many tools of Artificial Intelligence. Chatbots are computer programs that can perform automated tasks and function on messaging Platforms (Ahmed et al., 2018). Chatbots are conversational agents that can interact with users in natural human language and provide support anytime and anywhere (Zumstein & Hundertmart, 2017). Kuki is an embodied artificial intelligence bot designed to befriend humans in the metaverse. This Artificial Intelligence also has accounts on his Instagram, Tiktok, Youtube, and Twitter and has games non Roblox. These limitations will be references for three research studies on the implementation of Artificial Intelligence in teaching English to Junior high Schools.

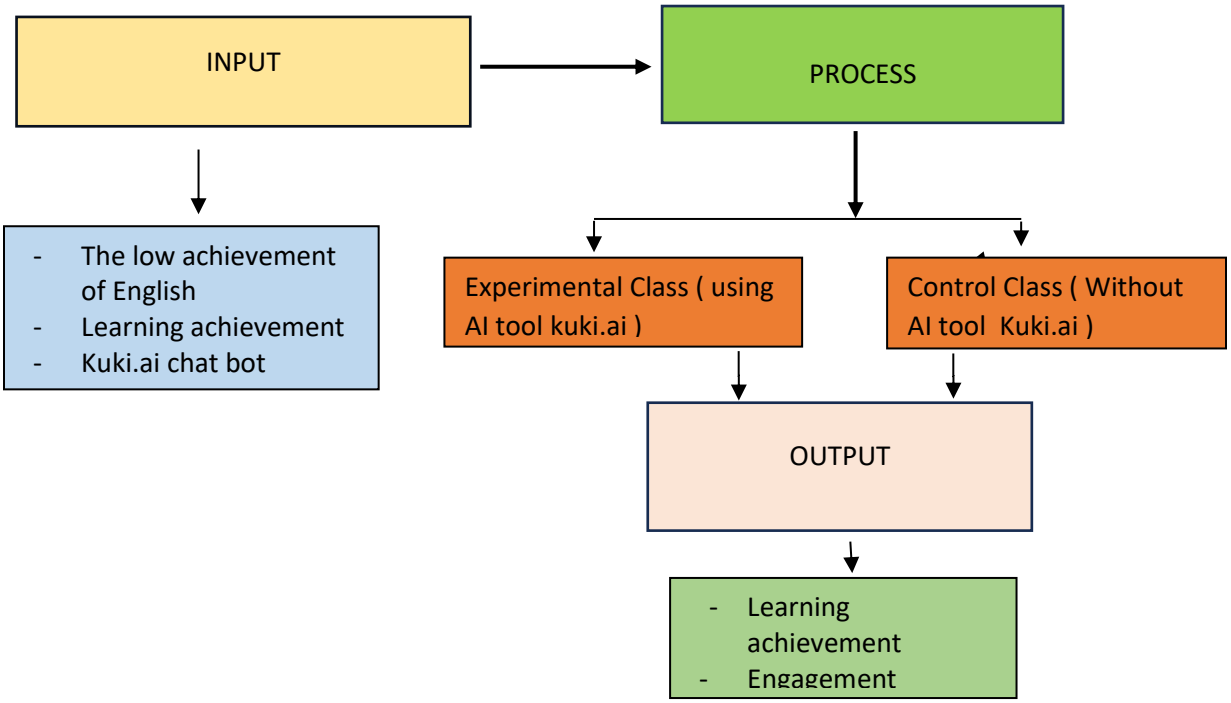
B. Process

The research will be divided into two classes: experimental class and control class. In the experimental class, the researcher will teach English by applying the artificial intelligence Kuki chatbot application for four meetings. Meanwhile, the control class and the conventional class will not apply artificial intelligence, such as the Kuki chatbot. Both of them have the same meeting in the treatment process.

C. Output

In this part, the research really expects significant results of the treatment in teaching by using artificial intelligence, the Kuki chatbot application, as the output of the research that learning achievement of English, engagement and perception of the students.

Figure 2.3 Conceptual framework



2.9 Hypothesis

The research will test empirically the hypothesis as follows :

a. H_0 (Null Hypothesis): There is no significant difference in students' Learning achievement of English between the students who are taught by using AI kuki.ai and the students who are taught without AI kuki. Ai.
H_1 (Alternative Hypothesis): There is a significant difference in students' students' Learning achievement of English between the students who are taught by using AI kuki.ai and the students who are taught without AI kuki. Ai.

3. Methodology

This study uses a quantitative research design, where this research design is experimental. Experiment is testing and idea (practice or procedure) to determine whether the idea affects on outcome or dependent variable. This study used two variables. These variables are variables X and Y, namely variable X, which is the effect of artificial intelligence kuki. Ai application and variable Y is the English learning achievement of Students.

The design of this study is experimental research, which used one experimental class and another control class. The experimental class is intended to see students' English achievement after being taught using the Kuki.ai application. On the other hand, the control class functions as a controller for the development of English learning achievement in the experimental class. In this control class, students are not taught English using the kuki.ai application.

Tabel 3.1 The Research Design

Class	Pre-test	Treatment	Post-test
E	O1	X1	O1
C	O1	X2	O2

Gay et al. l (2006)

Where :
E : Experimental Class
C: Control Class
O1: Pre – test
O2: Post-test
X1: The use of AI application kuki.ai in teaching English for students in IX of SMP 3 Alla
X2: Without the use of AI application kuki.ai in teaching English for students in IX of SMP 3 Alla.

3.1 Variables

There are two variables in this research, namely Independent Variable and the dependent variable. Dependent variables are students' achievement of English in using Chatbot kuki.ai to learn English. The Independent Variable is the use of the AI chatbot Kuki.ai in learning English.

Definition of dependent variable: Dependent variables are students' achievement of English in using Chatbot kuki.ai in learning English, which is defined as student achievement of Class IX SMP 3 Alla, who is taught English using the KUKI. Ai application. Independent variable. The Independent Variable is the use of the AI chatbot Kuki.ai in learning English, defined Use of KUKI.ai Artificial Intelligence media in learning English.

3.2 Population and Sample

3.2.1 Population

The population of the research is conducted at the third-year students of SMP N 3 Alla Enrekang. Students are spread over 4 classes consisting of Class IX 1, IX2, IX3, and IX4. Each class consists of 20 to 23 students.

3.2.2 Sample

The research will use two classes of students in SMP 3 Alla. One class is an experimental class, and the other is a control class. Class IX 1 is an experimental class consisting of twenty-three students, and Class IX 4 is a control class.

3.3 Instrument of the Research

The instrument of the research refers to the tool or method used to collect data for the study. In the case of operational, the instrument would be an English Achievement test, Validation test of Learning instruction, observation checklist, and questionnaire.

1. English achievement Test

The instrument in this study was used to measure Students' learning achievement in English. In this study, two stages of testing were conducted, namely, a pre-test to the extent of the students learning achievement before being given treatment, while the post – test is a test to measure the student's learning achievement after giving being treatment. The pre-test and post–test questions are the same level of content. Both tests contain 20 numbers.

2. Observation checklist

Observation is the activity of observing the object of the research by paying attention to the situation, behavior, and activities in order to collect research data. The instrument would be conducted to see the student engagement. Student engagement can be understood as the extent of students' involvement and interactive engagement of students in learning activities. The researcher focused on three dimensions of engagement by Trowler (2010), namely behavior, emotion and cognitive engagement. In the observation, the researcher collaborated with another English teacher as an observer by observing the symptoms or processes that occur in real situations that were observed directly by making an observation checklist. The observation would be based on the learning process by using the Kuki.ai application in the class.

3. Questionnaire

A questionnaire was required to collect data for this study. The questionnaire aims to give the researcher the opportunity to gather data from a number of students. The questionnaire was conducted to see the voice (perception) of the sample in the researcher. The questionnaire was distributed to the ninth-grade students of SMPN 3 Alla, Enrekang.

4. Validation test

Validation refers to the process of collecting validity evidence to evaluate the appropriateness of the interpretations, uses, and decisions based on assessment results. This definition highlights several important points. First, validation is a process, not an endpoint. Labelling an assessment as "validated" means only that the validation process has been applied—i.e., that evidence has been collected. Validation aims to measure the validity of the procedure of teaching English by using an artificial intelligence application, namely kuki.ai. The Instrument consists of *Theory, Learning purpose, Syntax, Strategy, Supporting system, and assessment* (Nur, 2015).

3.4 The Procedure for Collecting Data

The procedure for collecting data is presented in the following order.

1. English achievement test

a. Pre-test

Pre–test conducted to determine the students' learning achievement of English before being given treatment. Before starting the test, the researcher introduces who the researcher is and the purpose of the researcher's research. Then, the research gave simple

instructions for doing the test. The time for the pre – test in this study is 30 minutes. The researcher gave the pretest in the paper sheet. The test contains 20 numbers of English integrated knowledge. The purpose of this pretest is to see the previous learning achievement of students teaching them by using the AI tool Kuki.ai.

2. Treatment

After giving the treatment, the researcher gave treatment to the students in four meetings, and each meeting consisted of 80 minutes. The treatment focused on observing how students learn English by using the AI tool Kuki application. In the treatment, the research was conducted on offline meetings in the class. In the class, the researcher can control the students' chat texts directly, and students can reflect on the material and the media in meetings of the time.

The following outlines the procedures employed for administering the treatment.

Table 3.2 Procedure in treatment 1

No	Step	Teacher Activity	Students Activity
1.	Opening	- Greeting - Apperception - Motivation - Introduction about material based on RPP.	- Greeting - Giving a response to the teacher. - Ready to study
1.	Main Activity	- Explaining the material - Introducing Ai as one of the media in learning English. - Introducing kuki ai and practice how to operate it. - Instruct students to use Kuki.ai independently in the class. - Giving advice to students chatting with bot kuki.ai, helping by offline dictionary or google translate. - Ask students to explore their English writing skills.	- Listen and learn actively in class.
2.	Closing	- Make a review of the material - Make a review about the chatting bot Kuki.ai. - Reflecting on the material and the way the teacher teaches. - Reflecting on students' feelings after joining the class.	- Students ask the teacher questions. - Giving responses or feedback to the teacher. - Asking the teacher about unclear material.

No	Step	Teacher Activity	Students Activity
		- Giving structured tasks or unstructured task - Instruct students to improve their English at home by using Kuki.ai.	

3. Post-test

After being given treatment, the students were given a post – test. The test in the post-test is the same content as the pre-test. The post-test was administered to assess and quantify potential improvements in students' learning achievement using AI kuki.ai in learning English. The post-test procedure is as follows :

a. The researcher distributed the test to the students.
b. The researcher provided a brief summary of the subject matter that has been studied.
c. The study did the test, which takes around 10 – 20 minutes.
d. The students collected their papers.

4. Observation checklist

In the observation, the researcher collaborated with another English teacher as an observer by observing the symptoms or processes that occur in real situations that were observed directly by making an observation checklist. The observation would be based on the learning process by using the Kuki.ai application in the class.

5. Questionnaire

A questionnaire, or a data collection technique, is conducted by giving a set of questions or statements to respondents to answer. In this study, the use of a questionnaire aims to determine students' perception of the use of Artificial intelligence, the Kuki chatbot application in teaching English. The questionnaire distributed consisted of 15 statements.

6. Validation Test

Validation aims to measure the validity of the procedure of teaching English by using an artificial intelligence application, namely kuki.ai. The Instrument consists of *Theory, Learning purpose, Syntax, Strategy, Supporting system, and assessment* (Nur, 2015)

3.5 Analyzing Data

English achievement is one of the indicators of learning effectiveness, namely by seeing an increase in students' learning outcomes. Students' learning achievement can be seen after comparing the pre-test and post-test results. In analyzing data from the test, the researcher followed the following steps:

a. Scoring:

The research applied this formula below to find the student's achievement test :

$$\text{Students' Score} = \frac{\text{Answer score}}{\text{Maximum Score}} \times 100$$

After getting the score, the research classified the score according to the following measurement scale :

Table 3.1 Score Classified

Scale		**Predicate**	**Classificatio**
1 - 4	**0 – 100**		
4	**86 - 100**	**A**	**Very Good**
3,66	**81 – 85**	**A -**	
3,33	**76 – 80**	**B +**	**Good**
3	**71 – 75**	**B**	

2,66	**66 – 67**	**B -**	
2,33	**61 – 65**	**C +**	**Enough**
2	**56 – 60**	**C**	
1,66	**51 – 55**	**C -**	
1,33	**46 – 50**	**D +**	**Poor**
1	**0 - 45**	**D**	

Permendikbud No 18 A, 2013

b. Observation Checklist

The observation was conducted to observe the interaction and engagement of students in learning activities. The observer will focus on a paper sheet containing some activities that would done by students when the researcher/teacher is explaining material and how to use artificial intelligence in the class. The observer will check statements by indicating Very active, Active, Less active, and not active (passive).

c. Questionnaire

The questionnaire about students' perceptions was analyzed using the Likert Scale. Sugiyono in Sunarti (2018) proposes that the Likert scale was used to measure someone's or a group's attitude, opinion, and perception of social phenomenon. In this scale, the students' perceptions were categorized into positive and negative statements, as shown in the following table :

Table 3.2 The Questionnaire using the Likert Scale

No	Categorized	Measurement	
		Positive	Negative
1	Always / strongly Agree	5	1
2	Often / Agree	4	2
3	Sometimes / Doubtful	3	3
4	Rarely / Less agree	2	4
5	Never / Very Disagree	1	5

Sugiyono in Sunarti 2018

Students was a likers scale. It aims to ask the sample to respond to a series of statements by indicating whether one strongly agrees (SA), agrees (A), undecided (U), disagrees (D), or strongly disagrees (SD) with a given statement. Each response was associated with a point value, and an individual score was determined by adding up the point scores for each statement. Point scores are assigned for responding to positive statements. For negative statements, the value is reversed. Where SA = 5, A = 4. U = 3, D = 2, and SD = 1 for positive statements. For negative statements, the value is reversed.

d. Validation test

Aims to measure the validity of the procedure of teaching English by using an artificial intelligence application, namely kuki.ai. The Instrument consists of *Theory, Learning purpose, Syntax, Strategy, Supporting system, and assessment* (Nur, 2015).

4. Result and Discussion

In answering the research question, " Is the implementation of artificial intelligence through the Kuki.ai Application as media in the concept of teaching English able to improve the students' English achievement at SMPN 3 Alla Enrekang ?. The data is analyzed for students' English achievement; the SPSS Statistical Software version 27 is utilized to administer English achievement tests for both experimental and control classes. The findings of the research deal with the student's scores on the pretest and posttest, the frequency and rate percentage of the student's scores, and the hypothesis testing of paired samples. These findings are described as follows.

a. Descriptive data of Pretest and postest

Table 4.1 Descriptive Data of Pre-test and Post-test in Experimental and control class.

Statistics					
		Experiment		**Control**	
		Pretest	**Posttest**	**Pretest**	**Posttest**
N	Valid	20	20	20	20

	Missing	0	0	0	0
Mean		51.50	69.75	46.50	51.75
Std. Error of Men		2.118	1.969	2.741	2.494
Median		50.00	70.00	45.00	50.00
Mode		45	75	35	45[a]
Std. Deviation		9.473	8.807	12.258	11.154
Variance		89.737	77.566	150.263	124.408
Range		40	35	45	45
Minimum		35	55	30	35
Maximum		75	90	75	80
Sum		1030	1395	930	1035
b. Multiple modes exist. The smallest value is shown.					

Table 4.1 shows that the pretest had a sum of data 1030. The minimum score on the pre-test was 35, and 75 for maximum score. The mean is 51.50. The result showed that the post-test had a sum of 1395. The lowest score was 55, and the highest score was 90. The mean score of data was 69.75. In contrast, the control class had a sum of 930 on the pre-test. The lowest score was 30, and the highest sore was 35. The mean score was 46.50. The score on the post-test was a sum of 1035. The minimal sore was 35, and the maximum score was 80. The mean score was 51.75.

The mean scores of the pretest for both classes were 51.50 and 46.50, which showed that the mean score of the experimental class was higher than that of the control class. In the post-test test, the mean scores also differed, from 51.75 to 69.75. This notable difference indicates the mean score of the post-test for the experimental class is greater than the mean score of the post-test for the control class. It shows that there is an effective treatment of teaching progress given to students in experimental classes. The treatment refers to the use of the Kuki chatbot application as artificial intelligence in improving students' English achievement.

From the data, it can be concluded that the result of the pretest was 1030, and the post-test was 1395. The gained mean score was 95 for the experiment class. The result of the pre-test was 930, and the post-test was 1035. The gained mean score was 15 for the control class.

b. The student's English Achievement score in pre-test and post-test.

Table 4.2. The student's English Achievement in Pre – test

No	Classification	Scores	Experimental		Control	
			F	%	F	%
	Very good	86 – 100	-	-	-	-
	Good	71 – 85	1	5	1	-
	Fairly good	56 – 70	3	15	2	10
	Poor	41 – 55	14	70	7	35
	Very poor	< 40	2	10	10	55
	Total		20	100	20	100

The data in Table 4.2 shows the rate, percentage, and frequency of the student's English achievement for the experimental class and control one. From this table, it can be seen that none of the students in the experimental class achieved a " very good " score; only 1 student (5 %) attained a " good " score. There are 3 students (15 %) classified with a " fairly good " score, 14 students (70 %) received a " poor " score, and 2 students (10 %) obtained " very poor " score.

Meanwhile, the rate percentage and frequency of the students's English achievement for the control class indicates that 1 student (5 %) attained a " good " score. 2 students (10 %) attained a " good " score, 7 students (35 %) classified into " fairly good " score, 10 students (50 %) received " poor " score, and neither of them are classified into " very good " score. The majority of students obtained " fairly good " scores in both experimental and control classes, which indicates the students' achievement is still low. The difference in scores of students' English achievement can be seen from the table of post–test below.

Table 4.3. The student's English Achievement post-test

No	Classification	Scores	Experimental		Control	
			F	%	F	%
1.	Very good	86 – 100	1	5	-	

2	Good	71 – 85	8	40	1	5
3	Fairly good	56 – 70	10	50	4	20
4	Poor	41 – 55	1	5	11	65
5	Very poor	< 40	-	-	4	20
	Total		20	100	20	100

The data in Table 4.3 shows the rate, percentage and frequency of students' English achievement for both experimental and control classes. From this table, it can be seen that 1 (5 %) of the students in the experimental class achieved a " very good " score, and 8 students (40 %) attained a " good " score. There are 10 students (50 %) classified with " fairly good "scores, only 1 student (5 %) received a " poor " score, and none of the students obtained a " very poor " score.

Meanwhile, the rate percentage and frequency of the students's English achievement for control class indicates that only 1 student (5 %) attained " good " score, 4 students (20 %) classified into " fairly good " score, 11 students (55 %) received " poor " score, there are still 4 students (20 %) classified into " very poor " score, and neither of them are classified into " very good " score.

c. The Gain score of the Experimental and control class

The mean score of gain (D) is a measure that can show the improvement or progress achieved by students between the pre-test and post-test assessments. This can reflect the extent to which cognitive abilities, skills or performance have increased during learning over a certain period of time. In this context, scores were obtained for the experimental class and control class, which have been calculated and shown in the table below. This gain score provides an understanding of how much the student's English achievement has improved from the beginning of learning (pre-test) and the end of learning (post-test). A positive score indicates an improvement; the higher the positive score, the greater the improvement, and conversely, a negative score indicates a decrease in student performance from the pre-test and post-test. The gaining score between both the Experimental and control classes is seen in the table below.

Table 4.4 Table gain score between Experimental Class and Control class

No	Class	Mean Score in Pre – test	Mean Score in Post-test	Gained Score
1	Experimental	51,50	69,75	18,25
2	Control	46, 50	51,75	5.25

In table 4.5, the scores obtained for the experimental class and control class can be presented as 18.25 and 6.5, respectively. This score shows the progress achieved by students from the pretest and post-test assessments; in particular, the score for the experimental class is higher than the control class, which shows an increase in students' English language skills in the experimental class, Even farther, it can be seen that the combined class achievement score amounts to 13. This figure represents the average increase in students' English achievement in the experimental class and the control class. This indicates that, on average, students in both classes experienced a positive increase in their achievement of English learning.

Based on the data in table 4.4, it can be concluded that the experimental class showed a more substantial increase in English learning achievement compared to the control class. The positive score for both classes shows the successful impact of the Kuki chatbot as a learning media used in improving students' English learning achievement.

b. Hypothesis Testing

In order to know whether or not the difference between the pre-test and post-test in both experimental and control classes, the t–test is a statistical analysis that is employed to determine whether there are significance differences between the means of two classes.

Table 4.5 Independent Sample Test

Independent Sample Test										
Levene test for equality of variances							t-test for equality means		95% confidence interval of Difference	
		F	Sig.	T	Df	Sig. (2 tailed	Mean differences	Std error difference	Lower	Upper

Value	Equal variances assumed	641	429	4.506	36	000	15.000	3.329	8.247	21.751
	Equal variances are not assumed.			4.506	34.078	000	15.000	3.329	8.236	21.754

The criterion for testing the hypothesis is if the significance of the t-test > 0.05, then H0 is accepted, and H1 is rejected if the significance < 0.05. The value of the t–test is also seen from the calculation of t–count and t–table. If t-count is greater than t-table, then H0 is rejected, or H1 is accepted, and if the t-count is less than the t-table, then H0 is accepted, and H1 is rejected. The table below shows the results of testing the pre-test and post-test research hypotheses in the experimental class.

Table 4.6 The result of the Hypothesis Test

Statistics	**Experiment**		**Control**	
	Pretest	**Postest**	**Pretest**	**posttest**
N	20	20	20	20
Mean	51.50	69.75	46.50	51.75
Df	36			
T count	4.506			
T table	2.100			
Sig (2 tailed)	0.000			
Kesimpulan	H0 di tolak.			

The table above presented that t count of 4.506 is obtained with a significance level of 0.05, and a table of 2.100 is obtained. The criterion is if t count < t table, then is accepted and H1 is rejected and if t count > t table, then H0 is rejected and H1 is accepted. It can be seen that if we count 4.506 > 2.100, then H0 is rejected, and H1 is accepted. This means that there is an improvement in the students' English achievement before and after being taught by using the artificial intelligence Kuki chatbot Application for the third grade of SMPN 3 Alla.

1. Student engagement in using Artificial Intelligence of the Kuki chatbot Application to improve students' English achievement.

The instrument used in this research was an observation sheet and focused on experimental class. The researcher collaborates with other teachers in the school to be an observer in the teaching and learning process.

The observation was conducted using the Students' Engagement Observation Sheet adopted from Student Engagement Class Observation activities based on student engagement aspects adapted by Trowler (2010). The indicators of engagement were also divided into three sub-indicators by Frederick et al. (2004): behavioral engagement, emotional engagement, and cognitive engagement. In line with the three sub-indicators of engagement stated before, it is also divided into On-task and Off-task activities by Stovall (2003) and Frederick (2004).

In measuring how to engage the students in using the artificial intelligence Kuki Chatbot application to improve English achievement, the researcher based four indicators on each dimension: cognitive, behavioral, and emotional engagement. Cognitive engagement consists of making a note of the important things when learning, using the application well, and asking the teacher for difficult material. Behavior engagement is Coming to class on time, being very happy with the learning atmosphere in class, actively participating in class during learning processes, and applying chatting media properly. Emotional engagement also has four indicators, namely Helping friends in need, being very interested in presenting material in class, listening to material well, and learning fun things. The category of student engagement consists of four categories, namely very active (4), active (3), less active (2), and not active (1). The category of student engagement can be seen in the table below:

Table 2.1 The category of student's engagement

No	Range	Score	Category
1	76 – 100	4	Very Active
2	51 – 75	3	Active
3	26 – 50	2	Less Active
4	0 – 25	1	Not Active

In analyzing the students' engagement in the learning process, the researcher based on four criteria. The result of students' engagement for cognitive, behavior, and emotional engagement. The table of students' engagement.

Table 2.2. The results of cognitive engagement of students

No	Students	Cognitive Engagement					Score	
		Noting the important thing	Very enthusiastic	Use media/ applications well	Ask/respond to the teacher	Total	AV	Value
1	1	**2**	**2**	**2**	**2**	9	2.25	56.25
2	2	**4**	**3**	**3**	**4**	14	3.5	87.5
3	3	**3**	**3**	**4**	**3**	13	3.25	81.25
4	4	**3**	**3**	**3**	**2**	11	2.75	68.75
5	5	**3**	**4**	**3**	**3**	13	3.25	81.25
6	6	**3**	**3**	**3**	**3**	12	3	75
7	7	**3**	**3**	**3**	**2**	11	2.75	68.75
8	8	**3**	**4**	**3**	**3**	13	3.25	81.25
9	9	**3**	**4**	**3**	**3**	13	3.25	81.25
10	10	**4**	**4**	**4**	**4**	16	4	100
11	11	**2**	**3**	**3**	**4**	12	3	75
12	12	**2**	**3**	**3**	**3**	11	2.75	68.75
13	13	**2**	**3**	**3**	**3**	11	2.75	68.75
14	14	**3**	**3**	**3**	**3**	12	3	75
15	15	**4**	**4**	**3**	**3**	14	3.5	87.5
16	16	**4**	**4**	**4**	**4**	16	4	100
17	17	**3**	**3**	**3**	**3**	12	3	75
18	18	**3**	**4**	**3**	**3**	13	3.25	81.25
19	19	**3**	**3**	**3**	**3**	12	3	75
20	20	**4**	**3**	**3**	**4**	14	3.5	87.5
						12.6	**3.15**	**78.75**

Table 2.3 The result of Students' Emotional Engagement

No	Students	Emotional Engagement					Score	
		Help friends in need.	Very interested in the presentation of material in class	Listening to the material well	It's fun to learn.	total	AV	Va
1	1	**4**	**3**	**3**	**2**	12	3	75
2	2	**3**	**3**	**4**	**3**	13	3.25	81.25
3	3	**3**	**2**	**3**	**3**	11	2.75	68.75
4	4	**4**	**4**	**4**	**3**	15	3.75	93.75
5	5	**4**	**3**	**3**	**3**	13	3.25	81.25
6	6	**4**	**4**	**4**	**4**	16	4	100
7	7	**4**	**4**	**4**	**3**	15	3.75	93.75
8	8	**4**	**3**	**4**	**2**	15	3.75	93.75
9	9	**3**	**4**	**4**	**4**	15	3.75	93.75
10	10	**4**	**4**	**4**	**3**	15	3.75	93.75
11	11	**3**	**2**	**3**	**2**	10	2.5	62.5
12	12	**3**	**3**	**3**	**3**	12	3	75
13	13	**2**	**3**	**3**	**2**	10	2.5	62.5
14	14	**2**	**3**	**3**	**3**	11	2.75	68.75
15	15	**3**	**4**	**3**	**3**	13	3.25	81.25
16	16	**3**	**4**	**4**	**3**	14	3.5	87.5
17	17	**4**	**3**	**3**	**3**	13	3.25	81.25
18	18	**3**	**4**	**4**	**3**	14	3.5	87.5
19	19	**3**	**3**	**3**	**3**	12	3	75
20	20	**3**	**3**	**3**	**4**	13	3.25	81.25
						13.1	**3.275**	**81.875**

Table 2.5 The Results of Students' Behavioural Engagement

No	Students	Behaviour Engagement				Score		
		Come to class on time	Happy with the learning situation in the class	Active participation in class during the learning process	Applying chatting media correctly	Total	AV	Value
1	1	**3**	**3**	**2**	**3**	11	2.75	68.75
2	2	**4**	**3**	**3**	**4**	14	3.5	87.5
3	3	**3**	**2**	**2**	**4**	11	2.75	68.75
4	4	**3**	**4**	**3**	**3**	13	3.25	81.25
5	5	**3**	**4**	**3**	**3**	13	3.25	81.25

6	6	**3**	**3**	**3**	**3**	12	3	75
7	7	**4**	**4**	**4**	**4**	16	4	100
8	8	**3**	**3**	**4**	**3**	13	3.25	81.25
9	9	**3**	**3**	**3**	**4**	13	3.25	81.25
10	10	**4**	**3**	**4**	**3**	14	3.5	87.5
11	11	**4**	**3**	**4**	**3**	14	3.5	87.5
12	12	**3**	**3**	**4**	**4**	14	3.5	87.5
13	13	**4**	**3**	**4**	**3**	14	3.5	87.5
14	14	**3**	**3**	**4**	**3**	13	3.25	81.25
15	15	**4**	**3**	**3**	**4**	14	3.5	87.5
16	16	**4**	**3**	**4**	**3**	14	3.5	87.5
17	17	**3**	**4**	**4**	**3**	14	3.5	87.5
18	18	**3**	**3**	**3**	**4**	13	3.25	81.25
19	19	**3**	**4**	**3**	**4**	14	3.5	87.5
20	20	**4**	**3**	**4**	**3**	14	3.5	87.5
						13.4	**3.35**	**83.75**

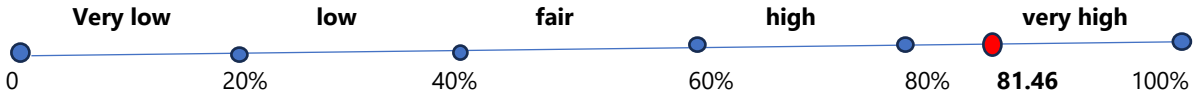
The data on students' engagement in the learning process in the class, conducted four times, was obtained based on the results of the three data above, containing the value of all dimensions of engagement. Thus, the researcher summarizes the data by seeing the mean of students' engagement in Table 2.2 below.

Table 2.2 The recapitulation of Students engagement

Score	Dimension of Engagement			Total score	Rata-rata
	Cognitive engagement	Behavioral engagement	Emotional engagement		
Jumlah	12.6	13.4	13.1	39.1	**13.03**
Rata 2	3.15	3.35	3.28	9.78	**3.26**
Nilai	78.75	83.75	81.88	224.38	**81.46**

Based on data in Table 2.2, the average scoring of three dimensions of engagement is seen. Obtained from observation sheets during the research treatment one to four, as evidenced by increasing 81,46 and the mean is 3.26. The value is in the range of 76 to 100 in Very Active category.

Figure 2.3
Category Scale of Student Engagement
in using the Artificial intelligence Kuki Chatbot Application.



Based on the findings about students' engagement, it can be described in scale category. It is evident that students' engagement is **81.46.** It is concluded that students engagement is very active in learning English by using the Artificial Intelligence Kuki Chatbot Application. It indicates that the student's engagement and enthusiasm for the innovative medium in learning English independently is positive.

2. Student's perception of using the Kuki Chatbot application in learning English.

The data on students' learning perception of the experimental class was obtained based on the answers to the questionnaire given by 20 respondents, consisting of 15 statement items and one open question.

Table 4.1 The descriptive analysis of students' perception

Descriptive	Value
Member of s samples	20
Mean	83,96
Min.	82
Max.	94

After the data perception in Table 4.1 was counted. It can be seen the sample (N) was 20. The minimum (min) score was 82, and the maximum (max) score was 94. The mean (M) score was 83.96. To see the learning perception of students in using the Kuki Chatbot Application to improve English achievement, the researcher conducted the questionnaire at the end of the fourth meeting. The processing of the score is based on likers scale. The recapitulation of the result of the students' questionnaire about the use of the Kuki Chatbot application is seen in the table below;

Table 4.2 The recapitulation of students' questionnaire results about the use of the Kuki Chatbot application.

No	Statements	Likers scale score strongly Disagree (1) and Strongly Agree (5) and percentage				
		1	2	3	4	5
1	Students was excited and interest that the teacher will use HP in teaching them.	0 (0%)	0 (0%)	0 (0%)	0 (0%)	14 (70%)
2	Students feel confident in learning English using artificial intelligence such as chatbot Kuki, it will greatly help to improve their English skills.	0 0%	0 0%	1 5%	12 60%	7 35%
3	Learning English using artificial intelligence Application can help them in practicing students' English skills through chatting.	0 0%	2 10%	1 5%	6 30%	11 55%
4	Students feel confident in using Artificial Intelligence (AI) tools to support their learning English.	0 0%	2 10%	3 15%	6 30%	9 45%
5	I think that Kuki chatbot application is a very good interactive learning medium because it can be used anywhere and anytime in accessible internet.	0 0%	2 10%	1 5%	9 45%	8 40%
6	students more feel confident using Kuki chatbot as a chatting tool.	2 10%	1 5%	1 5%	8 40%	8 40%
7	Students argue that Kuki chatbot Application can increase students' learning interest and motivation.	2 10%	2 10%	1 5%	11 55%	5 25%
8	Students feel that using this interactive chatbot can add English vocabulary.	0 0%	3 15%	1 5%	6 30%	10 50%
9	Students think that learning English by using Kuki chatbot can give experience in developing interactive skills.	1 5%	1 5%	1 5%	8 40%	9 45%
10	Students are motivated to chat actively and creatively without a doubt, because they don't feel ashamed when their sentences structure is not perfect.	0 0%	1 5%	3 15%	5 25%	11 55%
11	Kuki Chat bot is a very good tool in improving students' writing and reading skill.	0 0%	1 5%	1 5%	5 25%	13 65%
12	Students' opinion about learning English with AI Application is an exciting challenges in keeping learning and try to new technology medium.	1 5%	2 10%	1 5%	6 30%	8 40%
13	Students felt more enthusiastic in learning English through chatting at home with my favorite topic.	0 0%	1 5%	0 0%	12 60%	7 35%
14	Students argue that Kuki chatbot doesn't lead to a specific content in class, so it motivates them more to explore their English skills though offline/online dictionaries and google translate.	1 5%	1 5%	1 5%	8 40%	9 45%
15	Student think that by using Kuki as Chatting tool can increase their positive attitude towards Technology for learning.	2 10%	0 0%	0 0%	7 35%	11 55%
	Total = 1279 **Average = 85.26**					

In determining the level of perception, the variable used 5, namely very positive, positive, moderate, negative, and very negative.

The formula used to find the range of learning perception is as follows :

The highest score – the lowest score category

$$\text{Interval} = \frac{100 - 15}{5}$$

$$\text{Interval} = \frac{85}{5}$$

$$\text{Interval} = 17$$

Thus, the highest and lowest measurement results are categorized as follows :

Table 4.4 The Distribution Frequency of students' perception

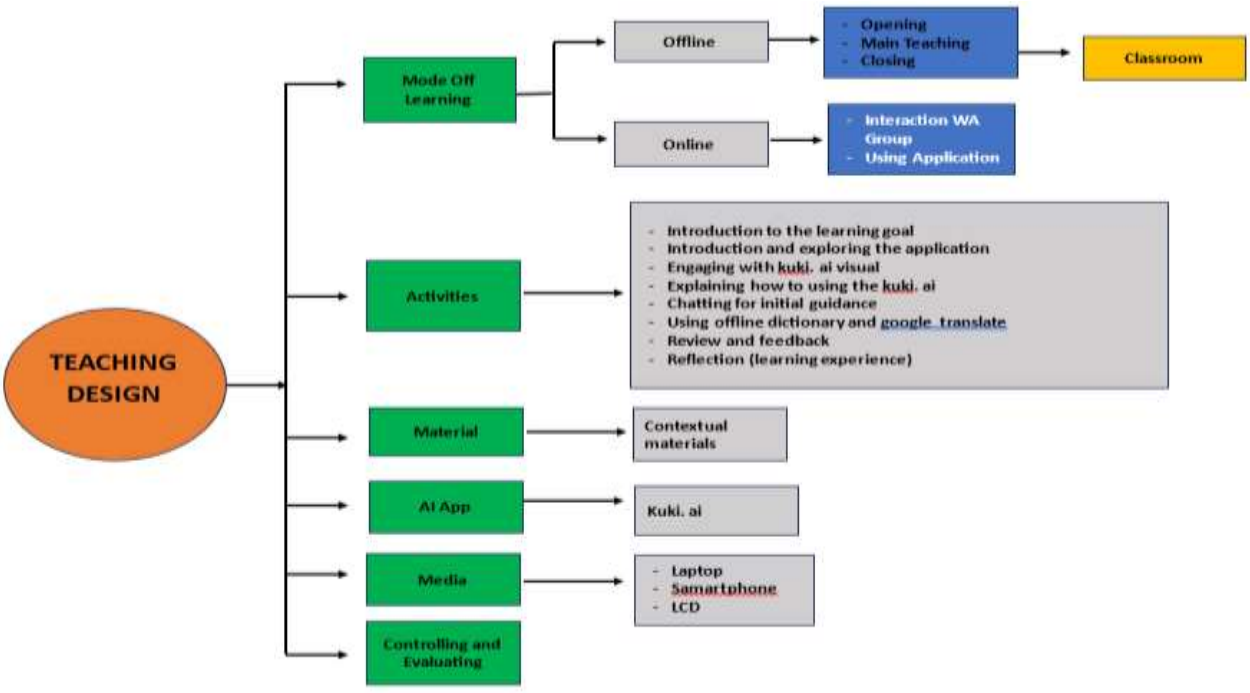
Category	Criteria	N	Percentage
86 - 100	Very positive	9	60 %
69 – 85	Positive	6	40 %
51 – 68	Moderate	0	0%
33 – 50	Negative	0	0%
15 – 32	Very Negative	0	0%
			100%

c. Mean score of student's perception

The mean score of students' perception from 15 statements towards using the Artificial Intelligence Kuki chatbot Application, the average is 85,26 or an interval score of 69-85. In often words, the perception of the third-year students of SMP 3 Alla Enrekang in using the Kuki Chatbot Application in improving English Achievement is **positive**.

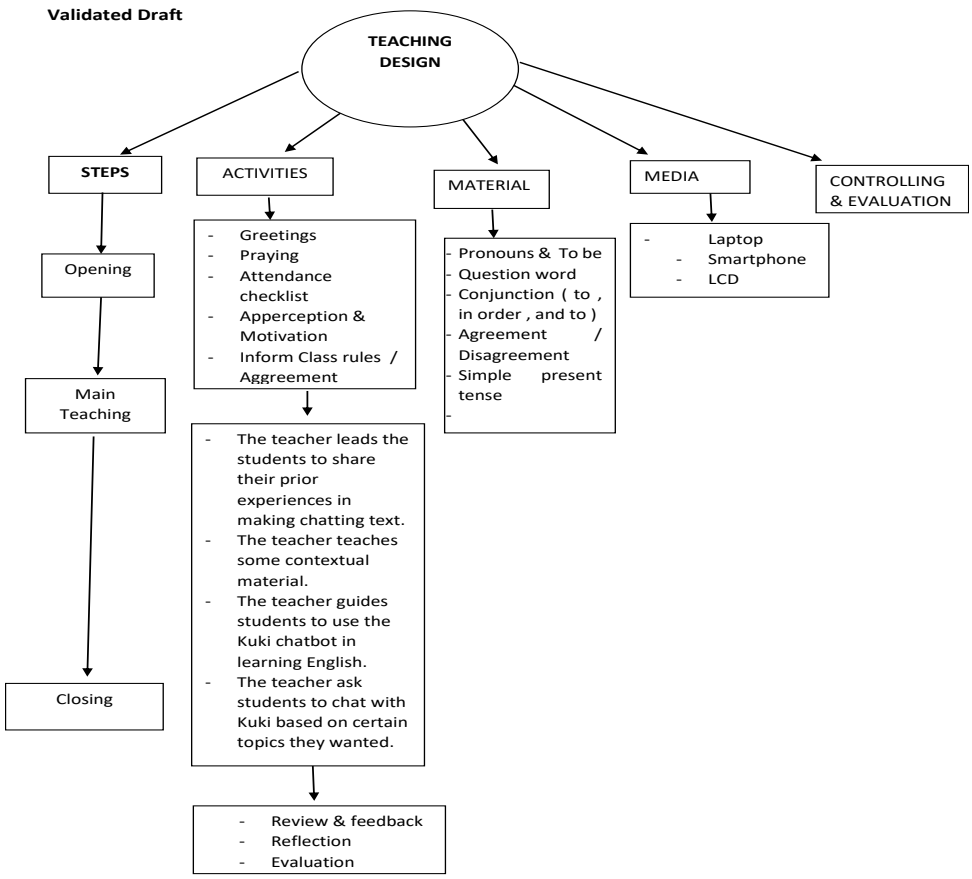
3. Validation Test

First Draft



This first draft of the learning design before being validated by the expert provided by the researcher, as seen in the previous page, the expert provides suggestions and changes that should be explained in some steps of the learning activity and adds the contextual material of learning. Through the validation process (validated draft), there are changes and aims to develop the learning process from the introduction, core activities, and material in learning English by using the Kuki chatbot.

Validated Draft



1. Learning Steps

The learning activity consists of three main stages: Opening, Main Teaching, and Closing. (Closing). Each stage is designed to optimize the student's learning experience.

2. Learning Activity

A. Opening: The objective of this opening phase is to introduce students to the learning objectives, attract their attention, and activate their initial knowledge relevant to the learning to be undertaken. Teachers will start by saying hello, greeting students, checking students' presence, and then reminding them of previously agreed class rules. Detailed activities are: a) Introduction to the Subjects and Objects of Learning: Teachers start by introducing themes or contextual content and specific objectives for the lesson. They provide a clear picture of what students will learn and will do during the session. This introduction helps students understand the purpose of the lesson and what they can expect from it. b) Explore the importance of using an artificial intelligence application such as Chatbot Cookies. The teacher discusses the significance of strong English skills in effective communication, such as writing skills in the form of simple and contextual text chats. They discussed the concept of using AI and how applications support students to improve learning experiences.

B. Main teaching: In this activity, researchers will provide English language learning materials that are appropriate and relevant to the learning needs and context of the use of the Cookie Chatbot application. Students are expected to participate in such learning

activities. The context theme of the meeting will be chosen by the teacher, and the teacher will ask for the student's opinion. After that, the teacher will instruct all students to use the Chatbot Cookie app.

a) Brainstorming: Teachers guide all students to share their experiences in chatting according to the context of their lives. The teacher asked them about some chat tools they've used before. What topic do they like the most?
b) Use chatbot application Cookies for initial guidance: By using the chatbot in person when explained by the teacher, you will implement the learning-by-doing strategy. Teachers will also explain the other features of Cookies that they can use when they need entertainment. Students begin to examine the subject they have chosen and engage in conversations in the application. They use the Cookie chatbot to create a personal chat interaction with the Cookie. c) Composes the conversation text. Students can use their imagination to brainstorm creative ways to make their conversations with Cookies flow with a focus on specific topics, such as everyday life, hobbies, idols, or other topics.

C. Closing: The closing phase aims to provide a summary of the lessons learned and confirm that the learning objectives have been met. Students will be asked to consider what they have learned so far by teachers and what challenges they face in learning.

a. Review and Feedback: Teachers guide students in reviewing their chat results and then finding ways to solve the problems they find. Students can use other tools to help them understand the meaning of the chat content. For example, using Google Translate and Digital English dictionaries.

b. Reflection: Gives students the opportunity to rethink their learning experience. Teachers encourage them to record the most important things of the lesson, the obstacles they reach, and the moments of personal development, giving the whole class a chance to share their reflections. Communicate together about the benefits of using the application.

C. Evaluation: Help students conduct self-analysis. Give them a set of standards that fit their learning goals and ask them to evaluate their own work honestly and constructively. Students are also instructed to open up their awareness in the use of such applications independently at home or elsewhere sustainably.

3. Material
In the learning process, there are some materials that can be passed on to students. The teacher will ask the students to submit the material they have been learning during this time. Then, ask them to send what they need when they are going to write a sentence. The teacher then takes the teaching material that is tailored to the needs of the students and the materials that are usually taught in this class or the matters tailored to the learning needs about the use of English-language chatting applications. The materials taught were Pronouns, Question words, Conjunctions, Agreement/disagreement, and simple present tense.

4. Media
Media is essential to instructional design, especially in today's educational context, which increasingly incorporates technology. In the context of instructionally designed, "media" refers to all tools, resources, or technologies used to teach students concepts, information, and skills. Its primary objective is to enhance understanding, increase student engagement, and build a productive learning environment. The researchers will use three media to help students learn descriptive writing: laptops, phones, and LCD screens.

Students can use their smartphones to take pictures of real-world objects or scenes associated with their themes of descriptive writing tasks. Students are able to create accurate and vivid descriptions with the help of these photos, which act as visual references. In addition, smartphones give students mobile access to web resources, allowing them to quickly find synonyms, get more details, or edit their writing.

5. Controlling and Evaluation
The role of the teacher in the learning process will be a facilitator, overseeing the actions of students in the classroom. After reviewing each student's chat text, the researcher, acting as a teacher, will evaluate the student. In instructional design, evaluation is a process to determine how successful and effective the learning process is, in this case, how the use of this Chatbot Cookie application impacts English learning. Data and information should be collected to evaluate the extent to which the learning objectives have been achieved, the level of student understanding, and the effectiveness of the teaching strategies used.

4.1 Discussion

1. Students' English Achievement in Using the Kuki Chatbot Application

The description of the data through the English achievement test, as explained in the previous section, shows that the student's English achievement improved for both Experimental and Control Classes. It is supported by the frequency and the rate percentage

of the result of the student's pretest and posttest score after treatment, which is better than before the treatment for both Experimental and Control Classes. The experimental class is given the treatment referring to the use of the application Kuki chatbot as artificial intelligence in improving students' English achievement.

The value of the t-test is greater than that of the t-table (4.506 > 2.100). The criterion is if t count < t table, then is accepted and H1 is rejected and if t count > t table, then H0 is rejected and H1 is accepted. This means that the researcher found there was an improvement between the result of the pretest and post-test for both experimental and control classes. In other words, there is an improvement in the students' English achievement in using the Artificial intelligence Kuki chatbot Application for the third grade of SMPN 3 Alla.

According to data analysis on English achievement, students' scores in the class experiment and control class both improved before and after treatment. The experimental class has a higher improvement than the control class. The findings were corroborated by the increased motivation to study English through the use of HP or technology. Santroc (2014) supports the idea that motivation is a process that provides energy and direction to behavior, i.e., it is a process that inspires and motivates an individual to take action and carry out ongoing activities. The study's conclusions are consistent with those of Mastur, Rofiqah, and Suriaman (2020), who discovered a correlation between motivation and academic success in English. It implies that pupils will score higher the more motivated they are to study. According to Ningrum and Matondang (2017), there is a correlation between students' reading achievement and motivation.

In this instance, motivation and English achievement are related. Furthermore, during the use of the Kuki AI chatbot in learning English, students get more creative in choosing the chat material with Kuki; for instance, students type the chat based on their passion, asking about film, artist, hobby, favourite idol, and many other contextual materials. Their creativity in making chat issues with Kuki trained the students to practice using English more. So, it can be said that the use of interesting media in the learning process can improve students' learning (Ferdiansyah & Irfan, 2021; Fitriawan, 2022; Heinich et al., 2012; Hitasthana et al., 2021; Novaliendry et al., 2020; Rahmawati, 2021).

Another fact that influences increasing student achievement is that students are more confident in communicating via chat with Kuki because they are not embarrassed if they make mistakes. Apart from that, Kuki will quickly give a short and simple response, so it's quite easy to understand. In Kuki's feature, students can apply available Game of Kuki if They feel bored. Kuki also knows the user's name; therefore, when students open the Kuki chatbot, they find that Kuki greets the user first. It means that the students do not need more time to make chatting run well. In supporting the activity's running well, the researcher makes the situation relaxed in the class.

2. Student's Engagement

The description of students' engagement is based on the data from the observation sheet during the learning and teaching process in using the Kuki chatbot application for four meetings in the class. The observation was done in an hour (4x lesson hours). The researcher is helped by other teachers in the school.

The results showed that students have a positive attitude toward the engagement aspect of using the Kuki chatbot application in English classroom activities. Frederik et al. l (2004) stated that Students who are behaviorally engaged would typically comply with behavioral norms, such as attendance and involvement, and would demonstrate the absence of disruptive or negative behavior. In the research, students were behaviorally engaged in the classroom tasks, and it showed that in the learning process, more than half of them were getting into the activities and actively learning in the classroom. It showed that they positively engage during the tasks of the classroom activities. In every meeting, most students come to class, but some of them come to class lately. They did it not only in English but in other subjects, too. In practising the use of the Artificial Intelligence Kuki Chatbot application, all students in the category were active and very active using the application correctly and asking the teacher for help if they were still confused about using the application. The researcher can conclude that the behavior of the student during the practice of using the application showed that students get positively engaged in behavioral engagement. Based on the observation result, all subjects of the research seemed to be really happy with the learning atmosphere in the classroom. It caused them to have a new experience in learning by using technology applications. During the use of the Kuki Chatbot application, the result also showed that students were behaviorally engaged and increased the point of chatting in every meeting. It means that students showed a passion for the use of artificial intelligence, Kuki Chatbot, in the classroom.

Trends were also evident in cognitive engagement, as students' attempts to learn and use the Kuki Chatbot Application throughout each meeting were rewarded with greater points. The pupils took note of certain items and phrases in the Kuki Chatbot application that were unfamiliar to them. As a result, they check dictionaries to see what words or sentences mean. While some students asked questions and shared their thoughts in class, a few of the pupils chose not to do so. It indicates that they might have had

trouble expressing their thoughts in certain situations. Male students tend to focus more on utilizing the program than engaging in conversation. Most of the time, they are quite excited to talk with Kuki since they feel content to type whatever they want to talk about. In addition, a greater number of them select games to pass the time during class. They are all participating in class activities with assurance. Through engaging in activities with their friends and studying English, they discovered their confidence. It indicates students' cognitive engagement with artificial intelligence and their positive involvement in the learning process. They can be stimulated to enjoy English both inside and outside of the classroom by using the Kuki Chatbot Application. They are also able to utilize it on their own at home.

Students who engage emotionally would experience affective reactions such as interest, enjoyment, or a sense of belonging, which refers to emotional engagement. Based on the observation in the learning process, Nearly all students engage emotionally when they interact with their peers. They are helping each other with everything related to the material and how to use the Kuki chatbot application. They are motivated and interested in seeing presentations and listening to the material well. The research also concluded that the students are doing fun to learn through the game of the application. Some of the students laugh together when they are reading Kuki's responses in the Chatbot. They sometimes read the results of chatting with Kuki to their seatmate. Mostly, students seem happy with the application and its features. The researcher usually controls students around the class. Furthermore, the researcher heard students clap their hands if Kuki could give responses in line with them.

The three sub-indicators of the engagement elements are behavioral, emotional, and cognitive. Every indicator demonstrated progress and enthusiastic participation in each meeting during the class activities. It is consistent with Maniam et al.'s (2019) findings from Malaysia, which similarly demonstrated the benefits and satisfaction of using TiR in the classroom. Additionally, TiR as a component of drama education yields results that are comparable to those of Nanda and Susanto (2021), who employ drama education to teach English to students in Indonesia.

The benefits of using Artificial intelligence are evidenced by data in observational field notes(checklist) based on the indications of engagement they are: Behavioral, students are active in studying the strategies in using IT, while emotional engagement such as the students interested, enjoyed, fun and can cooperate well with their peer (Haristiani, 2019) Cognitive engagement that the students collected their task/assignment. It is obvious that using Kuki Ai involves all the students participating actively in the activities in the classroom (Nuraeni et al., 2023).

Despite the fact that the use of Artificial intelligence seemed to manifest as student-centred rather than teacher-centred, an important role is still teachers inside; they are facilitators of learning. In his / her role, the teacher must move around the class, helping students and groups as needs arise. Harel (1992) adds that the facilitator gives students feedback, predicts the group question, and encourages the group to solve their problems. Extending activity, encouraging thinking, managing conflict, observing students and supplying resources. Furthermore, the use of the artificial intelligence Kuki chatbot application is a beneficial means to create positive engagement in class (Eleni & Lefteris, 2020).

3. Perception of Students

The key findings of this research lie in many positive responses from students about the use of the artificial intelligence Kuki Chatbot Application in improving English achievement**.**

Collecting data on students' perceptions was conducted by delivering closed questions in a questionnaire that consisted of 15 statement items. The questionnaire was formed in Google form, and they answered the students at the end of the meeting in the class.

The results showed that students have a positive perception towards the use of the Artificial Intelligence Kuki chatbot application as a medium for learning English. The results obtained are the most preferred Very positive Meaningful expression (60 %) and others (40%) positive expression. None of them have a Negative perception of learning English by using the Kuki Chatbot Application. In other words, generally, students have positive perceptions supported by the average score data, which was 85.26 and stands in intervals 67 – 85, with regards to students' perception relating to the learning aids. AI can play a role as a learning tool for language learners in improving English skills. More than fifty students Strongly agree with this opinion; for instance, Chatbot tools can help learners spend more time on higher-order thinking activities, real and virtual experiences, and interactions between Kuki Tutor and learners. This opinion was agreed by 12 students who supported that practising chatting with the Kuki chatbot anytime would improve students' English skills, so it would be very helpful in learning English at school. When students need basic knowledge about a new word or topic while having a conversation with an AI chatbot, they might ask the chatbot directly about the meaning of the unknown words or new concepts. As a result of this activity it will definitely add vocabulary to the students they have just acquired while chatting. Here's the benefit of chatting that's done consistently. This argument is supported by a strongly agreed statement of fifty percent of students, and only three students disagree with that. Artificial

intelligence technology can efficiently provide students with the knowledge they require at any moment. Mostly, students have a good opinion that chatbots can be a tool to improve English skills, certainly for writing and reading skills.

From a Technology Communication perspective, Nearly all participants expressed the expectation of AI chatbots to facilitate the communicative interactions of EFL learners; from a Technology perspective, almost everyone expects the use of communication technology in foreign language learning. The students argue that the use of technology is a pleasant challenge and we will always try new applications. 40% of the students expressed strong agreement, and 45% out of 20 agreed with the use of technology in learning. The same frequency also relates to the accessibility of the tools. The widespread use of mobile devices can lead to easy access to chatbots, which offer learners more chances to engage in communication in English outside of the classroom.

On the other hand, educational tools and chatbots allow students to use English whenever they want. Because the use of an AI chatbot is not constrained by time or place, it can be utilized to complement learning whenever the learners want to practice chatting in English. It thus has the potential to expand learners' opportunities to use English. Furthermore, students can use digital dictionaries and translators when they encounter difficulties while chatting. The perspective obtained 55% strongly agreed that the use of Kuki Chatbot as one of the language-based learning applications Technology has an impact on the positive attitudes of students with learning media technology greatly helps teachers during teaching in class or outside the classroom.

The student's attitude toward chatbot Kuki can be inferred from five statements that lead to the student's attitude perspective. The researchers started the statement with a feeling of great interest and happiness when they were going to use the HP while teaching and will teach a language learning application whose system is very familiar in student life. 70% of students are very interested in using HP while learning, and not students who behave uninterested in it. The increased interest and motivation of students to learn English with the use of Chatbot Kuki is very positive, as it will have a positive impact on student achievement.

Students can reduce language anxiety; specifically, chatbots can provide a wealth of written communication practice opportunities by lowering the affective filter for students. Most students strongly agreed (55 %) with the statement that they feel more confident to communicate with Kuki because they are not ashamed when their sentences are not correct. Students may feel tense and uncomfortable when conversing with teachers or friends. They feel comfortable and can practice more in conversations with chatbots. Typically, EFL students tend to be afraid of making errors and avoid losing face in conversation because they feel uncomfortable when the teacher corrects them. However, error corrections made by chatbots can be less burdensome than those made by teachers. In addition to learner anxiety, they can also demonstrate attention, concentration, and participation in English conversations by engaging in ordinary and natural activities such as social media communication with friends or phone cell.

The use of Kuki Chatbot in learning English can enhance the creativity and activity of students in writing English sentences, strongly supported by a sense of happiness and freedom in writing (Hakim, 2021). It indicates that more than fifty percent of students strongly agree with the statements. Nearly all Students also stated that they were more enthusiastic about using the Kuki Chatbot for chatting at home with the topic they wanted.

At the end of the meeting, the researcher also asked all students to write their opinions and learning experiences after using the Kuki chatbot. Mostly, they argue that the Kuki chatbot is a good application for learning English. In the paper, they stated positive opinions, even though there was a student who preferred to use another Chatbot because he was still confused about the meaning of Kuki's responses.

Robbins (2003) explains that positive perception comes from the individual satisfaction with a certain object, which becomes his/her source perception, the individual knowledge, and the individual experience of the object perceived. In line with this, this research found that the positive perception of students to the use of the artificial intelligence Kuki Chatbot application was caused by students ' satisfaction with Kuki Chatbot as a medium. Nuraini (2013) found that there is a positive and significant correlation between the perception of learning media and learning achievement of English writing ability.

5. Conclusion

Based on the statement of results and findings, the conclusions are arranged as follows :

1. The use of Artificial intelligence as technology-based media will have a positive impact on student learning outcomes.
2. The use of the Kuki chatbot application can improve the English achievement performance of the third-year students SMPN 3 Alla Enrekang.
3. The engagement of the student in the classroom during the use of the Kuki Chatbot application was positive in nature, based on the three indicators that had been observed: behavioural, emotional, and cognitive, which were in the active range.

4. The Students have a positive perception of the use of the Kuki Chatbot application in the classroom. In general, the students were having fun and enjoyed the learning process through the Kuki Chatbot application. Mitsuku or Kuki can also be considered as a good chatbot because more than half of the students gave very positive responses.

5.1 Suggestion

Based on the result of the data analysis and conclusion, the propose some suggestions as follows**:**

a. For teachers

1. It is suggested that teachers use the artificial intelligence Kuki chatbot application as an independent learning tool to improve English achievement because it can be used in or out of class.
2. It is suggested that the teacher should have a variety of methods to deliver the material to the student in order to improve students' achievement of English.
3. It is suggested that teachers can increase students' engagement through other Artificial intelligence, which is more adaptive and creative for the students in the school.

a. For Researcher

1. It is suggested that the researcher research the same concept of using the Kuki chatbot, but it should add the research frequency so that it has significant results finding of the research.
2. It is suggested that the researcher conduct research based on some use of the Chatbot application to find an effective application for learning English.

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