Development of Audio Visual Media Based on the Speechmax.Ai Application to Improve Hearing Ability (Hoeren) German Level A2

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Abstract. German language learning is taught in four skills based on the A2 standard exam test module from the Goethe Institut, namely listening skills, reading skills, writing skills and speaking skills. Among these four skills, listening ability is the most important skill, because through German listening skills, one can determine the level of mastery of all skills as a whole. The learning media developed is packaged through the speechmax.ai application. The speechmax.ai application is a learning medium that is known as the best AI voice generator because it uses sophisticated algorithms and technology to convert text to voice. In its development, this media will be developed with reference to 6 themes (Was machst du?, Nach der Schulzeit, Immer Online, Die Jacke gefaellt mir, Große und kleine Gefuehle, Arbeitswelten) so that this media will be able to convey the content of Hoeren Level A2 learning to student in the German Language Education Study Program. This research uses the development method with the ADDIE model. In making audio, audio is created based on 6 themes that have been selected and which are then developed in audio-visual form using the speechmax.ai application.

Keywords: Audio Visual Learning Media, speechmax.ai Application, Hearing Ability(Hoeren)

1 Introduction

Welcoming the golden generation of Indonesia in 2045, there are many things that must be prepared, including mastering the five life skills formulated in 5C, namely, critical thinking, creativity and innovation, communication skills, collaboration and self-confidence. In responding to communication skills to welcome the golden generation of 2045, People are expected to be proficient in a foreign language in addition to their native language, as multilingual abilities can impact one's career. Both academic and non-academic leaders often possess foreign language skills. The academic world values work presented in English or other foreign languages like German. Learning a foreign language provides access to a wealth of information, including knowledge of science, literature, culture, and technology. German, in

particular, is studied at many universities in Indonesia, including Medan State University, making it an important language in the country's education system.

Language plays a crucial role in human life and can be considered one of humanity's fundamental needs. People interact with one another through language, which is why it is often referred to as a tool for communication. Language serves as a medium for communication between individuals and consists of a combination of symbols used for social interaction. This view reinforces the idea that language is inseparable from human existence.

According to the Minister of Higher Education, the learning achievements for German education include: (1) understanding various linguistic aspects of the German language (linguistics, discourse, sociolinguistics, and strategy), and (2) mastering both spoken and written German, being receptive and productive in all communicative aspects. These goals are designed to help students develop the ability to comprehend German on various topics, even at advanced levels.

German language instruction focuses on four key skills, based on the A2 standard exam from the Goethe Institut: listening, reading, writing, and speaking. Among these, listening (Hören) is considered the most crucial skill because it provides a foundation for mastering all other aspects of communication. Therefore, listening plays a vital role in language learning.

One important factor in achieving these learning objectives is the use of media. Learning media not only helps students focus but also enhances the overall learning experience. Modern learning tools have become increasingly sophisticated, and the use of media is now an integral component of effective teaching. It is essential for teachers to choose appropriate media to meet learning goals, particularly in the context of German language education.

To engage students more effectively, teachers need to be creative and incorporate a variety of learning techniques when teaching German. Many students still find German challenging, especially in listening. This difficulty is often attributed to a lack of diverse media, which diminishes students' motivation and leads to suboptimal performance in listening skills.

An example of this issue can be seen in the performance of first-semester students in the Hören course, where the majority of grades were unsatisfactory. Of 34 students, only three earned an A, while 20 received B grades and 11 received C grades. This reflects a lack of sufficient audio-visual tools for listening practice.

To address this, it is necessary to develop audio-visual media using the speechmax.ai application, a tool designed specifically for educators and students to foster creativity and collaboration in the classroom. This application has great potential to improve students' listening skills and aligns with 21st-century educational needs, offering digital learning tools that are accessible and engaging for students.

In response to the growing preference for digital media among students, the development of audio-visual resources using the speechmax.ai platform offers a solution to the problem of insufficient listening practice. This approach can enhance students' German listening skills (Hören) at the A2 level by providing interactive and accessible media, ultimately enabling teachers to move beyond conventional methods and improve student outcomes.

2. Review of Literature

2.1. The Nature of Learning Media

The word "media" originates from Latin, where it is the plural form of "medium," meaning intermediary or introduction. The National Education Association (NEA) defines media as any objects that can be manipulated, seen, heard, or discussed, along with the tools used to facilitate these activities [11] According to [7] media in the learning process serves as an intermediary that conveys messages from the source to the recipient, stimulating thoughts, emotions, attention, and motivation to engage in learning. Media can be understood as a channel for transmitting messages between the sender and receiver [8].

[2] describes learning media as tools used to ensure that teaching occurs smoothly, helping to facilitate the path toward achieving the desired goals. The effectiveness of learning media depends on the willingness and ability of both teachers and students to engage with the messages they contain. [14] adds that learning media assist in the teaching process by stimulating students' thoughts, emotions, attention, and skills, thereby encouraging active participation in learning.

In summary, media acts as an intermediary in learning, capable of conveying messages that stimulate thinking and enhance the quality of the teaching and learning process, ultimately supporting the achievement of educational goals.

2.2. Types of Learning Media

According to [3] learning media is classified into three types:

1. Audio media: Media that involves the sense of hearing, such as radio, language laboratory discs, and magnetic tape recorders.

2. Graphic media: Media related to visual elements, including pictures, sketches, diagrams, posters, maps, globes, and graphs.

3. Silent projection media: Visual media that project messages, such as frame films, chain films, transparent media, television, and films.

In addition, [6] classifies learning media into three categories:

1. Auditive media: Media that relies solely on sound, like radio, recorders, and cassettes.

2. Visual media: Media that depends entirely on sight, such as films, photos, and paintings.

3. Audio-visual media: Media that combines both sound and visual elements.

2.3. Audio Visual Media

Audio visual is related to the sense of hearing, the message conveyed by audio media is in the form of auditory symbols, both verbal and non-verbal, [3] in [9]Audio visual media is a learning media that has sound elements and image elements. This type of media has very good capabilities, because it consists of two types of media, namely audio and visual media. [10]

Audio visual media is a series of images accompanied by audio sound elements inserted into a [9] So it can be concluded that audio visual media is a message conveyed through sound which is packaged in audio form, so that the message can reach anywhere and wherever it is.

The advantages of Audio Visual Media according to [12] are as follows:

1. Usage is not time bound.

2. Very practical and interesting.

3. The price is relatively inexpensive, because it can be used many times.

4. Saves time and videos or films can be played back.

2.4. The Essence of Teaching Listening (Hören)

In learning German, there are four essential skills that must be mastered: listening, reading, writing, and speaking, as outlined in the standard exam test module from the Goethe Institute. Among these, listening skills are considered the most critical aspect of learning German.

Listening is fundamentally both a physical and psychological process. Physically, it involves observing written material visually and engaging in the mechanical act of listening. This mechanical process is followed by a psychological one, where the brain actively processes and interprets the information [5]

explains that listening is the process of understanding the message or meaning conveyed in a text, including information, knowledge, and expressions. Key indicators of listening ability include summarizing the content, identifying important points, finding the main idea, drawing conclusions, and answering related questions.

According to [1], "Listening is the process of understanding written messages using language communicated by the writer to the reader [3] echoes this, stating, "Hören ist der Prozess, in dem man schrifliche Informationen aufnimmt und versteht," which means listening is the process of receiving and comprehending written information.

In conclusion, teaching listening involves helping learners understand, analyze, and extract information from written texts, enabling them to draw conclusions from what they read.

2.5. The Nature of the Speechmax.ai Application

Speechmax.ai is widely regarded as one of the best AI voice generators, utilizing advanced algorithms and technology to convert text into speech. This application simplifies the process of creating voiceovers, allowing users to maximize its features for optimal performance.

SpeechMax is an AI-powered voice synthesis tool that transforms text into a human-like voice within seconds. With just three clicks, it can generate a voiceover that sounds completely natural. Users can choose between realistic male or female voices, adjusting for different emotions, tones, and pitches. Text can be converted into various speaking styles, such as narrative, happy, or sad.

Traditionally, creating voiceovers with artists is a costly, time-consuming, and challenging process. Speechmax streamlines this by synthesizing hundreds of words into the desired voice and style within seconds, providing an efficient and flexible tool for voice creation.

3 Research Method

This research employs the ADDIE development model due to its structured, effective, yet simple approach. The ADDIE model consists of five stages of development: analysis, design, development, implementation, and evaluation [13]. These stages offer a clear and systematic process for instructional design. The steps involved in the ADDIE model can be visualized in the following diagram:
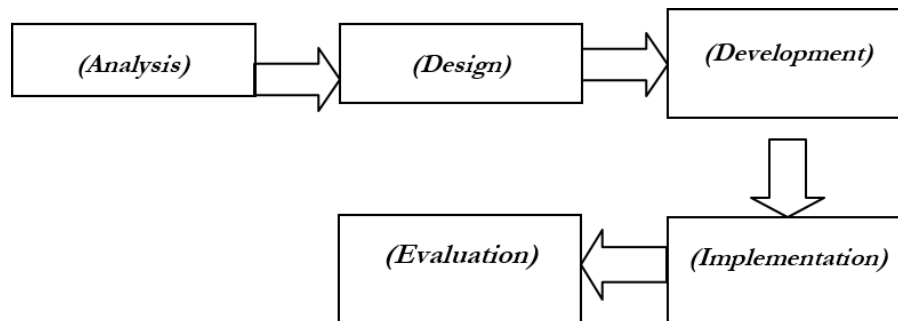

Fig. 1. Steps taken using ADDIE

4. Research Results and Discussion

a.   Analysis

The initial stage carried out in this research was analysis. The analysis was carried out based on student learning outcomes in the Hören A1 Semester 1 course which were less than satisfactory. Of the 34 students, only 3 people got A grades, 20 people got B grades and 11 people got C grades. This was due to the lack of audio-visual media in training. Based on the facts above, this is the basis for the field survey and literature survey.

1) Field Survey

Field surveys are carried out with the aim of collecting data on field needs. Collecting data on field needs will provide an overview of the media design that will be developed.

The needs analysis was carried out by means of a survey of students in the German Language Education Study Program Semester 1, totaling 30 students taken at random.

2) Literature Survey

A literature survey was carried out to summarize the learning that will be made, namely the material for level A2 in the book Netzwerk neu A2 which contains 6 themes (Was machst du?, Nach der Schulzeit, Immer Online, Die Jacke gefällt mir, große und kleine Gefühle, Arbeitswelten).

b. Design

After completing the material concept, the next step is to design the audio visual media. At this stage, the audio-visual media format that will be created has been prepared.

The structure for the development of Audio Visual Media based on the Speechmax.Ai Application to Improve A2 Level German Listening Ability (Hören) consists of 6 Themes (Was machst du?, Nach der Schulzeit, Immer Online, Die Jacke gefällt mir, große und kleine Gefühle, Arbeitswelten), which is packaged in the Speechmax.A1 application.

c. Implementation

The implementation stage is the application stage, where trials are conducted on Audio Visual Media based on the Speechmax.Ai Application to Improve German Listening Ability (Hören) Level A2. The trial will be carried out with a trial of 3 students, a trial of 9 students, a field trial of 30 students and a trial of 3 lecturers.

d. Evaluation

Evaluation is the final step of the ADDIE development model. At this stage, Audio Visual Media based on the Speechmax.Ai Application to Improve A2 Level German Listening Ability (Hören) which has been tested will be revised (if necessary) both in terms of appearance (design) and material. The evaluation was carried out to see whether Audio Visual Media based on the Speechmax.Ai Application to Improve A2 Level German Listening Ability (Hören) was effective in learning.

ased on statistical data from the students' pre-test, the average score was 61.16, while the students' post-test learning results for the average score were 83. This shows that the use of Audio Visual Media based on the Speechmax.Ai Application to Improve Listening Ability (Hören) German Level A2 is good and effective.

Apart from that, the results of the interviews and surveys became the basis and reference for the development of Audio Visual Media based on the Speechmax.Ai Application to Improve A2 Level German Listening Ability (Hören). This research uses the ADDIE development model with a development process carried out systematically to ensure the benefits of the media being developed.

Based on the entire discussion, it can be concluded that the development of Audio Visual Media based on the Speechmax.Ai Application to Improve A2 Level German Listening Ability (Hören) has proven its effectiveness in improving student learning outcomes.

5 Conclusion

Audio Visual Media based on the Speechmax.Ai Application to Improve Listening Skills (Hören) German Level A2 contains learning German Level A2 for listening skills (Hören) which consists of 6 Themes (Was machst du?, Nach der Schulzeit, Immer Online, Die Jacke

gefällt mir, große und kleine Gefühle, Arbeitswelten) contained in the Netzwerk neu A2 student textbook.

Audio Visual Media based on the Speechmax.Ai Application to Improve A2 Level German Listening Skills (Hören) provides many benefits for both students and lecturers. For students, it can make it easier to understand the material. For lecturers, as reference material and learning tools.

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