



Analysis of Android-Based Learning Media Needs on Javanese Speech Levels Materials

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Abstract. This study is a qualitative research aimed at describing the needs for Javanese language learning media based on Android. Data was collected through questionnaires and interviews, and then analyzed using Mile and Huberman's interactive analysis model. The results showed that 99.1% of students owned an Android smartphone, and 50.2% used their Android smartphones for 4-8 hours daily. The majority of students used their Android smartphones for social media, accounting for 63%. Regarding the availability of Wi-Fi in schools, 83% of schools had installed Wi-Fi. With this potential, using Android smartphones as a medium for Javanese language learning is highly feasible. Based on the data, not many teachers use Android smartphones as a learning tool. So far, the majority of teachers have been using textbooks, worksheets, and PowerPoint. Specifically, 43.6% of teachers use worksheets, 22.8% use textbooks, 13.8% use PowerPoint, and 10.7% use videos for Javanese language learning.

Keywords: Javanese Speech Level, Media, Materials.

1 Introduction

1.1 A Subsection Sample

Javanese is one of Indonesia's local languages. The Javanese language is a cultural asset to the nation. Among the advantages of the Javanese language are the noble values it contains. Unfortunately, the trend in the field indicates that the number of Javanese language enthusiasts and speakers is declining. The younger generation of Java speakers is less adept at applying the Javanese speech level, particularly the variety of Javanese manners [1], [2]. The variety of etiquette is only mastered by parents, while their children and grandchildren prefer to speak Indonesian, particularly in urban environments.

There are numerous causes for students' inability to apply the Javanese speech level, including a lack of carrying capacity within the family and community [3]. The teacher has not used interesting and innovative learning methods, the Javanese speech level material taught to students is still complicated and confusing, and indicating that the teacher has not been able to make the speech level material understandable for students and students are not highly motivated to learn Javanese [4].

Based on interviews with Javanese language teachers in Semarang City, it has been revealed that students rarely use formal Javanese language (*krama*) when speaking with their parents. Even students living in residential areas often use the Indonesian language in their daily lives. They perceive Javanese language lessons as difficult and less important. This has led to low learning motivation. Another issue is the limited availability of supporting resources for Javanese language learning, such as learning media and teaching materials in schools.

On the basis of these issues, the researchers attempted to propose a new alternative involving interesting and contemporary learning media in accordance with current technological advancements, namely Javanese speech level learning media based on android smartphones. The number of Android smartphone owners in Indonesia is growing annually, but the most popular use is still accessing social media and playing games [5]. Smartphones have not been utilized optimally in education, including the teaching of Javanese.

Android smartphones should be used as an alternative learning medium because this media needs to be developed as one of the alternatives, as it is effective for GenZ. Additionally, Android smartphones are practical and necessary for the following reasons: almost all students have an Android smartphone, Android can integrate various images, colors, animations, and videos that can attract students' attention, Android smartphones are very practical and easy to use, a stable internet network is available, particularly in schools in the city, and the use of Android in learning allows learning to be carried out anywhere, both in the classroom and outside of it.

Initial observations indicate that the majority of students have Android smartphones, but Android smartphones have not been utilized in any of the teaching materials. The teacher uses worksheets, textbooks, and power point as instructional materials. These media are still considered traditional and have not been modified by technology. It is time for educators to utilize the sophistication of Android to teach Javanese. The android system has the potential to significantly enhance the quality of Javanese language instruction in schools. Several studies have reported success in developing android-based learning media, including an increase in English vocabulary comprehension, increased student motivation to learn, and the development of student learning independence, increase academic achievement and enhance student learning outcomes [6]–[10]. On the basis of several theories and realities in the field, it is necessary to conduct in-depth research on the needs of students for Android-based learning media. Additionally, determine if android-based learning media can be used to learn Javanese speech level.

2 Methods

This study is a qualitative research. Data collection techniques are used in this study involved questionnaires and interviews. The data source comprised 466 high school and vocational school students in Central Java. This study's instrument grid consists of (1) the proportion of students who have and do not have an android smartphone, (2) the duration of using an android smartphone in a day, (3) the purpose of using a

smartphone, (4) the availability of Wi-Fi in schools, (5) the learning media used in the Javanese speech level material, (6) mastery of the vocabulary of *krama* and *krama inggil*, (7) mastery of the concept of Javanese speech level, and (8) the level of fluency in using *krama alus*. The collected data were subsequently analyzed using Mile and Huberman's interactive analysis model [11]. Data obtained from questionnaires and interviews are recorded and documented. After data collection, the next step is data reduction. Data reduction aims to select relevant and meaningful data that focus on addressing the research problem or answering research questions. The data is then systematically organized, and its meaning is elaborated. During the reduction phase, the focus is on findings related to the research problem, while data unrelated to the research problem is discarded. This is done to facilitate the organization of data and make it easier to draw conclusions. The next step is data presentation. Data is presented in the form of written text or sentences, graphs, and tables. The final stage is drawing conclusions. Once sufficient data has been collected, preliminary findings are drawn, and when the data is fully complete, final conclusions are made.

3 Results and Discussion

3.1 Results

Based on the results of the data analysis, it can be concluded that (1) 99.1% of students have an android smartphone with varying ownership, 23.0% of students have an android smartphone that is less than three years old, 36.2% have an android smartphone that is between 3-5 years old, and 40.8% have an android smartphone that is older than 5 years. (2) Students' duration of Android smartphone use varies considerably. 17% of students use android smartphones for 1-3 hours per day, 50.2% use android smartphones for 4-8 hours per day, and 32.8% use android smartphones for more than 8 hours per day. The majority of students (63%) use android smartphones for social media, while 28.4% use them for studying and 8.6% for playing games. (4) The teacher uses 43.6% student worksheets, 22.8% books, 13.8% PowerPoint, 10.7% videos, 1.7% images. Regarding the availability of Wi-Fi in schools, 83% of schools have already installed Wi-Fi. With this potential, using Android smartphones as a medium for Javanese language learning is highly feasible.

3.2 Discussion

This study seeks to characterize the requirements for android-based Javanese speech level learning materials. In addition, explained that the purpose of needs analysis is to ensure that the designed products meet user requirements [12].

The Ratio of Students Who Have and Do Not Have an Android Smartphone.

According to a survey completed by 466 high school and vocational high school students, only four students (0.9%) lacked an Android smartphone. This indicates that the majority of students own Android-powered mobile devices According to research by Khairunisa et al., students in Malang Regency show a high rate of smartphone

usage at 86% [13]. The duration of Android smartphone ownership varies. Some have owned an Android smartphone for less than three years, between three and five years, and others for more than five years. 23% of students have owned an Android-powered smartphone for less than three years. 36.2% of students have an android smartphone between the duration of three to five years, while 40.8% of students have an android smartphone longer than five years. The presence of smartphones has transformed students' lives in the world of education. Most students feel heavily reliant on smartphones. According to them, mobile phones greatly facilitate daily life and communication. The convenience and ease of life compel individuals to choose to use smartphones

Use of Android Smartphone in a Day. The smartphone, which was originally used solely for communication, has evolved into a device that can virtually support all human activities. A person can check his smartphone as many as 34 times per day [14]. Students' duration of Android smartphone use varies considerably. Based on an analysis of the data, it was determined that 17% of students used their Android smartphones for one to three hours per day. Daily, 50.2% of students use Android smartphones for four to eight hours. Furthermore, 32.8% of students use Android smartphones for more than eight hours per day.

Purpose of Using Android Smartphone. Android smartphones are one of the most popular forms of communication because they provide quick and easy access to information. Android smartphones are used for a variety of purposes, including education, communication, data storage, video and image capture. In addition, Android smartphones are used for entertainment purposes, such as playing games and interacting with social media. The majority of students (63%) use Android smartphones for social media, according to the data. 28.4% of students use it to study, while 8.6% use it to play video games. According to the data presented above, the majority of students use smartphones for social media, such as posting status updates, photos, and comments. Facebook, Twitter, Instagram, WhatsApp, and Telegram are frequently utilized by students as social networking sites. Android smartphone usage can have both positive and negative effects. It facilitates access to information, communication, and the addition of new insights. It makes students sluggish to study, interferes with health, particularly eye health, creates addiction, wastes quota, and enables students to access inappropriate content, such as pornographic videos..

Availability of Wi-Fi at School. In this technological age, people cannot exist without the internet. The teaching and learning process is no longer dependent on books because of the internet. Using the school's Wi-Fi is one way to gain internet access. According to the collected data, 83% of schools have installed Wi-Fi, while 17% of schools have not. Internet accessibility enables teachers to be inventive in their provision of learning materials. Students no longer rely exclusively on textbooks. In addition, instructors can display Internet-sourced instructional materials, such as images and videos. Wi-Fi also enables teachers to distribute quizzes that can be accessed

from each student's device. This means that students who have trouble accessing the internet can benefit from having Wi-Fi at school.

The Learning Media Used By the Teacher on the Javanese Speech Level Material.

Learning media is a tool that can facilitate the teaching and learning process so that the meaning of the message conveyed is made clearer and educational objectives are attained in an efficient and effective manner [15]. As depicted in the graph, Javanese language instructors use video media, PowerPoint, worksheets, images, and books to teach Javanese speech level materials. Student Worksheet is the preferred medium for teaching Javanese speech level material 43.6 percent of the time. The second position is occupied by book media with a 22.8% share. 13.8% of the third place is occupied by power point media. The percentage of video media was 10.7%, while image media was 1.7%. 7.9% of students utilize media other than worksheets, books, PowerPoint presentations, videos, and images. The use of worksheets in the learning process has an effect on instant culture teachers and students. Student Worksheet discourages creativity and laziness in question formulation among educators. Teachers are less creative and lazier when constructing questions. This is because the Student Worksheet contains numerous practice questions that teachers and students can use immediately. In addition to these disadvantages, student worksheets have the benefit of being user-friendly and inexpensive compared to other learning media.

Mastery of *Krama* and *Krama inggil* Vocabularies. Javanese lexicon is divided into four forms: *ngoko*, *krama*, *madya*, and *krama inggil* [16]. The most extensive lexicon is *ngoko*, followed by *krama* as the second largest, *krama inggil* as the third largest, and *madya* as the smallest lexicon. According to Poedjasodarma, there are tens of thousands of *ngoko* lexicons, 35 forms of *madya*, 850 forms of *krama*, 260 forms of *Krama inggil*, and 20 forms of *Krama andhap* [17]. These numbers are subject to change every year, as some lexicons are no longer spoken and thus become lost, while new lexicons may be added through the adoption of elements from other languages. According to a questionnaire completed by 466 students, approximately 280 students, or 60% of students, have not memorized the vocabulary of *krama* and *krama inggil* used in daily life. Low mastery of the *krama* and *krama inggil* vocabularies is caused by a number of factors, including a lack of family support for mastering the vocabularies. Students at home use the vocabulary of manners and etiquette infrequently when communicating. Additionally, they utilize *ngoko* or Indonesian when interacting with others.

Concept Mastery of Javanese Speech Level. Javanese speech level refers to language variations determined by the speaker's attitude towards the interlocutor or the third party being discussed. Differences in age, social status, degree, and familiarity between the speaker and the interlocutor determine the chosen language variation [18]. Javanese speech level can be divided into two forms: *ngoko* and *krama*. *Ngoko* includes *ngoko lugu* and *ngoko alus*, while *krama* includes *krama lugu* and *krama alus* [19]. Based on the data analysis, it can be concluded that 51% of high school and

vocational students stated that they had not mastered the Javanese speech level concept. They acknowledge that the Javanese speech level is challenging, particularly for urban students. Frequently, individuals use the language of good manners to describe themselves. This is due to the lack of use of the Javanese language in schools, the limited number of hours dedicated to Javanese language lessons, teachers' continued use of the teacher-centered approach, and the limited media available for learning Javanese in schools. Therefore, the media to be developed can greatly facilitate the process of learning Javanese speech levels, as GenZ is closely tied to the use of technology.

Level of Fluency in Javanese *Krama Alus*. *Krama alus* is the highest or most refined level of the Javanese language. *Krama alus* is used to show respect to older interlocutors or speakers. The difficulty of speaking the *Krama alus* language is one of the challenges for students learning Javanese. The results of the survey distributed to 466 students demonstrate this. As a result, 62% of students do not speak Javanese manners fluently. The students' inability to speak *Krama alus* fluently is due to their infrequent use of Javanese *Krama alus* in daily life. In addition, the vocabulary of *Krama* and *Krama inggil* is poorly mastered, causing students to experience confusion and difficulty when speaking Javanese *Krama alus*. By using Android-based media, students can access the material anytime and anywhere.

4 Conclusion

The majority of students have android smartphones, so it is necessary to develop android-based Javanese speech level learning materials, according to the results of the analysis. In addition, Wi-Fi has been installed in 83% of schools. In areas of the province of Central Java, signal conditions are also relatively favorable. The development of this learning medium is anticipated to make it easier for students to master the instructional material, thereby facilitating the attainment of learning objectives. Students are not required to access learning at school, but they can access media from anywhere and at any time using Android media devices they already possess.

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