



BASANUSA: CULTURE LITERACY MEDIA BASED ON APPLICATION FOR JAVANESE LANGUAGE REVITALIZATION IN CHILDREN AGED 5–6 YEARS

Rinda Dyah Nastiti¹ Wuri Astuti²

^{1,2}Universitas Negeri Malang

Correspondence: rinda.dyah.2201536@students.um.ac.id

Abstract

The existence of Javanese language is currently in a critical condition, particularly among early childhood. Data from BPS (2022) recorded only 2,016,821 out of 38,366,135 East Java residents actively using Javanese in daily communication, with usage among Generation Z and Alpha reaching only 61–62%. Analysis of needs conducted through questionnaires distributed to 31 respondent teachers of children aged 5–6 years in Malang revealed a significant gap between the urgency of introducing Javanese to early childhood and the limited availability of appropriate learning media. Existing applications on Google Playstore were found to be unsuitable for the characteristics and language development of children aged 5–6 years. This study aims to develop and test the feasibility of *basanusa*, a culture literacy media based on application for Javanese (*ngoko*) language revitalization in children aged 5–6 years, using the ADDIE development model (Analysis, Design, Development, Implementation, Evaluation). The application features daily vocabulary with audio and visual support, gamification-based quizzes, *tembang dolanan*, *maca crita*, and a reward system, and can be used offline. Feasibility testing involved material experts, media experts, and user experts, as well as small-group and large-group trials. Results showed that the *basanusa* application obtained an overall feasibility percentage of 94.31% from expert validation and 98.79% from large-group trials, both categorized as "very feasible". Therefore, the *basanusa* application is declared very feasible as a digital-based Javanese learning media and can be implemented both at school and at home as a practical solution for Javanese language revitalization in early childhood.

Keywords: *Early Childhood Education, Revitalization Of Javanese Language, Application Of Culture Literacy*

INTRODUCTION

The Javanese language is not only a cultural heritage but also plays a role in shaping the character and identity of Indonesian society, particularly on the island of Java. Manarfa & Lasaiba (2024) explain that Javanese can reflect local wisdom and values of politeness in life. However, in reality, regional languages, especially Javanese, are beginning to lose their existence with the development of the times. The significant decline in Javanese language use is due to the fact that young children tend to use Indonesian and foreign languages more in their daily communication (Perdana, 2024)

According to data from the Central Statistics Agency (BPS) in 2022, only 2,016,821 of the 38,366,135 residents of East Java still used Javanese for daily communication. This data indicates a Javanese language shortage. According to Wiranti & Munir (2019), their research explains that the contributing factor to the decline in Javanese use is difficulty in selecting vocabulary to create effective sentences, particularly the differences between spelling and pronunciation.

In early childhood, language development is significantly influenced by the child's environment, such as the home and school environments. Consistent with this, Vygotsky's theory explains the significant contribution of the family and school environments to children's language acquisition (Kurniati, 2025). Furthermore, the authors conducted a needs analysis by distributing questionnaires to kindergarten B teachers in Malang. From the results, 29 out of 30 respondents agreed with the statement that children need to be introduced to Javanese from an early age. Respondents also strongly agreed, with 84.4% agreeing that using digital media to introduce and teach Javanese would be helpful. This

finding aligns with a study by Ah et al. (2025), which found that Android-based digital applications significantly impact Javanese language development in early childhood.

Next, the author searched the Google Play Store for similar apps. He found several similar apps, including Adibasa, Belajar Bahasa Jawa + Suara, and Sinau Bahasa Jawa – Hanacaraka. These three apps share a common shortcoming: the selection of materials and features are not tailored to the needs, characteristics, and language development of children aged 5-6. Based on these shortcomings, the apps available on the Google Play Store require adjustments to ensure they are suitable for children aged 5-6 learning Javanese, necessitating the development of media.

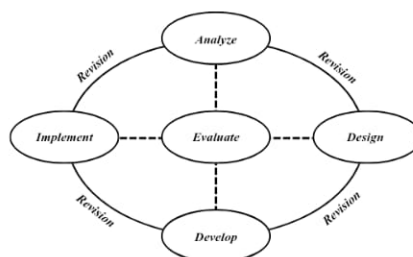
The gap between the high demand for media and the lack of availability of appropriate media for children to learn Javanese in a fun way motivated the author to develop the *basanusa* app. The *basanusa* app will be developed using the ADDIE model. This model was chosen because it provides systematic media development stages that can produce a suitable *basanusa* app.

The development of the *basanusa* app is based on the needs and language development stages of children aged 5-6. The features to be developed in this media include everyday vocabulary in *ngoko* Javanese, voice-overs for proper reading, gamification-based quizzes, rewards for completing the material, and "tembang dolanan" (a traditional Javanese song) and "maca crita" (a story of stories). With the development of these features, it is hoped that children will be able to imitate, read, and understand the use of *ngoko* Javanese appropriately in everyday life.

RESEARCH METHODS

In this study, the authors used a research and development (R&D) method. This method was used to develop and test the feasibility of learning media. Sells and Richey, in Jannah (2024), define development research as a systematic study of the design, development, and evaluation processes to ensure that the developed media meets the criteria for internal consistency and effectiveness of use.

Figure 1. ADDIE Model Development Flow (Branch, 2009)



The ADDIE model consists of five systematic stages: Analysis, Design, Development, Implementation, and Evaluation (Branch, 2009). ADDIE was chosen as the development model deemed appropriate for developing the *basanusa* application because its structured, needs-based development process focuses on achieving learning objectives effectively and efficiently (Aulia & Adhe, 2021).

The needs analysis was conducted quantitatively, using a questionnaire distributed from August 26 to September 30, 2025, to 31 respondents, including kindergarten B teachers in Malang City. The analysis results were then used as the basis for planning the design of materials and features within the *basanusa* application. The next stage, development, involved collaborating with digital learning media developers to achieve optimal results. The developed *basanusa* application was then validated with material experts, media experts, and user experts to assess its feasibility in terms of attractiveness, suitability, and efficiency. The validation results provided quantitative and qualitative data, derived from the validator's criticisms and suggestions. To determine the category for each aspect of the assessment, the author uses a Likert scale of 1-5 with the following criteria: 1) very inadequate, 2) inadequate, 3) quite adequate, 4) adequate, and 5) very adequate. The Likert scale results obtained from experts, observation results, and user satisfaction assessments are calculated using the following formula;

$$P = \frac{Tse}{Tsh} \times 100\%$$

Source: (Sutama et al., 2025)

Informations:

P = Percentage

Tse = Total empirical score

Tsh = Total expected score

Based on the resulting percentage, it is then adjusted to the existing categories, as shown in Table 1 below:

Table 1. Product Feasibility Level (Hidayati, 2021) with Modifications

No.	Percentage	Categori
1.	81%-100%	Very Feasibility
2.	61%-80%	Feasibility
3.	41%-60%	Quite Feasibility
4.	21%-40%	Not Feasibility
5.	<20%	Very Not Feasibility

Validators were assigned. After validation and revisions based on expert assessment, the implementation phase was conducted to obtain data regarding user responses to the *basanusa* application. The research subjects were 5-6 year-old children at Taman Indria 01 Kindergarten (5 children for the small group trial) and 15 children at Akademika Kindergarten (15 children for the large group trial) (Sidqi, 2021). Based on the results of the validation and trial tests, an evaluation phase was conducted to refine the *basanusa* application.

RESULTS AND FINDINGS

A. Analysis Phase

The analysis phase aimed to identify real-world needs and problems. The analysis results indicated that children aged 5-6 years had a high interest in visual, animated, and interactive media as learning media for *ngoko* Javanese. However, data revealed that the availability of media appropriate to the characteristics of children aged 5-6 years was still limited. Teachers, as the primary respondents, assessed the importance of introducing *ngoko* Javanese from an early age, necessitating the development of media tailored to children's needs. To answer this problem, the development of the *basanusa* application is appropriate as a practical solution that can be used in learning activities.

B. Desain Phase

The planning stage includes determining the material in the form of simple vocabulary of *ngoko* Javanese in everyday life, including body parts (*perangane awak*), numbers, my activities, my family (*kulawargaku*), and my feelings. In addition, the outline and structure of the media are also determined, which include interactive features such as navigation, guidebooks, audio, character visuals, traditional songs, and stories (*maca crita*). The results of the planning of features in the *basanusa* application are in Table 2 below:

Tabel. 2 *Basanusa* Application Design





C. Development Phase

The development stage is the process of developing the previously drafted design into a Javanese language learning medium that meets the needs and characteristics of children aged 5-6 years. At this stage, researchers collaborated with external parties, namely digital learning media developers. This resulted in the *basanusa* application being validated by experts to ensure it is a suitable learning medium. The validation process involved material experts, media experts, and user experts who assessed the media's attractiveness, suitability, and efficiency. Expert validation was conducted to determine the feasibility of the *basanusa* application before implementation. Based on the expert validation results, the following results were obtained:

1. Material Expert Validation

Material expert validation was conducted by two validators using a validation instrument consisting of six statements with a scoring scale of 1–5 and a maximum score of 60. The following are the results of the material expert validation:

Table 3. Material Expert Validation Results

Aspect	V1	V2	Tse	Tsh	P
Attractiveness	4	4	8	10	80,00%
Suitability	15	14	29	30	96,67%
efficiency	10	10	20	20	100,00%
Amount	29	28	57	60	276,67%
Averages					95,00%

Informations:

V1: Validator 1

V2: Validator 2

P: Percentege

Tse: Total empirical score

Tsh: Total expected score

Based on table 3 of the validation results of material experts, the *basanusa* application with a percentage of 95.00% received the category of "very appropriate". The highest percentage, namely, 100.00% in the efficiency aspect, indicates that the depth of the material in the *basanusa* application is efficient in helping children aged 5-6 years to recognize, pronounce, imitate, and understand Javanese *ngoko* vocabulary. Furthermore, the suitability aspect obtained a percentage of 96.67% with the category of "very appropriate" which means the material and activities in the *basanusa* application are in accordance with the language development achievements of children aged 5-6 years. In the aspect of interest, it obtained 80.00% which indicates that the media is quite appropriate in fostering children's curiosity.

Based on these validation results, it can be concluded that the material in the *basanusa* application is appropriate for learning Javanese *ngoko* for children aged 5-6 years.

2. Media Expert Validation

Validation was conducted by two qualified media experts, aiming to assess the quality of the media's appearance, technical aspects, and usability across three aspects, using a validation instrument consisting of 14 statements. The results of the media expert validation are as follows:

Table 4. Media Expert Validation Results

Aspect	V1	V2	Tse	Tsh	P
Attractiveness	14	14	28	30	93,33%
Suitability	38	37	75	80	93,75%
efficiency	14	15	38	30	96,67%
Amount	66	66	132	140	313,75%
Averanges					94,29%

Informations:

V1: Validator 1

V2: Validator 2

P: Percentege

Tse: Total empirical score

Tsh: Total expected score

The media expert validation result was 94.29% with the category of "very suitable". The attractiveness aspect obtained 93.3%, indicating that the visual design in terms of color, backsound, animation, and characters is appropriate for children aged 5-6 years. The suitability aspect obtained 93.75%, indicating that the audio, visual, and interactive content features are in accordance with the characteristics of early childhood. The highest percentage was obtained in the efficiency aspect of 96.67%, which indicates that the availability of video tutorials and guidebooks makes it easier for users to operate the *basanusa* application independently even with basic technological skills.

3. User Expert Validation

User expert validation was conducted by two validators. This validation aimed to assess the suitability of the *basanusa* application as a learning medium for *ngoko* Javanese in schools. This stage included three assessment aspects containing 11 statements. The results of the user expert validation are presented in the following table:

Table 5. User Expert Validation Results

Aspect	R1	R2	Tse	Tsh	P
Attractiveness	14	18	37	40	92,50%
Suitability	15	13	28	30	93,33%
efficiency	19	19	38	40	95,00%
Amount	48	50	103	110	280,83%
Averanges					93,64%

Informations:

R1: Responsence 1

R2: Responsence 2

P: Percentege

Tse: Total empirical score

Tsh: Total expected score

The results of user expert validation obtained an overall percentage of 93.64% with a very suitable category in all aspects. The efficiency aspect obtained the highest percentage of 95.00%, indicating that the *basanusa* application is considered very helpful in learning *ngoko* Javanese and can be used anytime as a practical digital-based solution. The aspects of attractiveness and suitability obtained 92.50% and 93.33% respectively, indicating that the *basanusa* application is interesting and suitable for the characteristics of children aged 5–6 years, and the user guide feature makes it easier for teachers to operate the application during learning at school.

D. Implementation Phase

The implementation phase of this research and development aims to obtain data related to user responses to three assessment aspects. The research subjects were 5-6 year-old children at Taman Indria 01 Kindergarten and Akademika Kindergarten. The following are the results of the trial analysis:

1. Small Group Trial

The implementation phase of this research and development aims to obtain data related to user responses to three assessment aspects. The research subjects were 5-6 year old children at Taman Indria 01 Kindergarten and Akademika Kindergarten on May 7, 2026. The following are the results of the trial analysis:

Table 6. Small Group Trial Results

Aspect	Tse	Tsh	P
Attractiveness	20	20	100,00%
Suitability	15	15	100,00%
efficiency	20	20	100,00%
Averanges	55	55	100,00%

Informations:

Tse: Total empirical score

Tsh: Total expected score

The small-group trial results showed a 100.00% score across all assessment aspects, categorized as "very appropriate." This indicates that the *basanusa* app's interactive features and interface are engaging, the material is appropriate for children aged 5–6, and the user manual and instructions are effective in assisting users. These results indicate that the *basanusa* app is suitable for further large-group trials.

1. Large Group Trial

A large group trial was conducted with 15 children aged 5-6 years (TK B) at Akademika Kindergarten in Malang on May 8, 2026. At this stage, three assessment aspects were assessed on a questionnaire completed by teachers to obtain valid results. The results of the large group trial are presented in Table 6:

Table 6. Small Group Trial Results

Aspect	Tse	Tsh	P
Attractiveness	60	60	100,00%
Suitability	43	45	95,56%
efficiency	60	60	100,00%
Averanges	163	165	98,79%

Informations:

Tse: Total empirical score

Tsh: Total expected score

The results of the large group trial obtained an overall percentage of 98.79%, categorized as very good. The aspects of attractiveness and efficiency each obtained 100.00%, indicating that the visual design, interactive features, and ease of access of the *basanusa* application are very easy for children. The aspect of suitability obtained 95.56%, indicating that the materials and activities are in accordance with the abilities and needs of children aged 5–6 years in learning Javanese *ngoko*. This means that the *basanusa* application is very suitable for implementation on a wider scale as a medium for learning Javanese *ngoko*.

E. Evaluation Phase

The evaluation phase aims to assess the feasibility of the *basanusa* application in terms of its appeal, suitability, and efficiency across all stages of development. The evaluation included reviewing the questionnaire instrument during the analysis phase, discussions with experts during the design phase, validation and revision during the development phase, and observing user responses during the implementation phase. Based on validation results from subject matter experts, media experts, and user experts, as well as small and large group trials, the *basanusa* application achieved a feasibility percentage of 96.34%, categorized as "very feasible." Therefore, the *basanusa* application is suitable for use as a digital-based Javanese

ngoko language learning tool that can be implemented both in schools and at home for children aged 5–6 years.

RESULTS AND DISCUSSION

After completing all the ADDIE's steps, the researchers successfully developed a feasible *Basanusa* application. Based on the validation test results, the *basanusa* application achieved an average score of 94.31%, categorized as "very feasible" as a digital-based *ngoko* Javanese language learning medium for children aged 5–6 years. Furthermore, during the implementation stage, the researchers conducted small and large group trials. Each trial yielded "very feasible" results, indicating that the *basanusa* application met the expected criteria (Hidayati, 2021). Furthermore, the following is an explanation of the material feasibility, media feasibility, and advantages and disadvantages of the *basanusa* application as an app-based *ngoko* Javanese language learning medium for children aged 5–6 years:

A. Suitability of *basanusa* Application Material

Based on validation results by material experts, user experts, and small and large group trials, the *basanusa* application received a "very suitable" rating for attractiveness, suitability, and efficiency. The varied delivery of the material provides a fun and meaningful learning experience for children. These results align with the opinion (Aswita et al., 2022) that children can communicate with their surroundings orally and in writing in a fun and meaningful way. The material, which includes introductions to body parts, numbers, activities, family, and feelings in *ngoko* Javanese, is considered relevant to the needs of children aged 5–6 years and meets learning objectives (Nugraheny & Destiranti, 2017). The selection of everyday vocabulary in *ngoko* Javanese is aligned with the goal of language revitalization to facilitate children's communication within their environment while preserving culture and shaping children's speech, in line with the statement (Utama, 2020). The use of the *basanusa* application is also considered efficient because children are directly involved in recognizing, imitating, and understanding the *ngoko* Javanese language, supported by navigation features and easy-to-use guidebooks that are in accordance with the language development of children aged 5–6 years (Febriani et al., 2022; Kemdikdasmen, 2025).

B. Feasibility of the *basanusa* Application

The *basanusa* application was declared "highly feasible" based on validation by media experts, user experts, and small and large group trials. In terms of attractiveness, the animated characters, fonts, backgrounds, soundtracks, and colors used were proven to attract children's attention and foster a sense of enjoyment, in line with the principles of developing child-friendly interactive applications and stimulating brain development (Kartini et al., 2020). The use of application-based digital media supports the language and cognitive development of children aged 5–6 years because they learn through enjoyment. In line with Ningrum et al. (2024) the implementation of application-based digital learning media is considered to support children's language development because children learn through enjoyment. The gamification feature in the *basanusa* application is considered a practical solution for introducing Javanese in a fun way (Astuti & Yafie, 2025).

CONCLUSION AND SUGGESTIONS

Conclusions

The *basanusa* application has been developed through the ADDIE model research and development stages and has been declared highly suitable for use as a digital-based *ngoko* Javanese language learning medium for children aged 5–6 years. This suitability was proven through validation tests by material experts, media experts, and user experts, as well as small group and large group trials, all of which received the very suitable category. Thus, the *basanusa* application can be used and utilized as a practical solution in learning *ngoko* Javanese at school and at home, while also contributing to efforts to revitalize the Javanese language and preserve local culture in early childhood.

Suggestions

The *basanusa* app development is not yet complete; further development is expected to further optimize it as a digital learning tool. The following are suggestions for further development. The *basanusa* app focuses solely on everyday vocabulary in Javanese *ngoko* for children aged 5–6 and is accessible only through a Google Drive link. Therefore, it can be developed into an app available in various materials and age levels, and accessible through the Google Play Store on various devices.

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