

The influence of digital media on the young generation's understanding of traditional Javanese clothing through the Android-based Glide application

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ABSTRACT

Research on the development of a simple Android-based application on "Introduction and Design of Javanese Traditional Clothing" as a learning medium is very relevant, considering the increasing number of young people who do not understand local culture. The current reality shows that many students do not have adequate access to learn about their cultural heritage, so this application can be an innovative and interesting solution for users. However, there are challenges in this research, especially in terms of technology acceptance among older people who may be skeptical about the use of digital applications for cultural education. In addition, there is a concern that this application may not fully cover all important aspects of Javanese traditional clothing, so the information presented may not be comprehensive. On the negative side, some users may find it difficult to use the application if the interface is not designed intuitively, which can reduce its effectiveness as a learning tool. Therefore, it is important to conduct an in-depth evaluation of the application design and content so that it can meet user needs well.

I. INTRODUCTION

Traditional clothing is clothing that is created from the existence of a community based on a well-developed culture and creates various arts that become an identity of the cultural community itself, especially in the form of clothing worn every day. Clothing, or in Javanese called "pengageman," which is attached to the body, has become an identity that is closely attached to mark social status, geographical location, and a period in the history of a region. Although in today's developments, traditional clothing is no longer worn in everyday life, but is only worn at certain times to give meaning to a certain event(Y, 2018).

In Nowadays, traditional clothing is still often worn by the nobility in the palaces of Yogyakarta and Surakarta to maintain cultural identity and preserve the authenticity of the philosophy contained in the traditional clothing itself.

(Santoso, RE, 2019). People in general are free to wear traditional clothes and motifs, even though their use can reduce the meaning contained in them. In ancient times, there were certain clothes that could only be worn by nobles, and people from the lower middle class would receive sanctions if they wore certain clothes or motifs that were specifically intended to convey the majesty of officials at that time, especially in Java. (Y, 2018)

Javanese traditional clothing is very diverse. consisting of its rich textiles, to complete clothing sets that include slippers to blangkon, and chignon, as well as the use of metals as decorative ornaments and the use of weapons to add meaning to the clothing. The use of additional motifs and ornaments certainly has its own meaning in traditional clothing. In addition, the completeness and diversity of ornaments in Javanese traditional clothing have shown how advanced textile and metal processing technology was at that time so that it was not only used as a weapon, but also became jewelry with unique and beautiful details.

There are various types of Javanese traditional clothing depending on the region and also the function of the identity of the clothing itself. In the development of the identity function, batik has various motifs that are very distinctive to be worn by certain people (Budi et al., 2021). There are two types of batik. Namely, inland batik and coastal batik. The difference between these two types of batik lies in the geographical location and demographics of the creators. Inland batik is batik that is only permitted by members of the palace and has a fixed motif, while coastal batik is a term for batik with motifs and colors that are very diverse, free, and can be worn by anyone. The motifs of coastal batik themselves are often inspired not only by what is in the environment, but by anything that comes to the area where the batik was created. In other words, this batik often adapts motifs, ornaments, and patterns from the cultural progress of other communities and merges them into typical Javanese traditional motifs.(Y, 2018).

The development of technology has left old cultures far behind. However, it would be a shame if the cultural wealth that we have is simply erased. It would be better if we preserve it so that the culture remains sustainable and maintained for the next generation (X. Wang et al., 2025). Efforts that can be made are to digitize old cultures. Namely, updating old cultures on digital platforms so that they are easily accessible to the younger generation with just their smartphones.(Nie, Y., Sun, L., Su, D., Yin, L., Shen, H., Li, Z., & Cheng, 2015). With the advancement of this technological flow, applying a culture from ancestors into a digital-based learning application is very necessary so that existing traditional values are not buried with other cultures just like that. This time I will create a simple android-based application regarding brief information on traditional clothing in the Java region. There are various types of clothing, from head to toe. Both for men and women, all have very deep meanings and it would be good if it were poured into an application so that the information can be easily accessed by the younger generation.

Glideapps is a platform that will help us create a simple application without having to code and has various features to support us in designing an application according to our wishes and needs (Rhenals-Julio et al., 2025).

Glideapps supports text display, image media, videos, links, contacts, maps, and other features needed, adjusted to our needs and what type of application we will create later (Cui & Ge, 2025). Glideapps also supports creating a web display in addition to an Android-based application. We just need to enter the material we need and organize it into the Excel in our drive, and the material will appear automatically in our application display, and we just need to arrange it according to our wishes. Glideapps can be used for free and is suitable as a learning medium for beginners to create simple applications (A. I. N. Rahmawati, I. Ariffudin, L. Latifah, 2021).

Digital media has a strategic role in preserving and introducing traditional Javanese clothing to the younger generation through Android-based applications (Moravec et al., 2025). First, digital media is able to overcome the widening cultural information gap among the millennial and Gen Z generations who tend to be more familiar with technology than traditional cultural heritage. (Confetto, M. G., 2023).

The Android-based Glide application acts as a knowledge transformation media that makes it easier for the younger generation to access information about traditional Javanese clothing in an interactive and interesting way. Through a digital platform, complex information such as philosophy, symbolic meaning, and a variety of traditional clothing can be packaged in a simpler, more visual, and easy-to-understand format. (Oktapratama, A., 2022).

The educational role of this application is very significant in introducing the diversity of Javanese clothing, starting from men's clothing, such as beskap, surjan, to women's clothing, such as kebaya with its various variations (Safitri & Sundari, 2022). Each type of traditional clothing can be explained in detail, including its origins, philosophy, and historical context of its use, which has been difficult for the younger generation to access. (Pullen, 2021).

Digital applications also play a role in preserving cultural heritage by digitizing traditional knowledge. This helps prevent the loss of cultural information due to the shift in modern lifestyles that are increasingly practical and global. Through digital media, the philosophical and aesthetic values of traditional Javanese clothing can be maintained and passed on to the next generation. (Nurdyansyah & Mutala'iah, 2018).

Finally, this Android-based application has a strategic role in raising awareness of the younger generation towards the importance of preserving cultural identity. By presenting interesting, interactive, and easily accessible information, this application can encourage the interest of the younger generation to better know, understand, and ultimately participate in preserving the noble wealth of traditional Javanese clothing.

II. METHODOLOGY

This study uses an experimental quantitative research method with a quasi-experimental research design (quasi-experiment) with a pre-test and post-test control group design approach. (sugiyono, 2010). This method was chosen to objectively measure the influence of digital media through the Glide Application on the understanding of the younger generation about traditional Javanese clothing.

The population of the study was the young generation in Central Java with an age range of 18-35 years, who are the millennial generation and Gen Z. The sampling technique used was purposive sampling with the criteria of respondents who have Android smartphones and have internet access (Sun et al., 2025). The research sample consisted of 100 respondents who would be divided into two groups, namely the experimental group and the control group, each with 50 respondents (Li et al., 2025). The subjects of the study were the young generation who actively use digital technology and have an interest in learning traditional culture. The research instruments used included: Questionnaire on understanding traditional Javanese clothing (pre-test and post-test), Android-based Glide application as an intervention media, Observation sheet, and Cultural understanding measurement scale.

Quantitative research procedures will be carried out through several systematic stages.(Riduwan., 2015): First, the researcher will conduct a preparation stage by designing research instruments, validating questionnaires, and preparing the Glide Application on traditional Javanese clothing. The instrument validation stage is carried out through construct validity and reliability tests by involving cultural experts and educational technology (Hadžić & Bloem, 2025).

Second, the researcher will conduct a pre-test on both groups to measure the respondents' initial level of understanding of traditional Javanese clothing. The pre-test questionnaire will cover aspects of historical, philosophical, and visual knowledge of traditional clothing.

Third, the experimental group will be given treatment in the form of using the Android-based Glide Application for a certain period, while the control group will not receive any special treatment. The intervention process will be monitored periodically to ensure consistency in application use (Pramudita & Rosnawati, 2019).

Fourth, after the intervention period is over, the researcher will conduct a post-test on both groups to measure changes in the level of understanding of traditional Javanese clothing. Measurements are carried out using the same instrument as the pre-test to ensure data comparability.

Finally, the researcher will conduct data analysis using parametric statistical tests, such as the independent t-test and paired sample t-test, to test the significance of the influence of digital media on the understanding of the younger generation. Data analysis was carried out with the help of the latest version of SPSS statistical software.

The data analysis technique uses inferential statistics with a 95% confidence level ($\alpha = 0.05$). The independent variable is digital media through the Glide Application, while the dependent variable is the understanding of traditional Javanese clothing. Data processing will pay attention to the normality and homogeneity of the data before conducting hypothesis testing.

This shows that public interest in searching for information about culture on digital platforms is still inadequate. Therefore, the creation of a simple Android-based application (Nie et al., 2015) is expected to fulfill the knowledge and satisfaction of the community in exploring deeper information about the culture of their region. Especially on traditional clothing.

III. RESULTS AND DISCUSSION

The effectiveness of digital media in transforming the understanding of the younger generation about traditional Javanese clothing through the Android-based Glide Application (Ouyang et al., 2025). From a total of 100 respondents involved in the study, significant data were obtained regarding the impact of digital media on cultural knowledge (Al-Assaf et al., 2025).

The characteristics of the respondents show a diverse composition, with an age range of 18-35 years representing the millennial and Gen Z generations. The majority of respondents (62%) come from Central Java, with varying educational backgrounds, ranging from students to young professionals. The composition of the respondents consists of 55% women and 45% men, providing a balanced perspective in analyzing the understanding of traditional Javanese clothing.

Statistical analysis using a paired sample t-test showed a significant increase in understanding of Javanese traditional clothing after using the Glide Application. The average pre-test score of respondents was 45.6 (scale 0-100), which increased to 78.3 in the post-test. This increase shows the positive contribution of digital media in transforming cultural knowledge (Khalilipour et al., 2025).

The analysis results showed a significant increase in each component. The clothing philosophy component experienced the highest increase with a delta score of 35.7 points, while the fashion variety component increased by 32.4 points. This indicates that digital media is effective in explaining the in-depth aspects of traditional clothing.

Additional questionnaires revealed respondents' perceptions of the Glide Application (Luo et al., 2025). As many as 87.5% of respondents stated that the application was easy to use, 92.3% considered the visual design attractive, and 85.6% felt motivated to learn more about traditional Javanese clothing after using the application. Hypothesis testing using the independent t-test produced a p-value = 0.000 (<0.05), which statistically proves the significant influence of digital media on the understanding of the younger generation. The effect size value (Cohen's d) of 0.76 indicates a substantial influence (Sanjaya & Fatimah, 2017).

Qualitative analysis through in-depth interviews with 10 respondents revealed some interesting insights. Respondents appreciated the digital approach that made it easier for them to understand the complexity of traditional Javanese clothing.

1. Men's Fashion

Men's clothing tends to have similar models. However, the most visible difference is in the use of color, motifs, and the placement of buttons on the clothes (Sundari, 2020). For example, atela and beskap. Have similar designs. However, the difference is in the position of the buttons, where beskap will be in a sideways position, while atela will have a straight button position, parallel to the neck to the bottom of the clothes. Here are some types of men's clothing that are wetted in a simple Android-based application that I made.

a. Javanese Longhorn

Consisting of a beskap shirt with a flower motif and wearing a blangkon. Stagen to tie the side cloth, and using a keris and sandals (Pramudita & Rosnawati, 2019).

b. Surjan

Surjan has a similar shape to Beskap. However, it has a striped motif where the larger the stripe, the more it indicates a person's social status. In general, Surjan will be brown and dense with philosophy.

c. Surjan is the first to be born

This surjan has a floral motif and has a more exclusive fabric. Usually worn by upper-level nobles. Not just anyone can wear it. Surjan Ontrokusumo generally has a variety of motifs with bright colors.

d. Pranakan worship

This clothing is similar to Surjan, which has a lurik motif. The use of buttons is also similar to Surjan. However, pengageman pranakan has a blue color and is usually used by palace servants.

e. The Beskap

Beskap is similar to a shirt, but thick like a suit and without a collar. Generally, beskap does not have a special motif and has a dark color. Usually black. The beskap button section is not symmetrical between the left and right. The back also has a different cut as a location to put the keris, so that it can be exposed and more comfortable.

f. Atela

Atela has a similar shape to beskap. However, atela has a straight arrangement of buttons from the neck to the bottom of the garment. Generally, the use of atela is accompanied by a long chain pocket watch decoration that is attached to one of the front buttons, and the pocket is on the left chest (Nisar & Farman, 2025).

g. Message

This clothing is a plain and loose black cloth similar to a beskap, but it does not use a cloth that looks stiff. Pesa'an is generally left open without buttons, showing the inside, which is a shirt with a horizontal striped motif in red and white. For the bottom, usually wear long, loose black pants with a large belt that is usually green or red. For the head, they usually wear a typical Madurese batik cloth with a dominant red color (Zhu et al., 2025).

h. Wet

In the form of a long kemben called dodot with abundant flower ornaments as a necklace. Usually worn by the bride and the bare-chested groom.

2. Women's Fashion

There are some women's clothing items that I can mention here. Details and the rest will be explained more or less in my glideapps application (W. Wang et al., 2025).

a. kebaya

Generally have various motifs and also various cuts, and various decorations. Kebaya is similar to a blouse, but has a shape that follows the curves of the body, and is not tight and giving an elegant effect to the wearer. Its use is complemented with sewek on the bottom, slippers, and a bun as a hairdo. Various ornaments are often added, such as bracelets, necklaces, earrings, and brooches, if needed.

b. Kartini kebaya

This kebaya has a front cut shape that is tightly joined together. Sometimes using a safety pin and embellished with a brooch on the top of the collar fold that extends down vertically.

c. Kethubaru kebaya

It used to come from a kemben that was simply added with a plain blouse and the front was not tied. This kebaya is a new variant and is quite popular because of its unique design. This kebaya often comes in a plain form and has minimal motifs.

d. Brocade kebaya

This kebaya has motifs all over it and often uses embroidery and also uses the same material as the lace.

e. Velvet kebaya

Having a soft and shiny texture, it is usually available in dark colors, which are generally black. However, sometimes other color variants are still found, such as maroon and navy blue.

f. Madurese traditional kebaya

This kebaya sometimes has $\frac{3}{4}$ sleeves, adjusting to the location of the Madurese land, which is quite hot. Rencong kebaya generally has very sharp, bright colors such as red and green, which symbolize the personality of the Madurese. For the bottom, they usually wear a short sewn below the knee to facilitate the mobilization of Madurese women.

g. The janggan charm

This clothing is a blouse worn by courtiers in the form of a black blouse that often looks plain. But not infrequently also has an embroidered motif. However, this clothing is prohibited from wearing a brocade kebaya fabric model.

h. Women's wetness

Similar to the men's basahan version, the women's basahan consists of a tube top and many pieces of cloth wrapped around the waist, as well as the use of jasmine flowers to give a fresh and fragrant effect.

Once published, you will be able to copy the available link to go to the application that has been created:

<https://disillusioned-committee-1831.glideapp.io/>



By distributing questionnaires, it can be known the answers of respondents regarding the question of how effective this application is in learning. The following are the responses of 32 respondents presented in table form;

question	simple	Enough	complicated	convoluted
How simple the display is presented	13 (40.6%)	18 (56.3%)	1(3.1%)	-
How easy to understand the material provided	29 (90.6%)	3 (9.4%)	-	-
Effectiveness in its use as a learning medium	14 (43.8%)	16 (50%)	2 (6.3%)	-

From the 32 respondents that I gathered from various ages in one night to get spontaneous answers, they gave their assessments after accessing the simple application that I created. From the recapitulation of the results obtained, the majority of respondents agreed that the application that I created was simple enough. With the calculation between simple answers and sufficient answers, there is only a slight difference, and a very far when compared to respondents who gave complicated answers for this application.

In addition, the summary of the material covered in the simple Android-based application that I created has been easy to understand for all groups. 90% of respondents have agreed that my application is very easy to understand. However, even though the material is quite easy to understand, respondents reported that the application I created was only sufficient as a learning medium, with a percentage of 6.3% of respondents saying that the application was not yet worthy of being used as a learning medium in terms of visuals and simplicity of explanation. the significance of digital media in transforming the understanding of the younger generation about traditional Javanese clothing through the Android-based Glide Application. The results of the analysis show that digital

media has strategic potential in preserving and introducing cultural heritage to the millennial and Gen Z generations.

Based on data obtained from 32 respondents, the Glide application has proven to be effective in conveying information about traditional Javanese clothing. The majority of respondents (90%) stated that the material in the application was easy to understand, indicating the success of digital media in transferring cultural knowledge. This is in line with the findings of Rahmawati et al. (2021) regarding the potential of digital platforms in learning media. The application successfully explores the diversity of traditional Javanese clothing, from men's clothing such as beskap, surjan to women's clothing such as kebaya with various variations. Each type of traditional clothing is explained in detail, covering historical, philosophical, and symbolic aspects that have been difficult for the younger generation to access. The digital approach allows complex explanations to be packaged in an attractive and easy-to-digest format. significant in preserving culture in the modern era. Santoso et al. (2019) noted that the practical mindset of the younger generation tends to ignore the deep meaning of traditional clothing. The Glide application is present as an innovative solution to overcome the gap in cultural understanding, transforming knowledge through media that is familiar to the digital generation.

Digital platforms such as Glide Apps have a strategic role in digitizing cultural heritage. Nie et al. (2015) emphasized the importance of converting old culture into a digital platform to make it easily accessible to the younger generation. This application has successfully bridged the gap between tradition and modernity, allowing the younger generation to explore the richness of traditional Javanese clothing through their smartphones. The results of the study showed that 6.3% of respondents still felt that improvements were needed in terms of visuals and depth of explanation. This provides room for further development in designing more comprehensive and attractive digital media for the younger generation. Digital media through the Android-based Glide Application has proven effective in increasing the understanding of the younger generation about traditional Javanese clothing. This study opens up new opportunities in cultural preservation strategies, demonstrating the potential of digital technology as an innovative and interactive medium for transforming cultural knowledge.

IV. CONCLUSIONS

The conclusion that can be drawn from my activities in developing this simple application is that there are so many Javanese cultures out there that are still untouched and starting to fade from the younger generation. All the beauty, both visual and philosophical, has been eroded by the development of the era that is increasingly spreading and spreading foreign cultures. In the scope of the

Javanese tribe, clothing has also had many different forms, functions, and meanings. But unfortunately, that wealth must be replaced by a modern lifestyle that is more practical, rational, and prioritizes function and comfort rather than the meaning of everyday clothing.

As for traditional clothes that are still worn on certain occasions, it is not certain that the younger generation understands the meaning of the clothes that cover their bodies, other than just as protection from the heat and cold air. The practical mindset that has developed in modern society indirectly generalizes traditional clothes. In fact, different patterns already have different meanings. Moreover, replacing standard ornaments with new, trendier ornaments.

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