



Busana Apps (Budaya Khas Nusantara Applications): Disemination And Culture Education of Indonesia Through the Puzzle Game in the Middle of Pandemic Covid-19*

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Abstract

Indonesian culture is very diverse, from Sabang to Merauke. Many people don't know about Indonesian culture. This is because they are rarely introduced to the knowledge of arts and culture. In its implementation, efforts to preserve culture experience challenges from the incoming foreign culture. Technological advances have an impact on society, one of which is the proliferation of various kinds of games. The image of games in society is still seen as an entertaining medium rather than a learning medium. The nature of games is challenging, addictive, and fun for those who like games. Technological developments also affect people's habits. One of them is smartphones. So a combination is needed by following the development of science and technology today. Busana Apps (Budaya Khas Nusantara Applications) is an application that displays a variety of cultures in Indonesia, from dance, music, and fine arts. This application is expected to help the interest of the community, especially children, to get to know the arts and culture in Indonesia, which is a legacy from their ancestors so that they can be maintained, cared for, and preserved properly. The results offered in this application are in the form of a puzzle game, which is an interactive game that can stimulate children's thinking patterns. Even with the Covid-19 pandemic like this, that cannot make people visit art venues directly. However, with this application, the public can get to know more about the arts in Indonesia.

Keywords: Busana Apps, Game Puzzle, Covid-19 Pandemic.

Abstrak

Budaya Indonesia sangat beragam, dari Sabang sampai Merauke. Banyak orang yang belum tahu tentang budaya Indonesia. Hal ini dikarenakan mereka jarang dikenalkan dengan ilmu seni dan budaya. Dalam pelaksanaannya, upaya pelestarian budaya mengalami tantangan dari budaya asing yang masuk. Kemajuan teknologi berdampak pada masyarakat, salah satunya dengan menjamurnya berbagai jenis permainan. Citra game di masyarakat masih dipandang sebagai media hiburan daripada media pembelajaran. Sifat permainan yang menantang, membuat ketagihan dan menyenangkan bagi mereka yang menyukai permainan. Perkembangan teknologi juga mempengaruhi kebiasaan masyarakat. Salah satunya adalah smartphone. Sehingga dibutuhkan kombinasi dengan mengikuti

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perkembangan IPTEK saat ini. Busana Apps (Aplikasi Budaya Khas Nusantara) merupakan aplikasi yang menampilkan ragam budaya yang ada di Indonesia, mulai dari seni tari, musik dan seni rupa. Aplikasi ini diharapkan dapat membantu minat masyarakat khususnya anakanak untuk lebih mengenal seni dan budaya yang ada di Indonesia yang merupakan peninggalan nenek moyang sehingga dapat dijaga, dirawat dan dilestarikan dengan baik. Hasil yang ditawarkan dalam aplikasi ini berupa permainan puzzle yaitu permainan interaktif yang dapat merangsang pola berpikir anak. Bahkan dengan pandemi Covid-19 seperti ini, tidak bisa membuat orang mengunjungi tempat seni secara langsung. Namun dengan adanya aplikasi ini masyarakat bisa lebih mengenal seni yang ada di Indonesia. **Kata kunci:** Busana Apps, Game Puzzle, Covid-19 Pandemic.

A. INTRODUCTION

Indonesia is the largest archipelago country in the world. The islands stretching from Sabang to Merauke make Indonesia rich in ethnicity, language, beliefs, and culture³. Until now, the Ministry of Education and Culture claims to have recorded more than 67,273 cultural heritages in Indonesia. According to him, this number includes 11,627 immovable objects, 53,538 movable objects, and 2,108 intangible cultural heritages⁴. Every region in Indonesia has a unique culture that shows the identity of that area. Even many of the thousands of cultures owned in Indonesia have been recognized by UNESCO⁵. At least 13 Indonesian heritages have been recorded by UNESCO as World Heritage⁶. Therefore, the cultural diversity that is owned needs to be maintained and preserved. Preservation of existing culture is used so that culture does not become extinct and culture is a shared responsibility of Indonesian citizens⁷. Education in schools must also implement a cultural education curriculum system that can encourage students to love their own culture. The government is also working so that the younger generation does not leave their own culture.

Since the beginning of March, Indonesia has been shocked by the emergence of the SARS-CoV-2 or Covid-19 virus originating from Wuhan China. Many suspects that Covid-19 comes from animals (bats)⁸. The SARS-CoV-2 or Covid-19 outbreak has claimed 10.5 million reported cases and more than 500,000 deaths worldwide⁹. The speed and scale of the outbreak have accelerated the loss of life and caused social and cultural

³ Pane, Benni, Xaverius Najoan, and Sary Paturusi. "Rancang Bangun Aplikasi Game Edukasi Ragam Budaya Indonesia." *E-Journal Teknik Informatika* XIII, no. 1 (2017): 1-9.

⁴ Kementrian Pendidikan dan Kebudayaan - Republik Indonesia. *Kemendikbud Tetapkan* 267 Warisan Budaya Takbenda. January 1, 2006. http://kemendikbud.go.id (accessed November 17, 2020).

⁵ United Nations Educational, Scientific and Cultural Organization. *Building Peace in the Minds of Men and Women.* January 1, 2006. http://en.unesco.org (accessed November 15, 2020).

⁶ Harahap, L. Daftar Warisan Indonesia yang Diakui UNESCO. Jakarta: Merdeka, November 16, 2014.

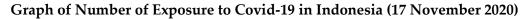
⁷ Pane, Benni, Xaverius Najoan, and Sary Paturusi. "Rancang Bangun Aplikasi Game Edukasi Ragam Budaya Indonesia." *E-Journal Teknik Informatika* XIII, no. 1 (2017): 1-9.

⁸ Arischa, Iis. "Dampak Covid-19 Terhadap Sektor Parawisata." *Jurnal Ekonomi dan Bisnis* III, no. 12 (2020): 1-6.

⁹ Barcaccia, Gianni, Vincenzo D'Agostino, Alessandro Zotti, and Bruzo Cozzi. "Impact of the SARS-CoV-2 on the Italian Agri-Food Sector: An Analysis of the Quarter of Pandemic Lockdown and Clues for a Socio-Economic and Territorial Restart." *Journals Sustainabillity* XII, no. 3 (2020): 1-28.

disruption¹⁰. When the Covid-19 pandemic has hit all countries in the world, especially Indonesia, it has an impact on all aspects of life, one of which is the culture and tourism sector¹¹. The government made and issued a policy to break the chain of transmission of Covid-19. One of them is physical distancing in Indonesia which is strengthened by the policy of large-scale social restrictions (PSBB) which is regulated in government regulation No. 21 of 2020¹². The following is the data on the number of exposure to Covid-19 in Indonesia (17 November 2020) in Figure 1. below:

Figure 1.





Source: (Gugus Tugas Percepatan Penanganan COVID-19 2020)13

In its implementation, efforts to preserve culture experience challenges from the incoming foreign culture. One of them is the increasingly rapid technological advances¹⁴. Technological advances have an impact on society, one of which is the proliferation of various kinds of games. The image of games in society is still seen as an entertaining medium rather than a learning medium. The nature of games is challenging, addictive, and fun for those who love games. Modern this can have a negative impact if what is played is a game that is not educational. Currently, games in circulation are still used for entertainment and can be addictive. Examples of games that provide addictive effects include Grand Theft Auto, Crisis, DotA, Point Blank, Call of Duty and others¹⁵. These

¹⁰ Berawi, Mohammed Ali, et al. "Tackling the COVID-19 Pandemic: Managing the Cause, Spread, and Impact." *International Journal of Technology* II, no. 11 (2020): 209-214.

¹¹ Yunus, N. R. "Kebijakan Pemberlakuan Lock Down sebagai Antisipasi Penyebaran Corona Virus Covid-19." *SALAM: Jurnal Sosial dan Budaya Syar-i* VII, no. 3 (2020): 1-10.

¹² Badan Pusat Statistik Nasional (BPSN) 2020. *Survei COVID-19*. January 3, 2020. https://www.bps.go.id (accessed November 16, 2020).

¹³ Gugus Tugas Percepatan Penanganan COVID-19. *Peta Sebaran*. March 2, 2020. http://www.covid19.go.id (accessed November 17, 2020).

¹⁴ Hikmatyar, Mirza. Analisis Pengembangan Game Edukasi "Indonesiaku" sebagai Pengenalan Warisan Budaya Indonesia untuk Anak Usia 12-15 Tahun. 2nd. Yogyakarta: Universiitas Negeri Yogyakarta, 2015.

¹⁵ Pane, Benni, Xaverius Najoan, and Sary Paturusi. "Rancang Bangun Aplikasi Game Edukasi Ragam Budaya Indonesia." *E-Journal Teknik Informatika* XIII, no. 1 (2017): 1-9.

games have various game genres. Starting from adventure to the most popular is a genre that has an element of violence. Games with the violent genre are not good because they can cause deviant behaviors¹⁶. It found a clear relationship between sustained periods of violent gameplay and increased hostility. The analysis showed that children who played violent video games for several years recorded a sharp increase in their aggression score during the study. Meanwhile, children who often play non-violent games do not show evidence of increased aggression¹⁷.

Indonesian culture is very diverse, from Sabang to Merauke. Many people don't know about Indonesian culture. This is because they are rarely introduced to the knowledge of art and culture, especially to the next generation who can only introduce culture from school. So that sooner and later the culture in Indonesia begins to be abandoned, forgotten, and exiled, even until it is recognized by other countries. Technological developments also affect people's habits, one of which is smartphones. In big cities, from children to adults, they are familiar and familiar with using smartphones. So a combination is needed by following the development of science and technology today. There needs to be an application or website as a place for art collections in Indonesia.

Literature Review

Research conducted by Suci Lya Waty and Jenih: The results with this application, they can easily learn knowledge about Indonesian culture, including traditional clothes, traditional houses, traditional weapons, and traditional dances so that this application is expected to help the interest of the community, especially children, to get to know Indonesian cultural arts more. It was concluded that this application made it easy to introduce Indonesian culture which could be accessed via an Android-based smartphone. Suggestions for this application are expected to help the interest of the community, especially children, to get to know Indonesian art and culture, which is a legacy from our ancestors so that it can be maintained, cared for and preserved¹⁸.

Research conducted by Sugiyanto and Dzuha Hening Y.: In this educational game for children can learn through interesting visualization about traditional clothes and houses. The selected game genre is an adventure, where players will complete challenges encountered during go on an adventure in search of custom pieces of clothing and houses. With this game, it is hoped that the children will be enthusiastic about

¹⁶ Hikmatyar, Mirza. Analisis Pengembangan Game Edukasi "Indonesiaku" sebagai Pengenalan Warisan Budaya Indonesia untuk Anak Usia 12-15 Tahun. 2nd. Yogyakarta: Universiitas Negeri Yogyakarta, 2015.

¹⁷ Willoughby, T., P. J. Adachi, and M. Good. *A Longitudinal Study of the Association between Violent Video Game Play and Aggression among Adolescent.* Jakarta: Berita Satu, November 16, 2020.

¹⁸ Waty, Suci Lya, and Jenih. "Implementasi Aplikasi Pengenalan Budaya Indonesia Berbasis Android." *Jurnal Teknologi Informasi* II, no. 3 (2016): 137-141.

learning culture because the game-based educational media is more offers a fun learning process¹⁹.

Research conducted by Emiliana M. Moelbatak, P. David Amfotis, and Mathilda Pia Bone: Making this application with a multimedia development method, as well as a questionnaire method for appraising end users. The object of research for elementary school children in grade V. This application is in the form of a file with the extension .swf. This learning media can be an alternative learning media that helps students in introducing Dawan's cultural diversity²⁰.

Research conducted by Hendra Gunawan, Yosep Septiana, and Erwin Gunandhi: The research method used is Multimedia Development Live which has six stages, namely concept, design, collection materials, manufacture, testing, and distribution. The result of this research is learning media an introduction to the diversity of Indonesian culture based on android which features 34 provinces in Indonesia. Through learning media, the introduction of Indonesian culture can improve learning and make it easier for users, namely students in learning the introduction to the diversity of Indonesian culture²¹.

Research conducted by Hendrik Rusdian Arifudin and Budi Yanto: This application development uses the waterfall model. This model takes a systematic and sequential approach starting from the level of application requirements and then to the analysis, design, script, testing or verification, and maintenance stages. It is hoped that later it will facilitate the delivery of material and understanding of students which will have a direct impact on the increase in learning achievement of Cultural Arts²².

Research conducted by Steavan Stasia Tafui: Apart from being able to be used for mobile phones, this application can also be operated via a tablet, so that this application can be used for all people from various groups. This application provides information to users about the various cultures of Belu district in the form of traditional dances, musical instruments, traditional houses, folk songs, and traditional clothes in the form of articles, pictures, and videos. In system testing, it is known that the application can run at least on Android version 4.2 (Jelly Bean). In testing the user, it is known that the majority of the applications are good²³.

¹⁹ Sugiyanto, and Dzuha Hening Y. "Game Edukasi "Ragam Budaya" sebagai Media Pembelajaran Budaya tentang Pakaian dan Rumah Adat di Indonesia." *Seminar Nasional Teknologi Informasi & Komunikasi Terapan (Semantik).* Semarang: Universitas Negeri Semarang, 2011. 45-56.

²⁰ Moelbatak, Emiliana M., P. David Amfotis, and Mathilda Pia Bone. "Pembuatan Game Budaya Dawan Berbasis Multimedia." *Konferensi Nasional Sistem Informasi 2018*. Pangkalpinang: Sekolah Tinggi Teknik Pangkalpinang, 2018. 50-62.

²¹ Gunawan, Hendra, Yosep Septiana, and Erwin Gunandhi. "Rancang Bangun Media Pembelajaran Pengenalan Ragam Budaya Indonesia Berbasis Android." *Jurnal Algoritma* XVII, no. 1 (2020): 82-90.

²² Arifudin, Hendrik Rusdian, and Budi Yanto. "Perancangan Aplikasi Pembelajaran Seni Budaya Tembang Macapat Berbasis Android." *DoubleClick: Journal of Computer and Information Technology* I, no. 1 (2017): 39-45.

²³ Tafui, Steavan Stasia. "Aplikasi Pengenalan Kebudayaan Kabupaten Belu Berbasis Android." *JATI (Jurnal Mahasiswa Teknik Informatika)* I, no. 2 (2017): 61-66.

Research conducted by Benni Pane, Xaverius Najoan, and Sary Paturusi: In this study, the author uses the Waterfall methodology in making applications. This application is to introduce Indonesian culture about traditional food, traditional houses, traditional weapons, traditional dances, and traditional songs. The Indonesian Cultural Diversity Educational Game application is a means for playing and learning to children easily and interestingly²⁴.

Research conducted by Ni Komang Sutiari, I Ketut Gede Darma Putra and I Made Sunia Raharja: The augmented reality application being developed is dynamic so that adding content can be done without modifying the program code. The application successfully visualizes 6 traditional houses from 6 provinces in Indonesia, namely the traditional houses of the Provinces of Bali, Papua, Banten, Lampung, West Sumatra, and Aceh. The application has 4 scenes namely Main Menu, Start, Guide, and About, as well as 4 features namely Info, Rotate, Scale, and Share. The test results show the application can display 3-dimensional objects of traditional houses by tracking markers on 2-dimensional images²⁵.

Research conducted by Mega Orina Fitri: This application contains learning media, traditional clothes, traditional dances, traditional songs, traditional houses, musical instruments, as well as traditional weapons in Indonesia. This application runs on devices on smartphones based on android and is designed using Phonegap with web programming languages such as HTML, CSS, and Javascript black box. The result of this research is media design learning the introduction of Indonesian culture, this application is intended specifically for students²⁶.

Research conducted by Arifiati Fitri Anggraini, Nena Erviana, Sofiya Anggraini, and Didik Dwi Prasetya: In this educational game children can learn with interesting visuals. The genre of this game is an adventure (adventure), where children or players of this game will complete the challenges they encounter while on an adventure to find suitable objects. The results of this development are expected to help children to be enthusiastic and more motivated to learn Indonesian culture²⁷.

B. METHODS

At this time of writing, using several steps in designing or creating Busana Apps. Several writing steps were taken, as follows:

1. System Requirements,

²⁴ Pane, Benni, Xaverius Najoan, and Sary Paturusi. "Rancang Bangun Aplikasi Game Edukasi Ragam Budaya Indonesia." *E-Journal Teknik Informatika* XIII, no. 1 (2017): 1-9.

²⁵ utiari, Ni Komang, I Ketut Gede Darma Putra, and I Made Sunia Raharja. "Aplikasi Pengenalan Rumah Adat Indonesia Berbasis Augmented Reality." *Merpati* VI, no. 2 (2018): 108-118.

²⁶ Fitri, Mega Orina. "Penggunaan Phonegap dalam Perancangan Media Pengenalan Budaya Indonesia Berbasis Android." *Jurnal Instek (Informatika Sains dan Teknologi)* III, no. 1 (2018): 141-150.

²⁷ Anggraini, Arifiati Fitri, Nena Erviana, Sofiya Anggraini, dan Didik Dwi Prasetya. "Aplikasi Game Edukasi Petualangan Nusantara." *Prosiding SENTIA 2016.* Malang: Politeknik Negeri Malang, 2016. A-168-1-172.

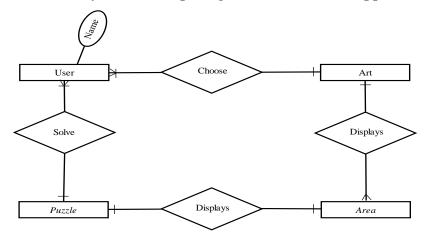
- 2. Entity Relationship Diagram,
- 3. Data Flow Diagrams, and
- 4. Unified Modeling Language.

The steps above will be carried out according to the arrangement or needs in the future development of Busana Apps. The following is an explanation of each of the stages above, as follows:

- 1. System Requirements are specifications that define the functions that must be owned by the information system to be built. The following is an explanation of the function of the system requirement below:
 - a. Functional Requirements:
 - 1.) The application can display art selection,
 - 2.) The application can display area selection,
 - 3.) The application can provide and display puzzle questions, and
 - 4.) The application can display the results of the puzzle answers.
 - b. Nonfunctional Requiremnet:
 - 1.) Laptop, and
 - 2.) Android studio software.
- 2. Entity Relationship Diagram (ERD) is a form of a diagram that explains the relationship between data objects that have relationships between relations. ERD on Clothing Apps consists of 4 entities, namely users, regions, arts, and puzzles. Users are people who use this application. Then art is the choice of art when the user starts to enter the application. Then the area is the area selection after the user selects what art he wants to play. Besides, puzzles are questions after the user selects the art and the user must solve the existing puzzle. As in Figure 2. below:



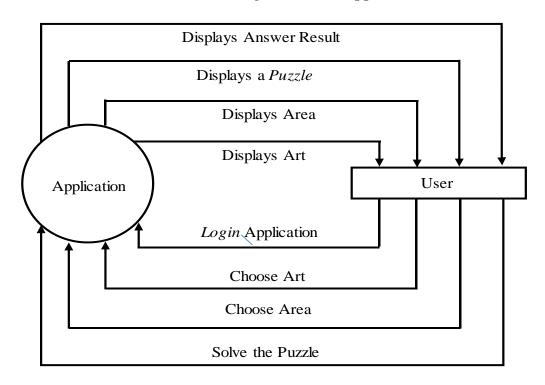
Entity Relationship Diagram (ERD) Busana Apps



- 3. Data Flow Diagram (DFD) is a diagram that describes the flow of data from a process or system. With the explanation below:
 - a. Context Diagram, the context diagram in Busana Apps is the initial flow that occurs in the application which consists of input made by the user to the application, and the output that the user gets from the application. As in Figure 3. below:
 - 1.) When the user enters the application and the application displays a selection of art as a choice of the quiz to play.
 - 2.) When the user selects art, the application will display a selection of regions that can be selected by the user.
 - 3.) When the user selects the area, the application will display the puzzle questions that must be solved.
 - 4.) When the user completes the puzzle, the application will display the result which is a description of the related art.

Figure 3.

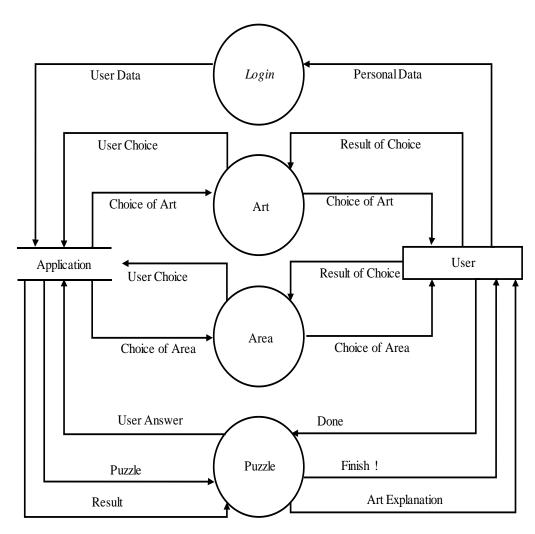
Context Diagram Busana Apps



- b. Data Flow Diagram (DFD) level 0 is an advanced form of context diagram and describes per process contained in the application. As in Figure 4. below:
 - 1.) When the user enters the application and enters the name as the username, the user name data will be saved in the application database.

- 2.) After the user enters the application, the application will display a selection of art. Then the art selection results will be saved and processed in the application,
- 3.) Then after the user selects what art to play, the application will display a selection of regions. The user can choose which blood to play with.
- 4.) Then the application will display the puzzle that must be completed. Then the user completes and when the puzzle is completed, the application will display a description of the art explanation contained in the puzzle problem.

Figure 4.



Data Flow Diagram (DFD) level 0 Busana Apps

- 4. *Unified Modelling Language* (UML) is a visual modeling method that functions as a means of designing object-oriented systems. The UML contained in this application is that there are two lines, as follows:
 - a. Application flow (selecting art) the flow of the application depicted in UML when selecting art. As in Figure 5. below:

- 1.) When the user selects art, then the application will then display a selection of areas that must be selected by the user. The area is an area in Indonesia.
- 2.) Then the system processes the choices from the user and selects the options in the database.
- 3.) After the art selection is selected, the application will display the puzzle that must be completed. When the user completes an art puzzle, the system will then display a description of the art that was previously a puzzle.

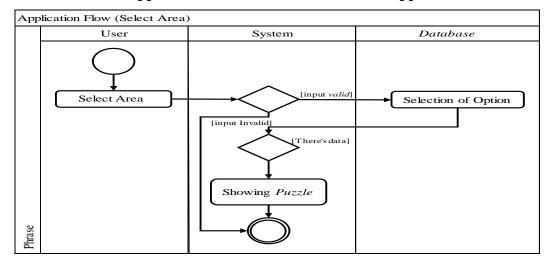
Application Flow (Select Art) User System Database Select Art Imput invalid Selection of Option Select Art Imput invalid Imput invalid Showing Area Showing Area

Figure 5. Application Flow (Select Art) Busana Apps

- b. Application flow (selecting area) the flow of the application described in UML when selecting regions. As in Figure 6. below:
 - 1.) When the user selects art, then the application will then display a selection of areas that must be selected by the user. The area is an area in Indonesia.
 - 2.) Then the system processes the choices from the user and selects the options in the database.
 - 3.) After the art selection is selected, the application will display the puzzle that must be completed. When the user completes an art puzzle, the system will then display a description of the art that was previously a puzzle.

Figure 6.

Application Flow (Select Area) Busana Apps



C. RESULTS AND DISCUSSION

Based on the design of the appearance (interface) on Busana Apps that has been done with the help of various software. So the following is the initial appearance of Busana Apps, as in Figure 7. below:



Home Menu Interface Busana Apps



In Figure 7. above is the Home Menu Interface in the Busana Apps, which is a display of art choices. On this page, the user can select the art he wants to play. The user can simply press the icon of the desired art.

Figure 8. Regional Selection Menu Interface Busana Apps



In Figure 8. above is the Area Selection Menu Display after the user selects the part to be played on the area selection page. On this page, the user selects which area to play. Users can choose areas in Indonesia. Just like on the art selection page, users can simply press the icon for whichever area they want.

Figure 9.

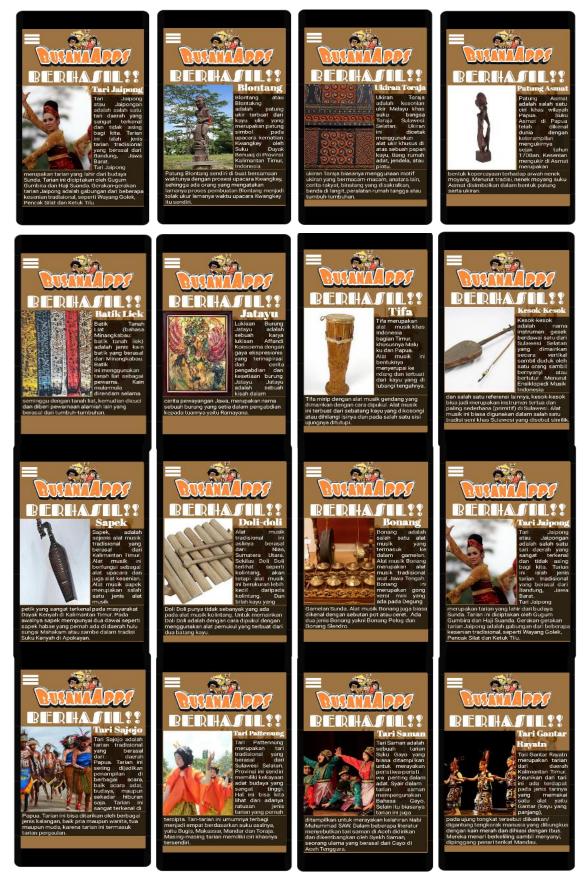
Puzzle Menu Interface Busana Apps



Furthermore, in Figure 9. above the user will be taken to the page to solve the puzzle. On this page, the user can solve puzzles that are the result of a selection of arts and regions. Just like in puzzle games in general, users only need to shift the previously random parts into a picture in their proper position.

Figure 10.

Puzzle End Menu Interface Busana Apps



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In Figure 10. above, after the user has completed the puzzle, the next display is the result of the finished puzzle. On this page, the user will be explained in the form of a description of the art and its origin and other explanations. On this page, users are expected to gain new knowledge about these arts

As a citizen of Indonesia, it is appropriate to know and preserve Indonesian culture. This introduction to Indonesian culture should be started since childhood. Children, especially elementary school-age children, must be equipped with knowledge of various cultural arts in Indonesia because the elementary school level is very effective in introducing cultural arts so that Indonesian children have a sense of love for the country. However, children can only learn knowledge about cultural arts in Indonesia at school and children tend to choose to play games using an Android-based smartphone. Budaya Apps (Budaya Khas Nusantara Applications) is an application that displays a variety of cultures in Indonesia, from dance, music, and fine arts. This application is expected to help the interest of the community, especially children, to get to know the arts and culture in Indonesia, which is a legacy from their ancestors so that they can be maintained, cared for, and preserved properly. The results offered in this application are in the form of a puzzle game, which is an interactive game that can stimulate children's thinking patterns. Even with the Covid-19 pandemic like this, that cannot make people visit art venues. However, with this application, the public can get to know more about the arts in Indonesia.

D. CONCLUSION

Based on the writing that has been done that the application can provide education to the general public. Besides, it can provide convenience to introduce Indonesian culture on a national scale. This is due to being gradually replaced by foreign cultures. Has the advantage that it is accessed anywhere and anytime via a smartphone. The concept interface follows the development of science and technology in today's rapidly developing era. With the hope that this application can be useful and help the interest of people who still want to know the national scale culture. So future generations, especially children, will not forget the results of their previous ancestors. Besides, this program can at least help government work programs. Especially the Ministry of Education and Culture, which must preserve the diversity of cultures in West Java. In future planning, the writer will interface or add back diversity nationally that has not been published. This is because Indonesia has 33 provinces spread across various islands. This is so that the writing idea is sustainable and answers one of the challenges of Golden Indonesia 2045.

REFERENCES

Anggraini, Arifiati Fitri, Nena Erviana, Sofiya Anggraini, dan Didik Dwi Prasetya. "Aplikasi Game Edukasi Petualangan Nusantara." *Prosiding SENTIA 2016*. Malang: Politeknik Negeri Malang, 2016. A-168-1-172.

- Arifudin, Hendrik Rusdian, dan Budi Yanto. "Perancangan Aplikasi Pembelajaran Seni Budaya Tembang Macapat Berbasis Android." *DoubleClick: Journal of Computer* and Information Technology I, no. 1 (2017): 39-45.
- Arischa, Iis. "Dampak Covid-19 Terhadap Sektor Parawisata." *Jurnal Ekonomi dan Bisnis* III, no. 12 (2020): 1-6.
- Badan Pusat Statistik Nasional (BPSN) 2020. *Survei COVID-19*. 3 January 2020. https://www.bps.go.id (diakses November 16, 2020).
- Barcaccia, Gianni, Vincenzo D'Agostino, Alessandro Zotti, dan Bruzo Cozzi. "Impact of the SARS-CoV-2 on the Italian Agri-Food Sector: An Analysis of the Quarter of Pandemic Lockdown and Clues for a Socio-Economic and Territorial Restart." *Journals Sustainability* XII, no. 3 (2020): 1-28.
- Berawi, Mohammed Ali, et al. "Tackling the COVID-19 Pandemic: Managing the Cause, Spread, and Impact." *International Journal of Technology* II, no. 11 (2020): 209-214.
- Fitri, Mega Orina. "Penggunaan Phonegap dalam Perancangan Media Pengenalan Budaya Indonesia Berbasis Android." Jurnal Instek (Informatika Sains dan Teknologi) III, no. 1 (2018): 141-150.
- Gugus Tugas Percepatan Penanganan COVID-19. *Peta Sebaran.* 2 March 2020. http://www.covid19.go.id (diakses November 17, 2020).
- Gunawan, Hendra, Yosep Septiana, dan Erwin Gunandhi. "Rancang Bangun Media Pembelajaran Pengenalan Ragam Budaya Indonesia Berbasis Android." *Jurnal Algoritma* XVII, no. 1 (2020): 82-90.
- Harahap, L. Daftar Warisan Indonesia yang Diakui UNESCO. Jakarta: Merdeka, 16 November 2014.
- Hikmatyar, Mirza. Analisis Pengembangan Game Edukasi "Indonesiaku" sebagai Pengenalan Warisan Budaya Indonesia untuk Anak Usia 12-15 Tahun. 2nd. Yogyakarta: Universiitas Negeri Yogyakarta, 2015.
- Kementrian Pendidikan dan Kebudayaan Republik Indonesia. Kemendikbud Tetapkan 267 Warisan Budaya Takbenda. 1 January 2006. http://kemendikbud.go.id (diakses November 17, 2020).
- Moelbatak, Emiliana M., P. David Amfotis, dan Mathilda Pia Bone. "Pembuatan Game Budaya Dawan Berbasis Multimedia." *Konferensi Nasional Sistem Informasi 2018*. Pangkalpinang: Sekolah Tinggi Teknik Pangkalpinang, 2018. 50-62.
- Pane, Benni, Xaverius Najoan, dan Sary Paturusi. "Rancang Bangun Aplikasi Game Edukasi Ragam Budaya Indonesia." *E-Journal Teknik Informatika* XIII, no. 1 (2017): 1-9.
- Sugiyanto, dan Dzuha Hening Y. "Game Edukasi "Ragam Budaya" sebagai Media Pembelajaran Budaya tentang Pakaian dan Rumah Adat di Indonesia." Seminar Nasional Teknologi Informasi & Komunikasi Terapan (Semantik). Semarang: Universitas Negeri Semarang, 2011. 45-56.

- Sutiari, Ni Komang, I Ketut Gede Darma Putra, dan I Made Sunia Raharja. "Aplikasi Pengenalan Rumah Adat Indonesia Berbasis Augmented Reality." *Merpati* VI, no. 2 (2018): 108-118.
- Tafui, Steavan Stasia. "Aplikasi Pengenalan Kebudayaan Kabupaten Belu Berbasis Android." *JATI (Jurnal Mahasiswa Teknik Informatika)* I, no. 2 (2017): 61-66.
- United Nations Educational, Scientific and Cultural Organization. *Building Peace in the Minds of Men and Women.* 1 January 2006. http://en.unesco.org (diakses November 15, 2020).
- Waty, Suci Lya, dan Jenih. "Implementasi Aplikasi Pengenalan Budaya Indonesia Berbasis Android." *Jurnal Teknologi Informasi* II, no. 3 (2016): 137-141.
- Willoughby, T., P. J. Adachi, dan M. Good. A Longitudinal Study of the Association between Violent Video Game Play and Aggression among Adolescent. Jakarta: Berita Satu, 16 November 2020.
- Yunus, N. R. "Kebijakan Pemberlakuan Lock Down sebagai Antisipasi Penyebaran Corona Virus Covid-19." SALAM: Jurnal Sosial dan Budaya Syar-i VII, no. 3 (2020): 1-10.