

To cite this article: Mochamad Doni Akviansah, S.Pd, Prof. Dr. Warto, M.Hum and Dr. Akhmad Arif Musadad, M.Pd (2022). MULTI-HISTORY APPLICATION ANALYSIS AND DESIGN: DIGITAL TEACHING MATERIAL INNOVATION AS A SOLUTION TO INCREASE THE TOLERANCE ATTITUDE OF THE MILLENNIAL GENERATION, International Journal of Education and Social Science Research (IJESSR) 5 (4): 302-313

## MULTI-HISTORY APPLICATION ANALYSIS AND DESIGN: DIGITAL TEACHING MATERIAL INNOVATION AS A SOLUTION TO INCREASE THE TOLERANCE ATTITUDE OF THE MILLENNIAL GENERATION

Mochamad Doni Akviansah, S. Pd<sup>1</sup>, Prof. Dr. Warto, M. Hum<sup>2</sup> and Dr. Akhmad Arif Musadad, M. Pd<sup>3</sup>

<sup>1,2,3</sup>Sebelas Maret University, Surakarta

DOI: <http://dx.doi.org/10.37500/IJESSR.2022.5423>

### ABSTRACT

This study aims to explain the results of the test implementation of the Android-based Multi-History application as historical teaching material. Therefore, innovation is needed in history learning, one of which is through digital teaching materials. This research uses descriptive qualitative research methods. The background of this research is that digitalization in the field of education allows all activities to be carried out remotely (online), one of which is history learning. Educators find it difficult when required to use teaching materials/media that are all digital. The sophistication of technology has also resulted in a fast-paced exchange of information. As a result, many hoax news is unstoppable and smell of hate speech which results in the degradation of the tolerance attitude of the next generation. The product developed has gone through material validation, media validation, and product trials until it is considered worthy of being said to be teaching material and can be used as a solution from the use of teaching materials / digital media and as an effort to increase the tolerance attitude of students. The results showed that: (1) the Multi-History application is easy and practical in its use, (2) Suitable for use in any learning method because the material in the application is presented in the form of text, audio, and even audio-visual, (3) cheap and free students only need to install from the device for its operation, (4) the material is easy to understand and interesting because it is presented in digital form.

**KEYWORDS:** Digital Teaching Materials, History Learning, Tolerance Attitude

### INTRODUCTION

The challenges in this era of digitalization are increasingly real and felt in all aspects of life, including in the aspect of education. This condition is exacerbated by the COVID-19 pandemic which has made learning carried out remotely/online. The use of teaching materials/media is a must in an all-digital era like today. However, the adaptation process is certainly not easy because many educators are still limited in the use of technology, let alone making teaching materials or digital media. This is a serious problem because many educators do not use teaching materials/media in history learning. As prastowo (2015: 14) said that so far the paradigm and general perception inherent among educators

is that making teaching materials is a difficult job and stressful. The use of teaching materials/media will greatly help students in understanding the material.

Vice versa, the use of teaching materials/media is also very helpful for educators in delivering material. The same statement was also expressed by Sedyawati (2010: 352) that if occasionally the students can be presented with the results of audio-visual documents, or audio alone like the radio broadcasts of the past, of course, it will add to his passion for related historical problems. Some examples of teaching material/media products in this all-digital era such as e- modules, android-based applications, documentaries, augmented reality features, etc.

Another problem also exists in the ease of accessing information and exchanging information quickly and remotely, it turns out to be a place for spreading hoax news. Parekh (2000: 6) also argues that society will be faced with the possibility of accepting and praising different cultures and respecting the new culture as a whole. Both societies are likely to assimilate the new culture and make it part of the entire dominant culture of that society. People with the characteristic of being receptive to western culture that entered this are mostly young people of the next generation of the nation whose nationalism is still relatively low. To make matters worse, recently there have been many cases of hate speech that have spread the news very quickly. This has resulted in many conflicts between ethnicities and religious people due to reduced attitudes of tolerance between religious people. If left unchecked, Indonesia's cultivated unity will be in danger of being divided. In response to this, of course, an understanding of tolerance must be carried out through the path of education in Indonesia using internalizing the values of tolerance based on Indonesia's plural diversity. These values of tolerance can be internalized into learning materials in schools, one of which is history learning. For this reason, researchers are interested in raising material about diversity in the applications they develop.

Related to the use of teaching materials/media in history learning, researchers have an innovation to compile a teaching material in the form of an android-based application with the name "Multi-History" which contains material on the multicultural life of the community around Malang City Square. Teaching materials in the form of android-based applications were chosen because currently, the use of smartphones is rampant in all circles, especially among students. The existence of this smartphone has a real impact on human life considering the sophistication of technology in its features that have provided convenience for human life. The sophistication of the smartphone is very unfortunate if it is only used for just playing or only for social media. Therefore, with the existence of teaching materials/android-based application media, it can be directed to learning and minimize the use that is not useful.

Collaboration between local historical materials that are inherent around the lives of students packed with current technology is considered quite effective in supporting media for the implementation of multicultural education. Another support is based on the results of observations of several educators

at SMA 5 Malang who do not utilize teaching materials or utilize current technology in their learning. As stated by one of the teachers of history subjects, subjects him, educators are quite difficult in packaging material with a touch of technology due to a lack of mastery and following technological trends in the world of learning. With this collaboration, it is hoped that multicultural education can make students who are the next generation of the nation will become more focused, meaningful, and can be a provision for society in everyday life, and more importantly can increase its tolerance attitude.

### **METHOD**

The research method used in this study is a qualitative research method which means that descriptive data will be obtained in the form of speech, writing, and behavior of the observed person (Bogdan dan Biglen in Rahmat, P.S. 2009: 2-3). In this study, descriptive data were obtained from the results of observation analysis and trials of teaching materials in the form of an android-based Multi-History application at SMAN 5 Malang and also carried out a content analysis of certain information or text which is commonly called the descriptive content analysis study method by Munirah (2015: 190). The analysis was carried out on various documents, archives, books, to scientific articles related to the concept of multicultural education. In addition, the author also carries out problem formulation, search, and library collection, to compare the data obtained and presented. Furthermore, a discussion of the results of the study was carried out. If the data has been collected, the next stage is to analyze it so that a common thread or solution to the problem is found.

The next stage is the critical pairing and comparison of data on the relevant sources that have been collected. The benchmarking stage here is not entirely a comparison, but it can also be referred to as supporters of this study. After it is felt that enough data has been obtained and goes through the comparison process, the next stage is the presentation of data and discussion with the focus of the study "Multi-History Application Analysis and Design: Digital Teaching Material Innovation as a Solution to Increase The Tolerance Attitude of Millennials".

### **RESULTS AND DISCUSSION**

#### **The Concept of Tolerance Education**

According to Bahari (2010: 2) tolerance is a basic element needed to foster an attitude of mutual understanding and respecting existing differences, as well as being an entry point for the realization of an atmosphere of dialogue and harmony between religious groups in society. In the Great Dictionary Indonesian explained, tolerance is a tolerant trait or attitude, that is, it is or is holding back (respecting, letting, allowing) stances (opinions, views, beliefs, customs, behaviors) that differ or are contrary to one's stance, e.g. religious tolerance (ideology, race, and so on) (Poerwadarminta, 2005: 1204). Based on these 2 statements, it can be said that this tolerance is a tip to cultivating an attitude of accepting differences to realize harmony between communities. In contrast, intolerance which is interpreted as

the inability or unwillingness to tolerate arises because we cannot or do not want to accept and appreciate differences (Bahari, 2010: 53).

The application of an attitude of tolerance in everyday life has started since education in the family makes a habit. The application of tolerance in everyday life is very important in minimizing conflicts or social problems that often occur in social life. Tilaar (1999: 160) expressed his opinion that actually what is needed in social life is not just seeking agreement or equalizing ideas, but what is needed in social life is a sense and an attitude of mutual understanding with each other. To realize this, it is necessary to cultivate an attitude of tolerance from an early age, namely with the help of the world of education. In addition, tolerance education can also utilize various methods such as stories, lectures, practices, discussions, questions and answers, and can also be packaged in the media or digital teaching materials as needed today.

The implementation of tolerance education so far can be interpreted as the process of conveying information that contains diverse values so that students learn to accept differences. The cultivation of these diverse values is very appropriate if conveyed through the educational process considering that education is not only a process of knowledge transfer but as much as possible education must also touch the side of humanism or must give meaning (transfer of value). In its implementation, the educational process should have integrated the values of diversity so that students can apply an attitude of tolerance. From these events in daily life, students are invited to explore the values of diversity to provide knowledge about tolerance. Here are some examples of tolerance values that can be conveyed by teachers in the learning process: (1) mutual respect and respect for differences, (2) not easily angered and forgiving, (3) not easily provoked and provoked things that provoke commotion or damage, (4) does not cause conflict amid differences, (5) does not interfere with and respects friends who are worshipping, etc.

### **Android-Based Multi-History App Design**

The Multi-History application developed by the researcher is android-based. The selection of multi-history application development is based on the saturation of researchers because history learning rarely utilizes teaching materials/media and many people have sophisticated smartphones that are often misused. The name Multi-History refers to the application feature that can be presented through a variety of someone's learning styles to support someone to more easily understand a material. This developed application is intended for history learning. Therefore, based on the existence of various features and the content of historical materials, this application is named "Multi-History". The application design that has been developed by this researcher has been adapted to the characteristics of teaching materials. The characteristics referred to are by the opinions of Widodo and Jasmadi in Lestari, (2013: 2-3) namely self-instructional, self-contained, stand, adaptive, and user-friendly.

The selection of material in the Multi-History application is also adjusted to the environment around students. The location chosen by the researcher to conduct the research was in Malang City, precisely

at SMA Negeri 3 Malang and SMA Negeri 5 Malang, as well as the area around Malang City Square. Based on this location, multicultural life around Malang City Square is considered appropriate to be carried as material to increase the tolerance attitude of students. The word multicultural is interpreted as cultural diversity. To borrow the opinion of Parekh (2008:20) says that this multicultural refers to the reality of cultural diversity and multiculturalism itself refers to a normative response to that fact. Added to Gollnick & Chinn (2018:283), multicultural life is “The condition in which different cultural groups can maintain their unique cultural identities while participating equally in the dominant culture”. So, here in simple terms multiculturalism is more about the reality of cultural diversity.

More about the material in this Multi-History application, Interaction, and multicultural life also occur in the Square. The square or public open space in the middle of the city center is the center of all activities, both locals and tourists outside the area. The square has been used freely by its visitors, for both social and economic activities. In Malang City Square itself, multicultural life here is inevitable along with the various ethnicities that inhabit the city of Malang, such as in the settlements around Malang City Square. With an area of 1,503 hectares in Malang, Malang city during the transition was able to accommodate 46,500 residents. These residents are scattered around the center of Malang with ethnicity from Indonesians themselves, Foreign Easterners, to Europeans. There are 40,000 Indonesians, residing in the villages south of the square, Kebalen, Temenggungan, Jodipan, Talun, and Klojen Lor. Also, 4000 Foreign Easterners, especially the Chinese village to the east of the square, and the predominantly Arab village of Kauman to the west of the square as many as 2500 Europeans reside around the square, Kayutangan, Oro-oro Dowo, Celaket, Klojen Lor, and Rampal (Pemerintah Kotapradja Malang, 1954:16).

The diagnosis of the existence of a life of multiculturalism in the area of Malang city square is evidenced by the interaction of the community around the square as adherents of Islamic teachings participate in assisting in the order of the celebration of Christian worship, namely Christmas day in the church right next to the Jami' mosque. The opposite is also the case when the celebration of Muslim holidays, the prayer jaamah overflows to the square, and the residents around the Christian teachings participate in assisting in the preparation and order of worship. Of course, the harmony of interaction between these 2 differences can be a suri tauladan for the community.

The Multi-History application is developed using hardware in the form of a laptop or PC. While the software used includes:

- (1) Windows 10 as a hardware operating system,
- (2) Figma design application (Digital design tools and prototyping tools)

(3) Adobe Photoshop according to Agung (2011: 2) is one of the software for processing photos or images, with adobe photoshop we can repair and beautify the photo we want to print by adding effects in the photo, so that the usual photo becomes a photo with a different and attractive look,

(4) Visual Code Studio is a source code editor or text editor developed by Microsoft for Windows, Linux, and macOS that supports PHP language programs (MF Prayuda, 2020: 233). For example, such as JavaScript, TypeScript, and Node.js,

(5) Android Studio as a supporting software in developing android-based applications (Sukmana F, et al.2019: 7) and also as a code editor tool and IntelliJ developer features,

(6) Cordova as a tool Framework development android or web developer uses HTML, CSS, and JavaScript content to create native applications,

(7) Materialize as a tool for designing. Here the author when developing this Multi-History application does not need to create coding from scratch and the code created by the framework will be more structured and neat,

(8) The Programming Languages used to develop this Multi-History application are HTML, CSS, and JavaScript.

More about application development software, namely Cordova is Apache Cordova is a web technology-based framework used in the development of smartphone applications based on android, ios, and Microsoft (Sukmana F, dkk. 2019: 7). Apache Cordova software is a lot of combination with professional software. One of the specialties of this Cordova is that it takes a web application and renders it in a native WebView. A WebView is an application component (such as a button or tab bar) used to display web content in a native application. The use of Cordova is more suitable for use on the 64-bit version of the Windows operating system or on Mac OS X. In addition to supporting all types of file formats.

The design of the Multi-History application that has been developed by researchers is as follows.

1. The product developed is in the form of teaching materials in the form of applications for Android smartphone devices,
2. This product is a file format type (.apk) that can be opened to each student's Android smartphone device so that they can learn historical material wherever the place is and whenever the time is, besides that this application product can be run offline without the need for an internet data package,
3. How to install this product is the same as a typical application installation, click install, and then follow the next steps until the installation is complete,



4. How to operate is very easy, just by clicking the menu to be selected and swipe or swipe on the smartphone screen. For the position of the product, it can be used in a portrait or landscape position. To make it easier for users, this application has also been equipped with instructions for use,
5. Multi-History application teaching materials are developed for students of Class XI high school,
6. The application developed by researchers is called "Multi-History",
7. Features of this Multi-History application include opening pages, menus, KD analysis, learning objectives, instructions for use, materials, conclusions, and evaluations (see figure 2.1),
8. The material in the android-based Multi-History application is adapted to the 2013 Curriculum and has been contained in KD 3.3 about Analyzing the political, cultural, social, economic, and educational impacts during the colonial period of European nations (Portuguese, Spanish, Dutch, English) in the life of today's Indonesian nation,
9. Here are important points about the material in the Multi-History application about the multicultural life of the people around Malang City Square:
  - a. Worship activities (in religion various ethnicities worship in 1 house of worship, it is impossible that there is no interaction) the rampant routine recitation activities, tahlil.
  - b. Shopping (There have been many shops and it is undeniable that inter-ethnic interactions occur in shopping shops) such as in markets, etc.
  - c. Work (The form of social interaction of shopping is more inclined to economic activities where the activity is closely related to the type of work that is usually engaged in).
  - d. Work (The form of social interaction of shopping is more inclined to economic activities where the activity is closely related to the type of work that is usually engaged in)
  - e. Education (Residents tend to send their children to the nearest school and because the square is the center of the city, then most of the schools around the square are excellent schools so these schools can be sure to be heterogeneous and multicultural
  - f. Socialization or important meetings related to village activities or certain events (Malang Tempoe Doeloe Festival and Oeklam- oeklam Heritage).
10. Materials within the Multi-History app can be presented in text, audio, and audio-visual (see figure 2.2),
11. In the evaluation section, there are enrichment questions with a value weight of 25 points per question,
12. This application will have a fairly light capacity, which is approximately 25 Mb (Megabytes).

13. This application will have a fairly light capacity, which is approximately 25 Mb (Megabytes). dengan teknologi Bluetooth. In addition, it can also be shared via Bluetooth or social media such as websites, WhatsApp, lines, Facebook, and E-mail.

The development of this application has also gone through the stages of material and media validation. This application has also been tested in small groups and large groups before deployment. After being deemed feasible, this application was disseminated and then analyzed its effectiveness as teaching materials and solutions to improve the tolerance attitude of students as the next generation of the nation.



Figure 2.1 Multi-History App Features Source: Screenshot of the author's personal



Figure 2.2 Presentation of Multi-History Application Materials Source: Screenshot of the author's personal



**Analysis of Multi-History Applications to Increase Millennial Generation Tolerance Attitudes**

The trend of digitalization has penetrated the field of education. Various digitalization in the field of education such as online learning trends, media utilization, or digital teaching materials, to the rise of applications that support online learning. The utilization of android applications used for learning is currently a trend. Its practical, easy-to-use and flexible nature is an attraction for students today. However, the selection of material is also a benchmark for the feasibility of an application that can support learning. In this case, the Multi-History application developed by the author with a variety of interesting features needs to be taken into account as an innovation in learning. One of the reasons the author developed this application is that according to the author, digital trends in the field of education are a good medium to support the implementation of flexible education. Especially now that the use of smartphones is rampant and almost all circles already have smartphones.

The design of this Multi-History application starts from the selection of material that is carried out culturally openly, which is based on students. The content of the material on multiculturalism is adapted to the context of the time and place around the student's residence and the aim of improving the tolerance attitude of students. In this application, the material can be presented in the form of writing, audio, and even audio-visual. As a digital teaching material, the Multi-History application can be said to be innovative. Testing this application is done by explaining the application to students, guiding students in using the application and asking students to browse the application themselves. Students can also install this app on personal phones.

The stages of re-actualizing multicultural values to implementation in history learning in high school by utilizing teaching materials in the form of Multi-History applications which focuses on the material on the multicultural values of the community around Malang City Square as follows.

- a. Compiling RPP with the adjusted subject matter of multicultural life of the community around Malang City Square which is inserted in the KD and curriculum syllabus 2013 in class XI precisely KD 3.3. Analyzing the political, cultural, social, economic, and educational impacts during the colonial period of Europeans Portuguese, Spanish, Dutch, and English) in the life of today's Indonesian nation,
- b. Establishing the part of the material of multicultural values to be presented through value analysis,
- c. Develop learning scenarios so that students know a clear learning flow,
- d. Educators create or look for apperception materials in the form of multicultural life of the community around the city square by highlighting multicultural values,
- e. Educators provide an overview of the multicultural life of the community around Malang city square through teaching materials for multi-history applications,
- f. Educators open up question-and-answer opportunities
- g. Educators review questions and provide explanations and proof of arguments.
- h. At this stage, target values and concepts have been instilled according to the material,

- i. Educators assign students in the form of enrichment programs around the material,
- j. Inference by learners,
- k. Evaluation is carried out by observation throughout the learning process and seen from the results of the assignment.

After the learning took place, students were given a questionnaire containing instruments about the Multi-History application and the data that had been obtained was processed using the Likert Scale. Furthermore, the results of processing the data are converted into descriptive data. The results showed that: (1) the Multi-History application is easy and practical in its use, (2) Suitable for use in any learning method because the material in the application is presented in the form of text, audio, and even audio-visual,

(3) cheap and free students only need to install from the device for its operation, (4) the material is easy to understand and interesting because it is presented in digital form.

Based on these results, this Multi-History application has received a good response. This means that the Multi-History application can be recommended as one of the digital teaching materials in history learning. The material in the application about the diversity around the life where learners live is also very appropriately used as an example of the

imagination of an attitude of tolerance. Students will more easily understand and imagine so that they will become the next generation of a tolerant nation.

## CONCLUSION

Implementation rather than tolerance in everyday life is an urgent need considering the onslaught of conflict events of the millennial generation. The application of this attitude of tolerance is needed to minimize conflicts or social problems that often occur in social life. Living in a society with various backgrounds is not just about seeking agreement or equalizing ideas, but being surrounded by feelings and an attitude of mutual understanding and mutual respect. Thus, it is necessary to cultivate an attitude of tolerance from an early age, namely with the help of the world of education. In the world of education, the cultivation of an attitude of tolerance can be interpreted by the process of conveying information that contains the values of diversity so that students become learning to accept differences. The cultivation of these values of diversity is very appropriate if conveyed through the educational process considering that education is not only a process of knowledge transfer but as much as possible education must also touch the side of humanism or must give meaning (transfer of value).

Seeing the problem of degradation of tolerance attitudes, researchers seek to create a breakthrough to solve the problem. The solution carried out by the researcher is to create a learning application with material that focuses on the values of daily life, namely multicultural life in the area around Malang City Square. The application is packed with a touch of technology that is being loved by the millennial

generation, namely utilizing smartphones. The application is an android-based Multi-History application. The name Multi-History refers to the features of the application that can be presented through a variety of learning styles of a person to support someone to more easily understand a material. This product is a file format type (.apk) that can be opened to each student's Android smartphone device so that they can learn historical material wherever it and whenever the time is, besides that this application product can be run offline without the need for an internet data package. The features of this Multi-History application include opening pages, menus, KD analysis, learning objectives, instructions for use, materials, conclusions, and evaluations.

Various digitalization in the field of education such as online learning trends, the use of digital media or teaching materials, to the rise of applications that support online learning. The design of this Multi-History application starts from the selection of material that is carried out culturally openly, which is based on students. Testing this application is done by explaining the application to students, guiding students in using the application and asking students to browse the application themselves. The use of the Multi- History application has been adjusted to the learning materials in schools, namely based on basic competency analysis and guided by the RPP. Based on the analysis, the implementation of the Multi-History application with multicultural life materials around the lives of students is considered appropriate to be used as an example of imagination and an attitude of tolerance because learners will more easily understand and imagine. As a result, the next generation of the nation can be guided to become someone tolerant.

## BIBLIOGRAPHY

- Bahari, H. 2010. *Toleransi beragama mahasiswa: (studi tentang pengaruh kepribadian, keterlibatan organisasi, hasil belajar pendidikan agama, dan lingkungan pendidikan terhadap toleransi mahasiswa berbeda agama pada 7 Perguruan Tinggi Umum Negeri)*. Jakarta: Badan Litbang dan Diklat Kementrian Agama
- Gollnick & Chinn. (2017). *Multicultural education in a pluralistic society (10th ed)*. United States: Pearson.
- Lestari, I. (2013). *Pengembangan Bahan Ajar Berbasis Kompetensi*. Jakarta: Akademia.
- M. Leo Agung. (2011). *Adobe Photoshop Element 9 Untuk Pemula*. Yogyakarta: Andi Yogyakarta
- Muhammad Fathur Prayuda. (2020). Rancang Bangun Sistem Informasi Penjualan Pada PT. Duta Perfume Berbasis Web Menggunakan Metode Sekuensial Linier. *Jurnal Algoritma, Logikadan Komputasi*, Vol.III (No. 1): 229-237.
- Munirah, F. (2015). Analisis Isi Deskriptif Rubrik “Xp Re Si” Harian Kaltim Post Periode Maret-April 2013. *EJurnal Ilmu Komunikasi*, 3(1), 186–197.
- Parekh, B. (2000). *Rethinking Multiculturalism*. New York: Palgrave Macmillan.

Parekh, B. (2008). *Rethinking Multiculturalism: Keberagaman Budaya dan Teori Politik*.

Yogyakarta: Penerbit Kanisius.

Pemerintah Kotapradja Malang. (1954). *40 Tahun Kota Malang*. Malang: Kotapradja Malang.

Prastowo, Andi. 2015. *Panduan Kreatif Membuat Bahan Ajar*. Yogyakarta: Diva Press.

Poerwadarminta, W.J.S. 2005. *Kamus Umum Bahasa Indonesia Edisi Ketiga*. Jakarta: Balai Pustaka.

Rahmat, P., S. (2009). Penelitian Kulitatif. *Equilibrium*, 5(9),2-3.

Sedyawati, Edi. 2010. *Budaya Indonesia: Kajian Arkeologi, Seni, dan Sejarah*. Jakarta: Rajagrafindo Persada.

Sukmana F, Rozi F, Sutaji D. 2019. *Pemrograman Web Mobile Dengan Apache Cordova*. Gresik: UMG Press.

Tilaar, H.A.R. (1999). *Pendidikan, Kebudayaan, dan Masyarakat Madani Indonesia. Strategi Reformasi Pendidikan Nasional*. Bandung: PT Remaja Rosdakarya Bandung.