The Application of Multicultural Education Based on Majapahit Constitution (Kutaramanawa) through the Internet of Things (IoT)

Aditya Prastian Supriyadi✉, Agus Guna Pratama, Muhammad Yusuf Saladin Sheehan, and Muhammad Ardani Riaziz

Studies Center of Civilization, Brawijaya University, Malang, Indonesia

✉ aditpart4@gmail.com

Abstract: The Multicultural value has Known and to be part of social life in Nusantara. It has included in Kutaramanawa as Constitution of the Majapahit Kingdom who has made at 1350 Th. The purpose of this research is to implement the multicultural education value of Majapahit Constitution-based Internet of Things (IoT), especially for the student in elementary school. Application Multicultural education value for elementary school students has very important for strengthening tolerance and push peace in the long-term. The type of this research is qualitative research. Monitor the technique of data validity using a triangulation technique. Data analysis technique will be used perspective analysis model and interactive. The results of this research show that the Majapahit constitution is some regulation about multicultural values that have enumerated in their social activity life. The multicultural will be a good real example for students, especially if learning methods use the Internet of Things (IoT) through Augmented Reality and Virtual Reality media in order more effective, attractive, and interactive for known of students.

Keywords: Multicultural education values, Majapahit Constitution, Internet of Things

INTRODUCTION

In the UUD 1945, Article 31 paragraph (3) explain that Indonesian education of direction and purpose has focused on enhancement faith and piety and also coaching a noble character. it is having a meaning since the early education process given to students emphasizes spirituals values. So that education can build great human resource not only has science but has a noble character too. Education can build great human resources not only has science but has a noble character too. The aim of that education for strengthens individuals, communities, and the surrounding cultural environment (Idris, 1987). In order can be realized that aim education, multicultural education to be a priority for implementing. To remember in the societies has a different thing from many aspects. Multicultural education has a role to integrate that difference.

The plurality condition of Indonesia to be urgent why need the implementation of multicultural education. We know Indonesia is the biggest country with multiculturalism in the world. Today, the number of islands in Indonesia is 13.000 who composed of big and small islands. Then a total of the Indonesian population is 260 million peoples (Badan Pusat Statistik, 2019). Currently, Indonesia has 714 local ethnicities and 1.001 local languages. And the last, there are various of kinds religions in Indonesian (Islam, Christian, Hindu, Buddha, and Khonghucu). Those conditions show Indonesian's social culture has any diversity. Learn the diversity to the student can through multicultural education to expand the insight of the archipelago.

Apart from being a unique characteristic of Indonesia, Plurality can cause potential conflict. As we all understand, Indonesia is a country that has the largest multiculturalism in the world. Currently, it is recorded that NKRI has approximately 13,000 small and

large islands (Indrapangastuti, 2014). The population has reached around 260 million peoples (Badan Pusat Statistik, 2019). The size of the population has a variety of diversity. Currently, there are 714 ethnic groups and 1,001 languages in Indonesia (Kompas, 2020). Coupled with differences in religious beliefs which consist of Islam, Christianity, Catholicism, Buddhism & Confucianism. This condition can show that socio-demographic and socio-geographic cultures have a variety of extraordinary diversity. Studying all this diversity can be through multicultural education to broaden the horizons of the archipelago.

Apart from being a unique characteristic of Indonesia, pluralism can be prone to conflicts that occur. Various problems stemming from this conflict can lead to various problems currently facing the country. Corruption, collusion, nepotism, thuggery, political feuds, poverty, violence, separatism, environmental destruction, and loss of humanity are problems currently being faced. Not to mention the threat of a group of radicals who want to change the shape of the Republic of Indonesia, which has recently become a national issue. This conflict is something that can threaten the life of the nation and state that is not conducive. The role of multicultural education has a position to understand all the differences that exist in society. Understanding the differences that exist in society can avoid egocentrism. So that it can reduce potential conflicts that can occur due to the diversity that Indonesia has.

Formal education institutions have a very strategic role in instilling multicultural values in students from an early age. It is intended that the younger generation have human morals to be able to learn attitudes of respect for diversity for future provisions. Multicultural education provides information and raises awareness about ethnicism, culture, equality, misunderstanding, and ignorance (Billings, 2004). Multicultural understanding by students aims to be able to appreciate all the plurality mentioned by Billings. So that it

can foster a tolerant attitude of students to be able to live harmoniously in a community with different backgrounds.

The implementation of multicultural education informal education can come from all sources. In this study, we will examine multicultural values that already have an existence in Indonesia. Namely, a multiculturalism that existed in the era of the Majapahit Empire. The Majapahit Empire has a basic law as a constitution known as "Kutara Manawa". In these norms, some rules have a mandate about respect for multicultural diversity that is obeyed by the people of Majapahit. Historically, this rule had a significant effect on people's actions in building a life and culture of tolerance for all differences in the era of the Majapahit Empire.

A life full of tolerance in the Majapahit era can be a source of education on multicultural values. Human values related to multiculturalism in the era of the Majapahit Empire can be a reference for education that can be applied in today's modern era. As Bung Karno said about the "Jas Merah", they mean is never forget history. Exploring the multicultural values of the Majapahit Kingdom which are part of history in Indonesia is an effort to preserve local wisdom as well as apply it in the present era through formal education. The goal is that the history of high tolerance in the Majapahit era can be realized in this modern era.

Penerapan Pendidikan Multikultural di era modern ini harus memiliki inovasi agar lebih memudahkan para siswa untuk memahami materi tersebut. Revolusi Industri 4.0 yang sedang berkembang saat ini harus bisa dimanfaatkan oleh sektor Pendidikan. Perkembangan Internet of Things (IoT) yang diwujudkan melalui Augmedted Reality (AR) dan Virtual Reality (VR) bisa menjadi media pembelajaran yang lebih efektif. Kecanggihan teknologi tersebut akan memandu materi yang akan menarik bagi siswa. Proses pembelajaran dengan memanfaatkan teknologi bukannya untuk adaptasi budaya baru, melainkan juga mewujudkan tujuan

karateristik Pendidikan yang sudah ditentukam. Sehingga tujuan doktrinasi moral baik dalam mewujudkan sikap toleransi tinggi kepada generasi muda bisa terealisasikan dengan lancar. Generasi muda yang memiliki bekal sikap toleransi akan menjadi pelopor keutuhan NKRI terhadap segala isu keberagaman yang bisa berpotensi memunculkan konflik vertikal maupun horizontal.

METHOD

The research method used in writing this article used a qualitative descriptive research method. Qualitative research is applied in writing that focuses on describing and analyzing the object being observed (Sukmadinata, 2012). The object of research is the constitution of the Majapahit Kingdom "Kutara Manawa" which focuses on regulating norms that have the substance of multiculturalism.

The sources of materials used in the writing of this article consist of 2 (two) types, namely primary and secondary sources. Primary material sources are the main reference sources in writing this article. The source of the primary material to be used is the Kutara Manawa archive which is translated into Indonesian. This material is found in Lukman Hakim's book entitled "The Majapahit Constitution. Then the secondary material sources are the supporting reference sources. Secondary material sources consist of literature books, journals, other scientific studies related to multicultural discussions of the Majapahit Empire era.

Data processing in qualitative research is carried out by systematically treating primary and secondary materials. Systematization means classifying these materials to facilitate analysis and construction work. Especially the analysis of the multicultural norms found in "Kutara Manawa". The results of this analysis will be used as a reference offer for multicultural education today through innovative developments in the Internet of Things (IoT) technology that can facilitate student learning.

RESULTS AND DISCUSSION

Multicultural Studies in Kutaramanawa as a Reference for Multicultural Education in the Present

Multicultural education emphasizes fostering character and morals to be able to appreciate all plurality. The difference is not the enemy. However, the differences need to be unified considering that our country has the slogan "Bhineka Tunggal Ika" which has different meanings which remains one. Cultivating multicultural awareness in students aims to instill an attitude of tolerance. Pluralism in Indonesia is very prone to conflict due to all existing differences such as culture, point of view, thoughts, and so on. Through Multicultural Education, students will have a mindset about all differences that need to be embraced in an ideal democracy (James, 2007). The unity of all the differences that exist in Indonesia will be a common strength in the administration of the state.

The idea of a plurality mindset is a solution to maintaining the country's integrity from horizontal conflicts. Moodod in Zamroni said that a pluralistic country must be accompanied by the awareness of multiple citizenships as well. This becomes a criticism of the traditional culture demanded by migrants and minorities, as well as liberal individualism that has no room for groups. But it is based on the development of ideas of individual equality and democratic citizenship (Zamroni, 2008). Moodod's representations are very much in line with Pancasila as the Indonesian ideology. The meaning of togetherness and kinship of Pancasila applies nationally to recognize all differences. All citizens in Indonesia have the same manner without any different degrees. Therefore, the application of Multicultural Education fully supports the mandate of Pancasila.

In Indonesia, the existence of multicultural values is not new. These values are present and develop together with the culture that existed before Indonesia's independence. This can be seen from the socio-cultural life of the Majapahit Kingdom era. The Majapahit

Kingdom has a basic law as the Constitution known as "Kutara Manawa". The basic law regulates multicultural life. These rules are binding to comply with. This has an impact on the socio-cultural life of Majapahit to be able to live in harmony with all the differences that exist.

The value of tolerance in multicultural life in "Kutara Manawa" can be seen from Chapter XVII on Parusya. The meaning of Parusya is humiliation. Article 204 explains the prohibition between castes. That is the era of the Majapahit Empire, caste prevailed in the society. The first is the Brahmin as a person who is devoted to the spiritual world. Second is Ksatria as people involved in Government (head and members). The third is Waisya as a person who has all the work. The fourth is the Shudra as a person who has a position as a servant (Ambedkar, 1946).

Based on Article 204 Kutara Manawa has an order that people of different castes are prohibited from insulting each other. *Ksatria* who cursed the Brahmana would be fined 2 (two) ropes. *Waisya* cursed Brahman and was subject to a fine of 5 (five) ropes. Sudra cursed the Brahmana, was sentenced to death. The brahmana cursed the knight being fined 1000 (one thousand) gobogs. The brahmana cursed his will and was subject to a fine of 500 (five hundred) gobogs. The brahmana cursed at the sudra and was subjected to a fine of satak salawe (two hundred and fifty) (Hakim, 2004, p. 76).

The rules for insulting Kutara Manawa do not stop at Article 204. Article 205 regulates that a knight who curses Vaisya will be fined 1,000 (one thousand). Likewise, Waisya who cursed Sudra would be fined 1,000 (one thousand). However, if a Vaisya cursed at a Knight, the fine was 2 (two) times that of 2,000 (two thousand) gobogs.

In article 206 it regulates the Shudras who insult the knights. If a Shudra is proven to have cursed Ksatira, he will be fined 5 (five) ropes. On the other hand, if a waisya insults the Shudra, he will be fined 2 (two) ropes. Then

article 207 explains that if a lowly candle person who curses a Brahmin will be given a death sentence by the ruling King (Hakim, 2004, p. 77).

In Kutara Manawa, there are also rules regarding humiliation by people of equal caste. Article 207 explains that those who insult an equal are subject to a fine of satak salawe (two hundred and fifty). This means that if the same caste, whether from among the brahmins, knights, waisya, and shudras who insult others, there is still a punishment that will be given.

Based on the various rules, Kutara Manawa described above has the mandate to maintain mutual attitudes between differences in positions. This means that even though there is a caste that applies in the era of the Majapahit Empire, a person who has a high caste should not do arbitrary actions against people who have a lower caste and vice versa. Respect and tolerance must be upheld in every caste difference. So that this rule has the aim of creating a harmonious life in different castes by maintaining oral attitudes.

The substantive meaning of the above rules of insulting Kutara Manawa can guide a harmonious life of differences in modern Indonesia. In the present era, indeed, today Indonesia does not have a caste system. Because Indonesia is already independent and based on the Constitution, every society has the same position of legality. However, the plurality of societal conditions has generally resulted in social stratification (Grusky, 1994). Social stratification in Indonesian society has placed differences between individuals or groups of people. This difference has placed several circles of society into different social classes hierarchically at the layers in society (Ravik, 2004, p. 48).

The validity of the hierarchy of social strata in society today is the same as the Majapahit which has strata but is in the caste field. In the same condition, the cultural norms of the people of the Majapahit kingdom era above can be studied and applied to modern

Indonesian society today. Like the culture that applies in Majapahit to be able to respect each other between caste differences. However, the application in the current era is carried out with mutual respect and living in harmony with all social strata in society.

Application of Respect in the Social Strata of Society based on the Substance of the Insulting Norms of Kutara Manawa

Several important points can be taken from the substance of Kutara Manawa's insulting rules. This important point can be applied in realizing the harmony of the social life of the stratified Indonesian society.

First is social status. Socially stratification of society is a layering system that classifies people by status. Generally, the value of a person's status in society is measured by prestige or prestige. For example, people prefer to work as government employees who work behind a desk rather than as a builder. People who work in ordinary government fields will be considered to have a higher position in society than people who work as construction workers.

The mandate to maintain and respect the differences between castes in Kutara Manawa can be applied to the conditions of social status in Indonesian society. It is undeniable that a society has a variety of jobs consisting of government, employers, and ordinary workers. Even though there are differences in work that are considered to have a hierarchy, all parties must continue to prioritize concord. People with higher employment status should not look down on people who are considered to have lower jobs. And vice versa.

The difference in strata is only in job status. Jobs may have hierarchical levels. However, individual states have the same position because both are creatures of God Almighty. Work status does not make people's positions higher. Employment status should not be used as a basis for demeaning another person's position because they do not have the same strata. As a creature of God Almighty, mutual respect must be upheld to create a harmonious life in society.

The second is economic status. Economic status is a condition where society also has certain layers. People who have a higher economic status are easier to fulfill their daily life. This is based on the assets owned that can meet all primary, secondary and tertiary needs. Meanwhile, people with lower economic conditions tend to find it more difficult to fulfill all their needs. He must try harder so that his daily needs can be met.

The difference in economic strata in society does not make a fortress of separation between people who have economic differences. In this matter, if you look back at the mandate to maintain harmony contained in Kutara Manawa, an attitude of respect must be upheld. People who have a higher economic status must not demean people who have lower economic status.

To strengthen the bonds of harmony in the condition of the community, there needs to be synergy in cooperation. Communities with higher economic status need to provide jobs to people with lower status. Employers should not be arbitrary. And conversely, people who are given a job must work sincerely so as not to harm the person who has given the job. So that maintaining harmony in the difference in economic status in society is not only about maintaining attitudes, but it is necessary to implement a synergy of cooperation that can benefit all parties.

The third is political status. Political status is a layer of society based on authority or power. People who have higher authority or power will be at the top layer. Meanwhile, people who do not have the authority or power will be at the lowest level. For example, the President, Governor, Mayor/Regent, and legislature have the power in administering the state and regions.

Individuals who have power are very vulnerable to authoritarianism which can harm society. This can happen if there is no

mutual respect. The culture of mutual respect has existed since the Majapahit era which can be seen from the rules not to denigrate each other between different castes. Then these norms must be applied in the present era for stakeholders who hold power. An attitude of respect from leaders to their people can prevent authoritarianism of power.

Mutual respect has the urgency of running a democracy that embraces political status in society. The leader who organizes the Indonesian state cannot be separated from the votes that have been contributed by the community. The leader of the country in making policies must not be personally beneficial. However, before making a policy, it must accommodate all the aspirations of the community. So that the policies issued are right on target according to the needs of the community. Then for the policy to be successful, the community must be wise in carrying out the policy. So that with this synergy, harmony will still be established even though there is a political status that occurs in society.

The Application of Respect in Multicultural Society based on the Substance of the Insulting Norms of Kutara Manawa

In Kutara Manawa, the prohibition against denigrating one another does not only apply to caste differences, but there are other indicators of difference. Article 209 Kutara Manawa regulates "wakparusya" which has the meaning of insulting words. These rules prohibit every Majapahit people from cursing at others because of their physicality, character, and class. If it is violated, there will be sanctions that will be applied.

The mandate of Article 209 Kutara Manawa has the meaning that an attitude of respect is carried out towards others in general. The prohibition on cursing at others in Kutara Manawa is a mandate for maintaining harmony. The differences in community conditions have the potential for conflict. To suppress the potential for conflict, harmonious community life becomes a solution. So that these rules prohibit all forms of degrading others based on differences consisting of physical, character, scientific, and group that are part of the multicultural.

Besides, Hayam Wuruk also has a multi-religious management policy in the region. The objectives of the policy are (1) mutual respect for religion; (2) Preventing socio-religious conflicts that may arise if the handling is not appropriate; (3) high tolerance towards differences (Budianta, 2002). This policy is the basis for affirming that the value of multicultural diversity in the Majapahit era is highly upheld.

The teachings of the substance of respect in Kutara Manawa, which have been around for a long time, must be preserved in the present era. Indonesia is an archipelago with multicultural demographics. Preserving the culture of respect owned by Majapahit is a very appropriate effort in facing the current condition of the nation. Since the Majapahit era, there has been a prohibition against swearing between groups. This means that the Majapahit people have been ordered to live in harmony with all existing groups. This group can consist of religious and cultural groups and other backgrounds.

In the current era, group differences remain the identity of the Indonesian nation. Cultivating an attitude of mutual respect is important because it can unite all groups consisting of ethnicity, race, and religion. The types of ethnicity, race, and religion in Indonesia are very diverse. The result of these differences should not be used as a barrier to friendship which results in discrimination. Because even though there are differences, all are still Indonesian citizens who are united with Indonesian.

Kutaramanawa's Multicultural Substance Value That Can Be A Reference Of Multicultural Education For Students

On the explanation of the various values of the Kutara Manawa norm above, there are several important values taken as a source of

multicultural education. Multicultural values that are studied from this historical aspect can be a source of teaching in Pancasila and Citizenship Education (PPKN) subjects. The application of this education is so that students can understand the differences in terms of social strata, ethnicity, race, and religion. Besides that, it can foster an attitude of respect by students so that they can uphold tolerance for differences in society.

Several multicultural values based on the study of Kutara Manawa Majapahit that can be taught to students consist of several parts. (1) Students have an attitude of respect and wisdom to cultivate when they are in social stratification. This can avoid intolerance. The nature of student tolerance will create harmony in the differences in social stratification, ranging from social, economic, and political status. (2) Students have an attitude of tolerance in life that is different from ethnicity, race, and religion. An attitude of tolerance will lead to mutual respect for these differences. So that students have the attitude to embrace all differences to maintain a harmonious life to strengthen the integrity of the nation.

Multicultural Education Innovation through the Internet of Things (IoT) Technology

The use of technology in supporting the implementation of education is a mandate of the Indonesian Constitution. This is based on Article 31 paragraph (5) of the 1945 Constitution, the state must advance science and technology. Innovation in the use of technology in education is a scientific collaboration in the increasingly sophisticated modern era. So the use of technology is expected to increase the smooth spread of knowledge to people in Indonesia.

The use of technology in education has now penetrated the realm of the Internet of Things (IoT). IoT is a means that is used to digitize something that is still traditional. Educational collaboration with IoT will have a digital learning media that is physical to digital. The

use of technology facilities in education is a breakthrough in attracting students' attention to study the subjects to be delivered. The use of IoT students usually uses Augmented Reality (AR) or Virtual Reality media.

This research does not focus on experimenting with IoT technology. However, this research focuses more on providing a study on the concept of using IoT that can be done in education. That is, this research examines the study of technology that can be used as a medium of learning. So that when looking at the object of research studies, the main study is the concept of digitizing multicultural education based on the Kutara Manawa Era of Majapahit worship through AR & VR.

The IoT applied in the world of education will produce a source of digital teaching materials. The source of digital material is a virtual parable. (Milgram, 1994). The source of the teaching material is used as a learning medium. Learning media is anything that can be used to transmit messages from sender to recipient to stimulate thoughts, feelings, attention, and interests as well as the willingness of students in such a way that the learning process occurs to achieve learning objectives (Asyhar, 2012).

The basic definition of learning media can be the basis for a framework for implementing multicultural education through digital technology. The implementation of the learning media is carried out through digital teaching materials with a virtual display that presents a real thing. This means that messages delivered to students are carried out by presenting technology designed with content that can be conveyed to students. The student learning process is carried out by a process of observing what is conveyed by the technology design which contains information that can be understood by students.

Digital learning media is one of the innovative means of multicultural education based on Kutara Manawa. The process of distributing learning media is carried out through virtual media. The media will be the content of

student learning resources in learning more effective multicultural education. Students will find it very easy to understand all messages about multicultural values displayed digitally to be applied in the current era.

The content of this multicultural education will be taken from the substance of Kutara Manawa Majapahit which is really like the era of the Kingdom. The multicultural study in the previous discussion discussed the norms of prohibiting humiliation, both between caste, physical, scientific, socio-cultural, and group levels. The prohibition norms guided the people of the Majapahit era to respect each other for all differences. So that the content that will be displayed in the life of the Majapahit people who are harmonious and tolerant of all differences.

Some content that can be presented as a source of teaching materials for the cultivation of multicultural tolerance values in the era of the Majapahit Kingdom through digital includes: (1) Islamic, Chinese and local communities living side by side in harmony in the era of the Majapahit era (Soekmono, 2006); (2) The troloyo grave as an Islamic burial place located in the Majapahit capital shows that the Majapahit Kingdom upholds the value of tolerance; (3) Archaeological objects in the Majapahit era are not only Hindu-Buddhist but also have Islamic characteristics (Kartodirjo, 1993). For example, the Islamic style in the graves of the saints, Sunan. Sultan, society and the Gobog coin; (3) Mapping the spread of religion in the archipelago. The spread of religion in the eastern area was carried out by monks. Meanwhile, in the western area it was performed by the priest Siwa (Pigeaud, 1960); (4) The division of places for religious rituals in the palace complex consisting of Shiva, Buddhist, and other religions (Santiko, 2009); (5) The Kadewaguruan Center as religious education centers established by Hayam Wuruk on the slopes of Mount Arjuna, Welirang, Wilis, Lawu and other remote places.

Augmented Reality (AR) and Virtual Reality (VR) as Learning Media for Multicultural Education Based on the Kutara Manawa Study

AR and VR are digital technologies from the development of IoT. AR has been widely used as a medium for educational media. In general, AR is an application that combines the physical world with the digital world without changing the physical form (Saurina, 2016). Recognition of objects (images) used in displaying various information about these objects in the form of 3D images and sounds according to the character of the image object. AR is a cognitive system and able to fully understand the perceptions of users (Haniff, 1999).
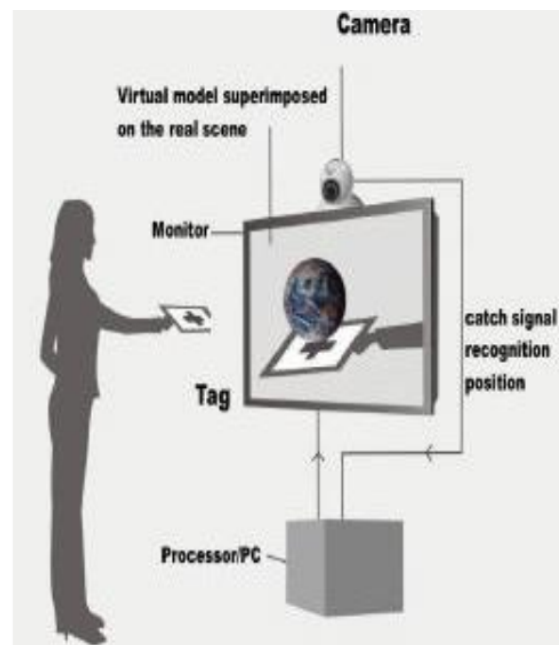

AR which has entertainment aspects is very influential in increasing the learning process (Mustaqim, 2016). This can increase students' interest in learning by projecting in real terms and involving the interaction of all the five senses of students with this AR technology. the use of AR as a learning medium will clarify the process of transferring knowledge to students and provide motivation and interest in learning.

AR needs technology supporting components. The minimum consists of a camera, a display device, and in certain cases, a special device is required to interact with the virtual object. According to Carmigniani, the main devices needed to run AR-based applications are displays, tracking input devices, and computers (Mustaqim, 2016).

Besides AR, the use of learning media can use VR. VR has similarities with AR in blending the real world with the virtual world. The use of VR also aims so that students can interact with the environment in a virtual world that is simulated with the help of computers (Bahar, 2014). The difference in VR lies in the additional devices used. To use VR you need a VR Headset device like Oculus Rift or Samsung Gear VR.

The use of AR and VR as learning media for multicultural education is a transition to more modern teaching materials. In this case, multicultural educational content based on Kutara Manawa's study, which was originally physical, will collaborate with the digital system. Multicultural educational content is designed with a real display through digital in the form of 3D images and accompanied by visualization and audio.
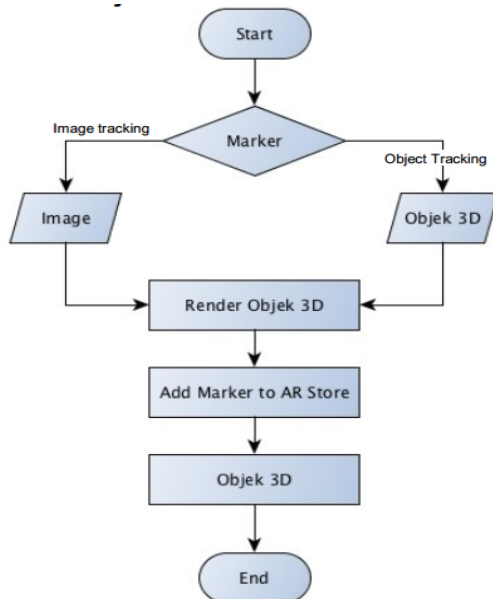
Source : (Atmajaya,
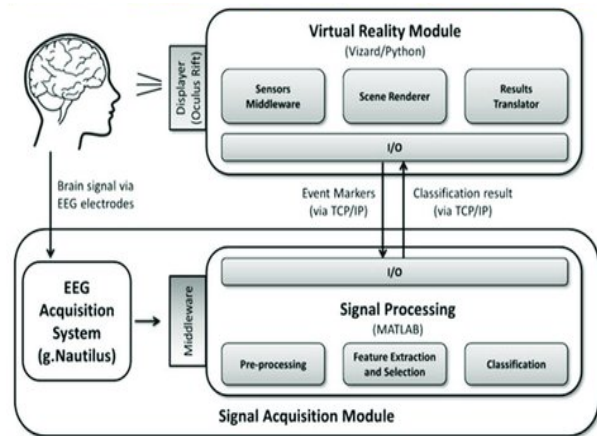
Source : (Guger(Ed.), 2018)

The presentation of multicultural educational content through AR and VR will make it easier for students to use their five senses to understand messages of respect and tolerance for differences based on the study of Kutara Manawa in the Majapahit era. The uniqueness of the digital content of multicultural education is not only a form of the learning process. The use of technology as a medium of entertainment can reduce student boredom in the learning process and create a more enjoyable learning atmosphere.

Dedi Atmajaya has an AR-based system application design as a learning medium that can be applied in the world of education. The flow of the AR use process developed by Dedi Atmajaya can be seen from the picture. The first stage begins with the selection of a marker model. The marker model is divided into 2 forms of tracking, namely image tracking and object tracking. Then the selected marker is then rendered or the image unified with the environment which is then stored in the AR Store. The next process is the process of displaying 3D objects.

From this flow, it becomes a medium in the delivery of multicultural education based on the study of Kutara Manawa Majapahit. The results of using AR technology will produce 3D images. The 3D image consists of several sample picture content that can be used as a source of multicultural education material

that has been reviewed in the previous discussion. The content is in the form of 3D visualization that can be responded to directly by the students' five senses.

Multicultural Education digital content is expected to be an effective learning medium for students' learning processes. Sanaky (Hujar, 2013) explains that media has a function as a learning stimulant because it can: (1) present objects and actual steps. The digitalization of digital content will be a suggestion for students to study multicultural education by presenting real Majapahit objects through VR and AR; (2) Make the concept of the abstract into the concrete. The digitization of multicultural educational content will transition traditional (abstract) teaching materials into concrete; (3) Giving a common perception. The digitization of multicultural educational content will present a real visualization of the situation. Students can understand real conditions in the Majapahit era through digital which is related to the harmony of life indifference; (4) overcoming time constraints. The use of digital in multicultural education becomes more efficient because teachers will not explain it in its entirety. After all, it is assisted by digital information; (5) provide a learning atmosphere that is fun, not depressed, relaxed, and interesting. The digitization of multicultural education will become a fun technological medium so that it can increase student interest in learning and avoid a rigid learning process.

CONCLUSION

Kutara Manawa as the constitution of the Majapahit Kingdom has a norm of prohibiting insults that should not be done against caste differences and other differences (physical, character, scientific, and class). This norm is an embodiment of the basic guidelines of the Majapahit community in realizing multicultural socio-culture. The value of the multicultural substance of Kutara Manawa can be a reference for multicultural education by Indonesian students today. The goal is that students can have an attitude of respect and tolerance in realizing a harmonious life in differences in society. Innovation is the application of multicultural education based on Kutara Manawa Majapahit through the Internet of Things is carried out through digital visualization teaching materials. These digital teaching materials are applied through Augmented Reality (AR) and Virtual Reality (VR) technology. The purpose of transforming the source material is to facilitate students in the learning process. Attractive digital content can improve student learning interests. So that the multicultural education that will be delivered can be more effective in the use of technological media. The application of multicultural education by educators can explore historical sources. One of them is the multicultural values of Kitara Manawa Majapahit. The goal is to preserve local wisdom values that can be applied today. It is hoped that further research in technology is expected. In this case, there needs to be research to design AR or VR applications with Majapahit multicultural education content so that it can be implemented in the world of education.

REFERENCES

Ambedkar, B. (1946). *Ambedkar.org*. Retrieved from Who Were The Sudras?: http://www.ambedkar.org/ambcd/38 A.%20Who%20were%20the%20Shudr as%20Preface.htm

Asyhar, R. (2012). *Kreatif Mengembangkan Media Pembelajaran*. Jakarta: Gaung Persada.

Atmajaya, D. (2017, Agustus). Implementasi Augmented Reality Untuk Pembelajaran Interaktif. *ILKOM Jurnal Ilmiah*, *9*(2), 229.

Badan Pusat Statistik. (2019). *Statistik Indonesia 2019*. Indonesia: BPS.

Bahar, Y. (2014, Desember No. 2). Teknologi Virtual Reality Bagi Pelestarian Bangunan Arsitektur. *Jurnal Desain Konstruksi*.

Billings, G. &. (2004). *The Routledge Falmer Reader in Multicultural Education.* London & New York: Routledge Falmer.

Budianta, M. (2002). *Ancaman Tidak Datang dari Diri Sendiri.* Inciss Bullettin. *2*(1).

Grusky. (1994). *Social Stratification, Class, Race, and Gender.* (B. David, Ed.) San Francisco: Westview Press.

Guger(Ed.), C. (2018, June). *ResearchGate.* Retrieved from https://www.researchgate.net/publication/325972983_A_Feasibility_Clinical_Trial_to_Improve_Social_Attention_in_A utistic_Spectrum_Disorder_ASD_Using_A_Brain_Computer_Interface

Hakim, L. (2004). *Konstitusi Majapahit.* Malang: UMM Press.

Haniff, D. A. (1999). Virtual Reality and Augmented Reality as a Training tool for Assembly Tasks. In Information Visualization. *IEEE International Conference.* doi:10.1109/iv.1999.781532.1999

Hujar, A. S. (2013). *Media Pembelajaran Interaktif Inovatif.* Yogyakarta: Kaukaba Dirgantara.

Idris, Z. (1987). *Dasar-dasar Pendidikan.* Padang: Angkasa Raya.

Indrapangastuti, D. (2014). Praktek dan Problematik Pendidikan Multikultural di SMK. *Jurnal Pembangunan Pendidikan: Fondasi dan Aplikasi, 1*(14).

James, B. (2007). *Educating Citizens in a Multicultural Society.* New York: Teacher College Press.

Kartodirjo, S. (1993). *700 Tahun Majapahit (1293-1993) Suatu Bunga Rampai.* Surabaya: Dinas Pariwisata Daerah Jawa Timur.

Kompas. (2020, Maret Saturday). *Kompas.com.* Retrieved from https://nasional.kompas.com/read/2019/03/30/21441421/cek-fakta-jokowi-sebut-ada-714-suku-dan-1001-bahasa-di-indonesia

Milgram, P. K. (1994). Augmented Reality: A Class of Display on The Reality Virtuality Continuum. *SPIE Proceeding Tele manipulator and Telepresence Technologies*, 2351.

Mustaqim, I. (2016). Pemanfaatan Augmented Sebagai Media Pembelajaran. *Jurnal Pendidikan Teknologi dan Kejuruan, 13.*

Pigeaud, T. (1960). Java in the Fourteenth Century. A Study in Cultural History, The Nagarakrtagama by Rakawi Prapanca of Majapahit 1305 AD. *5.* 12-13.

Ravik, K. (2004). *Sosiologi Pendidikan.* Jakarta: Erlangga.

Santiko, H. (2009). *The Religious Atmosphere of the Karmawibhanga Reliefs of Borobudur, in: Uncovering the meaning of the Hidden Base Candi Borobudu*r. The National Research and Development Centre of Archeology.

Saurina, N. (2016). Pengembangan Media Pembelajaran untuk Anak Usia Dini Menggunakan Augmented Reality. *Jurnal IPTEK, 2.*

Soekmono. (2006). *Pengantar Sejarah Kebudayaan Indonesia 3.* Yogyakarta: Kanisius.

Sukmadinata, S. (2012). *Metode Penelitian Pendidikan.* Bandung: Remaja Rosdakarya.

Zamroni. (2008). *Multicultural Education: Philosophy, Policy, and Practice.* Yogyakarta