

Innovative Google Earth-based Community Service for Inclusive Nation Building

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Abstract:

1. Introduction

Indonesian 2003 education law reformed the previous Indonesian education set by the *Orde Baru* regime, which used *Pancasila* for political purpose. The previous law sacrificed the national diversity of Indonesia for national unity (that is critical for the *Orde Baru* regime to survive), while the rise of the new law ended the ideology of cultural assimilation and embraced diversity as a unique characteristic of the nation (Hoon, 2013). Despite the newfound focus and embrace of Indonesia's multiculturalism in education, intolerance is currently rising in Indonesia (Mooney, 2018). It means that the current multiculturalist education in Indonesia is overwhelmed and inadequate to adapt to the current social-cultural condition that is present in Indonesia right now. In order to maintain social cohesion, urgent action is required to rectify the problem and create a more multiculturalist educational system in Indonesia. This paper presents the innovative Service-Learning community service held by Petra Christian University as one of the projects to alleviate the problems in Indonesia's multiculturalist education in order to create a more inclusive and tolerant society.

2. Theoretical framework/literature review

Multiculturalism in Indonesia

Consisting of over 300 different ethnic groups in more than 17,000 islands, Indonesia is considered one of the most diverse nation in the world. This diversity also extends to religious space. Indonesia is home to the largest population of Muslims in the world, but at the same time, it is also home to more than 24 million Christians. Despite their minority status, Indonesian Christians held several prominent positions in the Indonesian Government, such as several ministerial positions and the governorship of the Capital Region, Jakarta. While Indonesia has faced several social-racial-religious unrests that threaten the national diversity and unity (Anderson, 1983, p. 134), it can be considered that the multicultural/pluralistic national identity of Indonesia is still being held as one of the national core values by the mainstream public.

However, in the past several years, a rising intolerance has been observed in Indonesia, threatening the societal fabric that has defined the Indonesian society in the post-*Orde Baru* era (also referred as *Era Reformasi* or Reformation Era by Indonesian historian). The pivot of the rising intolerance is directed towards Christian Chinese Indonesian, often called as the double minority because of their status as Christian, a minority religion in Indonesia, and status as Indonesian-born Chinese, an ethnic group that represents 1% of the Indonesian population (Setijadi, 2017).

Multiculturalist Education

The landmark Delors report established that one of the pillars of education is “Learning to live together”, this pillar is interpreted as “needing to develop an understanding of others, of their histories, their traditions, and their spiritualities” that will provide the basis for “recognition of our growing interdependence” (Tawil & Cougoureux, 2013). “Learning to live together” is something that cannot be taught in a classroom that relies on one-way information transfer where the teacher rote-learning the student principles of multiculturalism, but it is something that must be experienced. In more scientific terms, multiculturalist education should be affective-based rather than cognition-based.

University Role in the National Discourse and Marginalized School in Surabaya

University, as part of its obligation toward *Tri-Dharma* (Education, Research, and Community Service), is taking a prominent role in dealing with the rising intolerance problem. This also includes Petra Christian University (PCU), a University located in East Java, Indonesia. The student body of PCU consists mostly of double minority students. While non-Chinese and non-Christian people also attended PCU, it is considered that PCU still has a homogenous student landscape, a situation that cannot provide an ideal medium to teach multiculturalism. In contrast to the situation at PCU, marginalized elementary schools across Surabaya provide inverse student landscape. Students at these marginalized schools consist mostly of Javanese people that rarely interact with Chinese-Christian in their environments. Interacting these opposite student landscapes will be greatly beneficial since it allows them to experience the multicultural environment required to learn multiculturalism.

Servant Leadership Class

As defined by the syllabus, Servant Leadership class is a mandatory class for future PCU student mentor for freshman. In PCU’s terminology, these student mentors are called Astor. These student mentors will accompany PCU freshman during Ethics Enrichment (EE) program. A semester long freshman companion program that is designed to help freshman transition from high-school student to a college student. The main goals of EE are to help nurture freshman metacognition and affective thinking. And thus, the class in order to prepare these EE student mentors, the class educated it student affectively and cognitively.

The class target is to ensure that its student can understand its identity as a servant leader, understanding the Christian servant leadership worldview and understand its role as light and salt to the world, especially in the Indonesian context. Before 2018, the class often rely on reflections and cognitive exams of servant leadership worldview. But in 2018 a decision was made to make the final exam of the class to be a teaching Service-Learning. It is hoped with a teaching Service-Learning, the future Astor can have preparatory teaching experience before teaching and guiding freshman in the EE program.

3. Methods

General Overview

In this project, more than 180 students who enrolled in Servant Leadership class participated as the participant for the community service project. In collaboration with Yayasan Indonesia Sejahtera Barokah (YISB), all these students are distributed into more than 30 marginalized elementary

schools across Surabaya to teach in a one-time session. Based on previous experience, it is believed that teaching, a highly personal interaction, would allow students from both sides (PCU and the elementary students) to interact in a meaningful way. In discussion with YISB, we agreed that all these students should not teach something that the school already taught (such as mathematics) because it would be contra-productive to replace their existing teacher that already taught these subjects. Also, the students would only teach something new that is representative of their status as a college student. After some discussions, it is decided that the student will teach the elementary students Indonesian culture using Google Earth. It is hoped that by using Google Earth, Indonesia's various cultural heritage sites and world wonders can be taught and experienced by the elementary students.

While Google Earth seems ordinary or uneventful for PCU students, most of the students in these elementary schools never used it. Therefore, it met the criteria set in discussion with YISB. Google Earth is something that their teachers never taught and something that is representative of their status as a college student that is highly engaged in technological advance. Considering the age of the students at the schools, it is decided that the lesson would be thematic learning. During the planning of the teaching material (detailed below), we found it possible to also incorporate current issues of multiculturalism awareness to the teaching process. Because Google Earth can be used for the user to explore the diversity of the world, it should be able to teach about the diversity of the world. And thus, several target outcomes are designed for elementary student. These target outcomes are stated below:

1. Opening insight about the world that exists outside their current living environment.
2. Motivating the students to have broad insight about the world.
3. Training explorative and factual thinking.
4. Training multiculturalism to the students by showing the diversity of Indonesia.
5. Showing the mainstream technological advance that is previously inaccessible to them.

For PCU students, aside the previously stated target of providing a learning experience for the future Astor, the also have a secondary target:

1. Interacting with an environment that is inversely different with the environment they experienced in PCU.
2. Able to project its role as the Salt and Light of the Earth.

Teaching Material Design

Several basic principles are set for the teaching material, these principles are outlined below

1. Introducing Google Earth application and its usage.

Despite the seemingly ubiquity of Google Earth in the 21st century the prevalence of Google Earth is not spread evenly across all social-economical group, especially among marginalized school children. The same infrequency also applies to other technological advances that exist around us, making them oblivious to the technological advancement that the 21st century bring (Fossati, Hui, & Negara, 2017). While it must be noted that most of them already know or used the Internet. Their usage of Internet subset is generally much lower than middle-class or developed countries subset of the Internet. In some cases, the only Internet they used are Facebook. (Fossati, Hui, & Negara, 2017) (Mirani, 2015). Google Earth is hoped to

be a gateway application to introduce them to the 21st century internet and other ‘wonder’.

2. Showing the Geographic and Cultural Diversity of Indonesia

Indonesia is an island nation that consist of 17,000 islands, 300 ethnic group and more than 700 living languages. Yet despite of its massive diversity and remoteness to each other, they still consider the people living in the geographical boundary of Indonesian as fellow-Indonesian, primarily united by the language Bahasa Indonesia (Anderson, 1983, p. 122). However, in recent year researcher found out that there is a decreasing level of public awareness in multicultural life (Supriati & Umar, 2018). Therefore, an active re-introduction, in Andersonian term, “The Map” of Indonesia is required to reinvigorate the national consciousness of Indonesian as multi-cultural nation defined by its national identity of Pancasila. The Google Earth journey are specifically designed to travel along the Indonesian ‘Map’ that shown the multiculturalism of Indonesia. One of the such site that is visited during the ‘tour’ is *Candi Borobudur* (Borobudur Buddhist Temple), Papua’s Raja Ampat (Indonesian most eastern regions), and the capital Jakarta.

3. Showing the Geographic and Cultural Diversity of the World

Aside from showing the multiculturalist condition of Indonesia, it is required that the interaction could also broaden the children mind into a global scale. While most of the children already know the existence of the international communities, their knowledge is at most are abstract. Virtual tour of foreign countries, especially their landmark sites, is hoped to reduce the ‘abstractness’ of their concept of foreign countries.

4. Explanation and Context are Given to Further Educate the Children

While Google Earth could be used to provide a ‘good enough’ virtual tour, it still lacked proper context for the intended messages to set in. And thus, it is obliged that each of PCU student to bring explanation and context during the ‘trip’. Such as explaining the history of Borobudur.

In order to ensure effective learning, we divided the 180 students into 40 teams that consist of four to five people. Each of the team are lent an LCD projector with its power cable extender. All the student is briefed first about the program target and purpose. During the briefing, we provide the students with a thematic dialog guideline. The PCU students would ‘act’ as pilots who will guide the elementary school as the ‘flight passengers’. Using Google Earth, the ‘pilot’ will bring the students to several Indonesian and worldwide heritage sites. At each site, the pilot would also act as a tour guide, explaining the history and importance of each location visited. We also oriented the student about the condition of the school that they will visit.

Importance of Interaction and Affective Education

Beside the cognitive education, one of the most important aspect of the program are the multicultural interaction and affective education. As has been noted previously, most of the PCU students are ‘double minority’ student that tends to live in a homogenous, double minority environment. While at the same time the children at the marginalized school also lives in a homogenous environment of the majority that rarely interacted with Chinese minority. Through this event, a meaningful interaction between the PCU student and the marginalized school children

are allowed. It is hoped that with the meaningful interaction between them will allow breaking of stereotypes that existed previously. Especially the existing stereotypes of Chinese being ‘exclusive’ (Setijadi, 2017).

Quantitative Evaluation of the Student’s Performance

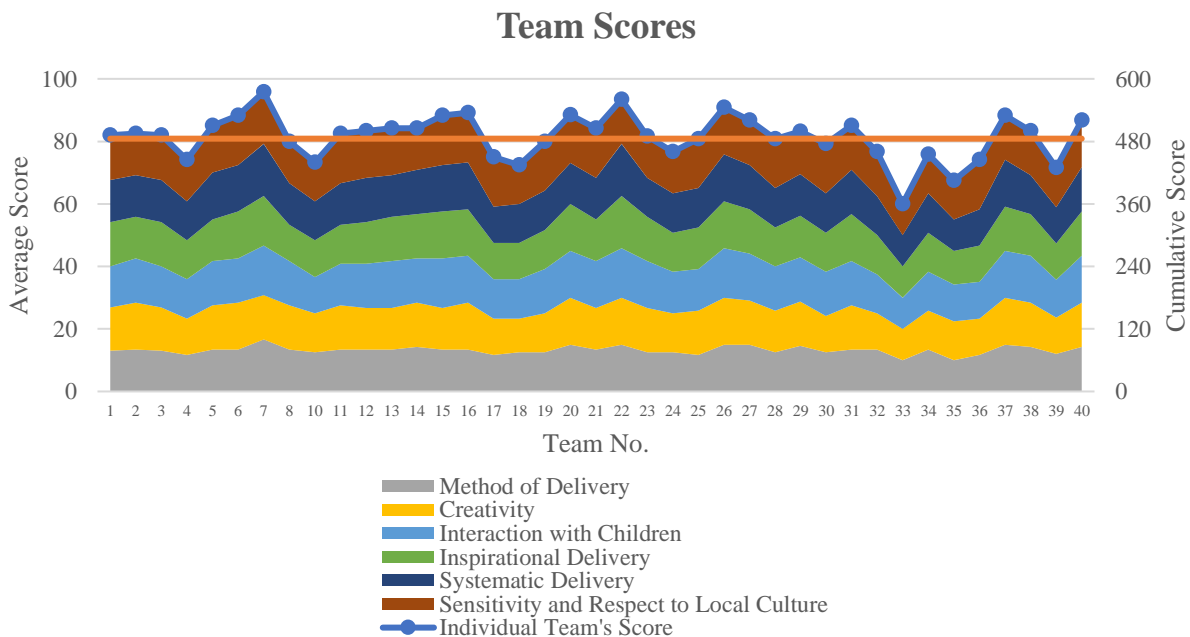
Because the community service is part of the Servant Leadership class, a quantitative evaluation is needed to measure the student performance. The quantitative evaluation indicators are as follow:

1. Method of Delivery
2. Creativity
3. Interaction with Children
4. Inspirational Delivery to the Children
5. Systematics of Delivery
6. Sensitivity and Respect to the Local Culture

Each indicator has the maximum score of 100 and the final grade is the average of the indicator scoring. To ensure objective evaluation, the indicator is graded by staff of YISB. The YISB staff are assumed to be independent because they have no inherent benefit to inflate the student score and have natural incentive to report actual performance objectively to prevent students performing badly at their partner school.

4. Results and Discussion

General Summary



Picture 1. Quantitative Summary of the Program

Table 1. Score Distribution

Indicators	Average Score
Method of Delivery	78.15
Creativity	79.48
Interaction with Children	81.83
Inspirational Delivery to the Children	79.03
Systematics of Delivery	79.13
Sensitivity and Respect to the Local Culture	85.26
Average Total Score	80.86

The program is considered a success. This is measured by three measurements. Quantitative measurement of evaluating each student’s performance, qualitative evaluation from partner schools and the students’ reflections. Because the community service is a part of Servant Leadership Service-Learning program, the students’ teaching performances are evaluated. A simple average of all the students’ score shows that the mean students’ performance is B+ and the fact that the student have high degree of cultural sensitivity and respect to the children. Qualitative evaluation from partner schools is measured by the headmasters and teachers’ gratitude, and the high demand for more Google Earth project. Finally, the students’ reflections have also shown that PCU students developed a higher sense of multiculturalism. For many of them who came from more fortunate background and schools, this is their first time to experience the reality that the student at the marginalized school experience. The teaching experience put them in an environment that is completely different from what they experienced at school.

Execution of the Program



Picture 2. Execution of the Program

During the program, the interaction between the elementary student and college student tends to vary. Children at some school already familiar with Google Earth, making the experience uninteresting, but at most school the student are not familiar with Google Earth and are astonishment with Google Earth experience brought by the students. This is seen from a reflection from Subject R-14:

Subject R-14

When we started to turning on the LCD, most of the children whispered to each other that today class will be like in ‘Cinema’ The children look very enthusiastic when we started Google Earth from the LCD. Children who sit at the back move toward the front to see the LCD.

The enthusiasm of the college student to commit in the Service-Learning program are also astonishing. Several team beyond the expected, standard procedure we devised for the school visitation. They brought guitar to sing along with the children, not only ‘act’ as a pilot but also dresses as a pilot, brought paper airplane to play with the children together et cetera. One of the most astonishing creativity we found is that one of the team brought virtual reality goggles. This is beyond our original guidelines to use the LCD projector to create seminar-like Google Earth teaching situation.



Picture 3. Subject R-34 Plane Ticket.

Subject R-34

For the icebreaker, we distributed self-designed plane ticket to the children. I feel a sense of gratitude when they filled the tickets with a serious attitude. But I become heartbroken when some children asked me “Kak (Honorific for older, young person), are we seriously going to go later?” with a face full of hope. It seems that I am giving them a false hope because the plane ticket is only designed as a creation media and an ingenious method to gather the place they want to visit. At that time, I learn how to give a frank answer to them, despite I have to apologize to them because it (the ticket) was not real.

Subject R-26

We also do not forget to buy gift for the children that can answer our question. We bought Playdoh that we neatly packed so that it is enjoyable for the children their age.

Subject R-55

When I started using VR (Virtual Reality) during teaching, everything began to run well. The children look very confused at the object that I hold. Unfortunately, due to the limited amount of time we only selected few students to experience the VR. Confused, yet happy expression are shown by the children opened my eyes. While VR is starting to become more common, these children does not know anything about this device at all.

The educational content taught to the children are varied team by team. This is caused by the lack of firm standard and guidelines set at the briefing. Two different reflections showed this

Subject R-38

One of the PIC (Person in Charge, staff of the YISB) that observes us feel infuriated. On some subject, we taught information that is not appropriate for the children level, such as Majapahit (Historic Kingdom of Indonesia), et cetera. So as the children are not prepared to discern what one of our members said.

Subject R-14

Besides that, we also give facts about the place we visited. At the end, we started a small quiz. The children that can answer the question about facts and places that we have shown will receive a gift. Despite several of the facts that we provide are often unfamiliar, some of them remember it quite well and capable of answering the question.

In addition of the generalized reflection about technical creativity and problems, we found some reflection to that implies the success of the program. Most of the reflection shown the general enthusiasm and acceptance of the school children of the Google Earth Service-Learning, the self-discovery of the college student about reality and increased feeling of gratitude and blessings.

Subject R-13

In the beginning, I first believed that the children there will be naughty and unpolite like what my friends said. I prepared myself and my heart to be patient facing them. But when me and my friends arrived there. It is completely different from what I thought originally. They all are polite, enthusiastic to learn something new and completely respectful to us that speaking in the front and that, leaves me with a good impression.

Subject R-10

The essence of things that we want to teach is that they can use their mobile phones not only to play games, but also to learn many information about the wonderful things that exist in the world. When we said that, they quickly become impatient to download the app at their mobile phone at home. The things that makes them very interested is the fact that we shown them beautiful places in the world such as Paris, Makkah, Korea et cetera. We also do not forget to teach that Indonesia is no less wonderful compared to other countries. We shown them the beauty of Indonesia and of course the historical place in Surabaya such as Tugu Pahlawan. Aside from showing how beautiful these places are, we also teach them interesting information about the places we shown. Such as the height of Paris or the height of the tallest tower in the world. They are very enthusiastic toward memorizing all of that and in the end, we gave a quiz about the material we taught. Most of them answered very quickly.

Subject R-9

We learned so much thing here, including about how to be grateful. Seeing the simplistic condition of the school. I am grateful that God let me to go to a school that have a complete facility. From the Service-Learning teaching, I also learn about the different attitude of children. I am very grateful that I am given a sufficient life by God. And the teacher staff at there are very kind and friendly to us. They escorted us from and to the front of the street block. While we are waiting for our grab. One of the teachers talked to us, and I always remembered what she said. “This is how becoming teacher is like, no need to look at the wages because the wages is insignificant. But what we received is reward from heaven (*pahala*)”. I started to ponder about how the future of someone is defined by their mentor, their Astor, and their teacher.

Subject R-27

We toured Google Earth starting from the island that exist in Indonesia to other countries. And we also do not forget to teach them our values as Indonesian, so they do not forget to love their countries.

Several reflections also recorded the racial-based interaction of the student, in one of these reflections a student is called “Cino” (Racial term for Chinese in Javanese, the local language of Java). However, despite all of that, the student still reflected a good experience with the local children. We do not believe these racial-based interactions are product of intentional prejudice but rather, childhood innocence in combination with stereotypes and lack of awareness.



Picture 4. Activities during the Service-Learning

5. Conclusions and contributions to theory and practice

Multiculturalism is often taught using rote-learning and thus, failed to provide a meaningful experience that is required to properly teach multiculturalism. The innovative community service that is held as a part of Servant Leadership Service-Learning class provides a new innovative method to teach multiculturalism for all its participants. Google Earth provides the elementary students a brand-new experience to apprehend and relish the multiculturalism of Indonesia and the world, while at the same time also provide the PCU homogenous student body a natural multicultural/diverse experience that helps them to comprehend Indonesia's multiculturalism. We recommended that more Google Earth-based learning program be held and further innovative application of technology in school pedagogy to be investigated.

Keywords: Google Earth, Elementary Schools, University Community Service, Innovative Learning

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