A Most Significant Change Approach to Evaluating E-Learning Outcomes: An Initial Study in Pancasila (Civic) Course

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ABSTRACT

This paper aims to describe research findings on the application of the Most Significant Change as a means of evaluating student learning outcomes in the Pancasila Education course. Especially changes in behavior related to the Five Fundamental Principles (Pancasila) values during the e-learning teaching period. Students need to be aware that every decision taken is related to themselves and has implications for their social life and environment. The research described in this paper uses a descriptive qualitative approach. Data collection used the Most Significant Change (MSC) method developed in 1995 by Davies and popularized by Davies and Dart. MSC is a participatory, qualitative data collection and analysis method which is story-based. The process involved collecting stories from sixty (60) students as participants. Forty-five stories were shared by participants to identify the Most Significant Change to students' behavior development. Mostly about the impact of changes in learning patterns from a face-to-face approach and practice in classrooms at higher education locations, which change into online lectures using various applications. There are many characters based on students' Pancasila values during learning from home, including strengthening prayer obligation, living independently, having enthusiasm, building unity, cooperation, helping each other, being creative, and never giving up. The challenge of availability of stable internet access and good quality computers much supports student learning outcomes. All parties highly support providing an internet quota from the government through the institution to provide education. Learning from home for the Pancasila Education course can be concluded as quite successful, although some obstacles are still implementing.

Keywords: Pancasila (Civic) Education, R-learning, Student, Most Significant Change.

1. INTRODUCTION

Pancasila is the five fundamental principles that serve as the basic concept of the Republic of Indonesia state. It also serves as the Indonesian citizen's ethical system. The five fundamental principles are the moral guideline to encourage each citizen's actualization into tangible actions in various aspects of life in society and its environment [1][2]. Every action decided to be carried out by Indonesian citizens must reflect the ethical citizen's personality based on the five fundamental principles' values.

Law of the Republic of Indonesia number 12 of 2012 on Higher Education, in article 2, states that Pancasila Course expected to become a spirit in shaping students' identity to develop a professional spirit in line with their field of study[3]. The purpose is to strengthen the personality of Indonesian citizens in the higher education environment. Students who have a position

as individual and social beings must realize that every decision taken is related to them and has implications for their social life and environment [4]. Also, students as academic persons must pose polite morals and contribute directly to the nation's life and as a manifestation of citizens' response [4]. It also is in line with the national character revolution agenda in Nawacita[5]. Therefore, the Civic Education Course is one of the General Compulsory Courses in Higher Education in Indonesia that strengthens their personality. They are consistently able to realize the fundamental values of religion and culture, a sense of nationality, and love for the country[6].

In March 2020, learning methods in Higher Education Change as a result of the enactment of policies in order to reduce the spread of the Covid 19 virus[7] [8][9]. The lectures' implementation is usually carried out face-to-face in class and practice in laboratories or workshops in higher education locations. It has suddenly turned into online lectures

using various communication media forms such as email, WhatsApp, Google Classroom, Google Meet, e-learning, and Zoom.

The problem is, organizing full online lectures is something new, both for lecturers and students. The implication of these problems is on student learning outcomes. Student learning outcomes are generally formative evaluation through the Mid-Semester Examination or a summative evaluation through the Final Semester Examination. Mid-Term Exam and Final Exam tend to measure the attainment of knowledge and perceptions about the right skills or behavior according to student opinions. However, in reality, the evaluation of the Pancasila learning program's success is not sufficient based solely on the assessment through the Mid and Final Term Examination. Assessment of the results of a learning program is not limited to short-term results or outputs but should also reach the learning program's outcomes. [10][11]. Thus the evaluation of learning outcomes is a very crucial aspect. Especially considering that "An assessment activity can help to learn if it provides information that teachers and their students can use as feedback in assessing themselves and one another and in modifying the teaching and learning activities in which they are engaged.

Regarding e-learning,[12] admit that e-learning effectiveness evaluation is vital, and evaluation criteria are diverse, given that learning in the Pancasila Education course is more focused on developing behavior based on Pancasila values. Hopefully, the evaluation will explain what behavior changes have been achieved by students.

The slightest Change is precious as input regarding learning outcomes and improving learning in the future. One of the qualitative evaluation approaches commonly used to evaluate a program or project's performance, usually a community development program, is The Most Significant Change found by Jessy & Dart [13][14].

This paper describes the research results on the Most Significant Change approach used to evaluate students' behavior changes in the Pancasila Education course during the online learning period.

2. OBJECTIVE

Organizing full online lectures is a new thing, both for lecturers and students. Problems that arise especially regarding what kind of evaluation method is most appropriate to measure students' changes as a result of online learning in the Pancasila Education course. This paper aims to describe research findings on the application of the Most Significant Change as a means of evaluating student learning outcomes in the Pancasila Education course. What Pancasila values are

applied by Bandung State Polytechnic students in implementing e-learning.

It is urgent because the increased ability to think, feel, and behave in a more dignified manner is the basis for students to build an environment around them. Moreover, scientific decisions taken without consideration of morality can backfire on the scientific world itself so that the scientific world has no value.

3. METHODOLOGY

The research described in this paper uses a descriptive qualitative approach. Qualitative data analysis, used by researchers to make sense of their data, comes in various approaches that align with particular conceptual frameworks and methods [15][16]. The focus of data analysis in this research is thematic analysis. With thematic analysis, which can be considered a foundational inductive approach, the researcher looks for connections within data, often collected in the field, and identifies thematic patterns.

Data collection used the Most Significant Change (MSC) method, which was developed in 1995 by Davies and popularized by Davies and Dart [14][17][18][19]. MSC is a participatory, qualitative data collection and analysis method which is story-based. MSC is used to identify what behavior changes students have achieved as an outcome of online learning. Especially the Change in behavior to demonstrate the application of Pancasila values within Bandung State Polytechnic students. Considering the measurement of behavior change is the learning outcomes targeted in the Pancasila Education course is quite broad, MSC provides an effective way to identify changes at an outcome level, positive and negative unexpected outcomes, and early identification of emerging issues. Information on changes obtained through the MSC technique will support the completion of the Semester Course Plan.

The Most Significant Change (MSC) story approach is used across two parallel classes in the Pancasila Education course to evaluate learning outcomes. Sixty (60) students participate in writing MSC stories based on their e-learning experience. Storytellers asked to identify what had changed as a result of learning Pancasila through e-learning in one semester. They then selected which of these changes was the most significant to them. A story writing format provided to each storyteller containing a series of questions related to three conditions: what it was like before the Change, what caused the Change, and what it was like now? Students also tell why this was the most significant Change for them. In data processing, each story identifiy the changes.

Furthermore, all changes divided into grouped. Changes in each category are analyzed and describe the result. Considering that the MSC approach to evaluate learning outcomes in the Pancasila Education course is a preliminary study, the MSC implementation stage focuses on mapping the most significant changes based on students' stories. Selection of the best MSC stories not included considering the end of one semester's study time. In this context, MSC applied for internal evaluation of learning outcomes for strengthening/refining the curriculum.

4. RESULT AND DISCUSSION

4.1. Results

There are sixty (60) students participated in the research. Forty-five (45) MSC Stories were collected. There were 229 behavior changes (positive and negative) identified from the stories. Seventy-eight items of behavior change are listed.

Condition before the e-learning (from home) implemented. Major participants explained their routine activities were getting up early to pray, then preparing lessons for the day that applied face to face approach. They felt free to spend time anywhere without worrying will be contagious by any virus. Even they feel brave about commuting from home to campus on a private motorbike. Almost all participants explained the fun life they experienced while studying on campus and having discussions with their friends, and participating in organizational activities such as administrators of the Student Association and the Student Executive Board (BEM).

Regarding learning, some participants shared their habit of reading books when the material was given after or before college and even reading novels frequently. However, a small number of participants admitted that they only relied on classroom learning before the Learning from Home policy; other than that, they rarely studied the material obtained in class.

When the policy to handle the spread of Covid 19 implements, changes in learning patterns occur. Face-to-face learning patterns in class or laboratory change because all students and lecturers must learn to adapt to online learning methods. Participants confirmed that "Currently there is no face-to-face meeting in class, there is only a cellphone and laptop screen at home, associations do not gather in the WA group." There are changes in self-habituation to become more independent. Another new habit put forward is, "I prefer reading books, being diligent in watching the news about the development of this pandemic."

Participants admitted that studying at home has a positive side: "I can exercise every day, which I have not done since college." Another positive habit is helping their parents at home.

Many new habits exist, such as family relationship changes like spending more time with the family to talk and do homework. "Before the Covid 19 pandemic, this kind of habit could only be done on holidays." The majority of participants acknowledged that families are very concerned about health protocols. Apart from wearing a mask when leaving the house, they also get used to washing their hands. The fruit is provided daily for consumption by the whole family. "I can get together with my family longer. Quality time with my family increases because during the PSBB period, my father, who was usually in Jakarta, continued to have more time together at home". New exist habits related to economics are trading or entrepreneurship. The condition triggers this habit "my pocket money has decreased due to this pandemic, so I have to find additional pocket money." The potential and opportunities that arise are utilized positively and productively by several students.

Several participants told of their difficulties in understanding learning materials and doing homework assign by the lecturers. The participants said, "In terms of learning, I think this is a nightmare because I am the type of person who finds it difficult to digest something when reading it on a cellphone or laptop. To overcome this, I usually take notes in a book and at night tidy up my writing while reviewing what I learn during college". The difficulty increases when the average lecturer in the class only provides written material through educational media such as Google Classrooms or other applications and minimally detailed explanations of the subject matter. The condition is possible considering that the lecturer also has the initial experience of giving online lectures at the same time as the students.

Furthermore, most participants (58%) said that the challenges faced when studying online are mainly constrained by internet access. An unstable internet connection makes learning activities disrupted. The condition becomes worse when the laptop is sometimes going error. Students' efforts to overcome these problems, including preparing learning materials before learning, are carried out and try to get peer tutors to support their learning.

Mapping changes in students behavior to the Five Fundamental Principles are as follows:

Five Fundamental Principles	Behaviour Changes
Believe in one and only God.	More often worship (memorize the Al-Qur'an's letters); learn to pray on time; Isha/Tarawih prayer in congregation at home.

Just and civilized humanity.	Educate followers on Instagram regarding covid-19; be more sympathetic to the people around; more respect for time; practice driving a car; take care of a small garden in the yard; can love yourself more. Start activities earlier; having breakfast in the morning; being multitasking (Learning while listening to music); enjoying a new hobby; have more time to create a website; helping parents guide younger siblings when studying or playing with them.
The unity of Indonesia.	Not being able to meet, play, and go out with friends or family; wiser learn and practice English/foreign languages; can not participate in organizational activities.
The sovereignty of the People Led by the Inner Wisdom of Deliberation amongst Representatives.	Often make video calls to discuss. It is easier to do assignments because they can ask parents. Spending more time with family.
Social justice for the whole of the people of Indonesia	More often, workout at home by watching YouTube; has a specific exercise schedule on Saturday and Sunday. Implementing the Health Protocol, such as always providing masks, tissue, water & soap, hand sanitizers, and not leaving the house if there is no urgent need. Read more books (novels, biographies.) Create innovative videos. Be more diligent/productive; concept business; do more hobbies & talents; attend webinars frequently; start writing stories; participate in online competitions. It starts a business from home, selling goods online, leaves them installs, delivering goods using delivery services (courier). Moreover, become a freelancer.

4.2. Discussion

Although the evaluation using the Mid-Term Evaluation (MTE) and Final-Term Evaluation (FTE) that have been normatively applicable will still be applied, however, the use of MSC as an enrichment of the evaluation tools will increase the scope of the evaluation. Stories from students themselves will capture MSC's qualitative achievements, which not yet accommodate in the MTE and FTE. Given that one of the story's weaknesses is the accuracy of the data, the MSC technique's use in the entire evaluation flow needs to be supported by other measuring tools to validate it. Moreover, the focus of Civic Education as value-based education is on the realization of a good citizen who has holistic competencies in knowledge, skills, and traits based on the Five Fundamental Principles of Indonesia[4].

Storytelling is a common thing for the Indonesian people. In a story, each individual has ample opportunity to express any changes that impact e-learning in Civic Education courses clearly and in detail. Stories can contain as many events as possible, especially about behavior change. It is in line with the opinion of Dart and Davis [20], who stated that "The Most Significant Change (MSC) technique is a dialogical, story-based technique. Its primary purpose is to facilitate the improvement program by focusing the direction of work towards explicitly valued directions and away from less valued directions. MSC can also contribute to summative evaluation through both its process and its outputs". The difference is that the MSC technique's primary purpose is to facilitate the improvement program by focusing the direction of work towards explicitly valued directions and away from less valued directions in community development projects.

In practice, MSC has been quite successful in evaluating the learning outcomes of the Pancasila Education course. The research results reveal that the Most Significant Change approach can appropriate to evaluate student learning outcomes. This study's positive findings are the success in identifying the significant changes experienced by students while implementing e-learning.

Throughout the story of the most significant Change made by students, all changes connected with the storyteller's social life are easy to identify. Even changes that tend to be negative expressed "comfortably" (subtle, not harsh, and not overturning). The awareness of this negative Change will encourage participants to find solutions. Such conditions cannot be "captured" by formative and summative evaluation methods such as MTE and FTE.

MSC also supports students in identifying the best potential behavior by values within the Five Fundamental principles. It carried out during the e-learning period and can take advantage of opportunities for self-development and entrepreneurship. Furthermore, time management is a critical thing acknowledge by students.

Based on the identified changes from the collected stories, the occur changes include personal aspects such as strengthening understanding of religion and enjoying personal time for self-care, including exercising regularly. It includes personal changes related to personal development, such as participating in various free webinars and learning new foreign languages. It is quite interesting that many students come up with creative ideas and can take advantage of opportunities to do business online in various ways or entrust the product through the stall

While changes relate to communication and relationships within the family, including carrying out worship (tarawih/isha) with the family, increased time spent with family is a perfect change; it even raises awareness of the importance of togetherness and family communication. The research reveals that 66% of participants' activities, such as having a meal with family and doing homework. Participants stated, "Currently, the communication between the head of the family and their children is more harmonious than in the period before the learning from the home policy implemented. Even the whole family realizes the importance of family communication and has begun to apply various types of social media restriction during family events, including lunch and dinner time". These changes are a reflection of the values taught in the first precepts of the Five Fundamental Principles. Likewise, healthy living habits within the family wash hands, eat healthy foods and use a mask to leave the house (95%). Significant changes have also occurred in the management of work at home. The student, who was often apathetic at first, now tried to help with household chores such as cleaning the house or helping Mother cook the family's favorite food. More time to spend with the family and do homework. "Before the Covid 19 pandemic, this kind of habit could only be done on holidays." I can get together with my family longer and increase in quality time with my father, who was usually in Jakarta ".

Significant changes related to student observations of the surrounding environment are awareness to remind the surrounding community to adhere to health protocols and develop empathy behavior towards the people they meet. Most of the participants described social assistance activities for supporting the community that active during this pandemic.

Changes in learning patterns from face-to-face to online learning change many thought patterns and impact behavior changes. Participants admit that studying at home without going to campus (PBL or presentations) using media such as Gmeet, Whatsapp, and E-Learning some fun. However, they regret it because they cannot learn face-to-face (directly) to understand the teaching materials better. Due to the pandemic, participants have had to rearrange their studying schedules because self-study requires more effort to understand the material. Participants do their tasks by typing and can explore more details about the lecture materials. However, activities during Learning from Home are less structured. Laptops and cellphones need to stand by all day long because lectures are often not on the schedule.

Participants complain about their eyes become tired and get sleepy quickly because they stare too often and at length hours at the monitor screen so that they often fall asleep. During studying, more often, participants try to find out the assignment's answer on their own rather than asking friends. Often they make video calls to discuss. Interesting to know on one side, participants stressing that "It is easier to do assignments because you can ask parents the questions." In contrast, other participants said: "It is harder to do the assignment."

5. CONCLUSION

The research found that MSC had many benefits in evaluating a course program such as Pancasila (Civic) Education MSC was an effective way to identify changes at an outcome level (it is often difficult to identify and attribute Change at this level); capture positive and negative unexpected outcomes. Learning from home for the Pancasila Education course can be concluded as quite successful, although some obstacles are still implementing.

Most of the participants said that signals mainly constrained the challenges faced when studying online. An unstable internet connection makes learning activities disrupted. It becomes worse when the laptop is sometimes going error. Besides that, the monthly pocket money that participants no longer received from their parents reduced their ability to change internet providers. Most Significant change-Positive behavior in overcoming these problems includes preparing learning materials before learning is carried out and being creative in seeking entrepreneurial potential.

Regarding learning, quite several participants told of difficulties in understanding learning materials and doing assignments submitted by the lecturers. The participants said, "In terms of learning, I think this is a nightmare because I am the type of person who finds it difficult to digest something when reading it on a cellphone or laptop. To overcome this, I usually take notes in a book and at night tidy up my writing while reviewing what learning materials during college". The difficulty increased when the average lecturer in the class concerned only provides written material through

educational media such as Google Classrooms or other applications and minimally detailed explanations of the subject matter. This condition is possible considering that the lecturer also has the initial experience of giving online lectures at the same time as the students. The most significant Change made by students in overcoming these problems includes getting peer tutors to support their learning. In general, the Most Significant Change approach can capture student behavior changes during learning from the home period.

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