



Continuity and Discontinuity in Basic Education Learning: Causality Isolation Policy in Avoiding the Spread of COVID-19

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Article History:

Received: April 6th, 2020

Revised: August 31st, 2020

Accepted: October 26th, 2020

Published: December 31st, 2020

Keywords:

Basic education learning,
Continuity-discontinuity,
COVID-19,
Isolation

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Abstract: The COVID-19 outbreak is a non-natural disaster and has an impact on learning continuity. This study aimed to find the reality of the continuity/discontinuity of learning of primary education students in East Lombok during student isolation in the prevention of COVID-19. Data obtained through surveys and interviews with 198 respondents representing school principals, teachers, students, parents, and the community. According to the Bayesian Approach to Learning Causal Networks, the data were analyzed descriptively through frequency distribution and causal analysis. It was found that 57.07 % of respondents claimed they did not know the purpose of the isolation policy, so it was not explained. Exactly 54.76 % of respondents admitted to isolation as a holiday, 54 % of respondents admitted to playing to their heart's content during the isolation period, 88.77 % of respondents admitted that this policy was not coordinated, and 100 % of respondents admitted that they did not maximize the function of online learning. The contextual condition of this isolation period is a causal event between a lack of understanding of the policy intent or P (A), causing unclear instructions, or P (B). Unclear teacher instruction or P (B) causes students not to study at home during isolation, or learning discontinuity occurs, with code P (C). Lack of understanding of the intent of the isolation policy, or P (A) causes this policy not to be coordinated with interested parties. Due to unclear instructions, the utilization of online learning, or P (E) is not optimal. The study results are urgent and have implications for the policy of learning from home as well as the coordination pattern of educational stakeholders in the COVID-19 phase.

INTRODUCTION

Responding to the outbreak of COVID-19 that has hit the world, on March 13, 2020, the Republic of Indonesia announced that this outbreak was a national disaster (Arifa, 2020; Benuf, 2020; Ihsanuddin, 2020; Raheem & Khan, 2020). In education, it is carried out by isolating students and all levels of

education nationally. This policy must be prepared with planning to force majeure conditions (Dewi, 2020). However, in the context of East Lombok, NTB, this policy has not followed standard operating procedures (POS) and has not been coordinated with education stakeholders.

Policy and planning as bureaucratic products in this context are not

differentiated in accommodating this study's purpose. Policies and planning to respond to the COVID-19 outbreak can be educational policies and planning in an emergency. This emergency condition is aligned with the concept of emergency according to UNESCO, that this situation disrupts the situation due to non-natural disasters and disrupts the education system. Several things need to be prepared as a supporting component of education policy and planning in an emergency, such as the availability of a copy of the curriculum, the learning process outside the normal context, a continuation model of curriculum development, facilities, teaching conditions, coordination between parties and the person in command (Mishra et al., 2020). Exciting information about good preparation related to education before a disaster occurs is explained through Hoffmann & Muttarak (2017) studying the Tsunami in Thailand and the Philippines. They found that preparation before a disaster is much more strategic than during a disaster and after a disaster. Important preparation according to the findings related to each individual's preparedness for the opportunity of a disaster; education preparation patterns, channels or coordination, and disasters as educational content. This condition is not the case in Indonesia's experience, including in East Lombok.

As a comparison, a study by (Martono et al., 2019) about paramedics' preparedness in responding to emergencies during and after a disaster. Their report stated that out of 1,341 paramedics, only 2.36 to 3.13 were prepared to face emergency conditions. The data illustrates that one agency responsible for the consequences of a disaster has very low readiness. A more specific study to describe Indonesia's condition, especially NTB and East Lombok, is a study by Mukhtar (2018) about the Government of Pakistan's readiness, especially in each province.

Learning from natural disasters from 2005 to 2010, in 2012, a disaster management agency based in Punjab was formed. This agency is responsible for implementing national policies in the regions in preparing for disasters, before, during, and after. The study shows relatively similar conditions Abunyewah et al. (2020), who discovered a disaster information center that educates, convinces, and strengthens the public in dealing with disasters in Ghana. This condition is almost the same as in Indonesia with the Regional Disaster Management Agency (BPBD). The difference is in the system and work patterns that are still sporadic concerning conditions when a disaster occurs. In other cases, Raikes et al. (2019) surveyed 147 articles related to planning and preparation for flood and drought disasters in several countries in the world. One interesting finding of this study is the inconsistency between planning and the field agenda in dealing with floods and droughts. The conditions described by Raikes et al. (2019) similar but not the same as conditions in Indonesia. This study does not intend to negate what all parties have done in response to every disaster, including the COVID-19 outbreak, in reducing the adverse effects on education. However, with the finding of problems related to the continuity of basic education learning, preparations were made if the outbreak was prolonged, or preparations if a disaster with the same impact occurred at any time.

The continuity and discontinuity of learning referred to in this section are related to indicators of education management's effectiveness at the school level. Effectiveness is shown through indicators of teachers' ability to provide syllabus and instructional activities, school preparation in terms of learning resources, the school and parent cooperation institutions' effectiveness, and information on student learning development to parents. These indicators

are assumed to be managed in a continuous whole time inside and outside the school, including at home with various learning platforms (Casey et al., 2019; McGowan, 2018). The study of the continuity and discontinuity of learning in different contexts, based on the student-centered learning paradigm and the differences in student character, found differences in each student's learning effectiveness (Bronkhorst & Akkerman, 2016). Thus, it is necessary to have multiple learning methods in accommodating each different character and learning style of students. In other languages, the efforts made by every actor of education and learning, especially teachers and students, are the continuity of efforts and enthusiasm for implementing educational programs (Brundiars, 2018). What Brundiars meant by disaster conditions did not interrupt education and learning efforts. Moreover, in today's advances in information technology, it is possible to sustain efforts to achieve educational goals by teachers, students, and society.

Referring to the indicators of the effectiveness of education management, Bronkhorst & Akkerman (2016) and Brundiars (2018), each different condition will affect the effectiveness of educational processes and outcomes (Bronkhorst & Akkerman, 2016; Brundiars, 2018; Xie & Yang, 2020). Several offers as models and patterns for continuing the school learning process through learning from home in the COVID-19 phase were found by studies (Herliandry et al., 2020; Nahdi et al., 2021; Nahdi & Yunitasari, 2020). These three studies show a pattern of coordination between teachers and parents, including mothers' role as first teachers in learning from home. Assignment models, home visits, and journal activities from home are essential agendas for continuing student learning. Studies with other perspectives are carried out by (Afriansyah, 2020; Arsendy et al., 2020; Syah Aji, 2020). The results of

these three studies indicate the learning agenda from home, including the constraints of information technology for each family accompanying learning from home. In essence, all learning models from home are intended to support the student learning process's sustainability during the COVID-19 phase. Thus, local governments, including East Lombok, have a reference for formulating policies so that the impact of non-natural disasters can be reduced. The study model that supports policy formulation like this has proven useful because it is based on contextual analysis. Mabon (2019) mentioned, such efforts are the preparation of resilience and preparedness to face disasters, including their impact on education. No one can predict what and when a disaster will occur. However, this is not an excuse for not preparing for various disaster-related matters. Regarding the effectiveness of education through learning, the instructional process's continuation must be prepared and communicated to all parties. Understanding the joint agenda that is monitored together will reduce the harmful effects of a disaster, such as the COVID-19 outbreak, especially in primary education in East Lombok, NTB.

METHOD

This research is a qualitative descriptive with A Bayesian Approach Networks (Heckerman, 2013). The study data were collected through a survey instrument based on education effectiveness indicators for the four education actors in the regions (Chapman, 2002), namely: related agencies, school (teacher), students, and parents/community. The indicators in the instrument are related to their respective understanding of the content of the policy (code A), the instructional form of the teacher fulfills policy intentions (code B), the instructional agenda of students in isolation fulfill teacher instructions (code C), the inter-stakeholder coordination

model (code D), and learning support media (code E). The survey data were supported by interview data on samples representing each respondent. The survey instrument was answered by 100 students (60 SD/MI (primary school) and 40 SMP/MTs (junior high school)); 25 SD/MI class teachers, 17 SMP/MTs subject teachers, 10 SD/MI principals, and 6 SMP/MTs principals; 30 parents of SD/MI and SMP/MTs students, and 20 community representatives/committee administrators.

The study data for each code were described quantitatively through

frequency regression. Each frequency data in each code is connected causally according to the Bayesian Approach to Learning Causal Networks (Heckerman, 2013).

Causality is obtained through certainty that one event causes another event and is strengthened by interview information:

$P(B/A)$ = Chance B occurs if A has already happened

$P(A)$ = Chance A occurs

$P(C)$ = Chance C occurs

$P(D)$ = Chance D occurs

$P(E)$ = Chance E occurs

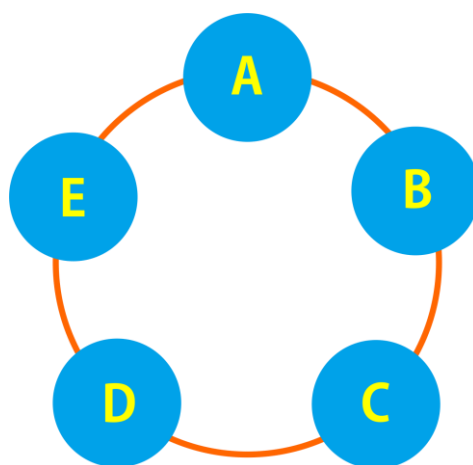


Figure 1. Causality Learning Networks

RESULT AND DISCUSSION

The data had been obtained from data code A, namely Understanding Policy Content, with 198 respondents

consisting of the principal, teachers, parents, and community. The data analysis results obtained are presented in Table 1.

Table 1. Data Code A on Understanding Content Policy

Policy Contents	Indicator	Respondents' Answer Choices (%)
Isolation of students in each home (home study) and supports continuity/discontinuity instructional	a. Notified	32 (16 %)
	b. Know, but not explained	53 (26.76 %)
	c. Did not know that was not explained	113 (57.07 %)

The code B data on Teacher Instruction for Continuity of Learning

with a total of 42 teacher respondents are presented in Table 2.

Table 2. Code B Data on Teacher Instructions for Continuity of Learning

Contents Instructions	Indicator	Respondents' Answer Choices (%)
Continuity/discontinuity instructional	a. Silent and learning at home	9 (21.42 %)
	b. Do not learn in school, taught himself	10 (23.80 %)
	c. Holiday, no school for 14 days	23 (54.76 %)

The data obtained from code C Instructional Activities are described in consisted of 100 student respondents on Table 3.

Table 3. Code C Data About Student Instructional Activities

Students' Instructional Activities	Indicator	Respondents' Answer Choices (%)
Continuity/ discontinuity instructional	a. Play it up	54 (54 %)
	b. Plas with family outdoors	8 (8 %)
	c. Repeating lessons at school	17 (17 %)
	d. Group learn	3 (3 %)
	e. Alone (more games)	18 (18 %)

Data obtained from data D code, principals, teachers, parents, and the namely Coordination between Parties community. Based on the results of data with 98 respondents consisting of analysis obtained in Table 4.

Table 4. Code D Data Regarding Coordination Between Parties

Coordination between the Parties	Indicator	Respondents' Answer Choices (%)
Coordination that supports continuity/discontinuity instructional	a. There is no coordination	87 (88.77 %)
	b. There is coordination	3 (3.06 %)
	c. There is no coordination, only messages through students	8 (8.16 %)

Based on data from code E data the number of teacher respondents and about instructional media in supporting students with 142 respondents outlined in instructional continuity/discontinuity with Table 5.

Table 5. Code E Data about Learning Media in Supporting Learning

Learning Media	Indicator	Respondents' Answer Choices (%)
Learning media in support of continuity/discontinuity instructional	a. Google Classroom	- (0%)
	b. WhatsApp	- (0%)
	c. E-mail	- (0%)
	d. Short Message Systems (SMS)	- (0%)
	e. No beneficiary media. There are HP, but not for the coordination of instructional	142 (100%)

Analysis of Causal Learning Networks (Instructional Continuity/Discontinuity)

An interesting causal relationship can be seen through the data code A, B, C, D, and E. Data code A: The respondent's understanding of the content of the policy, 16 % of respondents know the contents of the policy, and it is explained to related parties; 26.76 % know, but not explained, and 57.07 % did not know so it was not explained. An exciting but unfortunate reality is that all dominant respondents do not understand the isolation policy contents in preventing the outbreak of COVID-19. The language conveyed is through the school's

announcements, either through the principal or classroom teachers and subject teachers. Schools are closed for the next two weeks according to the circular of the NTB Governor, East Lombok Regent, East Lombok Education and Culture Office, and East Lombok Ministry of Religion Office. Several interviews strengthened the ignorance of most respondents regarding the contents of the isolation policy in preventing the COVID-19 outbreak.

Table 6. Interview Result

Interviewer	: <i>What do you know about the contents of the isolation policy according to the government circulation?</i>
Respondent (Principal)	: <i>What I know is that in protecting children from the Corona outbreak, our children are giving off.</i>
Interviewer	: <i>So, off, I see?</i>
Respondent	: <i>Yes, let us take a day off!</i>
Another group of respondents said:	
Interviewer	: <i>What is the message from the teacher or teacher at school for the next two weeks? Nothing, we were told to take a day off until the 29th. Two weeks.</i>
Respondent (Students)	: <i>What is the message from the teacher or teacher at school for the next two weeks? Nothing, we were told to take a day off until the 29th. Two weeks.</i>

Attention to the reality of code B data, from 42 respondents from the teacher group, 21.42 % asked students to be quiet and study at home only; 23.83 % did not study at school but studied alone, and 54.76 % said it was off, not going to school for 14 days from March 16, 2020. The interesting keyword in code B data was dominant, or 54.76 % conveyed holiday instructions or no school to students for 14 days. This data is parallel to students' admission according to the interview results: "Nothing, we are told to take a day off until the 29th. Two weeks". It can be understood through the causality of data A and B, namely the lack of understanding of government policies' content in isolating students to anticipate the COVID-19 outbreak. The respondents' understanding was that they had a day off, causing the teacher's instructions to take time off as well. So, this incomprehension gives birth to instructions that are different from the purpose of this isolation is the occurrence of discontinuity of learning. This relationship is described in Figure 2.

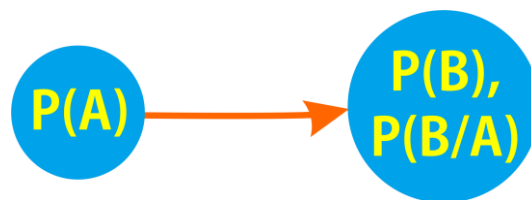


Figure 2. Causality Relationship P (A) and P(B), P (B/A)

The causality relationship becomes P (A), namely A has occurred and results in B or P (B/A). Next, we check code C data, namely the student group, as the mouth of the entire isolation policy agenda to ward off the COVID-19 outbreak.

Of the 100 respondents, 54 % said that they played to their heart's content during their isolation period. Some met were playing football on the field, cycling, in the countryside playing in groups in the field, and other types of games. The remaining 8 % admitted to being invited to play out of town by their parents. Some claim to have just visited their family in West Lombok. Some claim to shop at the mall in Mataram. The rest, 17 %, admitted to repeating lessons at school. When this data is checked through interviews, information is obtained from parents.

Table 7. Interview Result

Interviewer	: <i>Did your son admit to doing school work during the four days of this isolation?</i>
Respondents (Parents)	: <i>Yes, he said he was told to take a day off, but there is still homework. I asked to do the homework.</i>
Interviewer	: <i>Anything else, sir, besides doing homework?</i>
Respondents	: <i>He said just homework, and the teacher told him to take two weeks off!</i>
Other respondents, 3 % admitted to studying in groups. When interviewed, they admitted:	
Interviewer	: <i>You said there was a group study?</i>
Respondents (Students)	: <i>Yes, there is homework from the teacher; we do it together!</i>
Interviewer	: <i>Any other studies?</i>
Respondents	: <i>No, just homework. We are off!</i>

The rest admitted that they were the same; 18 % admitted that they wanted to go to school and still play. As conveyed to the interviewer:

Interviewer	: <i>What does it mean the same, school and not school?</i>
Respondents	: <i>It is the same; we keep playing!</i>
Interviewer	: <i>If it was school yesterday, how come it is the same playing?</i>
Respondents	: <i>The school is early in the morning, after school we play. Now from the morning, we play.</i>

Code C data is related to code B data. When the teacher did not convey clear instructions in filling the COVID-19 isolation time, students also used almost all their time to play. Some study, but it is limited to doing homework; after homework is over, they do not study anymore. According to the teacher's instructions, most of them admitted to "playing to their heart's content," they were given the day off. The causal relationship is P (B) and P (C/B). The relationship is described in Figure 3.

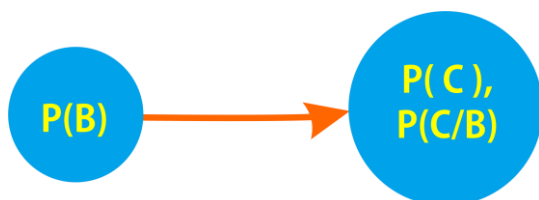


Figure 3. Relationship between P (B) and P (C/B)

Students do not learn but play in the isolation period P (C) because the teacher's instructions are on holiday or P (B) off. Data code D is related to inter-stakeholder coordination, of the 98 respondents, 88.77 % admitted that there was no coordination. Even some environmental heads who were surveyed and interviewed did not know the government circular regarding preventing isolation of the COVID-19 outbreak. Furthermore, 3.06 % admitted that there was coordination, and 8.16 % admitted no coordination, only messages through their children (students). The interesting data is

that 3.06 % claimed to have coordination, as in the following interview.

Table 8. Interview Result

Interviewer	: <i>Is there coordination with schools or teachers for this isolation period, Sir?</i>
Respondents (Parents)	: <i>Yes, the principal called yesterday, he said that the children are studying at home in the next two weeks. Did I ask for the holidays? The principal said, studying at home. I just happened to know the principal.</i>
Interviewer	: <i>then, your child learns as the headmaster ordered?</i>
Respondents	: <i>It is the same with other kids. Difficult, mostly playing.</i>
Interviewer	: <i>You know, if this isolation is asked to continue studying at home?</i>
Respondents	: <i>I Know, but being asked to read a story is complicated. I want to play HP all the time. That, fighting over the HP with his younger brother.</i>

This data is a fraction of those who understand the meaning of this isolation policy and coordinate with the parents of students to clear the instructions. However, his parents admit that their children are the same as others, playing more than studying. Causally, data D still has a relationship with A. Because related parties do not understand the purpose of the isolation policy for the outbreak of COVID-19, ultimately, it is not coordinated with parties related to the implementation of education and learning at home. In the diagram, it is described in Figure 4.

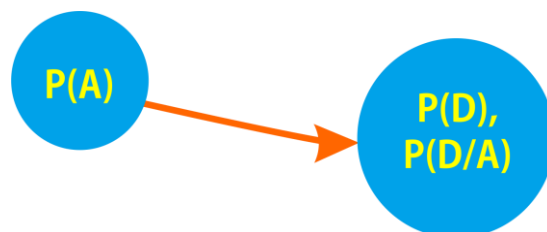


Figure 4. Causal Relationship Between P(A), P(D/A)

This relationship can be described as P (A), or do not understand it happened

first; the result is not coordinated, P (D), so P (D/A). The latest data, code E, related to learning media, from 142 respondents, 100 % did not take advantage of existing learning platforms. This information is essential to convey in the era of information technology today. This condition is due to several facts: a) SD/MI (primary school) students are not all provided using telecommunications devices (mobile phones). Although it is entrusted to the school, it is used only for communication when picking up or other things needed; b) some SMP/MTs (junior high school) students have mobile phones and are taken to school. In the context a) and b), mobile phones presence does not become significant for instructional communication. Communication via mobile is entirely for social needs among children their age. In the context of instructional continuity and discontinuity, mobile phones functionality for online learning platforms as instruments is not so significant unless there is an instruction from the teacher. When there is no instruction or P (B), then the home study agenda does not occur, or P (C). Hence, P (E), so, the causality becomes P (E/C) or online learning platform does not exist because there is no agenda, P (C). There is no home learning agenda, or P (C) because there is no teacher instruction, or P (B). The causal relationship between E, C, B, and A is described in Figure 5.

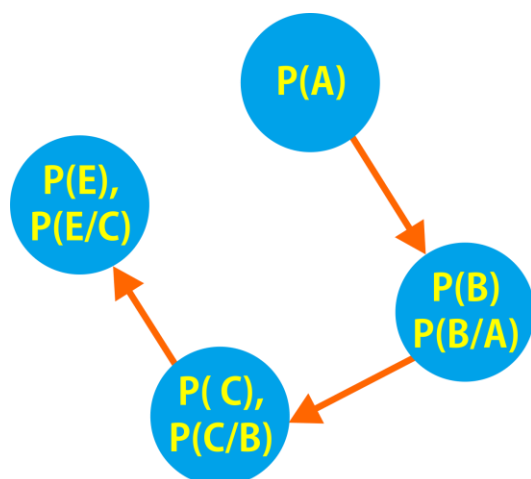


Figure 5. Causal Relationship between E, C, B, and A

There is a unique causal reality when code E data does not directly causal relationships with code D data. This condition occurs because code D data is related to other sub relationships outside of teachers and students, namely parents and society. The direct instructional relationship is that the student-teacher, parent, and community domains are coordinative.

Discussion

It is interesting to understand the condition of continuity/discontinuity of learning in the context of student isolation policies to prevent the spread of COVID-19 according to the causality analysis of the Bayesian Approach to Learning Causal Networks. It turns out that one context with another has a causal relationship.

As a causal analysis process between understanding educational policies and actions, this study finds the condition of unsustainable learning during isolation related to the COVID-19 pandemic. There are misunderstandings of related parties regarding the policy of learning from home understood as school holiday policies. This study's findings are different because other findings are related to the learning model (Hoffmann & Muttarak, 2017; Mishra et al., 2020). Others talk about policy and its impact on online learning (Arifa, 2020; Dewi, 2020; Nahdi & Yunitasari, 2020). The three of them discussed possible things based on the simulative analysis. Through this study, policy proposals are based on the concrete context of unsustainable learning due to misunderstanding of policies.

Discussions offered in this study: first, the student isolation policy in preventing an outbreak of COVID-19 is a policy in conditions of non-natural disasters. As part of the policy on non-natural disasters, this policy must be followed by various micro-macro education and learning plans. Second, this study's results show clearly that this

isolation policy is not understood, resulting in the unpreparedness of teacher instructions to students, no learning agenda in the context of student learning continuity, not being coordinated, and not optimal online learning platforms. Third, Indonesia is a country with a high and varied level of disasters, such as tsunamis, earthquakes, floods, landslides, and droughts. Therefore, nationally and locally, efforts must be made to deal with policies and planning in response to these various possible disasters. The COVID-19 outbreak is a particular case that requires the same policy interventions and planning as other disasters. Fourth, every type of disaster (natural and non-natural) must be an integral part of education and learning, both as part of the curriculum and as an integrated part of the learning process (Arsendy et al., 2020; Dewi, 2020; Wang et al., 2020). It is now essential to build students' readiness and strength and all groups in facing every possible disaster.

CONCLUSION

Based on surveys, interviews, and causality analysis, it is concluded that there has been a discontinuity of based education learning in East Lombok during the isolation period to prevent the COVID-19 outbreak. This condition is a causality between the unclear instructions of teachers in isolation. The teacher does not understand the meaning of the independent isolation policy, so it affects most respondents. Simultaneously, this policy is not communicated to stakeholders so that the students' isolation time is almost entirely for playing. It is quite surprising that the use of online learning platforms has not been maximized. This condition is unfortunate, considering that today is the era of information technology, where sophisticated communication tools such as mobile phones are very strategic in disaster conditions.

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