

The Role of Post-Covid Delta Learning Culture in influencing student Net Benefit Outcomes (User Satisfaction and Student Engagement as mediating factors)

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ABSTRACT

This study aims to examine the relationship of learning culture after the Covid-19 Delta that hit Indonesia during 2020-2022 to student Net Benefit Outcomes, which is mediated by student satisfaction and student engagement. This study used primary data from questionnaires, the sample collection method used in this study was convenience sampling and variable measurement using the Likert scale. The total research sample was 460 student respondents from the 5 largest universities in the Special Region of Yogyakarta.

Researchers conduct reliability tests to ascertain whether the indicators used can be answered by respondents (either the same or different) consistently over time when used repeatedly. The results showed that a digital-based learning culture using laptop technology devices used since the Covid pandemic affected student Net Benefit Outcomes. Similarly, the influence of varied learning satisfaction and variability of student involvement directly affects student Net Benefit Outcomes. However, in this study, the level of student learning satisfaction did not mediate the relationship of learning culture to the Net Benefit Outcome. Similar findings were also found in the mediating role of student engagement levels not mediating the influence of learning culture on Net Benefit Outcomes. This research contributes that the transition period between online to offline learning needs to rebuild the emotional closeness between lecturers and students. Digital-based learning activities do not replace the role of active student involvement in every class activity and teamwork among students.

Keyword: Learning Culture, User Satisfaction, Student Engagement and Net Benefit Outcomes

1. INTRODUCTION

The increase in Covid-19 cases has had an impact in various aspects, especially in the aspect of education. The impact of Covid-19 on education and learning has caused several regulations in the education system, namely by closing some access to face-to-face education by implementing the principles of the education system and learning system in schools as stipulated by the government. Starting in mid-March 2020, the world of education conducted distance learning online. Distance Learning Policy during the Covid-19 pandemic is one of the most effective alternatives implemented. It is necessary to know that the learning process is an important condition for effective and efficient learning so it is necessary to apply different systems and ways to provide better results.

Similarly, the implementation of distance learning during the Covid-19 pandemic has created many obstacles and obstacles for teachers, students and parents. Not all online media can be the right media in implementing online learning. The use of media must be appropriate with the teaching and

learning process activities themselves (Isaac, 2020). Internet access also has an important role that needs to be considered in carrying out the implementation of online learning policies in an educational institution. In addition, there is a need for collaboration that occurs between teachers, students and parents to be able to implement online learning policies comprehensively (Adha et al., 2019). Another obstacle is the confusion of teaching staff in choosing the right platform to implement online learning policies. Then many students feel burdened with online learning policies that cause various psychological diseases and parents who feel disturbed by this online activity (Gusty et al., 2020).

The implementation of this online learning policy is an obligation to self-regulate owned by students and has a high effect on the success rate of online teaching and learning activities. Problems arise when students in Indonesia who have not been able to manage themselves properly. This is quite worrying because the formation of human resources comes from teaching and learning activities. Therefore, online learning policies that are not implemented properly can have a bad effect on the quality of human resources in the future. Literacy loss occurs in suburban areas where access to online learning is not found so that the discovery of digital-based learning references is not fully obtained.

In low- and middle-income countries, learning losses from school closures have left up to 70 percent of 10-year-olds unable to read or understand simple texts, up from 53 percent before the pandemic (Unicef, January 2022). The continued consequences of school closures are on the rise. In addition to learning loss, school closures have impacted children's mental health, reduced their access to regular sources of nutrition, and increased the risk of abuse.

In order to overcome the impact of learning loss and literacy loss that occurred during the Covid-19 pandemic in Indonesia, the Indonesian government began to implement a face-to-face learning policy with the implementation of an emergency curriculum after Covid Delta. However, face-to-face learning must be carried out carefully and carefully in the form of limited face-to-face learning. Face-to-face learning is a classical way of learning in which teachers and students communicate face-to-face in the same room or forum. This learning requires the presence of teachers and students in a real (not virtual) place.

This study aims to provide empirical evidence on the implementation of the application of face-to-face learning for students as a transition to distance learning with an on-line learning model as an effort to reduce literacy loss. This research is expected to provide findings on the influence of learning culture with distance learning that has previously been carried out on the net benefit outcomes of students when participating in face-to-face learning. The influence of learning culture is mediated by the satisfaction and level of student engagement when participating in the initial period of face-to-face learning back to campus.

2. LITERATURE REVIEW

The theory in this literature is built as an affirmation of a stronger understanding of what is needed in student learning on campus. Every learning theory has something to contribute. This section will discuss one by one the main theories of learning in relation to learning in the educational process. Some of the theoretical foundations used in this study are:

- a. **Humanistic Learning Theory.** This theory is often called Humanism, focusing on specific human abilities including creativity, personal growth, and choice. Humanists believe people are kind and noble. Maslow's research on hierarchical needs is a key concept in this theory of learning, especially self-actualization, since only at this level can students truly experience growth.

Learners can be trusted to find their own goals and should have some choice or choice in what they learn in school. Students should set their standards and should evaluate their work. The learning experience at school should help students to develop positive relationships with their peers.

- b. **Cognitive Learning Theory.** The theory of learning cognitive development is a theory in psychology, put forward by Jean Piaget, a Swiss developmental psychologist. At a very basic level, his theory explains the role that the human brain plays in helping learners understand new and complex concepts. Cognitive abilities include observing, classifying, categorizing, paying attention, structuring perception, interactivity, and reasoning. Cognitivism recognizes that not all learners have the same level of cognitive abilities. As a result, not every distance learner will advance at the same level. One way to enforce interactivity among online learners is to require group discussions and chat group participation as part of an overall course evaluation.
- c. **Behavioristic Learning Theory.** According to behavioral experts Ivan Pavlov and B.F. Skinner, that the essence of learning is a change in behavior. The learning process can be conditioned into two models, namely the classical model, where the teacher and students are in a room with the dominant flow of information carried out by the teacher. The result is a reflexive response to stimuli that are not reflective and generate learning with passive associations and learners. Second, a teamwork or group work model using stimulus-response. In this case, the desired behavior is rewarded by positive feedback or real rewards and the unwanted behavior is corrected by negative feedback or real reward deductions. The goal is to increase the likelihood of the desired behavior with appreciation and correction. The result of this approach is that learners become active in demonstrating behaviors that are desirable to receive positive feedback.
- d. **User satisfaction model.** The model developed by Ozkan and Koseler (2009) contributes potential and good explanatory power to the perceived satisfaction of e-learning. The quality of the students and the quality of the structure are added as two separate constructions. The construction of student quality is used to capture various aspects of quality associated with learners, such as learners' attitudes, anxiety, previous experiences, and self-efficacy.

3. Development of hypotheses

The organizational culture of studying in higher education describes an environment of relationships that influence or influence the entire academic community of the university, both students, lecturers and employees. A learning organizational culture is a learning framework in which students are not only allowed to continuously expand their knowledge, skills, and opportunities to innovate, but are also encouraged to do so.

In an organization's learning culture, team members have the time and space to constantly develop their knowledge and develop new skills. This learning is directed at improving student performance and supporting personal and professional growth. Thinking systems in a learning culture involves a mindset that recognizes organizations as smaller complex systems by taking the time to understand the whole as well as each component. Meanwhile, technology, processes, and physical spaces where learning are part of the system that can change part of the system and have an impact on interactions between learners.

Gravett and Caldwell (2016), in their book entitled Learning Agility: The Impact on Recruitment and Retention put forward the importance of a learning culture to improve self-performance, attract and retain top talent, increase organizational member engagement, increase user satisfaction, develop future leadership skills and facilitate the ability to innovate. The learning outcomes that become a benchmark are student scores based on assessment instruments in a certain period. Grades are one of the easiest

assessment instruments to use to measure learning outcomes, although they are not the only indicators of learning achievement obtained later. Determination of learning outcomes in quantitative form is easy to compare with the specified completeness criteria. We can see if the students did a successful result or not (Alhefnawi, 2021). Successful students are if they achieve good learning outcomes due to integrating and applying the skills and knowledge represented in the scores obtained (Kazu & İş, 2018; Purnamasari et al., 2020)

Based on a review of the theory and previous research, the researcher proposed the first hypothesis as follows:

H1: Learning culture positively affects Net Benefit Outcomes during the Post Delta Covid-19 period

Student engagement emphasizes the level of learning in a single activity, focusing on what is happening right now to gain experience. Student engagement is defined as the level of student engagement and active participation in learning activities. Tlonaen and Haq (2022) in their research entitled Comparison of Learning Outcomes Based on Identity Statuses prove that identity status greatly affects student learning outcomes. Students with diffusion identity status are in serious trouble. Teachers must find solutions so that their identity status can develop towards a high identity status. Students who have good academic performance require high commitment and high exploration to achieve good learning outcomes (Blegur, 2020; Korpershoek, 2016).

Anjarwati and Sa'adah (2021) in their research entitled Student learning engagement in the online class, found evidence that students' perceptions of their engagement through online classes show positivity towards behavioral engagement. The study also found that student cognitive engagement that tends to be active with faculty facilitation and Instagram social media can promote student engagement by being actively engaged and increasing collaboration among students. Although the media used are different, they can add learning references. Sari's research (2020), in which she found that most students delivered positive responses to their online engagements. Positive results from students' perceptions of emotional engagement, can also determine their role as learners. Thus, the role of students as learners can be identified through the indicators of each involvement.

Castro, et.al (2021) in his Australian research on "The impact of learner engagement on Accounting student performance" found that colleges that have international class programs become attractive programs due to diversity management strategies and increased student engagement using disruptive technology.

Based on the culture formed, the lessons followed by students will be relevant and interesting because they are personalized. They make the students themselves the basis for learning. Students are more likely to engage in lessons tailored to their experiences and needs. They are more likely to be enthusiastic about learning when they can make a connection between work and their world. Based on a review of the theory and previous research, the researcher proposed a second hypothesis as follows:

H2: Student engagement positively affects Net Benefit Outcomes students during the Post Delta Covid-19 period

Pantouvakis, A. and Bouranta, N. (2013), in their research affirmed the mediating role of employee job satisfaction on the relationship between organizational learning culture and customer satisfaction. This research empirically supports the premise that there is an indirect influence of organizational learning culture on customer satisfaction through employee job satisfaction will be stronger when employee education is at a high level than when employee education is at a lower level.

Similar findings were also put forward by Junita (2017), that organizational learning culture has a significant effect on customer satisfaction through employee job satisfaction and organizational commitment. Employee attitudes are an important intervening variable that is integrated in mediating the relationship between organizational learning culture and customer satisfaction. The role of attitudes

in mediating the influence of organizational learning culture on worker service behavior, in order to create consumer satisfaction in the banking sector, is empirically proven.

Based on a review of the theory and previous research, the researcher proposed the third hypothesis as follows:

H3: Student satisfaction positively affects Net Benefit Outcomes students during the Post Delta Covid-19 period

Chen, Lambert and Guidry (2010), in their research show a positive relationship between the use of web-based learning technologies and student engagement with desired learning outcomes. Student engagement includes levels of academic challenge, active and collaborative learning, student-faculty action, and a supportive campus environment. These results are an encouraging sign that online-based learning technologies, both over the Internet and the Web continue to have a positive impact on learning and student engagement. The impact of web-based learning technologies on student engagement and learning outcomes in face-to-face and online learning environments. The results showed a general positive relationship between the use of learning technology and student engagement and learning outcomes.

According to Tuckham (in Sugiyono, 2014) mediation variables are variables that theoretically affect the relationship between independent variables and dependent variables into indirect relationships and cannot be observed and measured. In this study, the direct influence of learning culture variables on Net Benefit Outcomes was mediated by student involvement and satisfaction in participating in learning in the new normal period, with the transition of face-to-face and hybrid learning models online. Therefore the fourth and fifth hypotheses are proposed as follows:

H4: Student engagement mediates the cultural relationship of learning in influencing the Net benefit outcomes of students during the Post Delta period Covid-19

H5: Student satisfaction mediates the cultural relationship of learning in influencing the Net benefit outcomes of students during the Post Delta period Covid-19

3. REASEARCH FRAMEWORK

This research will systematically examine the influence of learning culture on Net Benefit Outcomes with the variables of student engagement and satisfaction as mediating variables. The development of model research in this study can be seen in figure 1 below.

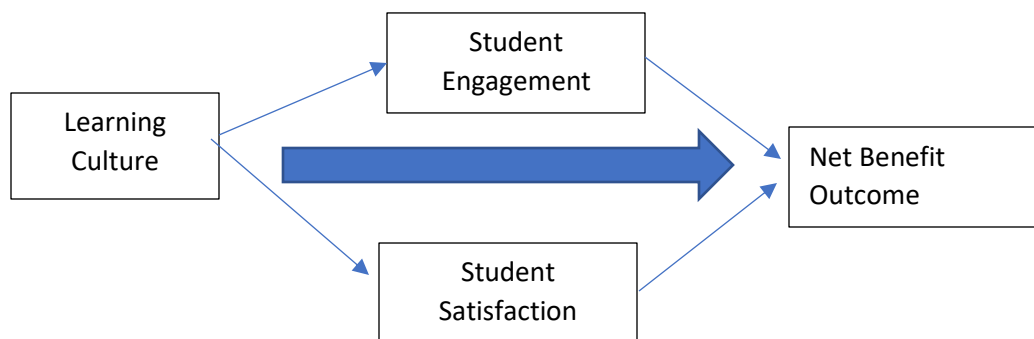


Figure 1. Research Model Framework

Operational Definition of Variables

The variables in this study used dependent variables and independent variables. The variables used in this study consisted of one independent variable, two mediation variables and one dependent variable:

1. Dependent variables are variables that are influenced by independent variables. This study used the dependent variable Net Benefit Outcomes
2. Independent variables are variables that will affect the dependent variable. An independent variable in this study is learning culture
3. Variabel mediasi adalah variabel yang secara teoritis mempengaruhi hubungan antara variabel independen dan variabel terkait (dependen) ke dalam hubungan tidak langsung yang tidak dapat diukur dan diamati. Variabel mediasi dalam penelitian ini adalah keterlibatan mahasiswa dan kepuasan mahasiswa dalam pembelajaran di masa pos Covid Delta 19.

This study was conducted in July – October 2022, using primary data with the convenience sampling collection method and using questionnaire measurements on the Likert scale 1-5. The total research sample was 460 student respondents from the 5 largest universities in the Special Region of Yogyakarta, namely: STIE YKPN, Gajah Mada University, National Development University, Indonesian Islamic University and AMIKOM University Yogyakarta.

Result Finding and Discussion

The data analysis method in this study uses Path Analysis with Smart PLS. The reliability test using Cronbach's Alpha is greater than 0.7. To determine the suitability of the fit model, researchers tested linear correlations between independent variables. This study does not contain colinearity statistics because the value of the variance inflation factor (VIF) in the table below is smaller than 5. All VIF numbers in less than 5 indicate that there is no multicollinearity between independent variables.

Table 1. Validity and Reliability Analysis

Validity and Reliability			
	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
EN	0.74	0.822	0.687
M-OLC	1	1	1
M-US	1	1	1
NB	0.77	0.851	0.589
OLC	0.897	0.914	0.517
US	0.885	0.916	0.685

The Path Coefficient in table 2 below contains the value of the path coefficient (the numbers are located in the original sample column). All path coefficients in the study are positively marked. A positive sign and a P-Value of less than 0.05 indicate that the independent variable has a positive influence on the dependent variable. While the P-value value of more than 0.05 indicates that the independent variable has no effect on the dependent variable.

Table 2 Path Analysis

Path Coefficient							Meaning
Influence Between Pathways	Original Sample	Sign	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P Values	
OLC -> NB	0.166	+	0.175	0.047	3.532	0.00	Organizational Learning Culture has positive effect on Net Benefit Outcomes
EN -> NB	0.269	+	0.28	0.054	5.099	0.00	Student Engagement has positive effect on Net Benefit Outcomes
US -> NB	0.241	+	0.232	0.059	4.089	0.00	User Satisfaction has positive effect on Net Benefit Outcomes
OLC --> EN --> NB	0.027	+	0.089	0.042	1.043	0.578	Organizational Learning Culture has no effect Net Benefit Outcomes with Student Engagement as mediating variable
OLC --> US --> NB	0.049	+	0.131	0.038	1.446	0.340	Organizational Learning Culture has no effect Net Benefit Outcomes with User Satisfaction as mediating variable

Based on hypothesis 1 which states that learning culture has a positive effect on Net Benefit Outcomes during the Post Delta Covid-19 period, the P-value is 0.00 with a positive relationship sign. This shows the finding that student learning culture has a positive effect on learning outcomes during the post-Covid Delta pandemic. Students with a culture of independent learning and responsibility during the Covid Pandemic, have a habit of continuing this character until face-to-face learning begins to return. Students have a habit building process that is triggered by the state of not being able to meet directly with the lecturer. Similarly, habits that tend to delay work and depend on the information given by the lecturer, result in low learning outcomes.

The organizational culture of studying in higher education describes an environment of relationships that influence or influence the entire academic community of the university, both students, lecturers and employees. A learning organizational culture is a learning framework in which students are not only allowed to continuously expand their knowledge, skills, and opportunities to innovate, but are also encouraged to do so. Student interactive activities are also driven by the learning system used by lecturers, such as discussions, role playing, presentations and projects. The higher the desire a person will encourage himself to socialize with others, thus enriching the insights he gains. Similarly, high student engagement will elicit empathy and respect for others. So as to provide more benefits for the development of attitudes and behaviors in the future.

Hypothesis 3 which states that student satisfaction has a positive effect on student Net Benefit Outcomes during the Post Delta Covid-19 period, a P-value of 0.00 with a positive relationship direction. Learning outcomes also help students understand why knowledge and skills would be useful to them.

Student satisfaction levels can be measured using questionnaires at the end of each learning objective or at the end of each semester. Student satisfaction can come from the motivation of lecturers who teach, interesting discussion topics and interactive teaching methods. Digital-based teaching methods by utilizing learning platforms tend to be preferred by students, because they encourage students to be actively involved in the learning process. So that the process of material absorption is getting faster, and student performance results are increasing.

Hypothesis 4 which states Student involvement mediates the relationship of learning culture in influencing the Net benefit Outcomes of students during the Post Delta Covid-19 period, P-value of 0.578 > 0.05 with a positive relationship direction. These findings do not support the proposed hypothesis. The conclusions show that the relationship of learning culture variables to the achievement of learning outcomes is not mediated by student involvement. Thus hypothesis 5 Student satisfaction mediates the relationship of learning culture in influencing the Net benefit Outcomes of students during the Post Delta Covid-19 period, P-value of 0.340 > 0.05 with a positive relationship direction. These findings do not support the proposed hypothesis. The conclusion shows that the relationship of learning culture variables to the achievement of learning outcomes is not mediated by student satisfaction. Thus there is no indirect influence carried out by students in relation to the habits they carry out in the formation of the character of learners through activities that are spontaneous or short-term. This happens because cultures are formed over a relatively long time with each person's processes not always the same.

5. CONCLUSIONS, LIMITATIONS AND SUGGESTIONS

Based on the results of research and discussions on this research in the implementation of government policies for the implementation of face-to-face and hybrid learning after the Covid-19 pandemic Delta series. Some of the findings show that the habits that have been formed during online learning are the basis for student sustainability in their passion for further learning.

The changes experienced since before the Covid pandemic in 2019, on the grounds of maintaining health, students must be conditioned on distance learning and not face to face with lecturers and friends. Various obstacles ranging from signals, limitations of learning platforms and concentration make students have to survive in understanding the knowledge transfer process. The findings in this study can be concluded that learning culture has a positive effect on Net Benefit Outcomes. Similarly, student involvement and student satisfaction in participating in learning have a positive effect on Net Benefit Outcomes. However, cultural relationships of learning cannot be created directly even though they are mediated by the involvement and satisfaction of students when participating in the learning process.

The limitations in this study include that student responses are still based on post-Covid Delta learning interactions that last less than 1 semester, so that the adjustment process of habits when learning on line has not fully changed with face-to-face conditions. Students tend to still keep their distance from the learning environment and have not been fully engaged.

The suggestion for future research is that there is a need for a blended system that is still used in universities with direct learning models (synchronous) and unsynchronous as technology-based learning services. Lecturers do not act as informants who tend not to encourage students to be active as independent learners. A pleasant learning atmosphere needs to be built by positioning students as learning partners, so that they do not have too far gaps between students and lecturers.

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