



Effectiveness of Digital Systems and Learning Models in Online Learning for Students from Underprivileged Families

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Abstrak

Pembelajaran daring telah menjadi alternatif sistem pembelajaran di masa pandemi COVID-19, namun pada kenyataannya, pembelajaran daring menimbulkan banyak masalah dalam pelaksanaannya. Pembelajaran daring tidak hanya dipandang negatif oleh sebagian masyarakat, tetapi juga menunjukkan kesenjangan digital yang lebar di masyarakat, terutama masyarakat yang kurang beruntung secara ekonomi, yang pada akhirnya mengakibatkan ketimpangan pendidikan. Siswa miskin dan mereka yang tinggal di daerah pedesaan sulit mengakses pembelajaran daring karena ketiadaan fasilitas TIK dan kesulitan mendapatkan sinyal internet. Pendidikan di Indonesia yang sejak awal menganut paradigma persaingan neoliberal akhirnya mengakibatkan persaingan yang tidak sehat dalam pembelajaran daring akibat kesenjangan digital. Penelitian ini bertujuan untuk mengetahui sejauh mana kesenjangan digital dan model pendidikan dalam pembelajaran daring yang diterapkan di Sekolah Menengah Kejuruan (SMK) Negeri 1 Beringin, yang kemudian mengakibatkan ketimpangan dalam persaingan antar siswa. Penelitian ini juga ingin melihat penyelesaian kesenjangan ekonomi, dan mengevaluasi sistem kompetisi dalam pendidikan yang selalu diskriminatif dan hanya menguntungkan sebagian orang, kemudian memikirkan kembali model pendidikan yang lebih manusiawi.

Kata Kunci: pembelajaran daring, kesenjangan digital, pendidikan, sistem kompetisi

Abstract

Online learning has become an alternative learning system during the COVID-19 pandemic, but in reality, online learning raises many problems in its implementation. Online learning is not only viewed negatively by some people, but also shows a wide digital divide in society, especially the economically disadvantaged, which ultimately results in educational inequality. Poor students and those who live in rural areas find it difficult to access online learning due to the absence of ICT facilities and difficulty getting internet signals. Education in Indonesia, which has embraced the neoliberal paradigm of competition since the beginning, eventually results in unfair competition in online learning due to the digital divide. This research aims to find out the extent of the digital divide and the education model in online learning implemented at the State Vocational High School (SMK) 1 Beringin, which then results in inequality in competition between students. This study also wants to see the resolution of economic disparities, and evaluate the competition system in education that is always discriminatory and only benefits some people, then rethinking a more humane education model.

Keywords: online learning, digital divide, education, competition system

INTRODUCTION

The first case of Covid-19 in Indonesia occurred on March 2, 2020, after which, Covid-19

cases continued to grow. As of October 29, 2020, Covid-19 cases in Indonesia have reached 404,048 people, and as many as 60,569 active cases have been confirmed positive (WHO, 2020). Covid-19 is currently very worrying, in addition to many who have died, this pandemic has also had a major impact on economic conditions in Indonesia, as well as a major impact on the world of education (Cao et al., 2020; Loviana & Baskara, 2020). Since Covid-19 began to get out of control, the Indonesian Government finally issued a policy so that the learning process was carried out online. At first, online learning was implemented as if there was no problem, especially basically, those who have the ability and knowledge so that they can control ICT in society (Timor et al., 2020; Zagoto, Yarni & Dakhi, 2019).

Online learning is a learning activity by utilizing internet networks, local area networks as a method of interacting in learning such as delivering material (Dakhi et al., 2022; Mubin & Basthomi, 2020). Online learning can be done with computer, laptop or smart phone facilities connected to the internet network. With these facilities, teachers and students can conduct joint learning at the same time using platforms such as whatsapp, telegram, zoom, meets, google classroom (Fitriah, 2020). Online learning was initially responded positively by students but as the learning process progressed, students experienced some difficulties. These difficulties include; computer equipment support that students do not have, poor signal support, some students lack quota, many distractions when studying at home, students feel less focused on learning without direct interaction with the teacher or other students, the material presented is difficult to understand, the lack of teacher readiness in preparing the material (Gunadha & Rahmayunita, 2020; Utami et al., 2020). Many tasks with short time deadlines also make their own obstacles in online learning (Dakhi et al., 2020; Kompas, 2020; Widiyono, 2020).

The problem in Online learning is that many students are unable to have ICT facilities to support this learning, even difficult to buy internet quota. Using Keniston & Kumar's (2003) theory, the digital divide in terms of ownership of ICT facilities occurs due to the excesses of the socio-economic gap, namely ICT to participate in Online learning. Economic disparity has always been a clichéd problem, even now it is still increasing. Data from the Central Statistics Agency (BPS) shows that the

number of poor people in March 2020 was 26.42 million, an increase of 1.63 million people compared to September 2019, and an increase of 1.28 million people against March 2019 (bps.go.id, 07/15/2020).

The Covid-19 case has become a new problem, which has created a serious economic crisis, where the family economy is also affected by Covid-19, and people with lower economies feel it most. In line with the results of the Saiful Mujani Research and Consulting (SMRC) survey, 71% of people considered that their household economy had worsened during the Covid-19 Pandemic (katadata.co.id, 25/6/2020). The rich may be less affected by the economic impact of Covid-19, although it is not better than before the Covid-19 Pandemic. However, the poor must have felt the impact the most, because from the beginning they did not have enough economic strength to survive the pandemic.

Economic disparity and increasing poverty, thus worsening economic conditions during the pandemic, certainly reinforces the truth about the difficulty of the poor to fulfill their children's educational needs when Online learning as an alternative learning during Covid-19, where families must have a computer, laptop, buy internet quota, and not to mention having to fulfill other educational needs. Meanwhile, the economy, which was already bad, is now getting worse due to the current pandemic.

On the other hand, families from the upper middle class can still fulfill their children's needs in Online learning easily and smoothly. The digital divide that becomes a problem in Online learning cannot be separated from the economic divide. It also concludes that Online learning favors and benefits the rich more than the poor. The digital divide eventually results in inequality of student access to online learning.

Even though they can afford to have ICT facilities and buy quota, another problem still haunts them: what about the internet infrastructure in the family? Is it adequate and evenly distributed? The answer is, not really. Online learning in the Covid-19 era also shows another digital gap, namely the uneven internet signal gap, resulting in inequality in internet access and greatly impacting the implementation of Online learning. The presence of Covid-19 clearly shows the negative impact of digital inequality that the government should have resolved from the

beginning when the government is ambitious to move towards changes to the Industrial Revolution 4.0. Meanwhile, 93% of Indonesia's territory is covered by cellular signals, even with different signal quality, namely with a composition of 4G 59%, 3G 26%, 2G 8%, and 7% GSM or can only make calls and SMS, without data. (lokadata.id, 19/8.2020).

So that students who live in rural areas find it difficult to get a signal and if there is a very poor quality, this is an obstacle and difficulty accessing education through Online learning when compared to students who live in urban areas or in areas that have good internet signals. The digital divide in terms of inequality in accessing signals also results in inequality in accessing education during the Covid-19 period. As they are already struggling to gain access to Online learning, the poor are also at a disadvantage, making them potentially more disadvantaged than other students in today's competitive neoliberal education system.

Kai (2012) explanation that education is full of competition, even there is almost no education system without competition, but competition as a normal phenomenon has now been distorted into extreme educational competition. Kai-Wen (2010), further said, there are at least two competitions, namely ranking and selection. Students are ranked based on test scores in final exams, semester exams, and monthly exams. The rankings are then organized into excellent students and non-excellent students. The selection depends on the student's rank in competence in the class. Online learning in today's competitive neoliberal education, will show unhealthy competition. Students who do not have access to the digital world will inevitably lose out and fall behind those who have easier access to the digital world.

Students who are able to absorb knowledge from teachers in order to get the best test scores and rankings in the future have to bury their dreams because they cannot participate in Online learning. While other students can go a step further than students who do not have access to Online learning. If Online learning continues, only the rich and the urban can win in this unequal competition. The width of the inequality gap always makes the competitive education model a place for economically capable students only, so there is always a winner, and the winner is the student who is more economically advantaged, and sometimes also geographically, politically and educationally.

Yamin (2009) says, neoliberalism is the liberalization of trade and finance, let the market determine prices, end inflation, macroeconomic stabilization, privatization, and the government must get out of the way. Neoliberalism is incarnated in the government's education autonomy regulation, which actually only hands over education to the market. Related to this, Firman & Rahayu (2020) said, in accordance with the neoliberal paradigm of thinking, in competition there must be winners and losers, no matter how the competition is held.

When this ideology of competition is used as the basis of education, the output of education will only produce winners and losers, and without realizing that the ideology of competition created by neoliberals is actually designed for the benefit of winners. Because those who design, disseminate, and push it to the public are the winners, namely those who are economically, politically, educationally, and capital strong. However, on the other hand, Daheri et al. (2020), understands that the competition system can actually provide benefits, both individual and social, of course under certain conditions. Students who are already strong and established in terms of economics, education, and capital, it is certainly not fair to compete with students who are economically weak. This is not a healthy competition, but it could be exploitation and counter-productive. This unequal, exploitative, and counter-productive competition system is what exists today in Online learning during the Covid-19 period.

The learning used at Sekolah Menengah Kejuruan (SMK) Negeri 1 Beringin during the Covid-19 pandemic is distance learning (PJJ) or Online which has been implemented from mid-March 2020 to date. This distance learning is carried out in accordance with the recommendations set by the government to break the chain of spreading the covid-19 virus. The learning model applied by the class teacher of Sekolah Menengah Kejuruan (SMK) Negeri 1 Beringin is using learning videos, written and practical assignments, as has been described in interviews conducted by researchers with teachers, namely about the Online learning model in class since starting from mid-March 2020 to date and will continue until the end of the odd semester in December 2020. The Online learning model used is using learning videos, written assignments, and practice. In practice, students are assigned to make

a work that is videoed and shown the results and then sent to the class teacher.

The applications used by classroom teachers in implementing online learning include Whatsapp, Google Form, Google Meet, and Kine Master. The applications used by teachers certainly have their respective functions to support Online learning, such as the results of interviews with teachers, namely: "The applications used by teachers in the Online learning process are whatsapp, google form, google meet, and kine master. Whatsapp is used to send learning videos made through the kine master application, Google form is used to provide practice questions to students, and Google meet is used to review the material that has been given to students from Monday to Thursday, material review is done every Friday".

The learning implementation plan (RPP) model used in Online learning during the covid-19 pandemic at Sekolah Menengah Kejuruan (SMK) Negeri 1 Beringin is a learning implementation plan (RPP) that is in accordance with government recommendations, as explained by several teachers explaining that the learning implementation plan (RPP) used has been adapted to the needs of distance learning (Online) and has been in accordance with government recommendations". The assessment or evaluation process carried out by teachers at the State Vocational High School (SMK) 1 Beringin is by giving written assignments and practical assignments to students. As described by him in the interview, as follows: "Students are given assignments to work on problems, create a work or practice a scene in the learning material by videoing the task and then sending it to the teacher concerned". Written assignments given by class teachers are not only through the application, but for the delivery and collection of assignments are also done and delivered directly to the school by students, while maintaining and complying with health protocols.

In this study, Online learning is a learning process that is carried out without direct face-to-face contact between teachers and students, but online using the internet network. Online learning contains various aspects, namely media as a learning communication tool used as an option for the learning process, teacher readiness in the process of delivering material, the learning model used, student learning evaluation with various forms of assignments and tests given, and student

independence in exploring knowledge and honing skills and abilities.

From the description above, the purpose of this study is to determine the effectiveness of digital systems, and online learning models for students from underprivileged families during pandemic covid-19. This research is important because the economic inability of students to fulfill their learning needs can interfere with learning activities so that competence is not achieved. Disrupted learning activities affect learning outcomes, so it is necessary to have information related to this as a follow-up to online learning.

METHOD

This research is a type of analytic observational research with a cross sectional approach (Sugiyono, 2008). Analytical observational is research whose results do not stop at the level of describing or describing, but continue to the level of drawing conclusions that apply in general and explain the causal relationship and there is already a hypothesis, and in making decisions using statistical tests. Furthermore, cross sectional is a study to study the dynamics of the correlation between risk factors and effects, by means of an observation approach or data collection at one time. Respondents in this study were students of the State Vocational High School (SMK) Negeri 1 Beringin with a total of 274 respondents from all classes.

The measuring instrument in this study used a questionnaire in the form of google form. The questionnaire contains information about Online learning. Measurement of Online learning variables is done by students filling out several questions in the form of a questionnaire. The Online learning questionnaire contains for example students during the pandemic actively learning with the Online learning system, Online learning schedule according to the learning schedule, ownership of adequate internet access, and so on. Some questions in this questionnaire are for example the number of assignments given by lecturers to students, students' demands for independent learning, learning evaluations that are more often carried out by teachers, and so on. Data testing to determine the effect of Online learning on academic stress used logistic regression analysis test with 95% confidence interval ($\alpha = 0.05$).

Table 1. Frequency Distribution of Respondent Characteristics

Age	Frequency	Percentage (%)
14	3	1,05
15	44	15,44
16	108	37,89
17	64	22,46
18	38	13,33
19	19	6,67
Total	274	100

Table 1 shows that in this study as many as 108 respondents (37.89%) were 16 years old. Then in second place as many as (22.46%) were 17 years old. According to WHO, the age range of adolescence is 10-19 years. While in the Population and Family Planning Agency (BKKBN) program, the age range of adolescents is between 10-24 years. Based on the psychological and sexual maturity of adolescents in the process of growth and development towards adulthood, the age range 17-20 is included in late adolescence or advanced adolescence (Hamdani & Priatna, 2020).

Table 2: Online Learning Media

Online Learning Media	Frequency	Percentage (%)
Group Whatsapp	175	65,26
Group Telegram	0	0
Zoom	23	8,07
Google Meet	9	3,16
Google Classroom	57	20
And Others	10	3,51
Total	274	100

Table 2 above explains that the most widely used learning media in the teaching and learning process during the covid-19 pandemic is through the whatsapp group as much as 65.26% (175 respondents). The whatsapp application is the most widely used as a learning media because almost all people have this application in their gadgets. In addition, whatsapp is considered easy to operate and does not require a lot of internet quota.

Table 3. Effectiveness of Online Learning

Effectiveness	Frequency	Percentage (%)
Effective	96	34
Ineffective	178	66
Total	274	100

Table 3 shows that online learning activities are said to be ineffective by 66% (178 respondents) and effective by 34% (96 respondents). The results of the logistic regression statistical analysis test, obtained a p value of 0.023 where the p value is <

0.05, which means that there is a significant effect of online learning on underprivileged families during the covid-19 pandemic.

The covid-19 pandemic has made online learning an option to support the government in implementing physical distance to prevent crowds in order to prevent the spread of the covid-19 virus. Utilization of information technology through the use of laptops or gadgets in the online learning process as a tool to connect students and teachers in meeting educational standards so that the learning process can be carried out properly.

RESULTS AND DISCUSSION

During those seven months, many students did not get their full educational rights because of the inability to have ICT facilities and poor internet connections in their areas. They are close to losing to the economically strong, geographically advantaged people. Moreover, through Online learning, teachers give more assignments to students to fulfill the curriculum load. Students are forced to complete assignments when the digital divide is very wide. This makes students from poor families unable to do the assignments to the fullest due to the situation, in fact, there are students who do not do the assignments at all, because they cannot access the assignments sent by the teacher Online. Students who did not do their assignments during Online learning, and students who were not given assignments at all were children of farmers (47%) and whose parents only had primary school education (47%).

Online learning in the midst of a pandemic situation leaves many students without their educational rights. Some of the students who are not advantaged by the situation have the desire to continue learning so that the quality of their education does not deteriorate, and it can be seen how difficult it is for students from poor families to struggle to follow Online learning so that they are not left behind in learning, so that they can meet the burden given by the curriculum, so that their position is not below other students in test scores and mastery of the material.

For the geographically disadvantaged, they struggle to find high altitude places where they can access internet signals. But it's not easy. The situation has already claimed many victims and it is one of the dangers of the competition system amidst the heavy workload in Online learning, amidst the difficult digital divide, one grade 2

student died after taking poison because of too much schoolwork plus the difficulty of getting an internet signal (vice.com, 2/11/2020). This case should have been a consideration for the government to evaluate many things related to Online learning: improving infrastructure, simplifying the curriculum. This online learning should also be a consideration for the government to evaluate our competitive education system while formulating a more effective learning model.

Thinking of a Humane Education Model Based on the experience in implementing online learning, the government should start thinking of immediately improving telecommunication infrastructure and making it evenly distributed to rural and outermost areas.

If Indonesia has big ambitions towards the Industrial Revolution 4.0, internet signal problems should no longer exist when implementing online learning. But in reality, the internet network is still difficult, especially in remote and outermost areas, causing problems in online learning. Likewise, the economic gap is one of the causes of the digital divide. Resolving the economic gap is not easy, but it does not mean that it is impossible to solve. It only takes the seriousness of the government to spur economic growth, fiscal policy for economic stability, and eradicate corruption.

The government has an obligation to do these things if it cares about the future of its people. Equally important is reducing the competition system in schools. The word -reduce implies that the competition system cannot be completely eliminated, especially since it has its benefits. However, at least at the elementary school level, the competition system should be eliminated, and the cultivation of human values such as mutual respect, responsibility, equality, compassion, or we can call it a humane education model. So that when students enter secondary school, they can already respect each other and not ostracize their friends whose grades and academic abilities are not too good. This means that at the SMK level, competition is no longer a burden because maturity has been built since elementary school.

This humane education should be the government's future education project. Although it is not necessary to fully imitate the Finnish education system due to the different context of the country, the principles of education there need to be emulated, because their implementation

reflects a humane education model. Adiputri (2019), shared her experience of sending her children to school in Finland, which she published under the title Finnish Education System: Notes and Experiences of a Mother (2019). Adiputri (2019) said that in the first grade of elementary school, there was no numerical assessment for students. Only motivational sentences to increase their capacity. Assessment in the form of new numbers is held in grade 3 elementary school onwards. However, the assessment system is intended as an assessment to see one's own improvement and not compared to others. Because the report card is not ranked, it is just an assessment. So students do not know who has the highest rank compared to other students. Although there is an assessment, the assessment is not intended as a competition.

Unlike in Indonesia, with a ranking system that compares students with others, sometimes it only becomes a burden for students. This is because the competition system makes students forced by their parents to study harder just to pursue rankings. Because ranking is about the pride and shame of students and their parents. But the problem is, this coercion sometimes leads to psychological damage to children. In Finland too, based on Ratih's experience, there is no national exam at the primary school level. National exams in the form of matriculation tests are only conducted in high school. So teachers are given the freedom to give assessments, which again are only for personal measurement not for competition. Later, Indonesia's new Minister of Education and Culture, Nadiem Makarim, began implementing such a system through the Merdeka Belajar program. The assessment will be left to each teacher. However, in Finland, the government has the courage to implement this policy, because the quality of teachers is no longer in doubt.

Doubt. They select their teachers very strictly and must have a master's degree. Unlike in Indonesia, the quality of the teachers is still questionable. Why is that important? Because the quality of the teacher will determine whether the evaluation model is good or bad for students. Adiputri (2019), also shared, if the aspect of social interaction is also one of the considerations in evaluating education in Finland. Do the students have friends, or are there often disturbing, such questions are often asked by teachers to see the level of interaction of students.

For Adiputri (2019: 53), and I agree with her, such questions about social interaction are also good, because they stimulate students to have good social interactions by showing concern for peers, teachers, and people in the school environment. For me, this is important to reduce the level of competition between students. Social relationships that have been trained since elementary school will make students able to respect each other, sympathize, and minimize bullying. So, when there are students who do not have good academic abilities and levels of understanding compared to other students, they are no longer afraid of bully behavior and stupid labels, because students are used to respecting each other. In Indonesia, this is still a big task at home.

Character education continues to be echoed, but there is still violence in schools, as well as bully behavior that can kill student learning motivation. So humane is Finnish education, the learning approach practiced is softer. Walker (2017) revealed that in Finland, the school load is shorter, homework is lighter, and there are fewer tests with certain standards. Finland is showing the rest of the world that there are other ways to run education without narrowing the curriculum and increasing the burden on teachers and students.

CONCLUSION

The learning system in education has a consequence of the current lack of a competitive system, so there is no ambition to force students to learn quickly and densely. Because there is no reason to force students to compete with each other for the best and foremost. Students do have the right to excel and that is necessary, however, it should not be used as a spur for students to enter a world of competition that is sometimes unequal and discriminatory. This needs to be a concern for the government, even prepared early on to be designed as a future education project, as well as considering the quality of educational facilities and infrastructure, as well as making education accessible for free to the community. Because it turns out that it is not something that is impossible for the Finnish State to succeed in doing so. If the competition system has been eliminated, education is accessed for free, and facilities and infrastructure are of the same quality between schools, then there will be the ideal education that everyone aspires to: education that is humane, without

unequal competition, without discrimination, without burden, and upholds equality. Education in Indonesia, which has embraced the neoliberal paradigm of competition since its inception, has resulted in unfair competition in online learning due to the digital divide.

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