

GEOGRAPHY LEARNING MEDIA DURING COVID-19 PANDEMIC

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1. Background

The success of education is one of the benchmarks for the success of state growth. Through education, the next generation will be born intellectually and emotionally intelligent, competent, and independent in order to achieve national development. One of the components used as a forum for shaping the character of the children of the nation is education. 2. Therefore, a teacher/lecturer must be able to master different learning media in the educational process, because circumstances are still changing. Especially as the pandemic of Covid-19 is currently sweeping the globe, different sectors are experiencing changes and need to adjust to the situation.

The Covid-19 effect caused Indonesia's economy to decline, the rupee exchange rate fell, the price of goods increased, and the world of education was also disrupted. To mitigate the spread of the disease, drastic countermeasures such as lockdown in a region and even a nation are carried out (Zahrotunni'mah, 2020: 248). The effect of a pandemic on the economy, social, security, and politics would affect psychological conditions and behavioral changes that are broader in a longer period, according to Hongyue and Rajib (in Ginting: 2020). Such behavioral shifts include healthy living behavior, technology-based behavior, teacher/reader behavior, social media behavior, customer behavior, job behavior, and socio-religious behavior. During the Covid-19 pandemic, people's behaviour changed, including Work From Home (WFH), all interactive, choice of transport mode, to monitor access. The use of software, which had traditionally been used mostly as secondary work assistance or even for leisure, has become a primary work facility. This also impacts Indonesia's education system.

In order to overcome the difficulties of the availability of diverse learning opportunities, online learning is an educational breakthrough. A model or learning media success depends on the characteristics of the students (Dewi, 2020: 57). According to Windhiyana (2020: 3), the advantages of online learning, one of which increases the degree of interaction between students and lecturers, learning can be done anywhere and at any time (flexibility in time and place), reaching students in a wide range (potential for reaching a global audience), and making it easier to improve and store learning materials (easy updating of content as well as archivable capabilities).

In the education sector, lecturers and students would be used to engaging in distance learning experiences. Certainly, this is not a simple matter, because it is not completely trained. The problem in the education environment is that the learning process, both the criteria and the consistency of the desired learning outcomes, is not standardized, and therefore a challenge for senior lecturers who face difficulties in pursuing educational technical advances.

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Media are still needed for the introduction of online learning, which is one of the aids in the learning process. The learning process's success or failure is primarily decided by the media used. Media is something that can be used to communicate emails from sender to recipient to activate students' feelings, emotions, attention and desires in such a way that the learning process takes place. Online learning is an open and distributed learning framework that uses pedagogical resources (educational aids) to promote the formation of learning and information processes through meaningful action and interaction through the internet and network-based technology. Online learning media can be described as media equipped with a user-operated controller so that the user can manage and access what the user needs, such as downloading Geography content tools, so that it makes it easier for students to understand the material better. The lecturer offers teaching.

2. Discussion

2.1. Covid-19 Pandemic

For all the inhabitants of the planet, Covid-19 pandemic is a crippling tragedy. All segments of human life on earth, except the exception of schooling, are disrupted. Many countries, including Indonesia, have agreed to close schools and universities. Governments in every part of the world, including Indonesia, had to make a bitter decision to close universities in order to dramatically reduce people's contacts and save lives or have to open universities in order to survive lecturers and educational workers in sustaining economic sustainability, the crisis really came unexpectedly. The sustainability of education triggered by the pandemic of Covid-19 has two consequences. The first is the short-term effect, felt both in cities and in villages by many families in Indonesia. Many families who are less familiar are doing school at home in Indonesia. For Indonesian families, studying at home is a major surprise, particularly for the productivity of parents who are usually occupied with working outside the home. Similarly, students who are used to studying face to face with their lecturers have psychological issues.

Due to Covid-19, all aspects of education in social life are "exposed" to disease. Online, the training takes place. This system runs on a scale that has never been assessed and validated because it has never occurred before. Remote villages with very dense school-age populations are invariably confused, since the infrastructure for information technology is very small. Student evaluations are going online and with an inconsistent method, there is a lot of trial and error. Many tests have, in fact, been cancelled. The second is the long-term effect, namely that Covid-19 will be subjected to the long-term impact of several groups of people in Indonesia. Education's long-term effect is an element of justice and a rise in disparity between community groups and between regions in Indonesia.

2.2. Covid-19's effect on the method of learning

As an attempt to increase awareness and skills, the learning process in higher education is the strongest public policy tool. Furthermore, many students consider face-to-face learning to be a very enjoyable experience and can communicate with each other. Face-to-face learning will develop the social skills of students and the understanding of social groups. In order to develop their honesty, skills and love between them, face-to-face learning as a whole is a means of interaction between students and lecturers. But now, because of the Covid-19 intervention, face-to-face learning practices have abruptly ceased.

Under the leadership of Minister Nadiem Makarim, the Ministry of Education echoes the spirit of rising competitiveness for students when they graduate from school to improve employment opportunities. However, the Indonesian education world needs to follow a direction that may help learning conditions in an emergency with the emergence of the very sudden Covid-19 outbreak. There is a need for universities to push themselves to use online media. There are several variants that impede the effectiveness of learning with online methods, including: The use of technology, however, is not without a challenge.

a. Lecturers and students' minimal mastery of information technology

The situation of lecturers in Indonesia does not fully comprehend the use of technology, as can be seen from the lecturers who were born before the 1980s. The limitations of information technology hinder their use of online media. Similarly, students whose situations are almost the same as lecturers are meant to consider the use of technology.

b. Inadequate infrastructure and services

Clearly, technological support devices are costly. Many are lecturers in Indonesia who are also in desperate financial situation. The well-being of lecturers and students has prevented them from enjoying the information technology facilities and equipment that were very much needed by the Covid-19 disaster from being fully limited.

c. Restricted access to the Internet

In all corners of the world, the internet network is still uneven. Not all educational institutions can enjoy the internet, especially universities. And if there is an Internet network, online media will still not be protected by the case.

d. Inadequate provision of provisions

The budget is also an obstacle since lecturers and students' facets of welfare are also far from standards. Obviously, they can't afford it if they use their Internet quota to meet their online media needs. When the Minister of Education encourages productivity to move forward, there is a dilemma in the use of online media, but, on the other hand, teachers and students' financial skills and abilities have not moved in the same direction. Quota assistance has been provided by the state but can not be used to access all online learning platforms so that it is not sufficient to assist lecturers and students in the provision of internet quota.

2.3. Advantages of Using Media for Online Learning

The change of learning media, which used to use more face-to-face systems in the classroom, is one of the effects of the Covid-19 pandemic. However, it is illegal to keep associations because of the Covid-19 pandemic, which is spread easily by direct communication with sufferers. There is also an influence on the field of education, so learning is done online.

Based on the above, lecturers must be smart in selecting learning medium that must be used in the learning process in order not to lose the content when looking at the situation and circumstances during Covid-19 pandemic. Lecturers must, therefore, master a lot of media for learning. The Learning Online Work From Home (WFH) problems are a form of government appeal to stop Covid-19 pandemic from spreading. This WFH extends to almost all institutions, including institutions for teachers and lecturers. WFH means that the learning process normally carried out in classrooms is now temporarily suspended and replaced by a teaching and learning process using an online/online framework for lecturer. Lecturers and students continue to conduct learning as normal, it's only done in their respective homes in different spaces.

The advantage of using online learning media is that learning is independent and highly interactive, can increase memory levels, provide a greater learning experience, with text, audio, video and animation all used to communicate knowledge, and also make it easy to transmit, update content, download, students can also send emails to other students, post comments on discussion forums. Online learning has three components, namely:

- a. model of learning,
- b. methods of teaching and learning,
- c. media for online learning.

Those three elements form an interactive linkage, in which there is a learning model structured as a social process that informs the design of the online learning environment, leading to the specification of instructional and learning strategies that specifically make it easier to learn through the use of learning technology.

3. Obstacles to Online Learning

In delivering materials through online learning media, lecturers are required to be innovative. This also needs to be tailored to the educational standard of its needs. Physical and psychological (mental) pressure will result from the effect. In order to achieve quality learning results, a positive mentality will help incorporate online learning media. Parents are supposed to be role models for learning assistance while training at home using online media, but they often face shifts in attitudes.

In the world of education, both the use of technology in line with Industry 4.0 and parents as mentors, the Covid-19 pandemic era can be said to be an opportunity. The expectation is that we will become accustomed to the new scheme as a learning community of education after Covid-19 pandemic. We may think this job is simple to do at first glance; this task is certainly easy and can be achieved by getting enough facilities such as smartphones and quotas and a supportive internet network. This accusation turned out, however, to be false.

Even though there was a ministerial circular so that the learning process from home was carried out online or online, online learning during Covid 19 pandemic nevertheless encountered many obstacles in the region. Because of the absence of an Internet network signal, certain students can not engage in online or online learning. Moreover, as a way of studying online, most parents of students whose economic conditions are mediocre still do not have smartphones. Inevitably, the learning process that takes place from home involves close guidance from parents. At the same time, though, parents still need to break their time to work, take care of the home, and assist with children's studies. Online learning constraints require a breakthrough because limited infrastructure, poor networks and limited internet quota are faced in many regions. In addition, it is important to properly formulate the curriculum and teaching material so that the standard of the teachers / lecturers given remains. This barrier is felt not only by learners, but also by teachers/lecturers. Online system learning can be achieved by young lecturers who are technologically proficient, but not usually by senior lecturers who are not in contact with the use of technology.

It can, of course, hamper the learning process with these hurdles, and it can mean that sudden learning about the online system is not yet successful. There are also many other hurdles that exist, such as when the device is used online. Students did not completely grasp the material presented and faced uncertainty when embracing the material presented by the lecturer. Even if zoom meetings or other software are used to perform the learning, it is still not as productive as imagined. Furthermore, when the learning took place, not all students were present, believing it was induced by the network that did not help it and it could also be because students were bored with the inadequate learning system. In fact, this situation decreases the quality of learning for students and the quality of teaching by teachers / lecturers and decreases the efficacy of learning when the freedom to choose how to learn from home is granted to students. This can happen because in nature there are many

distractions that are not conducive, the mind is spread and it is hard to concentrate even though it is more comfortable.

During Covid-19 pandemic, learning difficulties caused many problems, so most students tend to study on campus, so they can be more concentrated. Of course, this is focused on students' experiences in the process of online learning. Not only is it more pile-up to study online, but also a lot of distraction when studying. There is a distinct atmosphere in face-to-face classes, and direct contact helps to help the learning process. Students can keep in contact with friends by studying in a school / campus setting, so at least remain involved and have interaction and help cause the same emphasis on learning. In online learning, this can not be achieved because there are no face-to-face meetings between students, so it is difficult to establish a focus for learning from home.

There are several options that detract from the students' attention because of the independence that is actually granted. From a psychological point of view, this phenomenon can be interpreted with respect to the challenges posed by the use of online media due to shifts in student preferences. Initially, because it is something new, it could be accepted, but after doing it it made the students bored with the everyday routine that had to be done. Distraction is one of the keys to why it is difficult to create this emphasis. One of the factors that concentrate depends on external forces, which usually have two principles, namely the principle of enjoyment and the principle of law. The theory of pleasure is based on the desire to do something you want and are interested in doing. This builds concentration because you like the subject. The second is the concept of laws based on the desire to do something regardless of the rules' demands that have implications. These ideals may also stimulate the desire of others to do something and encourage concentration. There is also a solution to overcoming these distractions, namely: we must know what values rule us if you want to create concentration. The theory of enjoyment or law of principle is more prevalent and seeks to balance it.

Lecturers must ensure that, even if students are at home, learning activities continue. The solution is that lecturers are expected to design learning media by using online media as an innovation. This is in compliance with Circular Number 4 of 2020 of the Minister of Education and Culture of the Republic of Indonesia on the implementation of education policies in the event of an emergency outbreak of corona virus disease (Covid-19). A personal computer (PC) or laptop connected to an Internet network connection is used to execute the learning system. Using social media groups such as WhatsApp (WA), telegram, Instagram, zoom apps, Learning Management System (LMS) or other media as learning media, lecturers can learn together at the same time. Lecturers should then ensure that students, even though they are in different areas, take part in learning at the same time. In accordance with the goals of the material provided to students, lecturers may also offer calculated assignments.

4. Development of Geography Learning Media During the Covid Pandemic 19

Earth, the aspects and processes that form it, the causal and spatial relationships between humans and the environment, and human encounters with places constitute the field of geographical studies. Geography, as an integrative science, in exploring the presence and life of humans in their location and environment, integrates the aspects of the physical realm with the human dimension. Geography learning builds and enhances the awareness of students on the face of the earth of the diversity and spatial organization of individuals, places and ecosystems. Students are encouraged to consider the physical aspects and processes on the surface of the earth that form the surface patterns, features and ecological spatial distribution of the earth. In addition, learners are consciously and creatively inspired to explore the impact of culture and experience on human perceptions of places and regions.

Awareness, skills, and values learned in geographic learning are required to develop the capacity of students to conduct, act intelligently, responsibly, and be accountable in resolving social, economic, and ecological issues. One of the purposes of studying geography is to provide students with spatial thinking skills. One of the main problems in geography teaching and learning is helping students learn to think spatially (Webster, 2015: 7). Geographical learning, however, has not been able to provide students with this ability.

The low capacity of learners to think spatially is due to geographical learning that emphasizes only cognitive aspects. The paradigm of geographical learning, which has so far emphasized the cognitive dimensions of space, must be reoriented to the capacity to think spatially (Hadi, 2012). The spatial cognitive aspect's fundamental deficiency is the absence of a blade of analysis that can be used to deal with all spatial issues. A student may have a lot of knowledge of a location, but the student fails to do the spatial analysis in another place because what he has learned in class is not the ability to think spatially, but only spatially. In the classroom, learning geography requires different approaches, techniques, media, and learning materials in order for students to use spatial thinking skills to take advantage of the experience learned in real life.

Geographical observations of lithosphere objects/phenomena, hydrosphere, atmosphere, biosphere, anthroposphere. Geography explores, from a spatial point of view, all its substance. The use of maps includes this spatial view; all work maps result from maps and suggestion maps. It is possible to obtain and process maps from data acquired from Sipongi and BMKG. Maps are used in the learning field as a tool for internalizing spatial concepts. Using maps as a learning tool is also a must for all geography learning materials. And IT production offers major advantages in geospatial information technology, the application of which is very useful in the preparation of thematic maps (topographic maps) and hotspot distribution maps for media.

From the results of satellite image processing, maps can be processed. Maps are so much data on the surface of the earth (for example: trees, rivers, roads, villages, field topography/shape). Information on maps is expressed as symbols in the form of (so maps are often called the language of symbols). Maps are a very critical learning tool for geography. When the map reader can understand the letters of the map, what data the map shows can be used as information (points, lines, polygons). The reader will interpret (interpret) the implied meaning behind the express map in the next point. For example, you will be able to know the distribution point of the hotspot by reading the dot symbol. Of course, the effectiveness of reading a map involves at least two things: the accuracy of the map and the skill of the reader of the map. In an attempt to extract, extract and understand geospatial data, reading maps (and interpreting maps) for geography is a very urgent task. In view of this, the use of geospatial data in the geographic learning process, especially in the Covid-19 pandemic conditions, is very significant.

In geography, the medium most commonly used is charts. Geospatial data (maps) are deemed to be sufficiently accurate in conveying the contents of the geographical subject matter, in particular those related to spatial concepts. Geospatial data (maps) are used as a learning aid to make it clearer for students to study geography subjects as a whole (Suwito et al., 2016). Maps are the fundamental essence of geography, according to Sumaatmaja (1997: 79), so that teaching geography without maps and globes does not build good images and concepts in students that can enhance cognitive, affective, and psychomotor abilities. The advantages of geospatial data for studying geography are so great.

Online geography learning is carried out using electronic devices, including smartphones, computers, and internet networking gadgets, using information technology. Using Whatsapp, Zoom, and E-learning online learning (SPADA). The Zoom software is often used by lecturers (75%), but there are barriers to using the Zoom program, namely the use of a broad quota. The application of Zoom will practically put together lecturers and all students face to face. The most productive use of Whatsapp is that it does not require a wide quota and a decent signal, whereas SPADA is a mandatory online program used at Universitas Prof Dr Hazairin SH.

Sipongi and BMKG can be used to use geospatial data in the geographic learning process. Sipongi and BMKG contain geospatial data that can be used for free by anybody. Geospatial data from Sipongi and BMKG is data from the distribution of forest and land fire hotspots or fires reported using Terra/Aqua MODIS satellite imagery. Since the latest satellite imagery records twice a day, namely morning and night, the original data is updated every day. Band 1, band 2, band 7, band 21, band 22, band 31, and band 32 Hotspots use MODIS band 7 (Giglio et al., 2016). Data is processed using hotspot data generation algorithms (Giglio, 2015). Not only does the number of hotspots indicate the number of fires, but also the location of the fires (Sabani W et al., 2019). The number of hotspots in the region is high, so it is understood that the fire risk in the area is high.

In addition, there is a tool that can be used both online and offline in geography learning. Google Class Space, Edmodo, Schoology, OpenOLAT, Moodle, Kahoot, Google Classroom, Instagram, Youtube, and others are online platforms. In the context of game media such as monopolies, atlases and globes, geographically offline channels may use board games. There is also the inaRISK program, which is an application that can be used to see the position of disaster learners. Students are required to learn in a pleasant way and to improve their awareness of the disaster situations in the local area, as well as sharing this learning experience on the Instagram page or other social media for students.

Geography learning is an ability and vision that opens doors for learners to better understand the linked world around them. It offers insights for young people to draw comparisons, evaluate how individual behavior can impact the environment, determine costs and benefits, and find answers to many of our planet's challenging questions. In a crisis conference, today's students are maturing: the global pandemic, the economic downturn, the current climate crisis, intense political alignments and racial turmoil. It all occurs when, because of Covid-19, lecturers and families struggle with the reality of learning in a new environment.

As we have learned in the past, studying geography is not about memorizing mountains or countries on a map. Geography today, if we don't like what we see, is about seeing the whole picture, about seeing the future and changing the future. The charm of researching geography is that it cuts through several areas. In other sciences, such as history and chemistry, or even art, geography can and should be incorporated into lesson plans so that students can interact with real-world issues.

A new standard is the current crisis faced by lecturers and students, in particular the reality of the closure of universities to carry out face-to-face learning related to the Covid-19 pandemic and, as a consequence, distance and hybrid learning. Today's obstacles and possibilities are how we can learn and develop in this new normal together. Understanding geography, the intersection of places and interactions, helps us in large and small ways to pursue thinking-provoking responses to these extraordinary moments. Geography and the research of places are used by politicians, innovators and change makers worldwide to bring solutions to life. When today's students experience real-time change and instability, geographical intersections and learning are more pressing than ever. It's time for students to be better equipped with geographical instruments to see the whole picture, develop the mindsets of explorers, and become relentless problem solvers.

5. Conclusion

1. During the Covid-19 pandemic, the use of online and offline channels as geographic learning media fosters student imagination and a sense of curiosity, such that students are not bored, learning is vibrant and interactive, and as a rote subject is not impressed.
2. In the geography learning process, the use of geospatial data and map processing applications is very significant, especially in the Covid-19 pandemic conditions.

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SHORT CURRICULUM VITAE



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