

# Access to Infrastructure in Arts Education: *Learning from the Pandemic*

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## ABSTRACT

This research is based on the occurrence of Covid-19 pandemic in all countries which has an impact on various sectors, including in the field of education. This study illustrates how the online learning systems in graphic arts subjects whose characteristics are practical courses, and describes the supporting and inhibiting factors of the application of online learning systems in graphic arts courses. The method used is descriptive qualitative, which is to describe phenomena that occur, as well as describing the characteristics, quality, interrelations between activities. The method of collecting data is through observation by crossing questionnaires, interviews are conducted randomly on these nine students from different classes and documentation is obtained through online learning processes on social media. Data analysis uses triangulation of sources and techniques. The learning implementation of Graphic Arts courses using social media network site is well executed, especially in flat printing, deep printing, and high print techniques because the materials and tools needed are relatively simple or can be simplified. The printing technique is still not optimal due to limited materials and tools when done at student homes.

**Keywords:** Online learning, graphic arts, covid -19

## 1. INTRODUCTION

Covid-19 or corona virus pandemic has impacted on many sectors of life, including education sector. The virus allegedly originated from the city of Wuhan in China, December 2019 began to be detected in Indonesia since the beginning of March 2020. Nationally, as of May 16, 2020 at 12.00 WIB there were 3,911 of covid-19 patients who were declared cured, equivalent to 22.97%. The positive number of Covid-19 increased by 108 people from 3,803 people, equivalent to 23.05%. The death rate due to positive cases of Covid-19 in Indonesia until May 16, 2020 recorded as many as 1,089 people. An additional 13 people died from previous data, namely on May 15, 2020, totaling 1,076. So the data of death people is equivalent to 6.40% down from 6.52% of the total positive cases on May 15, 2020 [1].

While for the East Java region seen from the data as of May, 14 2020 positive patients of Covid-19 increased 93 people, the overall total in East Java to be 1,858 people and still being treated as many as 1,384, which is equivalent to 74.49% [2].

According to the Governor of East Java, Khofifah Indar Parawansa, for the addition of the most positive cases of Covid-19 is still in Surabaya. For this reason, Surabaya implements A Large Scale of Social Restrictions as known as PSBB through East Java Governor Decree Number 188/2020 / KPTS / 013/2020

concerning the implementation of phase I of Large Scale of Social Restrictions in handling of Covid-19 in the areas of Surabaya City, Sidoarjo Regency, and Gresik Regency. The implementation of Large Scale of Social Restrictions phase I in Surabaya was started from April 28, 2020 to May 11, 2020. However, after evaluating the results of the Large Scale of Social Restrictions, the value was still above the standard of the Minister of Health. It means that the implementation of phase 1 is not succeeded in significantly reducing the pandemic statistics. Consequently, it was extended to phase II starting from the 12 until 25 May 2020, the Large Scale of Social Restrictions is extended until the value is below the new standard will be stopped [3].

In this current atmosphere, which is difficult for most people to understand, the government has instilled an awareness to break the chain of covid-19 pandemic with a short slogan that is quite striking, namely work from home (WfH) or "learning to work and worship from home." In addition, the government also provides education to its citizens to live healthy and clean and be aware so as not to be easily infected with this deadly virus. The Diligent of washing hands, wearing masks, avoiding crowds of people, maintaining stamina by consuming vitamins / fruits and vegetables and sports.

Responding to the condition of the covid-19 pandemic, Universitas Negeri Surabaya has issued a Circular Letter from the Rector of Surabaya State University Number B / 16136 / UN38 / HK.01.01 / 2020 concerning the arrangement of picket schedules for educational staff in

the context of preventing the spread of Covid-19 within the Surabaya State University. Inside it says the Standard Operating Procedure for preventing of Covid-19 transmission in the campus area, where the SOP is written in two item: The online lecture or e-learning system applies. In connection with these online lectures, of course, requires the application of strategies and appropriate learning methods that can support learning outcomes.

For this reason, it is necessary to study how to planning of the learning, implement of the learning, monitoring, and evaluate the effective of the online learning. In addition, an equally important aspect is the need to identify supporting and inhibiting factors for the application of online learning systems as consideration for evaluating the effectiveness of its application.

### **1.1 Related Works**

The implementation of online learning at home in Elementary School Students as an effect of the covid-19 pandemic provides a clear representation that the covid-19 changes the learning patterns into networks (online) not only applied to tertiary education, but also at the primary school level. The results in this study indicate that the impact of the covid-19 on the implementation of online learning in Elementary Schools can be carried out quite well, if there is collaboration between teachers, students and parents in Learning at Home [4]. Sefriani and Sepriana [5] provides a representation of the non-maximum utilization of hotspot facilities by students on campus for learning needs, as well as the low ability of student digital literacy. The results showed that the level of validity of school-based e-learning media was obtained at 84.25% with valid interpretations used, for the practicality level obtained at 85.64% which meant that it was very practical to be used by educators and students, for the level of effectiveness test using the test N-gain value obtained N-gain score of 0.667 which means effectively using the School-Based E-Learning media. In conclusion the use of *schoolology* in e-learning can optimize the digital literacy abilities of students [5].

It can be concluded that the application of e-learning is quite effective. The first refers to the basic material and the next refers to the learning of technology and vocational education curricula. In this study, we try to provide an illustration of the application of online learning methods in courses of graphic arts, whose basic competencies are based on practical abilities. Learning activities are normally carried out in a graphics studio. Graphic studio is a laboratory for the practice of printing techniques in which there are various needs of machines and printing equipment. This research is expected to be able to present constraints and solutions in the application of online learning in graphic arts courses.

#### **1.1.1 The Strategies and Methods of Online Learning**

Learning strategies to facilitate the achievement of certain educational goals by the use of methods and ways to utilize various sources or strengths arranged to achieve the goal of increasing knowledge and skills. A way of presenting the subject matter conducted by educators so that a learning process occurs in students in an effort to achieve goals is the essence of the learning strategy. It can be interpreted that educators have a very big role as facilitators of learning [6].

Learning strategy according to Rowntree in Sanjaya [7] consists of two types, can be seen in the book Learning Strategy Oriented by Education Process Standards, including: Exposition discovery learning that is direct learning, is a learning strategy by presenting the main material or main subjects that are final and then students are expected to fully master these materials. This expository strategy positions the educator as the main deliverer of the material. Discovery learning, is a method where students are required to search for and find their own subject matter through various activities. The task of the Educator is positioned as a facilitator and guides and directs students to learn independently (indirect strategy). The next strategy is individual learning which is an independent learning strategy for students, in an effort to improve individual abilities and increase speed in mastering learning material.

When this learning strategy is looked from the way of presenting the material, it can be divided into two strategies, namely deductive learning strategy, is an effort to present learning material starting from abstract things to concrete things, and inductive learning strategy, that is a presentation of concrete learning material directed at complex learning material, or starts from specific things to general things.

The learning method is a method used to implement a learning plan that has been prepared for a real and practical learning activity in order to facilitate the achievement of learning objectives. There are several examples of learning methods including the demonstration methods, lectures, discussions, questions and answers, role play, problem solving, field trips, practical exercises, projects, experiments, recitation, debates, symposiums, etc.

The online learning or communication in a network refers to an activity of reading, writing, and communication through a computer network [8]. The Online learning system or can be called communication in a network is a method of learning through online intermediaries or through the internet network. Communication in the first network developed when American researchers the developed the ARPANET protocol, which was launched in 1969, allowing it to send and receive messages or information through computers, around the 1960s [9]. Then, this protocol developed into the internet.

The first time of online methods became possible in the world of education was after the spread of personal

computers (PCs) or could be called personal computers in the 1980s. Then in the mid-1990s the *World Wide Web* (www) emerged and developed as a source of information available on the internet. So "www" is often considered the same as the Internet as a whole, even though it is actually only part of the Internet.

Communication in a network (E-Learning) or virtual communication is a way of communicating by way of delivering and receiving messages or information done using the internet or cyberspace (cyberspace). Nowadays virtual communication can be done anywhere and anytime with various platforms that are already available.

### 1.1.2 Graphic Arts

The graphic arts courses are a branch of fine arts whose process of making works uses print techniques, in general the medium is a paper. The monotype printing technique process or termed monoprint, is able to create a copy of the work or commonly referred to as the printing process. Mold references are created from the surface of a material, including: metal plates, usually copper or zinc for engraving or etching; stones used for lithography; wood planks for woodcut. The graphic arts in accordance with its principles include: Flat print where the reference is used as a conduit of color, the taste of the surface material is flat / flat, does not arise, convex, or added / pasted, and also does not sink, concave, or gouged / reduced. Therefore, the print reference surface which is patterned (color / ink delivery) has the same height as the part that does not deliver ink; The Inner Print (Intaglio Print) the reference is incised with a sharp instrument so as to form a deep scratch. This deep stroke will later transfer the ink; Print high where the ink carrier in the printing process is the high part, or "raised". While the part that does not function as a conductor of paint is removed or "demeaned"; Print Filter which technically works, the same as the Stencil technique [10].

## 2. METHODS

The method used is descriptive qualitative. Qualitative research is conducted by researchers because researchers want to explore phenomena for which the results of research cannot be quantified [11]. Qualitative descriptive research is used to illustrate and describe phenomena that occur, both natural and engineering, and describe the characteristics, quality, and interrelationships between activities [12].

Qualitative research can be used as a research method based on the philosophy of post positivism, which is to examine the condition of natural objects, where the researcher is a key instrument, data collection techniques with triangulation, data analysis is inductive or qualitative, and qualitative research results emphasize more meaning than generalization [13].

Based on these opinions, the researcher used a descriptive qualitative research method because he wanted to explore the phenomenon of unplanned learning process changes due to the covid-19 pandemic C-19. Research location in the Fine Arts Department, FBS (Faculty of Languages and Arts), UNESA. The main data source was the Fine Arts Department students who program graphic arts courses. Supporting data in the form of documents in accordance with research objectives and relevant library data.

The method of collecting data in accordance with the characteristics of the data needed in this study, the data collection techniques used are: Observation in qualitative research is carried out in real situations and conditions naturally, without being prepared, changed or not specifically held for research purposes. These observations are made on the object of research as a source of data in the original state or as everyday conditions. According to Marshall in Sugiono [13] states that "through observation, the researcher learns about behavior and the meaning is attached to those behaviors". Through this observation, researchers learn related behaviors and meanings that occur in the field. Related to observations made in qualitative research, the observations that will be used are direct observation. Direct observation in this study to reveal data about the process of character formation of students through observation in each meeting in accordance with the lecture hours using a questionnaire instrument. The document used in this study is a list of research respondents that includes three classes, photos in the learning process, UTS and UAS Tasks, documentation of practical assignments, and chat documentation via WhatsApp.

Data analysis technique according to Sugiyono [13], is the process of finding and compiling data obtained from observations, interviews and documentation systematically by organizing data into categories, describing into units, synthesizing, composing into patterns, choosing which ones important and will be learned, and make conclusions so that it is easily understood by yourself and others.

Miles and Huberman in Sugiyono [13] also suggested that the data analysis in this qualitative study was carried out at the time the data collection took place, and after data collection was completed after data collection was completed within a certain period.

According to Moleong [14], to determine the validity of the data needed an inspection technique based on a number of specific criteria. There are four criteria used, namely credibility (degree of trust), tranquility dependability, certainty (conformability) [14].

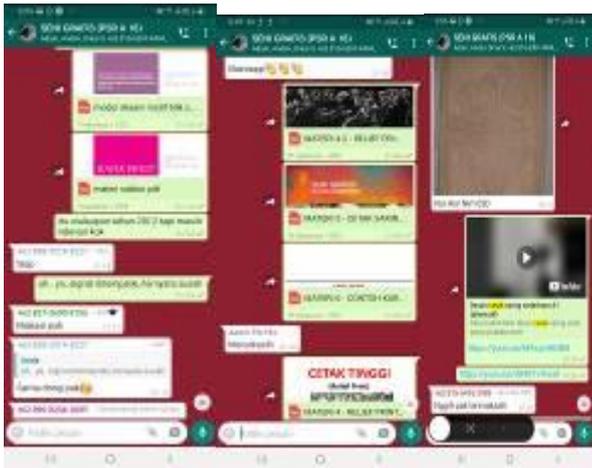
The technique of checking the validity of the data in this study is by using triangulation. In this study, researcher would use two types of triangulation namely source triangulation and technique triangulation.

### 3. RESULTS AND DISCUSSION

The main problem in implementation of online learning as a due the Covid-19 pandemic is the readiness of the internet network. Online learning changes the face-to-face learning pattern into a network (online), so that students are required to always have an internet quota. The implementation of learning in the Graphic Arts Course for students of the Fine Arts Education's Study Program uses the Group platform on WhatsApp. This platform was chosen in order to reduce the operational costs of learning considering that all the courses that are taught by students are online-based and each student has used it, so it remains to maximize. The learning steps are as follows:

#### 3.1 Submission of Graphic Arts Material

The Delivery of Graphic Arts presentation material through the WhatsApp group to be studied before the meeting is held (Figure 1). Within the student group, a video tutorial link was also given as a reference, but it was recorded that 30% could be limiting due to limited internet quota.



**Figure 1.** Material Delivery

The material is discussed one by one according to the topic at the meeting. Discussions and practice are conducted for at least 2 hour and 30 minutes according to the learning schedule.

Overall, this step is not difficult. It is just that the discussion time is needed in learning through this method can exceed the specified time because students do not depend on the specified time. Another advantage in the discussion on WhatsApp group is that students

can review the discussion material that has been carried out because the discussion is in the form of text.

#### 3.2 Graphic Arts Practice

The first of graphic arts practice to apply the flat printing technique. Flat print, in principle, is a copy of an image with an even reference, or a part of the surface cannot resist ink. The techniques used include other techniques, namely smearing ink on the glass then placing the paper on top, then making an image with the surface of the paper. Next is the indirect technique, which is making an image on the surface of the glass and then paper on it. The flat printing technique is also done by folding, which is making an image on one side of the paper, then the paper is folded. In the application of the flat printing technique, all students have no difficulty practicing it at home. Because the materials and techniques can be simplified.

"Print in" is the transfer of the image through the lower part which will produce the image. In general, deep printing is made using printed materials of aluminum or brass metal whose surface is incised to produce deep scratches. Meanwhile, for the simple application that is carried out by students majoring in fine arts, they use a used can which are made with sharp tools such as screwdrivers and nails. The entire surface of the print that has been inscribed is smeared with ink, then the surface with a cloth, leaving only the ink that is on the inside of the surface. After that the little paper is wetted will in press or stick it to the surface of the print, then the ink will transfer to the paper. The application of printing techniques in all students, they are does not experience difficulties in practicing them at home. Because the materials and techniques can be simplified, namely using used cans.

High printing is an activity to reproduces the image on a higher surface. The point is high printing makes prints like stamps, which is making reliefs by scraping material (usually wood or rubber) so that you can print the desired image. The material used by students is MDF (Medium Density Fiberboard) which was purchased before the pandemic. MDF is a board material composed of a combination of wood fibers and sawdust which is compacted under high pressure and temperature with the help of resin so that the surface is not too hard. The application of the high printing techniques, almost all students who has difficulty making good image references in practice, even though it can be done at home. But with intense communication through on WhatsApp group, this problem can be resolved. The reference made by students is shown in Figure 2.



**Figure 2.** Reference made by students

Screen printing is the transfer of images using a very fine, porous cloth. The fabric is soothed by a light sensitive emulsion that will cover the pores once the light is hit. After that, the transfer paper containing the image you want to print will be placed on the screen and then highlighted by an incandescent lamp for 10-15 minutes, then the emulsion will stick according to the design of the image placed on the cloth. The part is then sprayed with water and the part of the emulsion that is not exposed to light will peel off according to the design. After the above process, the print is ready for use by applying screen printing paint on the print that is placed on the print media (paper / board / t-shirt) using a rack (screen printing paint leveler). The screen printing design is shown in Figure 3.

At this step, all students only can complete the assignment until the design finalization step. Students make designs by applying a minimum of three colors in the design they make, then make color spacing and finalize the spaces, so that are ready to be printed or moved to porous fabrics. The absence of materials and tools that students have at home makes the process of design *afdruck* incomprehensible at home.



**Figure 3.** Screen printing design

WhatsApp group in the graphic arts course to focus on flat material, deep and high-printing materials does not encounter any significant obstacles. Each student sends their assignment process to the WhatsApp group as material for discussion and evaluation. Meanwhile, the application of the printing technique cannot be carried out completely due to the limited tools the students

have. There are tools that students do not have at home, among others, afdruck table, hairdrayer, sponge, rack, black cloth, sprayer which are generally carried out in a graphic studio.

#### 4. CONCLUSION

Based on the results of the research and discussion above, it can be concluded that the implementation of online learning for graphic arts courses using the WhatsApp group is going very well. Communication in groups can always be done by students when experiencing problems and can be implemented by other students without having to repeat the same obstacles. Learning activities that are carried out well, especially in flat printing, deep printing, and high print techniques because the materials and tools needed are relatively simple or can be simplified. The printing technique is still not optimal due to limited materials and tools, if it is done at each student's house.

The application of bold learning for this course is an alternative to break the chain of transmission of covid-19 (corona virus). This means that practice-based learning like this is more effective if it is done face to face and practice in the studio directly.

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