The Effect of Technological Literacy, Learning Facility, and Family Environment on Students' Learning Motivation

Agung Winarno¹, Maria Yorozi Andini Fedin², Norlida Hanim Mohd Salleh³

^{1,2}Universitas Negeri Malang ³Universiti Kebangsaan Malaysia

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Correspondence Address:

Agung Winarno Universitas Negeri Malang Jalan Semarang 5 Malang

E-mail: agung.winarno.fe@um.ac.id

ABSTRACT

Abstract: Student achievement is influenced by a variety of factors, both internal and external, such as school and home amenities. This study intends to assess the effect of technological literacy, amenities and learning environment on the learning motivation of SMK students during the pandemic. This is a quantitative Expos-Fact style of study. This study's population and sample consisted of 58 students majoring in Automation and Office Governance at SMK PGRI Turen; questionnaires and observations were used to collect data. Multiple linear regression test was employed for data analysis. The analysis reveals that technical literacy has a favorable influence on learning motivation, that facilities have a positive effect on learning motivation, and that the learning environment has no effect on learning motivation. The environmental impact is not attributable to the fact that a lack of suitable facilities at home is not a motivating factor for student learning.

The spread of the corona virus causes significant problems to all sectors of the global economy. During the pandemic, a number of industries have witnessed a downturn, with education being among the most significant. In accordance with Government Circular No. 4 of 2020 on the Implementation of Education in an Emergency Period of Corona Virus Spread, the Minister of Education and Culture recommends all educational institutions to temporarily suspend face-to-face study and transition to distance learning (online). Therefore, the sector of education, from universities to elementary schools, was obliged to replace face-to-face instruction with online instruction. Online learning is one of the online-based learning methods that may be conducted remotely using digital devices such as laptops, computers, and mobile phones. The goal of online learning is to make it easier for teachers and students to offer and locate the necessary information for the teaching and learning process. Cahyani et al., (2020). In the meantime, another definition by Mandailina et al., (2021) Online learning is a unified idea of technology that was born in the 4.0 era. This technology needs all educators and students to master and optimally utilize technology to the teaching and learning process.

Learning motivation refers to all the internal qualities and intentions (internal elements) that might support the desire of pupils to be able to learn independently so that they can achieve a goal they desire. Agustina & Kurniawan, (2020). The variables that motivate pupils to learn are as follows: (1) the intrinsic motivation of the students (internally). Where this motivation is based on the students' awareness of the importance of learning for their own development and as a means to live their lives in the future; (2) external learning motivation, where this motivation is in the form of stimulation from outside the student, be it other people or the surrounding environment that can affect the actions and behaviors of the student concerned Moslem, et al.,(2019). Cahyawati & Gunarto, (2021, stated that online learning can have an effect on student motivation; precisely, 39.1 % admit that student motivation will increase when the teacher can explain the contents in an interesting way, such as by showing instructional videos, and 37.5 % of students stated that online learning was boring and hastily demotivated, so that students lacked the motivation to participate in online learning. Desriva et al., (2020) found that online learning can have an effect on motivation due to the instructional media, methods, and technology employed by teachers. Consequently, the responsibility of the teacher and the responsibility of the parents to encourage student interest and drive during the pandemic are crucial. This is accomplished through socializing the use of online media, offering learning facilities, and receiving support and encouragement from the surrounding environment. In order for the online learning process to work effectively, the use of technology to facilitate learning will be separated from the process itself.

On the basis of preliminary research findings, it was determined that vocational students who participated in an online learning process that lasted approximately two years encountered numerous obstacles, including a decrease in student motivation, despite the fact that the learning process could run normally. The rise of symptoms of a loss of student enthusiasm in completing assignments and also in following the online learning process is another result of model learning in the network. Several factors contribute to this, including a lack of awareness about information and communication technology, poor facilities, and a lack of family support during the online learning process.

ICT stands for "technology, information, and communication" and refers to all technical equipment that operates to process and transmit information (Budiman, 2017). The importance of technology in the online learning process cannot be overstated. As a result of the existence of technology, every aspect of human life can be made easier, especially in the real m of education. Salsabila, et al., (2020). Several roles of technology are highly influential in the world of education, namely (1) technology can be used as a tool to support knowledge design; (2) technology can be used as a means of information for teachers and students in finding material; (3) technology can be used as a forum as a medium that facilitates teachers and students in expressing arguments; (4) technology can increase effectiveness and efficiency during the learning process; and (5) technology can be used as a tool in the field of education in ordainment (Salsabila, et al., 2020). In light of the importance of technology in facilitating online learning, teachers and students implementing online learning must have a fundamental understanding of computers, communication tools, and online media Latip (2020). According to Mastura & Santaria, (2020), the absence of technology knowledge was a limiting element in the online learning process, and not all teachers, particularly in remote schools, grasped the use of technology. And this can impact kids' motivation to learn. The manifestation of technology's application in online learning is the utilization of online learning media. Obviously, in order to utilize these online media, access to them is required.

Learning facilities consist of all the resources and infrastructure required to enhance and support learning. Muhamad et al.,(2019). The more comprehensive the learning facilities, the greater the excitement and motivation of students. Alternatively, if the learning facilities are incomplete or inadequate, it will impact the students' motivation to learn. Damanik, (2019). According to the findings of Siregar et al., (2019), home learning environments are one of the elements that influence student motivation. Other research findings by Mastura & Santaria, (2020) indicate that the learning motivation and excitement of online students are affected by the learning environment. Followed by Putri et al., (2021), poor motivation is influenced by issues that students frequently encounter throughout the online learning process, such as internet network constraints and internet quota limitations. Arifa(2020) also uncovered problems or obstacles encountered by teachers and students during online learning, especially the limited availability of technology resources affecting student motivation to study. According to the findings of Izzatunnisa et al., (2021), students' motivation tends to diminish throughout online learning. Several variables contribute to the loss in student motivation during the online learning process, including internet network factors, internet quotas, and the constraints of electronic equipment that facilitate online learning. From the above assertion, it can be stated that the role of facilities in the online learning process is crucial in order to facilitate the learning process. The availability of learning facilities cannot be separated from the support of the learning environment, be it school, family, or community.

The learning environment is one of the aspects that affect student motivation to learn. Sarnoto & Romli(2019). The learning environment is comprised of three components: school, family, and community. These three surroundings provide the foundation that enables children to grow, prosper, and reach their goals. Iskandar, (2017). In the online teaching and learning process, students only take classes from home; therefore, the environment in which they interact most frequently and frequently is the family environment. The family environment is the primary and initial environment in the process of a student's growth, development, and character formation. Framanta, (2020) It is necessary for the family environment to play a role in the online learning process in order to inspire and motivate students to continue learning online. In light of the above rationale and the significance of learning motivation for enhancing student learning, the researchers are interested in doing study. This study aims to determine if the usage of technology, amenities, and the learning environment have an impact on student motivation.

METHOD

This study employed a quantitative Ex-post facto methodology. Ex-post facto quantitative approach is study undertaken to reexamine an event that has already occurred and determine the components that led to its occurrence.

The research subject was comprised of 58 students majoring in Office Automation and Governance. Indicators of learning motivation utilized was student's diligence in completing the assigned task, tenacity in overcoming obstacles, and interest. Intensity and frequency of technological use comprised of technological literacy. Learning facilities included a stimulating learning environment and informational media, whereas the family environment comprised the home's ambiance and the way in which parents teach. To analyze the data obtained, a multiple linear regression test was conducted by using SPSS 26.

RESULTS

The Description of Technological literacy, Learning Facilities, Learning Environment and Learning Motivation

Technological literacy is comprised of two indicators, notably intensity of usage and the frequency of usage, for a total of six statement items. Learning facilities have two indicators, that is a fun learning environment and information media, with a total of six statement items; the Learning Environment has two indicators, such as the atmosphere of the home and the way parents educate, with a total of six statement items; and Learning Motivation has three indicators, such as being diligent in completing assigned tasks, tenacious in the face of challenges, and interested, with a total of nine statement items. For the measurement of these indicators, a Likert Scale with a response range of 1 to 5 is utilized. The responses of respondents are listed in the table below.

Table 1. The Average of Respondents Answer on Technological literacy, Learning Facilities, Learning Environment and Learning Motivation

Variable	Average Score	Category
Technological literacy	3,80	Good
Learning Facilities	3,77	Good
Learning Environment	3,35	Moderately Good
Learning Motivation	3,39	Moderately Good

Based on table 1, it appears that the level of technological literacy and the condition of the students' learning facilities are in the good category, whereas the learning environment and learning motivation are quite good. This suggests that there are relatively few issues for students related to the factors that stimulate learning motivation among students based on the model used in this study.

The Correlation Among Variables

To identify the impact of each independent variable on the dependent variable, a partial analysis is required. Knowing the extent to which technological literacy, learning facilities, and the learning environment affect student motivation. It can be used to determine the partial correlation between each variable by examining the significant value of each variable in the SPSS output. The confidence level utilized in the partial test is 95% with = 0.05. If the significance value of the variable is less than 0.05, there is an association between the Independent and Dependent variables. Inversely, if the significant value of the variable is greater than 0.05, there is no relationship between the Independent and Dependent variables.

Table 2. Partial Correlation

Variable	Significance Values
Technological literacy	0,013
Learning Facility	0,044
Learning Environment	0,181

A partial analysis is necessary in order to determine the effect of each independent variable on the dependent variable. Understanding the influence of technological literacy, learning facilities, and the learning environment on student motivation. Examining the significant value for each variable in the SPSS output can be used to discover the partial relationship between each variable. The degree of confidence applied in the partial test is 95% with = 0.05.

If the variable's significance value is less than 0.05, there is a relationship between the Independent and Dependent variables. In contrast, if the significant value of the variable is greater than 0.05, there is no correlation between the Independent and Dependent variables.

DISCUSSION

The Description of Technological literacy, Learning Facilities, Learning Environment and Learning Motivation

Technological literacy is the capacity to use, find, evaluate, create, and communicate knowledge efficiently and effectively. Latip, (2020). In the learning process, ICT is used to disseminate education-related information. According to the results of the variable definition, the average score of respondents on the technical literacy variable is quite high. This demonstrates that vocational students' technical literacy abilities can assist the learning process throughout the pandemic.

Learning Facilities is a learning resource in the form of a facility and infrastructure that serves as a media for the teaching and learning process, Sawiji et al., (2013). Students require learning facilities such as cellphones, laptops, computers, internet networks, internet quotas, and so forth to facilitate the online learning process. According to the results of the variable description, the average score of the respondents' responses to the learning facilities variable is deemed to be good. This demonstrates that the vocational high school students' learning facilities can facilitate the learning process during the pandemic.

Learning environment is the surrounding environment that can influence human growth and behavior. Hidayat (2015). In this study, the learning environment is the family setting. The family is the first environment an individual participant encounters and the first environment in which they grow and develop. Because online learning occurs at home, the family environment becomes the closest environment to pupils during the online learning process. The importance of the home context in assisting pupils during the online learning process cannot be overstated. According to the results of the variable description, the average score of respondents on the learning environment variable is pretty high. This demonstrates that the living conditions of vocational students can facilitate the learning process during a pandemic.

Learning motivation is a student's innate drive to expand their knowledge, skills, and experience through learning. Nurmala et al., (2014). Motivation can boost a person's enthusiasm for both job and education. Students must be motivated in order to develop a sense of excitement for studying during the online learning process. According to the results of the variable description, the average score of respondents on the learning motivation variable is rather high. This indicates that the learning motivation of Vocational High School students during the pandemic era is exceptionally high.

The Effect of Learning Technological Literacy on Students' Learning Motivation

The findings revealed a positive correlation between technological literacy and vocational high school student learning motivation. This is reinforced by Permadi et al., (2020)'s finding that the use of information technology influences students' motivation to learn. One area in which technology plays a crucial role in human life is education. Education is where humans learn how to use technology. The evolution of technology parallels the evolution of the field of education. With the advancement of technology, numerous media and learning aids that aid and enhance the learning process have evolved. As a real-world example in the field of education, Lestari cites the existence of movies, cellphones, and computers that can be utilized to assist students in the learning process, hence increasing student motivation to learn Lestari (2018).

Aisa & Lisvita(2020) mention edLink, zoom meetings, moodle, google classroom, whatsapp groups, edmodo, online schoology classes, google drive, google forms, and email as common online learning technologies. During the online learning process at PGRI Turen Vocational School, zoom meeting, classroom, google meet, and whatsapp group are utilized as learning media. However, the usage of some media, such as zoom meeting and google meet, is not optimal due to a lack of proficiency with these medium. According to another study by Abdullah (2018), technological literacy help during the online learning process can boost student motivation. This research is supported by Uno (2013) hypothesis, which indicates that the nature of learning motivation derives from both internal and external human impulses. Internal drive refers to the motivation that comes from within a person to pursue his or her desires. In contrast, external impulses are impulses from outside of humans that seek to influence them. External encouragement in the sphere of education can take numerous forms, and one of the most influential types is technological literacy assistance. Technological literacy support today plays a crucial role in supporting the learning process, particularly when online learning is like it is today, when both teachers and students are required to master technology, because when teachers and students are not proficient in using technology, it will be difficult to follow the online learning process, which causes difficulties in the learning process.

The Effect of Learning Facilities on Students' Learning Motivation

The results showed that there was a positive relationship between learning facilities and student motivation. The findings of this study are confirmed by the research of Damanik (2019), which indicates that learning environments might alter students' willingness to learn. Yulnani (2020) had a similar viewpoint, stating that there is a relationship between learning facilities and students' learning motivation. Facilities play a crucial part in the learning process; without them, a learning activity cannot go properly. Facilities become a tool of facilitating the stated learning objectives. According to Muhamad et al., (2019), learning facilities are any facility that can be utilized to support learning activities. Learning facilities consist of classrooms and instructional media.

The facilities utilized for offline and online learning are unquestionably distinct. Computers, laptops, smart phones, internet networks, and internet quotas are frequently utilized during online learning. These spaces are utilized for interacting with teachers and fellow students. In the online learning process, the state of learning facilities is still deficient. This is evidenced by the number of students who complain about the lack of learning facilities at home, such as a lack of internet network, a limited internet quota, and the fact that some students do not even have cellphones or computers, thereby hindering their participation in the learning process. The study's findings are reinforced by Arsyad (2013) assertion that the employment of facilities in the learning process can help improve and stimulate students' attention, hence fostering intrinsic motivation to continue learning. Likewise, if the learning facilities are inadequate, students' excitement and drive tend to drop.

The Influence of the Learning Environment on Students' Learning Motivation

Results indicated that neither the learning environment nor learning motivation had a favorable impact on students. This study's findings contradict those of Aini et al., (2015), who found that there is a correlation between the family environment and student motivation. According to another study by L & Muhsin, (2019), there is a correlation between the family environment and student motivation.

The importance of the home environment in assisting the learning process is undeniable for both kids and their families. The family environment for students has been supportive throughout the online learning process; however, there are some students who continue to believe that online learning from home is a school vacation, so that when learning takes place, these students do not participate in learning but instead assist their parents with their work, due to a lack of motivation and parental support.

A learning environment that does not affect students' learning motivation during the online learning process because students are accustomed to the environment and all student needs such as good economic conditions, the provision of complete learning facilities, a pleasant learning process, and a harmonious family have been met, this condition making students no longer feel new experiences from everyday life, such a family environment is no longer capable of being a driving force.

CONCLUSION

Descriptive variables indicate that the level of technological literacy, learning facilities, learning environment and learning motivation is classified as good, meaning that the conditions are relatively adequate in supporting the online learning process. The results of statistical tests show that technological literacy has a positive effect on students' learning motivation, the better literacy related to technology motivates student learning, as well as learning facilities also have a positive effect on motivation, this shows that the facilities provided in the online learning process can stimulate students' enthusiasm. In order to learn better, the research also provides information that the family environment, which has always been good, is perceived as normal by the students so that they are no longer a factor which is able to encourage motivation.

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