

Analysis of the Availability of Digital Devices, Quotas, and Internet Networks on Student Motivation at SMA Muhammadiyah 3 Maduran, Lamongan Regency

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Abstract

This study aims to determine the factors - the availability of digital devices, quotas, and internet networks on student learning motivation. This type of research is descriptive qualitative. The data collection technique used a survey through a questionnaire. The research subjects were high school students of grade X, XI, and XII of SMA Muhammadiyah 3 Maduran, Lamongan Regency. The survey data found that in terms of availability: 100 percent of students have digital mobile devices, ownership of laptops is 1 percent and ownership of computers is 0 percent. Data on the availability of wireless internet networks (Wireless Network) 38 percent, and 62 percent do not have internet network availability. Judging from the relationship between availability and student motivation, the availability level of digital devices for grade X students is 83 percent with a learning motivation level of 59 percent, the availability of digital devices for grade XI students: 76 percent with a learning motivation level of 53 percent, and the availability of digital devices for grade XII students. : 74 percent with a learning motivation level of 61 percent. It is concluded that the availability of digital devices, quotas, and internet networks has not been able to increase students' learning motivation, because internet assistance from the government cannot be utilized optimally.

Keywords : Availability of Digital Devices; Quota; Internet Network; Learning Motivation

1. Introduction

Implementation of distance learning (PJJ) into the network (online) of schools by the Ministry of Education and Culture of the Republic of Indonesia in academic year 2020/2021 is more structured, the schedule for face-to-face teachers with students is more planned, as well as the subjects given to students more systematically. The main reason of online learning is implemented by the Ministry is none other than the Covid-19 pandemic, this aims to limit the spread of Covid-19. (Ministerial Decree Circular, 2020).

The motivation to learn of students in the online learning process is very necessary because someone who does not have motivation to learn will not be possible to carry out learning activities. This is in accordance with what was expressed by Nur (2001:3) that students who are motivated in learning something will use higher cognitive processes in studying the material, so that students will absorb and put forward the material better. So motivation is a condition that encourages someone to do something to achieve certain

goals. Meanwhile, according to Djamarah (2002) motivation is a driving force that converts the energy within a person into a form of real activity to achieve certain goals. A person learning is not determined by the forces that come from within him, or by stimuli that come from within him, or by stimuli that come from the environment, but is a reciprocal interaction of individual determinants and environmental determinants (Bandura, 1977). Learning is a change in one's behavior through practice and experience, motivation will give better results for one's actions. Learning outcomes can be measured in the form of changes in knowledge, attitudes, and skills, changes that are better than before, for example from being unable to become able, from being unusual to being accustomed to, and from being impolite to being polite.

Facts in the field, not all educators, students, and parents of students are ready for this change in learning patterns. This is like there are educators who cannot afford because of the availability of digital devices, quotas, and internet networks, as well as students. In the video that lasts no less than 10 minutes, a mother in red with a regional accent complains about the learning that is too hard for her. In his complaint, he had to replace the teacher's job for his child, but still paid school fees in full. Tasks came every day without any explanation directly from the teacher, this made him very stressful, besides he had to finish household chores, and take care of the family business. The point is he wants the school to reopen immediately. Another video that has spread on WhatsApp group with a duration of no more than 3 minutes, the video shows how students have to go back and forth to neighbors and even to internet cafes in the morning, afternoon, and even at night just because of learning assignments and limitations of the internet network. There are also students who are silent at home who cannot study because of limited devices, quotas, and networks.

From this problem, online learning is not only the responsibility of an educator, but there must be harmonious cooperation between parents at home and educators. The lower the social level, the more complicated the problem. Most of the students at the high school level have independent attitudes and skills in using technology, but students with middle and lower social status are very dependent on the availability of digital devices, quotas, and internet networks. The solution that is expected is the hope of a helping hand from the government to immediately facilitate shortages, so that students can achieve competence at the level according to the standards set by the government, without stressing parents, especially mothers. SKB (Joint Decree) 4 ministers require educators to prioritize the safety of students. Not only physical safety, but also psychological safety which can cause students to lose their motivation to learn, stress and give up.

The general objective of this research is to analyze the factors of the availability of digital devices, quotas, and internet networks for high school students online. While the specific goal is to obtain information on the learning motivation of students during online learning.

2. Research Methods

2.1. Research design

This type of research is a qualitative descriptive study with a phenomenological approach which aims to gather information about the factors of digital device availability, quotas, and internet networks for high school students on online learning motivation. The research location was at SMA Muhammadiyah 3 Maduran, Lamongan Regency and the research was carried out on February 1 - 5, 2021. The informants in this study were 7 people, consisting of homeroom teachers of grade X-IPA, X-IPS, XI-IPA, XI-IPS1, XI-IPS2, XII-IPA, and XII-IPS. The selection of informants was carried out using purposive sampling technique (Sugiyono, 2012). By taking the subject, it is not based on strata, random, or region but is based on a specific goal. In this case the data obtained came from 7 homeroom teacher informants based on the observation of attendance data and portfolios on student activities on the Google Drive / Link application of educators and students owned by schools, factors of availability of digital devices, quotas and the entire internet network students through a questionnaire.

2.2. Data collection methods and research variables

Primary data were obtained through a questionnaire process of direct observation of informants using attendance aids and student portfolios that are on the link of the application of educators and students owned by schools. Secondary data is obtained from direct observation of high school environmental condition factors which are used as supporting and complementary data from primary data for research purposes such as the number of students in each grade, digital equipment facilities, quotas, and the internet network owned by each participant students through a questionnaire of all students online.

2.3. Data Analysis Method

Data processing from observations was carried out manually in accordance with qualitative descriptive data processing instructions and in accordance with the objectives of this study and further analyzed by the content analysis method presented in narrative form. The first stage is data reduction which is a process of selecting, terminating, simplifying, abstracting and transforming the rough data found in the field through a questionnaire. The second stage with various explanations of several sources regarding the perceptions of the informants through a questionnaire, then conclusions are drawn by interpreting the patterns of events and causal flows that answer all the research variables. The third stage analyzes and presents data that is interconnected and continues throughout the research in order to obtain a description / verification of data analysis. The analysis or activities carried out by the researcher from the beginning to the end of the study are in line with the flow of the interactive analysis model by Miles and Huberman (1984).

3. Results and Discussion

The pandemic situation requires all students and teachers to stay at home with the aim of maintaining health, always consuming nutritious food to boost the immune system, and protect themselves from the corona virus attack. This condition requires educators

to innovate to change the face-to-face learning pattern (offline) into a long distance learning (online). Online learning can reduce the number of virus spreads in addition to giving students the freedom to get information widely from various sources (Firdaus, 2020). Zhafira, Ertika, and Chairiyaton (2020), explain that there are other learning models that can be used by teaching staff as a medium for delivering knowledge, namely online learning and mixed learning (a combination of two offline and online methods). Meanwhile, schools, educators, school committees, and students who are both feeling the impact of the Covid-19 pandemic are doing their best so that learning runs orderly even though through online modes or a combination of online-offline modes. The government provides various learning applications that can be accessed and used by teachers and students. According to Arsyad (2011) online learning media or often called e-learning is a medium to support education and not as a substitute medium for education. The process of e-learning as a long distance learning media creates a new paradigm, namely the role of educators is more of a "facilitator" and students as "active participants" in the teaching and learning process. Therefore educators are also required to create good teaching techniques, present interesting material, while students are required to actively participate in the learning process. Parents must increase their time to accompany their children, while teachers must be updated to technology (Anugrahana, 2020). From here, it began to appear webinars handled by educational experts, and organized by various educational institutions. Starting from how learning in the new normal era, literacy development in the Covid-19 pandemic, mental preparation for accepting changes, making lesson plans during long distance learning, making learning videos, and much more. None other than the goal is to prepare educators to be able to maintain the teaching and learning process so that it continues even at home. Educators are prepared to accept very fast changes, be able to adapt to technological developments, and be able to make distance learning activities attractive to students. For students, online learning can keep learning motivation well.

3.1. Result

The results showed that all of the research subjects were 173 students. Consisting of grade X: 46 people, XI: 70 people, and XII: 57 people. From the availability of digital devices (computer, laptop / tablet, and cell phone) it shows that all students do not have computers, as many as 2 students have laptops, and all students have cell phones (see Table 1). Similar to the availability of an internet network for data transmission media, all students do not have a wired internet network, only 66 students have a wireless internet network, while 107 students have absolutely no network availability whatsoever (see Table 2). Likewise, the availability of internet quota that is owned. All students have an internet quota from the Government but it cannot function because the school uses its own online learning application, while the Government uses the Google Grade Room application. The data shows that for online learning needs 66 students ended up buying data packages, while 107 students were in a state of helplessness and trying to be able to take part in online learning (see Table 3).

Table 1. Availability of Digital Devices

No	Devices	Grade	Total
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	availability	X IPA	X IPS	XI IPA	XI IPS1	XI IPS2	XII IPA	XII IPS	
1	Computer	-	-	-	-	-	-	-	-
2	Laptop/Tablet	-	-	2	-	-	-	-	2
3	Hand phone	23	23	24	23	23	29	28	173

Table 2. Availability of Internet Data Transmission Media Network

No	Internet Network Availability	Grade							Total
		X IPA	X IPS	XI IPA	XI IPS1	XI IPS2	XII IPA	XII IPS	
1	Wired Network	-	-	-	-	-	-	-	-
2	Wireless Network	7	10	7	8	8	12	14	66
3	Unavailable	16	13	17	15	15	17	14	107

Table 3: Availability of internet quota

No	Internet quota availability	Grade							Total
		X IPA	X IPS	XI IPA	XI IPS1	XI IPS2	XII IPA	XII IPS	
1	From government	23	23	24	23	23	29	28	173
2	Self-effort	7	10	7	8	8	12	14	66
3	Unavailable	16	13	17	15	15	17	14	107

Students 'online learning continues in accordance with the school learning activity program, motivation data for students' online activities within the limitations of digital devices, quotas, and internet networks show the attendance of each grade X: 83 percent, grade XI: 76 percent, and grade XII: 74 percent. While the motivation in carrying out online learning activities is in the form of portfolio assignments, each of which shows the percentage of grade X: 59 percent, grade XI: 53 percent, and grade XII: 61 percent (see Table 4).

Table 4: Attendance motivation and portfolio assignments during 3 days of online learning

Grade	Total	Day I		Day II		Day III		Total	Sum				Grade Percentage	
		A	P	A	P	A	P		A	% A	P	% P	% A	% P
X-IPA	23	20	15	21	16	17	14	69	58	84	45	65	83	59
X-IPS	23	18	10	22	12	16	14	69	56	81	36	52		
XI-IPA	24	18	17	21	17	20	18	72	59	82	52	72	76	53
XI-IPS1	23	15	12	18	13	20	13	69	53	77	38	55		
XI-IPS2	23	12	8	17	9	19	10	69	48	70	27	39		
XII-IPA	29	24	18	20	18	23	16	87	67	77	52	60	74	61
XII-IPS	28	21	16	19	17	20	18	84	60	71	51	61		
Sum	173	128	96	138	102	135	103	519	401	77 %	301	58 %		

Note: A: Attendance
P: portfolio task

3.2. Discussion

Based on the analysis of the research results, it shows that the factors of digital devices, quotas, and internet networks that exist in high school students are very phenomenal. Data of students who have 100 percent availability of digital devices are only limited to cell phones, while those who have laptops are 1 percent and 0 percent of computers. Likewise, data on the availability of new internet networks shows 38 percent on wireless networks (Wireless Network). This means that 107 students or 62 percent do not have internet network availability (see Fig 1, 2, and 3).

Table 1. Availability of Digital Devices

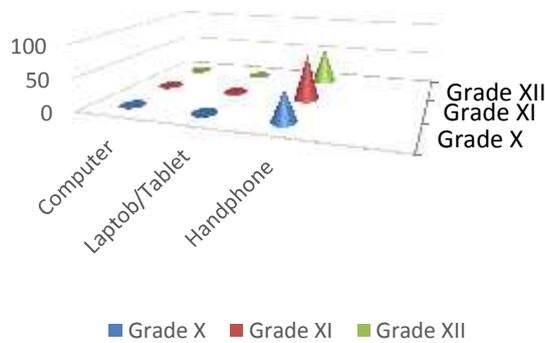


Fig 1. Availability of Digital Device

Table 2. Availability of Internet Data Transmission Media Network

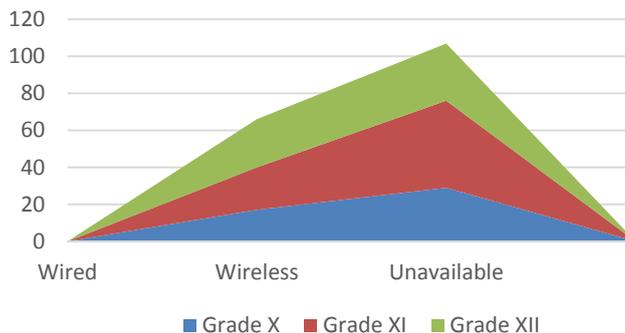


Fig 2. Availability of Internet Data Transmission Media Network

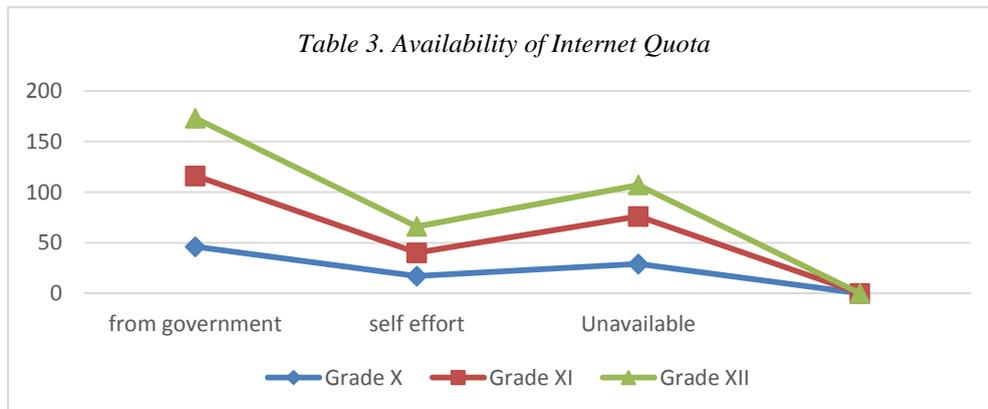


Fig 3. Availability of Internet Quota

Meanwhile, all online learning activities use the internet network. It is certain that the implementation of online learning cannot run normally, especially when studying at home without the support of an internet network. Students tend to leave the house looking for an internet network. This condition triggers the level of learning motivation to influence students (see table 4). The data shows the attendance rate of grade X students: 83 percent with the level of doing portfolio assignments at the position of 59 percent, in grade XI: 76 percent with the level of doing portfolio assignments at the position of 53 percent. While grade XII attendance percentage is 74 percent with the level of doing portfolio work at 61 percent. The phenomenon of online learning activities in this situation is very detrimental to education or school when compared to normal situations / offline learning (face-to-face). The attendance rate of students in normal / offline learning situations in one semester is an average of 98 percent with student permission / without notification of 2 percent by working on portfolio assignments averaging 100 percent.

4. Conclusion

The availability of digital devices, quotas, and internet networks for online learning has not been able to increase student motivation at SMA Muhammadiyah 3 Maduran, internet quota assistance from the government cannot be used optimally. The causative factor is the absence of a wired internet network, and weak wireless networks at the rural level. Only 38 percent of the total 173 students who have motivation to learn with various efforts, while the rest is motivation to learn in uncertain situations. Recommendation: schools can adjust the use of internet data quota assistance from the government, and internet data quota assistance from the government should be based on a proposal to use internet data quotas and the readiness of schools that provide education.

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