Profile of Junior High School Students' Satisfactions through Online Learning Integrated Science Subjects in the Covid-19 Pandemic Period

Saidatul Afifah, Parmin*
Science Education Study Program, Faculty of Mathematics and Natural Science Universitas Negeri Semarang, Semarang, Indonesia
DOI: https://doi.org/10.15294/jese.v2i2.56354

Abstract
The emergence of the corona virus outbreak to various parts of the world requires learning in Indonesia to be carried out online. The new learning system has obstacles in its implementation. This study aims to determine the level of student satisfaction with integrated science learning online. The type of research used in this research is descriptive quantitative and qualitative conducted by survey method by providing scale and interviews. The data collection technique was done by purposive sampling method. The subjects in this study were students of class VIII and IX SMP NU Suruh with the slovin formula obtained a sample of 48 students. Test the validity of the instrument using the content validity test by the supervisor. The data obtained from the questionnaire results were analyzed using descriptive percentage analysis techniques, while the interview data were processed using the Miles and Huberman analysis technique which consisted of three stages, namely data reduction, data presentation, and conclusion drawing and verification. The results showed that in general the level of student satisfaction with integrated science learning online was in the high category.
INTRODUCTION

The corona virus outbreak has hit various countries. The entry of the corona virus outbreak in Indonesia has affected various fields, including the world of education. Through the Minister of Education Nadiem Makarim, Circular Letter Number 3 of 2020 was issued in Education Units and Number 36962/MPK.A/HK/2020 concerning the Implementation of Education “in the Coronavirus Disease (COVID-19) Pandemic, namely conducting online teaching and learning activities for prevent the spread of Coronavirus Disease (COVID-19). The existence of a ban on crowding requires the learning system in Indonesia to be implemented online from their respective homes.

Herliandry et al., (2020) stated that online learning is a challenge for all elements of education, both educators and students, so that learning continues to run actively even though schools are closed. This is where the role of an educator is very meaningful in creating the right learning atmosphere when learning. In learning activities, students are expected to not only listen to explanations from educators but are also required to be active (Zakiah & Mariah, 2020). In the condition of online learning is still a new thing in the world of education. There are obstacles in the implementation of the online learning system, one of which is the lack of student activity in participating in learning.

The results of interviews with science teachers at SMP NU Suruh are the first time the school has implemented an online learning system. Based on student attendance data from the platform that has been provided, the average number for each class is 61%, while in collecting assignments it does not reach 50%, only 46.7% of students collect assignments on average. Based on this case, why don’t all students actively respond during learning as well as in working on and collecting assignments?

Herliandry et al., (2020) stated that online learning is a challenge for all elements of education, both educators and students, so that learning continues to run actively even though schools are closed. This is where the role of an educator is very meaningful in creating the right learning atmosphere when learning. In learning activities, students are expected to not only listen to explanations from educators but are also required to be active (Zakiah & Mariah, 2020). In the condition of online learning is still a new thing in the world of education. There are obstacles in the implementation of the online learning system, one of which is the lack of student activity in participating in learning.

The existence of student satisfaction can increase student interest and motivation in participating in science learning. Based on the previous description, researchers are interested in knowing the profile of student satisfaction with online Integrated Science learning that has taken place during the COVID-19 pandemic. The results of student satisfaction can be used as evaluation material in improving the quality of the online learning system (Ulinuha & Novitaningtyas, 2021). The importance of conducting research to determine the level of satisfaction with online learning so that in the future it can be used as evaluation material that leads to improving the quality of the online learning system. How an educator positions himself, formulates the next strategy to create an ideal learning system in online learning.

METHOD

This study uses quantitative and qualitative descriptive research that provides an overview of student satisfaction with the online learning of Integrated Science that has taken place. The design used in this study was carried out by means of a survey by giving scales and direct interviews by complying with health protocols. Interviews were conducted to examine more deeply about the profile of student satisfaction with integrated science learning online. The interview that will be conducted in this study is a semi-structured interview, which means that the questions are not limited to what is on the instrument that has been prepared.

The research was conducted at SMP NU Suruh, which is located at Suharman street, Reksosari, Suruh District, Semarang Regency, Central Java. The time of the research was carried out in the odd semester of the 2021/2022 academic year. The sampling technique was carried out by purposive sampling (non-random) with the consideration that students were taking online learning and students were in eighth and ninth grades who previously carried out learning as usual (offline) before conducting online learning due to the Covid-19 pandemic.

The subjects in this study were students of class VIII and IX of SMP NU Suruh by determining the number of samples determined using the Slovin formula, a sample of 48 students was obtained from a total population of 89 students with a standard error of 10%.

\[ n = \frac{N}{1 + (N\times e^2)} \]

Information:
- \( n \) : number of samples
- \( N \) : population
- \( E \) : standard error, (in this study is 10%)

The calculation used to determine the percentage level of answer scores from each respondent is written with the following formula:

\[ P = \frac{n}{N} \times 100\% \]
Information:
P  : percentage of score obtained
n  : total score obtained
N  : maximum number of scores

The satisfaction factor category is based on the category classification reference from (Saifuddin, 2005: 108) shown in Table 1.

<table>
<thead>
<tr>
<th>Interval Formula</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>X ≤ (M - 1.5 SD)</td>
<td>Very Low</td>
</tr>
<tr>
<td>(M - 1.5 SD) &lt; X ≤ (M - 0.5 SD)</td>
<td>Low</td>
</tr>
<tr>
<td>(M - 0.5 SD) &lt; X ≤ (M + 0.5 SD)</td>
<td>Currently</td>
</tr>
<tr>
<td>(M + 0.5 SD) &lt; X ≤ (M + 1.5 SD)</td>
<td>High</td>
</tr>
<tr>
<td>X &gt; (M + 1.5 SD)</td>
<td>Very High</td>
</tr>
</tbody>
</table>

RESULT AND DISCUSSION

Student Satisfaction with Online Science Learning

Student satisfaction is a feeling of pleasure for a learner because the needs they want are fulfilled based on an experience felt by students. According to Yasir et al., (2017) student satisfaction in learning fosters student motivation and has a positive attitude towards learning. The results of descriptive statistical analysis showed that the level of student satisfaction with Integrated Science online learning which consisted of 50 questions with 48 respondents tended to be in the high category.

The results of the study are based on indicators of student satisfaction with integrated science learning online according to Napitupulu (2020) namely: accessibility, device ownership, monitoring ability, ease of obtaining material, ease of learning material, interactivity, method accuracy, and learning independence are described as follows.

Accessibility

Accessibility is the ease of accessing technology as a support in online learning. Ease of internet access is needed to support online learning. The main component for the implementation of online learning is the availability of an internet connection (Handayani & Jumadi, 2021). However, the results of the research respondents showed different levels of accessibility. For children who are in the orphanage, wifi has been installed with good signal strength that supports online learning. Students living in Islamic boarding schools such as the Hamalatil Quran Islamic boarding school have used wifi, but because wifi is used by many users and at the same time affects signal strength, the signal is weak. One of the factors that affect the quality of internet access is the imbalance between the number of users and the comparison of internet services because the trend of internet usage continues to grow, resulting in stagnation of bandwidth availability while the number of users continues to increase (Ruth, 2013).

Signal strength is also affected by geographical factors. Students who take online learning from home each have different internet signal quality. This is because inland areas, especially those adjacent to the highlands, for example in the Reksosari Village area, cannot be reached by state and private internet service providers (Pribadi & Assidiq, 2021). Students who live in rural areas or remote villages have poor internet access when carrying out online learning. Online learning in remote areas with minimal network access will be much more difficult to do (Mansyur, 2020).

Accessibility affects the satisfaction of students in participating in integrated science learning online. Speed of internet access is a common problem. Online learning requires a capable internet connection, but students often complain of a difficult signal, the network is sometimes disconnected causing the learning process to not run smoothly (Awalia et al., 2021;
Muhammad et al., 2021; Prasani et al., 2021). Students find it difficult to participate in online learning because not all areas where they live have good cell phone signals, have difficulty participating in online learning because not all areas where they live have good cellular signals, internet connections are not stable. This makes students sometimes late in participating in learning and in obtaining learning information. During the Covid-19 pandemic, most students went home and took online learning from their respective homes, students found it difficult due to the limited cellular signal even if there was a weak signal strength (Firman & Rahman, 2020; Sadikin & Hamidah, 2020).

Students who are in a low level of satisfaction in accessibility means that they are quite difficult with access when participating in learning. Even so, students can still take part in learning even though sometimes they are late due to a cellular signal that is less supportive. In the Covid-19 era that demands online learning, the need and ease of internet access is an absolute must. Yudiawan et al. (2021) stated that the infrastructure and quality of the system had the most significant influence on the success of online learning. This needs more attention from the government and authorities. The fulfillment of internet network infrastructure with qualified bandwidth and access points in various strategic areas must be optimized.

**Device ownership**

The results of the study showed that most students had tools to support them in participating in online learning. At SMP NU Suruh in implementing online learning requires students to have cell phones. Ownership of devices such as gadgets is needed in the implementation of online learning. Online learning requires supporting tools such as telephones and computers (Putria et al., 2020). Elements that help online learning include smartphone devices and the like as well as internet networks (Handayani & Jumadi, 2021). The available storage features can provide space to store teaching materials provided by educators, so students can flexibly open or re-access these teaching materials at any time (Firman & Rahman, 2020).

Based on the research results of Hootsuite and We Are Social posted Monday, February 15, 2021 by Founder Drone Empirit Ismail Fahmi, Indonesian internet users reach 73.7% of the total 274.9 million Indonesian population. Meanwhile, 45.3 million people are internet users based on smartphone devices. This figure covers the percentage of up to 125.6% of the population experiencing an increase of 4 million or 1.2%. Smartphone users dominate ownership of electronic devices. According to a survey, 98.2% of Indonesians already use smartphones (Novianty & Prasetya, 2020). Learners regarding device facilities, the majority already have a device to take part in online learning. However, not all students at SMP NU Suruh have a device that fully supports learning, such as devices that do not support the use of LMS, the device sometimes goes blank, the battery does not last long, and the storage space is full. The storage space on the cellphone runs out to be one of the obstacles that students feel when learning online (Awalia et al., 2021).

In the aspect of fulfilling the quota, not all students have an adequate quota in participating in learning. Not all of the students at SMP NU Suruh are in the upper middle-class economy. Not all students immediately buy internet quota when it runs out. Students who live in the orphanage as well as some students to buy quotas must be independent. The school had facilitated internet quota, but it was deemed insufficient. This has an effect on student satisfaction. Meeting quotas is still a common problem. One of the obstacles in online learning is that students complain about running out of internet packages (Awalia et al., 2021). It is known that device ownership is one of the indicators that influence the success of online learning.

**Monitoring ability**

The ability to easily monitor learning progress from home at any time is one indicator that affects student satisfaction. Based on the results of the study, most of the respondents are in the high category, which means that students could easily monitor the development of PJJ at any time. However, there are students who are not in the high category. Difficulties in monitoring the development of learning materials are caused by students not being able to fully participate in learning during learning. This is also influenced by the availability of an internet connection because the signal is not smooth, students cannot follow it on time according to lesson hours. In line with research conducted by Siahaan (2020) that the problems of the online learning system such as the slowness of accessing information due to signal constraints. Students sometimes lag in obtaining information which results in delays in collecting an assignment from the teacher.
The difficulty of students in monitoring learning activities is also influenced by the background of students doing distance learning in the cottage. The results of the interview revealed that students who live in the pesantren environment are limited in using cellphones/mobile phones. On average, students use cellphones one hour a day in the morning so they cannot always stay with the ongoing learning. So, in this case it affects the ability to monitor when learning takes place. Students are not able to follow when learning is in progress and take part in learning at a certain time that has been determined. In such conditions, students feel overwhelmed in participating in online learning because of the limited time in using the device. The respondents who are in the very high category, students who live at home have their own devices that are free to use anytime and anywhere. This is in line with the research conducted by Handayani & Jumadi (2021) that the majority of students use personal cellphones to carry out learning.

**Ease of obtaining materials**

The results of the analysis of satisfaction with online learning based on indicators of ease of obtaining material mean that it is in the high category which means that respondents are easy to obtain material during learning.

The ease of obtaining material in learning is one of the determinants of student satisfaction. Based on the respondents' answers, not all of them showed the ease of obtaining the material. Students who live in Islamic boarding schools such as the Hamalatil Quran Al Mansur Islamic boarding school have been installed with Wi-Fi, thus providing convenience in obtaining the material presented by the teacher. Likewise for respondents who live in the orphanage, the orphanage facilitates Wi-Fi. During learning, when the teacher provides material, students can download the material well, although it does not always have a high speed in downloading media in the form of material or questions presented. Internet access speed in Indonesia is still in the slow category. Google search results, Ookla speed test results re-publish related to internet speed in various countries in the world. According to the Speed test Global Index as of July 2021, Indonesia's mobile internet download speed is 21.35 Mbit/s. Indonesia's position in the mobile internet speed category fell six places, which is in the 110th position out of 139 countries in the world. Based on speed test, Indonesia's fixed broadband internet speed is also worse than last month. As of July 2021, Indonesia's fixed broadband internet speed of 25.58 Mbit/s fell by 0.59 Mbit/s, ranking 119 out of 180 countries, far from Singapore (rank 2) at 256.03 Mbps (Haryanto, 2021).

On the other hand, there are student respondents who find it difficult to obtain material while participating in online science learning. This is because there are some materials that are delivered via WhatsApp groups, sometimes the application does not support opening the file. Even so, students prefer to ask friends rather than download applications on the grounds that their cellphone memory is full. The use of the application is a tool or media that is used as a facilitator for delivering learning materials (Awalia et al., 2021). With the ease of obtaining material, it affects the satisfaction of students in participating in Integrated Science learning online.

**Ease of studying the material**

The results based on research on the indicators of the ease of learning the material, the level of student satisfaction is at the lowest percentage compared to other indicators influenced by several things. Participants felt that the material delivered online did not provide satisfaction for students. Students feel it is not enough if the teacher only provides material and then is given an assignment. An explanation from the teacher is needed especially on complex material so that the material is more easily absorbed by students. This is in line with research conducted Hafida et al., (2020) that many students have difficulty understanding learning materials delivered online, where the dominant teaching material is reading material.

Ease of learning the material that has been provided by educators is needed so that learning objectives can be achieved properly. However, in online learning, not everything is conveyed well. Students prefer if the material delivered directly will be easier to understand. Basar (2021) states the obstacles felt by teachers in assessing learning outcomes because students have difficulty accepting or understanding each indicator that has been given during online learning that has taken place even though learning indicators have been conveyed repeatedly through learning media such as google classroom. Students do not always open it even though all the material has been delivered and given an explanation.

**Interactivity**
The results of the analysis of satisfaction with online learning based on interactivity indicators are in the high category. Interactivity is an interaction that exists between teachers and students during online learning (Zakiah & Mariah, 2020). Online classroom learning requires adequate internet access and can be accessed using gadgets and laptops so that there is feedback from students (Basilaia et al., 2020). In order to achieve the goal of distance learning during the COVID-19 period, namely to accommodate student learning needs, "it requires the readiness of educators, an appropriate curriculum, the availability of learning resources, as well as support for stable devices and networks so that communication between students and educators can be effective" (Basar, 2021).

The results based on research on the majority of interactivity indicators are in the high category. Not achieving the interactivity aspect in the very high category is influenced by several things. Students who live in Islamic boarding schools are limited in using cellphones so they cannot follow the learning process. Students who can take part in learning while learning takes place feel bored with online learning, which is mostly only given material and told to learn it by themselves. In addition, because not all of them took part in the lesson, the students who attended felt uninterested or had low motivation in participating in the lesson. When learning at school students discuss and work together in completing assignments.

In addition, most students were less enthusiastic in responding to questions because students did not like asking questions or responding to WhatsApp groups. They feel that the communication that is established is less two-way, such as wanting to ask questions in their class forum is more awkward. It is different from research conducted Firman & Rahman, (2020) that the absence of a direct teacher makes students not awkward in conveying their responses so that they can express their thoughts and can ask questions freely.

Students at SMP NU Suruh prefer to communicate directly with the teacher without feeling awkward because the teacher has a humble nature. In contrast to online learning, students prefer to respond to face-to-face learning in class because it is easier to interact. Students are more free in expressing their opinions and in asking questions. Interactivity has an effect on student satisfaction in participating in integrated science learning online. In-class interactions with teachers can help create interactive relationships, whereas with online learning, the fear of interaction prevents them from attending online classes (Keaton & Gilbert, 2020).

**Method accuracy**

The results based on research on the indicators of the accuracy of the method, the level of student satisfaction is in the very high category. This means that students feel that the method used is appropriate. Failure to achieve in the very high category is influenced by several things. Some respondents did not maximize the statement about the start of class hours. Students who live in Islamic boarding schools are limited in using cell phones. In terms of timeliness, sometimes learning starts a little earlier due to adjusting to the boarding school children. On another factor, some students feel that they are lacking in fulfilling audio-visual material in the delivery of material by the teacher. The selection of the right teaching media according to what students need will be able to increase student activity (Prasetya & Harjanto, 2020).

The right method affects the satisfaction of students in participating in integrated science learning online. In online learning at NU Junior High School, ask to use an LMS in the form of a WhatsApp group after first trying to use Google Classroom. However, students feel confused about using Google Classroom because they are not familiar with the appearance of the features in it. So that WhatsApp media is then used in online learning because it is considered more effective. WhatsApp is considered practical and easy to use by teachers and students. In addition, the WhatsApp application was quite familiar even before the pandemic, many were using the application (Sukoyo et al., 2021).

Learning materials, discussion activities, and task collection are provided via WhatsApp. Most students are satisfied and happy with the appearance of the material and the way the teacher teaches in creating an interesting learning atmosphere. Appropriate online learning methods affect the quality of systems, information, and services received by learners (Pawirosumarto, 2016). The right learning strategy can affect students' attitudes when involved in it (Aziz et al., 2013). Research Hasan (2022) confirms the positive impact of using rubric-based feedback effectively in developing writing skills of Saudi secondary school students. Based on respondents' answers, currently the method used in online learning is appropriate.

**Independent learning**
The results are based on research on the accuracy of the method, the level of student satisfaction is in the high category. Not being achieved in the very high category, some respondents were not optimal in statements about independence in doing tasks. Participants prefer to ask friends in doing this task is influenced by several things including the limited time in using the device. Students feel overwhelmed if in a limited time they have to study the material presented by the teacher and do assignments independently. The burden of online learning/excessive learning tasks with short working time results in stress for students (PH et al., 2020).

Another factor is that students have not been able to fully understand the material delivered online or in understanding the questions in the assignments given. Thus, students prefer to ask friends in doing assignments on the grounds that they are more time efficient and can collect assignments given by the teacher. Online learning is considered to be less effective which in its implementation provides an illustration that students' understanding of the material is not optimal and that too many tasks are given to students (Widyono, 2020). However, students re-learn the assignments that have been collected and read the subject matter. Students should be given an understanding that giving assignments is not a burden that must be completed but is a process that must be passed to make it easier to understand the material (Kurniasari et al., 2020). In learning it is important to identify the importance of curriculum, teaching methods, and assessment methods, and the school and home environment for students to be aware of these factors and their role (Khasawneh, 2022).

Theoretically, independent learning is one indicator of the success of online learning. Online distance learning is also able to foster student learning independence. Learning without direct guidance by the teacher makes students independent in learning information about the material and assignments that have been given (Firman & Rahman, 2020). In other statements about independence in learning to study material outside of learning, most of them answered agree. This means that students feel they need a lot of reading and learning, especially in online learning, even though in reality students don't learn much.

The results of the study are not entirely online learning has an influence on independent learning. The results of the analysis of research data that have been carried out by analyzing the level of satisfaction with online learning are mostly in the high category. However, if asked to choose between online learning and offline learning, based on interviews, students prefer learning to be held face-to-face in class. Students feel more comfortable for several reasons: material delivered face-to-face is easier for students to accept; get to meet teachers and friends; easier to interact both with friends and with teachers; for boarding school children the time to learn lessons at school can be more focused.

CONCLUSION

Based on the results of research and data analysis that has been carried out, it can be concluded that in general the level of student satisfaction with integrated science learning online is in the high category. The suggestions that can be given are: teachers should be able to create a more interesting learning atmosphere in the learning group and make teaching materials more interesting so that students do not feel bored and are more enthusiastic in participating in learning., the need for special attention on the provision of internet services in rural areas in supporting online learning activities., there is a need for research in similar matters but more in the use of variable variations.

REFERENCES


Basilaiá, G., Dgebuadze, M., Kantaria, M., &


Ruth, E. (2013). Deskripsi Kualitas Layanan Jasa Akses Internet di Indonesia dari Sudut Pandang Penyelenggara Description of Internet Quality of Services (Qos) in Indonesia From the Providers’ Point of View. *Buletin Pos Dan Telekomunikasi*, 11(2), 137–146.


