# Efficacy of Subsidy Quota Usage to Support Learning in the Covid-19 Pandemic

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**Abstract.** This study aims to describe the efficacy of free quota used by students at Gorontalo State University in learning activities during the Covid-19 pandemic. The description overviews the learning type during the Covid-19 pandemic, an application used by lecturers and instructors during learning activities, the efficacy of learning activities, efficacy of quota use in free quota programs from the Government to help students in learning activities. This study used a qualitative-descriptive approach. The method of research is based on surveys and interviews. The study involved 140 students of Gorontalo State University, consisting of study programs: Economic Education, Chemical Education, and Community Education. The survey results demonstrate that learning activity during the Covid-19 pandemic is done via virtual learning. The results showed that free credit quotas for students were not maximally used for most of the monthly data credit quotas students were given to support the virtual learning excesses. Meanwhile, the 5 GB credit quota to help students access the material that promotes lectures needs to be increased, especially for students who are approaching the completion of the study.

**Keywords:** Online Learning · Online Learning Platform · Internet Quota · COVID-19

## 1 Introduction

Since March 2020, when the Government officially declared Indonesia a health emergency due to the outbreak of the COVID-19 pandemic, following not long before the Large-scale Social Restrictions (Bahasa Indonesia: Pembatasan Sosial Berskala Besar/PSBB) policy, the Ministry of Education and Culture strictly obliged Distance Education (Bahasa Indonesia: Pendidikan Jarak Jauh/PJJ). Although the commotion following the regulation, such as unpreparedness of human resources or lack of facility and technical support [1–5], the Government persevered that learning-from-home applied to all education institutions, particularly ones in the red zone. Regardless, the Government provided 'accommodation' to support education during the COVID-19 pandemic.

The Government subsidized internet quota for all students based on their level of education (Regulation of the Secretary-General Number 14 of 2020, concerning Technical Guidelines for Internet Quota Assistance in 2020). As for higher education, the

**Table 1.** Description of subsidized internet quota volume during 4 (four) a months probation period. Highlighted text is the level of education focused in this study—source: Regulation of the Secretary-General Number 14 of 2020.

| Recipient | Volume (monthly) | Volume Division (monthly) | |
|---|---|---|---|
| | | General Quota | Learning Support Quota |
| Early Childhood Education (Educatee) | 20 GB | 5 GB | 15 GB |
| Primary and Secondary Education (Educatee) | 35 GB | 5 GB | 30 GB |
| Early Childhood, Primary, and Secondary Education (Educator) | 42 GB | 5 GB | 37 GB |
| Higher Education (Educatee and Educator) | 50 GB | 5 GB | 45 GB |

amount of subsidized internet quota is 50GB monthly, classified into 45GB quota for learning and 5GB general quota. The internet quota assistance is sent via a mobile operator. The first trial of internet quota assistance is on 22nd – 24th September 2020. This policy undisputedly has received favorable responses from the public.

According to the regulation, the quota for learning is specified to access specific education sites listed at https://kuota-belajar.kemdikbud.go.id/. The list of sites is shown in Table 2, along with 401 official university websites. Video conference platforms are the most commonly accessible sites listed for higher education. It includes Cisco Webex, Google Meet, Microsoft Teams, U Meet Me, and Zoom Meetings.

### 1.1   Objectives

This research describes the efficacy of subsidized internet quota to support virtual learning during the COVID-19 pandemic, especially the allocation of a 45GB quota with limited accessible sites listed. It will also discuss how to optimize video conference usage, especially ones developed by the university.

### 1.2   Literature Review

According to the regulation, a quota for learning is specified to access specific education sites listed at https://kuota-belajar.kemdikbud.go.id/ (Tables 1 and 2). The listed sites include education applications, video conference platforms, websites of the ministry of education and culture, nonformal education websites, and 401 university websites. The areas listed include all levels of education-accessible sites. Video conference platforms are the most commonly accessible sites listed for higher education. It includes Cisco Webex, Google Meet, Microsoft Teams, U Meet Me, and Zoom Meeting.

Zoom is a video conference software program developed by Zoom Video Communications. It is compatible with various operating systems such as Windows, macOS,

**Table 2.** List of accessible internet-based platform using learning support quota. Highlighted text is the list of most usable platforms in formal higher education. Source: https://kuota-belajar.kem dikbud.go.id/

| Websites | Android and Web-based Applications | Video Conferences |
|---|---|---|
| aksi.puspendik.kemdikbud.go.id/ membacadigital | Aminin | Cisco Webex |
| bersamahadapikorona. kemdikbud.go.id | Ayoblajar | Google Meet |
| bse.kemdikbud.go.id | Bahaso | Microsoft Teams |
| buku.kemdikbud.go.id | Birru | U Meet Me |
| cambridgeenglish.org | Cakap | Zoom |
| elearning.gurudaringmilenial.id | Duolingo | |
| guruberbagi.kemdikbud.go.id | Edmodo | |
| icando.co.id | Eduka system | |
| indihomestudy.com | Ganeca digital | |
| Infomedia.co.id | Google Classroom | |
| kelaspintar.id | Kipin School 4.0 | |
| lms.seamolec.org | Microsoft Education | |
| mejakita.com | Quipper | |
| melajah.id | Ruang Guru | |
| pijarmahir.id | Rumah Belajar | |
| pijarsekolah.id | Sekolah | |
| rumahbelajar.id | Udemy | |
| setara.kemdikbud.go.id | Zenius | |
| suaraedukasi.kemdikbud.go.id | WhatsApp | |
| tve.kemdikbud.go.id | | |
| www.indonesiax.co.id | | |
| www.wekiddo.com | | |

iOS, Android, Chrome OS, and Linux. (Wikipedia). Functional features are included in Zoom, such as recording sessions, sharing screens, breakout rooms, and even connecting to Youtube. It is become slightly famous during the pandemic due to online virtual meetings [6]. It has been reported as the most commonly used video conference application for two consecutive years (news by Okta Inc., 2021). The only obstacle is free Zoom application is limited to a 40-min meeting with 100 participants, which might be an inconvenience for classes out of those two conditions (). Some argue that the security the privacy of Zoom might be risky [2]. Cisco Webex Meetings Service for video and web conferencing with a capacity of 25 and 200 attendees per session for Named User
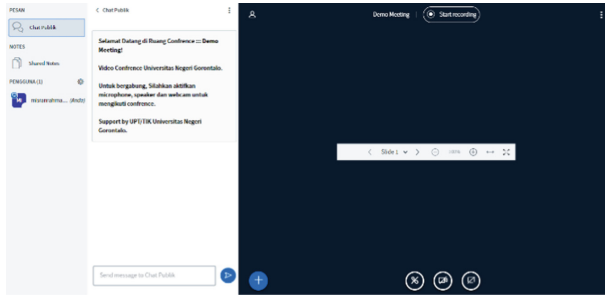
**Fig. 1.** Display of UNG's video conference (site: http://vicon.ung.ac.id/).

(Cisco Webex Data Sheet). WebEx Meeting is one of the video call applications as zoom, the application. Webex can record meetings to be shared on the website. The system can be accessed with various devices, such as iOS or Android [7]. The system can support a large number of users, up to 100 users. Learning activities suggest that Webex can increase online course delivery [8]. The efficacy class discussion methods used by the Cisco WebEx application learning media were more effective [9]. Thus the use of WebEx in lectures is possible. Some people use Google Meet more quickly than the two previous applications on how to open Google Meet through Google Chrome and log in via email. Google Meet can be integrated directly into Google Classroom by entering into classroom subjects or courses. The use of Google Meet in lectures is quite effective as it does not limit the duration of meetings [10]. The study's results on students in Jakarta showed that courses using Google Meet gave the impression of convenience, usefulness, and building a positive attitude [11]. With this positive attitude, motivation is awakened. Furthermore, the study's results suggested that the Google Meet-assisted lecture method affected increasing knowledge and learning outcomes [5]. Another application that can be used for virtual meetings or learning is Microsoft Teams. In Microsoft Teams, many things can be done, including video calls, messages, coordination meetings, and voice calls. One of the studies related to Microsoft Teams stated the results of their research that the use of Microsoft Teams increased the collaboration of students [12]. Thus, Microsoft Teams helps the lecturers in conducting virtual learning. In addition, all functions in Microsoft Teams are integrated into Microsoft Office 365. Therefore Microsoft Teams users must have an account on Microsoft Office 365. UMeetMe is a video conferencing platform developed by Telkom Indonesia. It contains a virtual whiteboard, collaborative document, and attendance. It is compatible with Windows, macOS, Chrome OS, and Android. University video conferencing platforms are one of the accessible platforms by the subsidized internet quota. These are platforms provided by institution incorporation with the Government not only to support online learning but also to support the institution. One is the Video Conference Universitas Negeri Gorontalo platform (http://vicon.ung.ac.id/). The demo meeting of the forum provided essential video conference features such as video calls, chat, share screen, etc. Later on, the IT Team of the university developed "UNG Berdarma" as a video conference platform of UNG (Fig. 1).

## 2 Method

This study utilized a qualitative-descriptive approach. The research subjects were 136 students from three study programs: nonformal education, economic education, and chemical education. Data analysis was adjusted to the instrument. Surveys, questionnaires obtain data, and interviews, using statistics, displayed the result of questionnaires and interviews explained qualitatively.

### 2.1 Data Collection

As mentioned, the data is collected through surveys, questionnaires, and interviews. Questionnaires included: the type of mobile operators, the amount of internet quota received, and the average quota used in a month by students. The questionnaires also included the number of courses students took and the duration of online classes. The amount of internet quota received is defined as the classification of the amount of internet quota notified by mobile operators (roughly 45GB for 'online learning' and 5GB for general online activity). The amount of quota used is defined as the difference between the classification of a quota received and the remnant quota notified by mobile operators.

Representative students are interviewed. Instruments for the interview are listed by items supported by questionnaire analysis. They roughly included advantages and obstacles using the subsidy of internet quota, facilities and technical supports available for students, and the current address of students.

Data analysis is conducted by organizing data, discussing among fellow researchers, interpreting discussion results, and concluding. It is carried out on several representative students. Unlike the questionnaire, the samples in the interview were determined purposively and represented the three study programs and the various range of internet quota usage.

## 3 Result and Discussion

### 3.1 Result

Since the covid-19 outbreak, online learning has been obliged despite the system's readiness and resources in the education section. Universitas Negeri Gorontalo's policy stated that any administration, including lectures, is compulsory to be held "in the distance" except several restricted "to be at the place." Due to the regulation, the efficacy of distance learning is at least supported by the following factors: (i) adequate supporting facilities (laptops/desktops/tablets/smartphones), (ii) availability of internet access, and (iii) readiness of human resources (lecturers/students/administrators) to the online learning.

The result shows that (i) and (ii) factors are adequately fulfilled for lecturers but not all students. Questionnaire results show that none of the students rely on tablets for distance learning. Some students need a laptop/desktop to attend virtual lectures. Smartphone has difficulty doing assignments and presentations.

More problems are that some of the students stay in limited internet-access areas. These places are either their original home or rented house. In a more extensive scope,

Gorontalo as a province has infrastructure development. It is a place that is distributed in high land and low land, with additionally protected forest. Therefore, it is acceptable that the internet or even electricity is limited in some places. Despite that, the students are 'forced' to struggle with internet limitations. The win-win solution is to stay in a nonlimited access area (primarily the campus itself) or collaborate with friends who use laptops. This contradicts the original purpose of social distancing.

The Government's internet network constraints, in this case, the Ministry of Education and Culture, assisted in the form of a free credit quota of 50 GB with details of 45 GB for virtual classrooms and 5 GB for accessing lecture references. The quota of assistance is given to all students without any difference regarding the condition of student lectures, majors, and semester positions taken. Therefore, based on the results of the researcher's investigation, it was found that the use of data pulses in a month varies.

Figure 2 shows a variety of credit quota usage monthly. 23% of students spent full credit quotas, or an average of 31–45 GB monthly, which means that more than half of students left an abundance of remnant credit quota in vain. Around 12% of students can only use a maximum of 10 GB of data pulses. Most students spent an average of 11 – 20 GB of the credit quotas monthly. The results of further investigations show that the cause of differences in the use of data pulse quotas by students is the difference in the number of courses that students take in a week, aside from the resources above issue. The number of courses taken by students was quite varied. For early semester students, the number of courses taken in a week is up to 9 courses, while for final semester students, the number of courses taken is around 2–3 courses a week. Information was also obtained that some students who received the free credit quota had freed their classes and were preparing for their final project.

Regarding the use of a data quota of 5 GB for access to lecture references, the results of interviews with early semester students stated that more than the quota is needed if used in a month. Likewise, final-year students said that more than the data quota of 5 GB was required to access lecture references. The survey results on students who take lectures virtually stated that the applications that lecturers often use are zoom meetings and Google meet. Meanwhile, Cisco WebEx virtual applications, video conferencing platforms, and Microsoft Teams are rarely used. Especially for the use of the zoom meeting application, free access time facilities are allowed for only 40 min. From the interview results, even though Zoom meetings with a limited time duration are still forced to be used. Consequently, some courses needed to be implemented according to the allotted time. Finally, according to student information, some lecturers still need more creativity in processing and managing lecture materials

## 3.2  Discussion

The backlash of the "online learning" policy when it was first stated erupted as the public argued on social media and even academic publications that 'we are not ready. The main reasons are inadequate human resources, facilities, and network connectivity [2–5, 13, 14]. Even so, with the abrupt outbreak of the COVID-19 pandemic, the Government has made a conscious effort to offer the most excellent education possible under this circumstance by providing a free quota for learning.
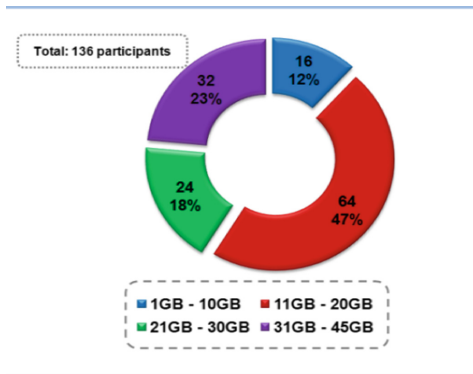
**Fig. 2.** Distribution of Credit Quota Usage for Virtual Lectures

However, only a tiny proportion of students used the quota of up to 45 GB/a month. Most students used up to 20 GB, meaning that more than half of the data pulse quota was not used. This may or may not affect the Government financially, but such inefficacy potentially affects students' quality of education. For example, there are obstacles happened to students that make them might not be able to fully use the internet, such as loss of connectivity, lack of compatible devices, lack of understanding of how to utilize the platforms, or stipulation of limited platforms used particularly for higher education students that can mainly only access virtual meeting (see Table 2).

The author realized that the heterogeneity of subjects in higher education might demand unlimited sources, websites, and platforms to be accessible. It is exhausting to fulfill every single one of them. Therefore, the author would like to argue that limiting accessible websites, specifically for higher education students, is unnecessary. Instead, there must be more restrictions to various irrelevant educational websites (optionally social media) as by law applied to inappropriate websites.

Utilizing every platform of the available options is another way to optimize the internet quota. Students and lecturers might get accustomed to using numerous virtual meeting platforms, including Zoom Meetings and Google Meet. Due to their popularity, Zoom Meetings and Google Meet have also been reported as the most widely used video conference platforms, particularly for education [3, 11, [15–17]. Although it is all about convenience, all platforms have benefits and drawbacks. The free Zoom Meeting gave 40 min for each meeting. Therefore longer course requires more than one session when using this platform. While Google Meet has no duration limit, it is best to work in Chrome; any other browser might reduce its compatibility. Microsoft Teams integrates with Microsoft Office 365 [18], the online version of the relatively common usable software called Microsoft Office. Stated that Microsoft Teams' features are technically overwhelming [19]. Regarding fast connectivity, however, Zoom Meetings requires relatively low bandwidth compared to Hangouts (which represents the Google platform) and Webex [20].

Diversity of educational programs in higher education is also a challenge to regulating internet quota distribution in higher education. For example, physical, educational programs might require less internet quota than IT educational programs. Educational

programs that set more time on studying literature references might need more amount of internet quota instead of those on lab experiments. Even in the same academic program, different study levels might require different internet quota needs. This kind of heterogeneity is yet to be resolved.

## 4    Conclusion

This study examined the efficacy of subsidized credit quotas given to students, mentioning where it is ineffective. The distribution should consider the average number of courses taken by students and the duration partition of lectures: whether they spend primarily on virtual meetings, which take most of the quota, or mostly on personal assignment article writing tasks. One of the obstacles related to lecturers' general capability to utilize worldwide virtual meeting platforms. Not all the venues are accessible when using the quota, yet these platforms are mainly used; therefore, tutorials and manuals are widely provided.

Management is still a challenge. As universities start to build their own Learning Management Systems during the pandemic, local virtual meeting platforms are best to be tested. UNG has its own virtual meetings access in vicon.ung.ac.id that is worth to be used.

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