



# Improving Education Quality During the Covid-19 Pandemic Through Tutoring Activity at Wonokerto Village

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**Abstract.** Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-COV-2) or better known as the corona virus (Covid-19) is a virus that can be transmitted and attacks everyone, from baby until adult people in close contact. The impact of COVID-19 pandemic is huge, especially on the educational field. The central government has created a policy to stop the face-to-face teaching and learning activities at school and to conduct online learning method (using internet). The challenge experienced by students in participating online learning is they find it difficult to comprehend the material presented by the teachers. Tutoring activities aim to improve education quality during Covid-19 pandemic by helping students to face the difficulty in study during online learning. The target of this program is students from kindergarten to junior high school. The methods used in these activities are giving the explanation of the material, giving students exercises based on the material, and online or offline tutoring activities using WhatsApp platform. In each meeting, this program was attended by 3–15 participants and each participant does 3–4 exercises with various materials according to what have been given by their teachers. These activities were welcomed by the students enthusiastically and they felt very helpful in understanding the material, doing school assignments, and being more motivated or enthusiastic to study during online learning.

**Keywords:** Tutoring Activities · Covid-19 · Online Learning

## 1 Introduction

Since the end of 2019, a virus named Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-COV-2), or more commonly known as the corona virus (Covid-19), has emerged. The virus can be transmitted and attacks everyone, from babies to children, adults until the elderly in close contact. The COVID-19 brings a huge impact on the educational field across the world [1, 3]. The government has created a policy to prevent Covid-19 virus spreading with the Circular Letter from the Ministry of Education, Culture, Research, and Technology Number 4 of 2020 concerning the Implementation of Education Policies in the Emergency Period during this virus spreading in the second point part-a. It is stated that students learn through online or distance learning from home. Then it is reinforced

by Circular Letter Number 15 of 2020 concerning Guidelines for the Implementation of Learning from Home (LFH) during the Covid-19 pandemic. It was stated that during this situation, the learning from home implementation (LFH) was carried out by employing the COVID-19 protocol [3].

Virtual or online learning is non face to face learning by using learning media or platform and networks. All materials are distributed online with online interaction [2]. Some learning platforms, for example WhatsApp, Google Classroom, Google Meet, Zoom, and Microsoft Teams, are used in sustaining the activities of online learning [4]. Although online learning helps students to build their independence in study and proves useful in protecting students' health in the face of COVID-19 pandemic, this method also has some challenges for students and not as effective as conventional learning [1]. Sometimes students face difficulties in understanding the material given by their teachers.

The parents' role is needed in online learning by providing learning guidance to their children. The government has a shared duty for education, together with schools (teachers), families, and other community members (parents) [7]. Head of the Research and Development and Books Agency, Totok Suprayitno said that parents also take an important part to implement the distance learning. The results of an online survey carried out by the Ministry of Education, Culture, Research, and Technology of Republic Indonesia involving around 38,000 students and more than 46,000 parents at all educational levels across Indonesia showed that 96.6% of students study totally from home, 3.3% of students study at home and at school, and 0.1% of students are still learning at school. Inadequate internet network is one of the reasons that make 3.3% of students study at home and at school. In addition, the survey showed students had difficulty in understanding the material [9].

The parents' role during online learning is different from conventional learning as usual. In conventional learning the parents' role is only limited to being parents for their children, but in online learning they are also as educators, mentors, motivators, and facilitators [8]. However, not all parents have enough time because they are busy with their work [6]. Hence, some parents give their children the freedom to study and do tasks independently. This also happened in Manggungsari community, Wonokerto Village, Turi, Sleman Regency, Special Region of Yogyakarta.

The population in Manggungsari is about 460 people and most of them work as farmers. After observing, not all parents in the village can provide learning guidance to their children. Besides not having much time due to work, some parents also struggle to comprehend the lessons which are given by the teachers. They face the limitation in providing learning guidance to their children so they give freedom to their children to study independently which make their children experience boredom, reduce focus in learning, and become lazy at home.

Based on the problems above, the author conducted community service activities by conducting mathematics tutoring activities in Manggungsari, Wonokerto, Turi, Sleman Regency, Special Region of Yogyakarta. This program aims to: (1) help students who have learning difficulties in online learning as an effort to improve education quality during Covid-19 pandemic, and (2) help parents in providing learning assistance or guidance to their children during online learning. This program is expected to help



Fig. 1. Brochure for Mathematics Tutoring Activity

students and parents by giving learning guidance in understanding every subject material given by teachers in Manggungsari, Wonokerto Village, Sleman Regency, Special Region of Yogyakarta.

## 2 Discussion

The This community service program is carried out by providing tutoring guidance in all subjects, especially mathematics. The methods used in this program are giving lectures by explaining the material, then providing opportunities for students to ask questions related to explanations or materials that have not been understood, giving student learning guidance in doing school assignments, and providing exercise as a tool to measure ability or evaluate the level of understanding by the students. The first activity carried out in this program was determining the schedules of offline guidance in Manggungsari community, Wonokerto Village by coordinating with the hamlet administrators and the children. After determining the schedules, the next activity is making and distributing posters or brochures for online tutors which are intended for students who already have personal communication tools (smartphone) for Manggungsari community, Wonokerto Village residents and outside Manggungsari community, Wonokerto Village residents. Other preparations carried out are preparing materials and printing the exercise questions that have been adapted to the established educational curriculum. Moreover, we should prepare some stuffs to support the program activities such as stationery, blank paper, and whiteboard to make students more comfortable and enjoy the class (Fig. 1).

The second stage is the implementation of tutoring activities. These activities were carried out in two ways, online through WhatsApp platform and offline which was

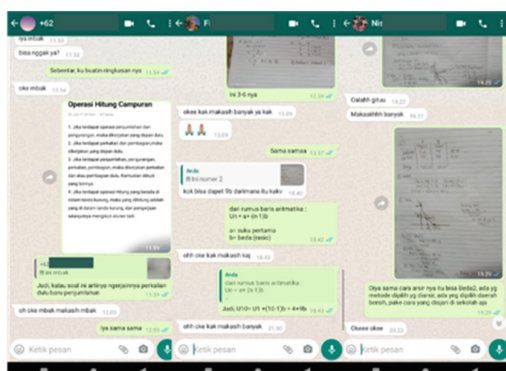


Fig. 2. Online Tutoring Activities through WhatsApp Platform

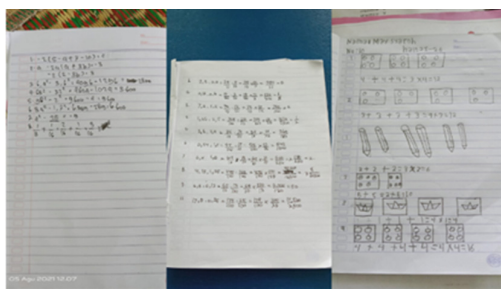
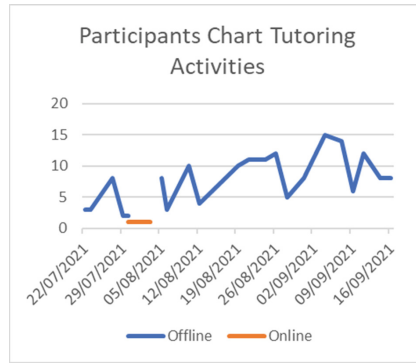


Fig. 3. Offline Tutoring Activities at Wonokerto Village

conducted at Manggungsari community, Wonokerto Village. The activities carried out were giving material explanations, providing assistance in doing school assignments, providing exercises on math questions and answering questions from students who were located in Manggungsari and Ngelodadi Hamlets, Manggungsari community, Wonokerto Village, Turi, Sleman Regency, Special Region of Yogyakarta while still implementing health protocols (Figs. 2 and 3).

The third stage was carrying out an evaluation of mathematics tutoring program. Evaluation activities are carried out by assessing the results of the math problem exercises that have been given by us as a tool to measure the students' understanding about the material, looking at the attendance graph of the students during online and offline tutor activities, and conducting direct interviews with the students.

This math tutor program is expected to benefit the community, particularly parents and children to get around the challenges of online education during Covid-19 pandemic. The double roles of parents during the Covid-19 pandemic are to guide their children's learning and to work to survive the family economy. The problem is that parents have difficulty in dividing their time between their work, providing learning guidance to their children and understanding the material given by the teachers [3, 10]. These problems also occur in Manggungsari community, Wonokerto Village, Sleman Regency, Special Region of Yogyakarta with the majority people working as farmers.



**Fig. 4.** Participants Chart Tutoring Activities

A survey conducted by the West Java Provincial Education Office concludes that there are serious obstacles in online learning. It was found that 70% of students found difficulties to understand the materials in learning from home system (LFH), and as many as 57% students stated another obstacle was that they quickly got bored as a result of online learning condition, which caused students to eventually choose to use gadgets or mobile phones to play games [5].

Based on the description of the problems above, the mathematics tutor program can be a solution to those problems. Mathematics learning guidance was held in 22 meetings every Tuesday, Thursday, and Friday from July 22nd to September 16th, 2021 by using online and offline method at Manggungsari Hamlet, Wonokerto Village, Turi, Sleman Regency, Yogyakarta while still implementing the health protocols. The students were excited and enthused with this program. It can be known by the number of students who joined this program is on the average 8 students for each meeting (Fig. 4).

Community service program provide us the experience in learning to solve problems that exist in real life or community. Community Service with online and offline mathematics tutor located in Ngelodadi Hamlet and Manggungsari Hamlet, Wonokerto Village are able to help students who have difficulty participating in online learning, by helping explaining the material that is difficult for students to understand, helping students in doing their work and school assignments, providing exercises as a tool to measure students' ability to comprehend the lessons that has been given, and providing motivation and enthusiasm during the learning process for students. In addition, it also provides learning assistance to students who are not fluent in reading and writing.

The students' development in understanding their school subjects, especially mathematics showed positive results. This can be determined based on the results of our assessment of students' work. The students' assessment result showed an increase after the tutors give them explanation about the material that had not been understood by students. Giving an explanation of the material and providing practice on math problems is proven to be able to improve students' ability in understanding the material. The findings of direct interviews with students revealed that students were very happy and were assisted in understanding the material and doing school assignments during online learning. The students were very enthusiastic in doing the exercises given with various

materials that had been taught. In each meeting, on average, each participant does 3–4 exercises with various materials according to what has been given by their teachers. In addition, parents believe that this program is very helpful to provide learning guidance or assistance to their children.

The obstacle faced in implementing this program was at several meetings we felt overwhelmed in helping each student because of the imbalance between the number of students and tutors (students from Yogyakarta State University). This program was attended by 3–15 students with a variety of different tasks and materials, so we often felt overwhelmed in teaching each student. This can be overcome by providing tutoring assistance with an alternate system for each student by requiring more time to provide learning guidance for each of them.

There are some students who are not fluent in reading and writing so they need more help in doing assignments from school or finishing exercises given by tutors. In addition, it was also found that students were less focused in participating the tutoring activities and made noisy condition, resulting in an unfavorable atmosphere. In addition, it also causes other tutors to feel disturbed and reduced their focus. In the future, it is expected to be able to coordinate more about the time implementation so this program can run effectively and the students can participate in this program with comfort.

### 3 Conclusion

The mathematics tutor program during Covid-19 pandemic is very necessary because there are many students who have difficulty understanding the materials that have been given by online teachers and some parents are unable to provide guidance to their children while they are learning online, which is set as a decision to reduce Covid-19 virus spreading. Mathematics tutor program was carried out online using WhatsApp platform and offline which is conducted in Ngelodadi Hamlet and Manggungsari Hamlet, Wonokerto Village, Sleman Regency, Special Region of Yogyakarta with implementing the health protocols. This program was carried out starting from July 22nd until September 16th, 2021. The target of this program is students from kindergarten to junior high school and it is carried out three times a week. The activities in this program are providing material explanations, providing guidance to students in doing assignments from school, providing mathematics exercises as a tool to measure students ability in understanding the material given by teachers or tutors, and providing motivation and energy to students to make them enjoy the online learning situation. This activity was welcomed by students who felt helped in understanding the material and also in finishing their school assignments. Parents who are busy with their work and cannot provide learning guidance for their children also felt really helped with this program. The benefits of this program can be felt by students, parents, tutors, and the community around Manggungsari, Wonokerto Village, Turi, Sleman Regency, Special Region of Yogyakarta.

**Acknowledgments.** The authors would like to thank for Prof. Dr. Sumaryanto, M. Kes., AIFO as rector of Yogyakarta State University and Agustinus Tri Hartono as head of Manggungsari community, Wonokerto Village for supporting on this community service activities by carried out mathematics tutoring activities. The authors also thank two anonymous reviewers for providing comments and suggestions.

**Authors' Contributions.** The All authors have made contributions to the concept of this study, analysis of data, and drafting the article.

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