

Research Report

## Improving School Health Literacy for Teachers-Students-Parents as Steps to Control Covid-19 Transmission Regarding School Re-Opening Attempts

Enrico Faiz Fernanda<sup>1</sup>, Shafira Aulia Nisa<sup>1</sup>, Richard Kevin Santoso<sup>1</sup>, Gilang Rasuna Sabdho Wening<sup>1</sup>, R. Darmawan Setijanto<sup>1</sup>, Dini Setyowati<sup>1</sup>, Primatia Yogi Wulandari<sup>2</sup>, Pulung Siswantara<sup>3</sup>

<sup>1</sup>Department of Public Dental Health, Faculty of Dental Medicine, Universitas Airlangga

<sup>2</sup>Department Educational and Developmental Psychology, Faculty of Psychology, Universitas Airlangga

<sup>3</sup>Department of Health Promotion and Behavioral Sciences, Faculty of Public Health, Universitas Airlangga  
Surabaya – Indonesia

### ABSTRACT

**Background:** The Covid-19 pandemic has changed all activities into nearly completed by online action. in online teaching and learning activities, students interact a little and less socializing with peers who are feared to affect the level of students' confidence and ability to socialize during teaching and learning activities in class re-opening. **Purpose:** To prepare mental and psychological conditions of students in offline teaching and learning activities, also pays attention to measure the readiness of teachers in school re-opening attempt. **Methods:** Prepare mental condition and psychic students in offline teaching and learning activities, by increasing the readiness of teachers in the implementation of offline teaching and learning activities, as well as assessing the effectiveness of students' psychological and mental character development activities in facing offline teaching and learning activities. **Results:** The results of the pre-test about the readiness to release the child during the teaching and learning process carried out offline in the midst of the Covid-19 Pandemic dominated by the answer "Very" not ready" with a percentage of 43.80%; "ready" answers as many as 30.43%. In addition, respondents the percentage of those who choose the "Ready" option in the post-test is higher, namely 26.09% compared to the pre-test which was only 7.44%. **Conclusion:** Efforts are applied to prepare students' physical and psychological conditions in offline teaching and learning activities in anticipation of the impact of post-based education digital service carried out by the community service team are successfully triggered the readiness of teachers and facilities at the school is considered to be ready, based on after consideration carry out three work programs that are reviewed from very good facilities adequate, strictly enforced health protocols, as well as teaching staff who are able to carry out health promotion campaigns with fluent.

**Keywords:** school; health literacy; covid-19; teacher; children

**Corresponding Author:** Gilang Rasuna Sabdho Wening, Department of Public Dental Health, Faculty of Dental Medicine, Universitas Airlangga, Jl. Prof. Dr. Moestopo 47 Surabaya 60132 - Indonesia. E-mail: [gilang-r-s-w@fkg.unair.ac.id](mailto:gilang-r-s-w@fkg.unair.ac.id)

### INTRODUCTION

Airlangga University as part of the community is of course also responsible for various problems that occur in society. Airlangga University with its slogan "Excellent with Morality" has a moral responsibility to overcome existing problems and promote national development. Through Institute for Research & Community Service (LPPM), Universitas Airlangga has mapped several institutions from several regions that needed direct contributions of students in providing solutions to the problems at hand. Related with this, Universitas Airlangga through its community service program in faculty level, by trying to realize scientific and educational applications that more effective,

namely the implementation of science directly through the application of theories that used in college to be applied in the community. Forms of activity then have to be adjusted to the situation, conditions, and needs of the institution where it is located regarding implementation.

The current Covid-19 pandemic has the ability to transmit disease through inhalation or direct contact with infected droplets accompanied by symptoms in patients such as fever, cough, shortness of breath, fatigue, and malaise with a period ranging from 2 to 14 days.<sup>1</sup> This disease is caused by infection with Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2).<sup>2</sup> So making some changes to activities that were originally mostly through face-to-face have turned into WFH (Work From Home) and

online activities. Big cities, such as Surabaya, East Java, has been carried out digital activities such as online schools and WFH (Work from Home). Urban Digitization has become a necessity and is starting to become a habit. The positive impact is that activities can take place without meetings and students have a lot of free time to study and learning can be done anywhere,<sup>3</sup> but online schools can also affect the physical and psychological health of students, teachers, and parents. Difficult students learn, communicate and be affected by the negative impressions of digital media.

Urban digitalization can lead to anxiety disorders, sleep difficulties and inability to communicate. Digitization is a process of transitioning information media from analog to digital media.<sup>4</sup> Readiness of parents and teachers in offline school discourse become the main aspect that must be considered, especially related to the mentality of students. However, before setting up offline school, entertainment is needed for students who have done school online as a reward and maintenance of mental health.

The place of implementation listed in this paper is in SD Muhammadiyah 4 Surabaya. The choice of the place was based on the reason that SD Muhammadiyah 4 will enter a transition period that requires its students to start carry out learning activities at school offline. Government Policy on implementation of learning in the new normal era that is based on Joint Decision 4 Minister of the Year 2021, Circular of the Secretary General of the Ministry of Education and Culture No. 15 of 2021 and Minister of Education and Culture Circular Letter 2021.

## MATERIAL AND METHODS

The program was evaluated using combined qualitative and quantitative approach. To reach the goal There were 3 work programs, namely storytelling, socialization and counseling, and watching movies together. Story telling activities are an interesting alternative learning media for students where learning is packaged in an interactive form between teachers and students with media hand puppets that make it easier to understand the material.

Purpose of socialization activities to prepare teachers and guardians of students in the discourse of offline schools during the Covid-19 pandemic. Meanwhile, grouped watching activities are aimed at entertaining 6th grade elementary school students and to develop students' opinion and communication skills through interactive quizzes. The community service program will be carried out with an implementation plan work program in the form of: (1) Efforts to increase discourse health literacy from the psychological aspect in the form of socialization and counseling on preparing the child-parent-teacher psychological condition in facing the concept of offline school, as well as habituation of Clean and Healthy Life Behaviour (PHBS) during the Covid-19 pandemic in the school environment. (2) Efforts to increase document-based health literacy through e-book media with ISBN submitted through Story Telling, with the aim of character

development psychic and mental students who are effective in dealing with teaching and learning activities offline. (3) Efforts to increase quantitative health literacy by designing eco-class rich in oxygen with sansevieria media through vertical garden activities.

The output of this community service is expected to be a recommendation for parents / guardians of students and the school to prepare elementary school students to face offline schooling during the Covid-19 pandemic if it is actually realized. That matter it is hoped that students will be equipped, parents / guardians of students are not worried about psychological conditions as well as students' mentality, as well as the school can prepare the facilities that should be give it to keep the students physically and mentally when they return to the learning process offline.

## RESULTS

The following are the results of empowerment in the form of socialization and counseling about preparing the psychological conditions of parents-children. Teachers in dealing with the concept of offline school, as well as habituation of Life Behaviour Clean and Healthy (PHBS) during the Covid-19 pandemic in the school environment. This activity implemented to be bridge between schools with parents/guardians as a collaboration both to support students physically and psychologically in running offline schools when realized. The resource person who provides material in this activity is a Clinical Psychologist who will become an online trainer. Activities are carried out via Zoom. The following is working steps:

Story telling activities are carried out by telling stories to students using hand puppets. This story telling activity has become a routine SD activity Muhammadiyah 4 Surabaya for entertainment media for students on the side lines of online schools. Target of this activity are students in grade 1, grade 2, and grade 3 at SD Muhammadiyah because it was assessed that children with this age range still like this kind of storytelling activity. However, this activity is also open to the public who want to watch Story telling.



Figure 1. Story Telling of the Community Service Team at SD Muhammadiyah 4 Surabaya

**Table 1.** Pre-test and post-test results on the readiness to release the child when the learning process teaching is carried out offline amid the Covid-19 Pandemic

	Category	Quantity	Percentage
Pre-Test	Very unprepared	53 respondent	43.80 %
	Unprepared	20 respondent	16.53 %
	Quite prepared	31 respondent	25.62 %
	Prepared	9 respondent	7.44 %
	Very prepared	8 respondent	6.61 %
Post-Test	Very unprepared	6 respondent	26.09 %
	Unprepared	4 respondent	17.49 %
	Quite prepared	5 respondent	21.74 %
	Prepared	7 respondent	30.43 %
	Very prepared	1 respondent	4.25 %

**Table 2.** Answered Questions and Responses in the Q&A Session

Number	Name	Question	Dr. Prima Responses
1.	Muthia Ardani	How to deal with children if they are too afraid of the covid-19 pandemic so that the child locks himself in the house?	<p>Self-reflection may be parents or people around them who show excessive feelings of fear so that children feel the atmosphere and capture the reactions of those around them so that they are imitated by children. If it's true that parents or people around them have to manage their emotions first. We show a calm attitude and only do what is necessary while educating about health protocols.</p> <p>The role of parents is to help children to sort out information and filter out valid and invalid sources of information, for example, proper internet usage education is enough from the official website that is recommended for children to read it and familiarize children with asking questions that they do not understand or are worried about.</p> <p>Invite children to leave the house slowly while educating children about new normal behavior, such as after leaving the house, then don't forget to wash your hands and wear the correct mask when meeting people outside.</p>
2.	Safira	How to cultivate a sense of responsibility for primary school student health protocols? because in my opinion, elementary school students cannot be responsible for health protocol skills	<p>It is true that the most at risk are PAUD children and elementary school students but there is no harm in trying to train them to follow health protocols including education on the virus itself, so that children will do something not because of orders but because of awareness of the importance of health protocols.</p>
3.	Andriana	How are parents preparing to release their children to boarding schools?	<p>Communication with children is the key from now on always establish communication with children. To find out the conditions around the children, they must tell us independently. By knowing the condition of the children around us, we can minimize our worries</p> <p>Make sure the school environment implements existing health protocols such as in children's dorm rooms whether there is spraying or not. It's okay to be a fussy parent for the safety of their children</p> <p>....Manage emotions when you feel anxious, relax first, don't let irrational thoughts come to you.</p>
4.	Rizal	How to apply a good learning method if the child is a kinesthetic type?	<p>Provide movement method</p> <p>Provide school material with experiments according to the concept of the material</p>

Seeing potential according to this program, this program is considered appropriate to prepare the readiness of SD Muhammadiyah 4 students if school activities are carried out offline, especially for elementary school students grades 1,2, and 3 who find it more difficult to comply with health protocols. Technical activities, namely program implementers in coordination with SD Muhammadiyah 4 Surabaya.

There are 2 people from the implementing student team as joint storytellers one teacher from SD Muhammadiyah 4 Surabaya. As seen in Figure 1, there are 3 characters who bring the story and 3 hand puppet figures. Storytelling is done by these 6 characters and will be broadcast live online via the Zoom platform of SD Muhammadiyah 4 Surabaya. The story taken with the theme Covid-19 and what to do and not to do during the Covid-19 pandemic at the end of the story there is an interactive question and answer session between the characters in the story and Zoom participants (students) to measure the efficiency of delivering the main material in the activity of storytelling.

A total of 50 parents and teachers participated in the socialization and counseling. Guardians of students and teachers can understand the material delivered is assessed with an average post-test score higher than the pre-test. Parents and teachers pay attention to the material carefully marked by the presence of at least 2 people questions from parents and teachers in the question-and-answer session which was wrapped in a Focused Group Discussion session.

Based on the results of the pre-test and post-test, participants in the socialization and counseling experience a change of mind that initially many participants were not ready to let go of the child when carrying out the teaching and learning process in the midst of the Covid-19 pandemic when filling out the pre-test. After gaining knowledge from the participants' socialization and counseling activities better prepared. This can be proven through the results of the pre-test and post-test with questions "Are you ready to let go of your child when the teaching and learning process is carried out?" offline amid the Covid-19 Pandemic as follows:

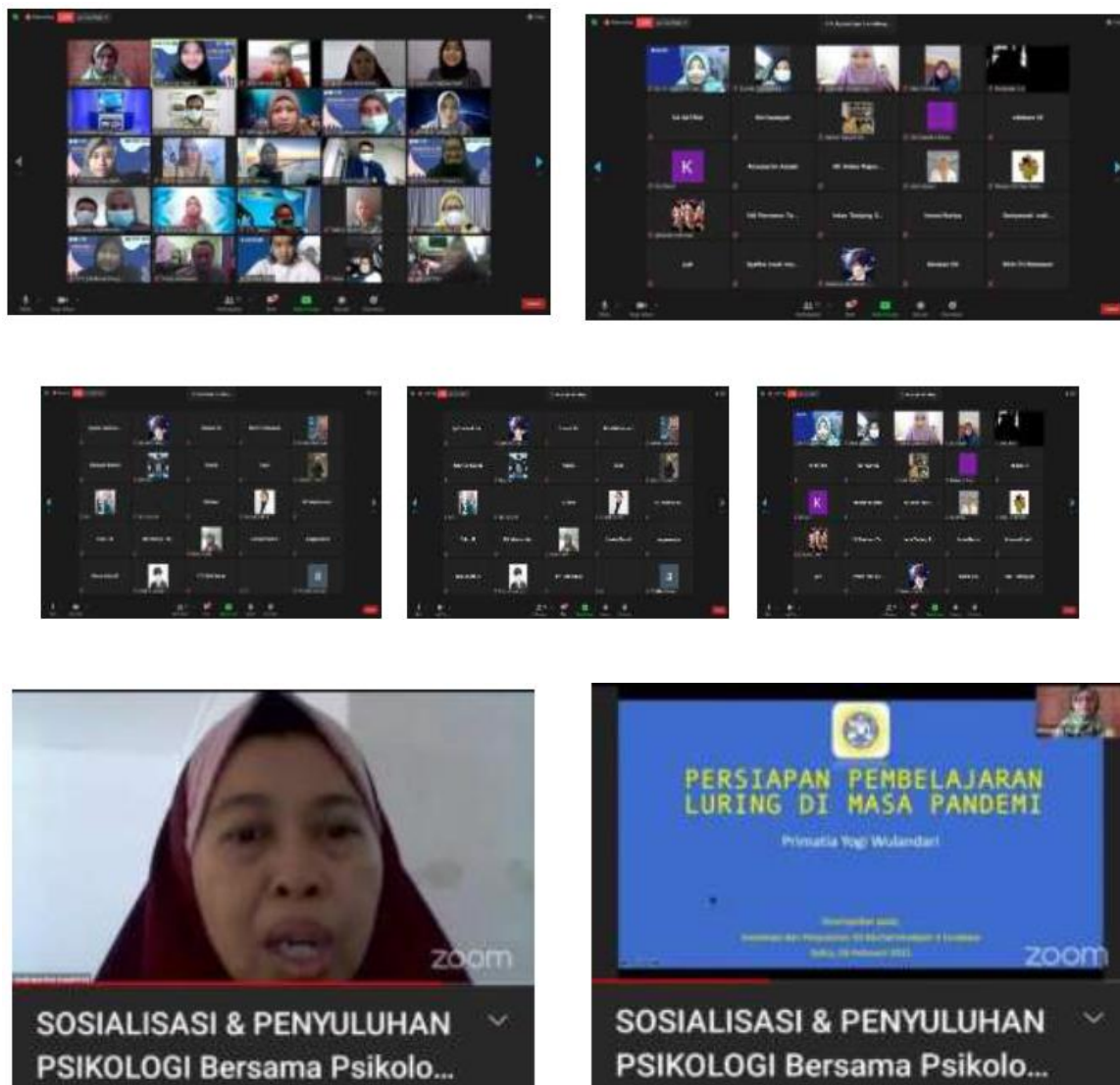


Figure 2. Photos of Focused Group Discussion activities.



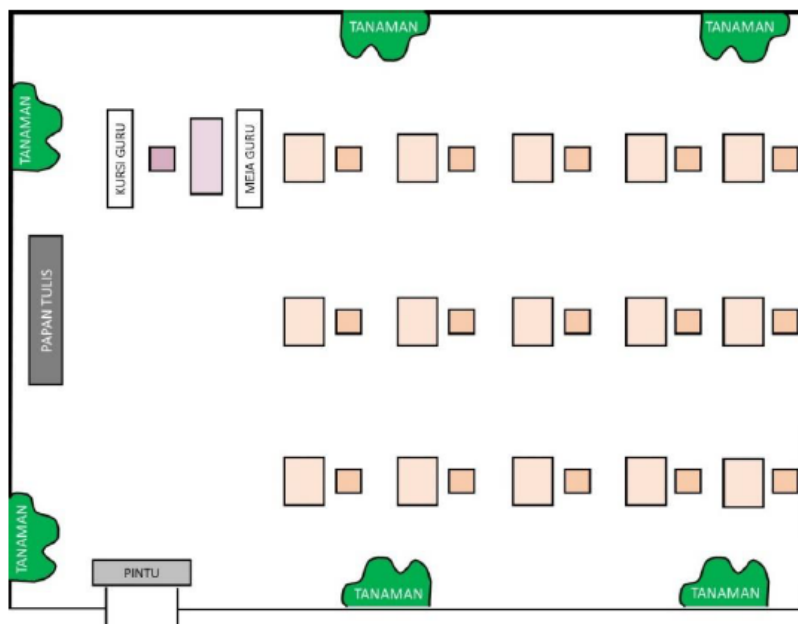


Figure 3. Classroom Layout



Figure 4. Empowerment activities

Based on the results of the pre-test ini Table 1 about the readiness to release the child during the teaching and learning process carried out offline in the midst of the Covid-19 Pandemic dominated by the answer “Very unprepared” with a percentage of 43.80% of 121 respondents while the post-test answers dominated by “prepared” answers as many as 30.43% of 23 respondents. In addition, respondents the percentage of those who choose the “Ready” option in the post-test is higher, namely 26.09% from 23 respondents compared to the pre-test which was only 7.44% of 121 respondents.

The second indicator from the qualitative aspect is that there are at least 3 people who ask questions from: parents/guardians and teachers in each session have been reached as shown in Table 2 with a total of questions 4 questions answered and 2 questions have not been answered because of the time limited, but can directly contact Dr. Primatia Yogi Wulandari, S.Psi., M.Sc., Psychologist. via email. The four questions answered can be seen in the Table 2. While the focus group discussion activities can be seen in Figure 2.

Welcoming the implementation of offline learning activities in the new normal era, and based on online learning experiences during the Covid-19 pandemic, preparation is needed relatively mature by understanding different learning conditions. Pay attention to Thus, it is necessary to plan learning in accordance with new conditions, as well as implementation in accordance with the context in which there are educational institutions as implementers education. Therefore, one form of learning planning that can be done is to pay attention to the natural oxygen supply. Students need to be guided and familiarized in implementation of offline teaching and learning activities, such as keeping a distance from each other, wear masks, and apply health protocols in an effort to protect each other.

To that end, the Airlangga University FKG Community Service Team held the activity of utilizing the ivory betel plant as an oxygen supply in the vertical garden design in Indonesia closed room which will be held at SD Muhammadiyah 4 Surabaya as can be seen in Figure 3 and Figure 4. This activity expected to create learning plans that are in accordance with new conditions and provide education to the younger siblings of SD Muhammadiyah 4 Surabaya about the importance of oxygen on the human body and the importance of caring for the plants around us.

## DISCUSSION

Story telling learning scheme with using a walking hand puppet is very effective. This is evidenced by the active response given by students as a benchmark aspect of system achievement learning carried out by SD Muhammadiyah 4 Surabaya on students Elementary school grades 1-3 Hand puppets are some of the media that can be used by material providers to support learning activities in the classroom because this media is useful for stimulating children to be more focused on the learning activities provided so that messages addressed to children are expected to be more easily accepted and absorbed.<sup>5</sup> If this has been done, it can be seen that the learning scheme for students through the mechanism of storytelling using hand puppet media is one example in keeping students able to more easily understand every lesson given by the teacher.<sup>6</sup> The learning scheme applied through story telling has several features: constraints that have implications for the inability to intensely apply story telling in online learning during a pandemic. The obstacle is the creation of learning materials in the story is still made by the teacher so that the teacher's workload increases, besides that it is stable network is also a key factor because if the internet network cannot be connected directly, well, storytelling can't run optimally. It becomes a form evaluation for the application of storytelling as an alternative learning media for students at school pandemic period as a fun platform. But proven by learning through storytelling, students can catch the subject matter that is taught well. Thing that is evident from the interactive responses of students during story telling activities.

In the next discussion related socialization and Counseling Facing Offline Learning in the Future Pandemic, the socialization and counseling are held with the aim of educating guardians of students and teaching staff of SD Muhammadiyah 4 Surabaya regarding preparation psychological aspects of students that need to be done to deal with offline learning in the future pandemic. This socialization plans to collaborate with the Lecturer of the Faculty of Psychology as speaker. Socialization and Counseling is addressed to all homeroom teachers of grades 1-6, so the implementation is divided into 2 sessions with the aim of avoiding the occurrence of zoom errors due to too many participants and so that the socialization takes place effective. Judging from the response of Mr. Rizal (Rafa Arofah's parents) regarding the method special learning

if the child is a kinesthetic type, it is recommended to the next socialization and counseling is not only carried out in one stage but is necessary there is a stage of training on treating children according to the type of child to face teaching and learning activities offline. The target of the training stage is still people parents/guardians and teachers to deal with the types of children and students, so that it is not wrong handling. The target of activities at the training stage is to provide understanding and skills for participants in treating children or students according to the type of child or the student. That way children or students can be treated properly according to their type each so that the absorption of school learning materials can run smoothly maximum.<sup>7</sup>

Then the last discussion is about improved quantitative health literacy through eco-class design rich in oxygen with sansevieria media through vertical garden activities. From the results of interviews with patients infected with Covid-19 (who work in elementary schools) Muhammadiyah 4) often do not feel symptoms, but can still make the body The patient experiences a gradual decrease in oxygen. The phenomenon of decreasing the amount of oxygen in the body without causing symptoms is known as called happy hypoxia. Happy Hypoxia is a condition when the oxygen level inside blood or oxygen saturation is reduced to below 95–100% or about 75–100 mm Hg. Another definition of Happy Hypoxia is a condition in which there is severe arterial hypoxemia that occurs in the patient but there are no complaints of shortness of breath or symptoms of proportional respiratory distress.<sup>8</sup> Patients with happy hypoxia that are not treated properly can cause damage to body tissues and organs, such as the brain and heart thus causing various health problems. Most of the patients who experiencing hypoxia will experience symptoms of shortness of breath, weakness, pale skin, and nails and Lips look bluish to the point of loss of consciousness or even coma. Even though However, in certain cases, hypoxia can occur without any new symptoms detected when the patient undergoes a blood test or saturation test oxygen using a device called a pulse oximeter. A condition called silent hypoxia or happy hypoxia is thought to occur in patients with Covid-19. One attempt What can be done to prevent the phenomenon of a reduction in the amount of oxygen in the blood body is to ensure that the body is receiving enough oxygen that it can obtained from oxygen-producing plants. The addition of oxygen-rich plants inside the room can not only beautify the room, a row of plants in or around it home, can also provide many health benefits. Some plants oxygen producers such as paris lilies, ivory betel to sansevieria can provide positive impact on health. For example, as a producer of oxygen, cleaning air from toxins that cause the risk of stroke, cancer, and heart disease, to disorders respiration.

Vertical garden is one of the activities carried out as an eco-class engineering oxygen rich with sansivieria medium. Vertical garden is a garden created by using a metal frame, bamboo, wood, iron wire, and the walls are attached to the wall and designed to form a vertical or terraced direction so that it can be more effective in utilizing the existing

land.<sup>9</sup> This activity invites students to decorate used plastic bottles as attractive as possible which will be used as pots. Furthermore, students will be invited to grow oxygen-producing plants in the form of plants *sansivieria* in the pot that was made earlier to become a vertical garden. In addition to having a fairly unique shape, the *Sansevieria* plant has the ability to filter the air to be cleaner in the room it occupies because this plant can absorb harmful substances in the air.<sup>10</sup> Later this vertical garden will be placed in the classroom as an oxygen-producing plant.

As an evaluation, the implementation time is a bit late due to a lack of network support at the place of implementation and also at the place of the presenter who is deliver material. Regarding the practice of making vertical gardens, it is not enough due to limited time, so students are asked to continue after event finished. Everyone's jobdesc went smoothly. Even though it's a bit constrained network, the material presented is very useful and well received by students. Participants are actively involved during the activity; this is evidenced by the responses given during the activity as well as the questions submitted at the end of the event.

An overview of the class room layout that will be planned can be seen in the picture following. One class consists of 15 students with a table and chair each assigned distance between each other. Then in some corners / areas of the classroom are placed oxygen-producing plants (*Sansevieria*) that can help air in the classroom be qualified.

## CONCLUSION

Efforts are applied to prepare students' physical and psychological conditions in offline teaching and learning activities in anticipation of the impact of post-based education digital services carried out by the community service team is to carry out a series of activities, namely: Story Telling with the aim of being a vehicle for fun learning to instill a message regarding the preparation for the implementation of teaching and learning activities effectively offline by implementing health protocols, socialization and counseling to guardians students in grades 1-3 SD with a lecturer in Psychology at Airlangga University who aims to provide insight to parents on ways and tips to prepare students in dealing with offline activities during the pandemic, and also watching together aims as a vehicle for fun learning for students to receive moral messages of the film that is shown as well as a means of refreshing for grade 6 students

Elementary school that is preparing for the exam. The readiness of teachers and facilities at SD Muhammadiyah

4 Surabaya, is considered ready, the answer is based on the considerations and results of our group's thinking after carried out three work programs at the school, in terms of very good facilities adequate, strictly enforced health protocols, and qualified teaching staff good value. In the environmental field, activities are carried out, namely vertical gardening. This is an activity to support the process of teaching and learning activities in conditions of pandemic in which all teaching and learning activities are carried out online. Activity This field of health can help students create a more comfortable learning environment comfortable with the plants that can supply fresh air and oxygen inside room and students can also understand how to take care of the plants grown in the indoor.

## REFERENCES

1. Singhal T. A Review of Coronavirus Disease-2019 (COVID-19). *Indian J Pediatr.* 2020;87(4):281–6.
2. Raiz F dkk. *Bunga Rampai Covid-19 : Buku Kesehatan Mandiri Untuk Sahabat.* First. Islamic Medical Aassociation and Network of Indonesia. Depok: PD Prokami; 2020.
3. Sari RP, Tussyantari NB, Suswandari M. Dampak Pembelajaran Daring Bagi Siswa Sekolah Dasar Selama Covid-19. *Prima Magistra J Ilm Kependidikan.* 2021;2(1):9–15.
4. Yulianti DT, Damayanti D, Prastowo AT. Pengembangan Digitalisasi Perawatan Kesehatan Pada Klinik Pratama Sumber Mitra Bandar Lampung. *J Teknol dan Sist Inf.* 2021;2(2):32–9.
5. Ni Luh Prihanjani, Nyoman Wiryana LAT. Penerapan Metode Bercerita Berbantuan Media Boneka Tangan Untuk Meningkatkan Kemampuan Berbicara Anak Usia 5-6. *e-Journal Pendidik Anak Usia Dini Univ Pendidik Ganesha.* 2016;4(3).
6. Izzati L, Yulisyofriend. Pengaruh Metode Bercerita Dengan Boneka Tangan Terhadap Perkembangan Kognitif Anak Usia Dini. 2020;4(1):472–81.
7. Jaya S, Handoko P, Suparta W. Upaya Meningkatkan Pemahaman Masyarakat Rptr Kelurahan Bintaro Akan Manfaat Dan Bahaya Teknologi Digital Melalui Penyuluhan Sehat Berbasis Pendidikan. *Pros Semin Nas Pengabd Masy LPPM UMJ.* 2019;
8. Shianata CM, Engka JNA, Pangemanan DHC. Happy Hypoxia Pada Coronavirus Disease. *J Biomedik Jbm.* 2021;13(1):58–66.
9. Pratiwi NE, Simanjuntak BH, Banjarnahor D. Pengaruh Campuran Media Tanam Terhadap Pertumbuhan Tanaman Stroberi (*Fragaria vesca l.*) Sebagai Tanaman Hias Taman Vertikal. *J Ilmu Pertan.* 2017;29(1):11–20.
10. Istiqamah I, Hiola SF, Karim H. Studi Morfologi Tanaman *Sansevieria* Di Kota Makassar. *J Bionature.* 2018;19(1): 56–66.