

# 69. Virtual Workshop APS

*by* Irfannuddin Irfannuddin

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## MEETING REPORTS AND ANNOUNCEMENTS

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Virtual national workshop: preparation of multimedia modules for physical education teachers in accordance with COVID-19 prevention procedures

Muhammad Irfannuddin,<sup>1</sup> Arwan Bin Laeto,<sup>1</sup> Eka Febri Zulissetiana,<sup>1</sup> Budi Santoso,<sup>1</sup>  
Ardesy Melizah Kurniati,<sup>2</sup> and Tyas Hestningsih<sup>3</sup>

<sup>1</sup>Department of Physiology, Faculty of Medicine, Universitas Sriwijaya, Palembang, Indonesia; <sup>2</sup>Department of Nutrition, Faculty of Medicine, Universitas Sriwijaya, Palembang, Indonesia; and <sup>3</sup>Department of Dentistry, Faculty of Medicine, Universitas Sriwijaya, Palembang, Indonesia

## Abstract

The COVID-19 pandemic has caused changes in the school learning system. Face-to-face learning shifted to remote learning using multimedia approaches. Online learning created particular difficulties for Physical Education (PE) teachers. Previously, they had to be role models in the teaching of physical activity. A national virtual workshop was conducted to support those teachers as they shift to remote learning. The purpose of the workshop was to provide PE instruction through social media and develop online learning modules. The 3 days of activities consisted of 4 lectures and 6 workshops provided to 177 PE teachers from 32 provinces in Indonesia. Participants were informed about the COVID-19 pandemic, its impact on children, and healthy life during the pandemic. Online applications that were free of charge, easy to use, highly rated, and widely downloaded were also introduced to them. These multimedia applications could help teachers develop and deliver remote learning modules to their students. The workshop supported the teachers as they adapted to interactive distance learning. The workshop also successfully illustrates an innovative distance learning module delivered through multimedia.

distance learning; multimedia; pandemic; PE teachers; virtual workshop

## INTRODUCTION

The COVID-19 pandemic spread rapidly to various countries including Indonesia during 2020. Many countries have attempted to control the pandemics by lockdown systems. The government of Indonesia implemented Large-Scale Social Restrictions. All crowd activities including office and school activities were restricted, causing changes in the learning system in schools. Face-to-face interaction immediately shifted to remote learning. Teachers and students must participate in learning from their homes through social media (1).

Physical Education (PE) teaching is traditionally done in the form of physical activities that are monitored directly by the teacher. Online learning creates difficulties for PE teachers. Teachers cannot be as effective as role models in demonstrating good and correct physical exercise programs. Therefore, the Indonesian Physiology Association (IPA) conducted a workshop to support PE teachers in the transition to online instruction. The purpose of the workshop was to provide examples of how these teachers can continue to serve as mentors and role models as they implement PE instruction through social media. One of the targets of this workshop was developing the ability to build online learning modules. The workshop also was an important opportunity

for interactive experiences and reflections on teaching practice and created contact networks that can support teachers. The events of the workshop can help to improve teaching, encourage teachers, and share successful teaching strategies to solve difficulties and frustrations (2).

The Virtual National Workshop was titled “Preparation of Multimedia Modules for PE following COVID-19 Prevention Procedures.” This workshop was held virtually by the IPA collaborated with Universitas Sriwijaya. The workshop control was located in the Physiology Department, Faculty of Medicine, Universitas Sriwijaya. E-pamphlets invitations were distributed openly through the Zoom Conference, WhatsApp (WA), Facebook, and Instagram applications. Participants signed up for the workshop via a Google form. The trainees were selected as teachers of PE subjects from Elementary to Senior High School. Participants were accepted when they include recommendations from their principals. The workshop was provided free of charge.

This workshop was held for 3 days. The workshop was organized through the collaboration of educators and researchers from several institutions. This activity was supported by a grant from the Faculty of Medicine, Universitas Sriwijaya. Workshop topics were designed by authors and co-authors and approved by all trainers. The series of events





**Figure 1.** Teachers that join the workshops were came from 32 provinces (stars) from all 34 provinces of Indonesia.

were systematically scheduled. This report describes the implementation of a virtual workshop and feedback from participants. The report also outlines the evaluation of the tasks as a follow-up to the workshop.

## ACTIVITIES

This workshop was part of the community service role of the Indonesian Physiological Association. The workshop was held on October 29–31, 2020. All activities can be accessed at <https://www.youtube.com/channel/UCePbGPxKMARAU4yhAAaHsQQ>. The number of participants who initially signed up was 196, with 177 applicants eligible for acceptance. Some applicants were not accepted because they had no recommendations from school officials. Participants consisted of 64 elementary school teachers, 53 junior high school teachers, and 60 high school teachers from 32 provinces in Indonesia (see Fig. 1).

The activities included four lectures, six workshops, and three independent tasks. Topics of activities centered around the COVID-19 pandemic, sports and health, distance learning, the use of technology in learning, competencies and the role of teachers, and the development of teacher creativity. The provision of materials was carried out interactively. Each participant was invited to a two-way discussion. They were also allowed to ask questions and express opinions via chat. In between giving materials, participants were invited to share their experiences on the topic. In addition to being speakers, presenters also often acted as moderators of discussions.

This activity was organized by members of the Indonesian Physiological Association who are mostly lecturers in the Department of Physiology, Faculty of Medicine, Universitas Sriwijaya. The core team consisted of Muhammad Irfannuddin (chair), Arwan Bin Laeto (co-chair), Budi Santoso, Eka Febri Zulissetiana, and Ardesy Melizah Kurniati. Experts invited as speakers or facilitators were as follows: Fifi Sofiah, Maskun



**Figure 2.** Picture of the control room, the committee members, and participants on the screen.

**Table 1.** Schedule of virtual national workshop

Schedule	Activities		
	October 29, 2020 (Day 1)	October 30, 2020 (Day 2)	October 31, 2020 (Day 3)
0800–0830	Opening ceremony		
0830–0915	Lecture 1: The COVID-19 on children	Workshop 3: Making educational video	Lecture 4: Nutrition and immunity
0915–1000	Lecture 2: Healthy lifestyle	Workshop 4: How to Become a YouTuber	Workshop 6: Remote learning module
1000–1015	Short break	Short break	Short break
1015–1100	Lecture 3: Exercise and immunity.	Task: educational video	Task: arrange learning module
1100–1230	Workshop 1: Nutrition Analysis.	Task: upload video on YouTube	Presentation and discussion
1230–1330	Lunch break	Lunch break	Lunch break
1330–1500	Workshop 2: Google Form Plus Timer	Workshop 5: Physical activity monitoring.	Presentations and discussions (continued)
1500–1600	Task: making questionnaire	Task: Pacer Health App	Posttest and closing remarks

Alaya, Tyas Hestningsih, and Indra Frana Jaya. The committee members were assisted by supporting officers in charge of e-registration, publication, reporting, maintaining internet networks, and providing certificates. Supporting officers consisted of Suwito Ngadenan and Dessy Astuti (see Fig. 2).

Participants had to sign up and attach a letter of recommendation from their school. Afterward, they were invited to join

the WA group. Through the group, participants obtained some information related to the workshop: meeting identity (ID), password, material link, and certificate delivery confirmation.

The first day of the workshop was held on October 29, 2020. The workshop started at 0730. Participants joined Zoom meetings and filled out the attendance list via a Google form. The form link was given via chat after participants had joined. The

**Table 2.** Description of lectures and workshops

Activities: Speaker	Description
Lecture 1: The COVID-19 pandemic and its impact on children <i>Fifi Sofiah M.D. (Pediatrician)</i>	The COVID-19 pandemic has a significant impact on children. The source of transmission is school activities, which can be transmitted to families (5). Therefore, learning must be done virtually. Study at home will increase the risk of sedentary life and screen time exposure. Teachers as role models are expected to give examples of the application of health protocols. Teachers should also actively provide education to implement a healthy lifestyle.
Lecture 2: Healthy lifestyle alongside corona. <i>Muhammad Irfannuddin, M.D., Ph.D. (Sports Medicine)</i>	Efforts to prevent exposure to the COVID-19 are the most effective. Immunity is a mainstay for human to survive. Exercising while exposed to sunlight with physical distancing is effective to maintain immunity. The appropriate right exercise is with moderate intensity (6). Aerobic exercise has a positive effect on immunity and cognitive ability (7). Immunity can also be maintained by the good nutrients, rest, and reduce stress levels (8).
Lecture 3: Nutrition and Immunity. <i>Speaker: Ardesy Melizah Kumiati, M.D. (Nutritionist)</i>	Nutrition is important in the formation of immunity. Optimal immunity is achieved through the fulfillment of balanced nutrition, especially protein. Also, micronutrients are needed to help produce important components of immunity. Various vitamins and minerals are very important as cofactors of the immune system. Meat, chicken liver, soy ingredients, vegetables, and fish oil are foods that contain needed vitamins and minerals (9).
Workshop 1: Application of nutrition intake analysis <i>Facilitators: Eka Febri Zulissetiana, M.D., Ardesy Melizah Kumiati, M.D.</i>	Teachers had introduced applications that can be used to analyze nutritional intake. The applications presented to participants were <a href="http://www.ahligizi.id">www.ahligizi.id</a> and Fat Secret calorie counter (10, 11). The results of the analysis can be used to improve dietary patterns. Teachers can discuss with parents the balance of the child's diet. These applications can help them to design and choose foods to meet balanced nutritional needs. (12).
Workshop 2: Google form plus timer for remote assessment <i>Facilitators: Budi Santoso, M.D., Eka Febri Zulissetiana, M.D.</i>	Assessment is part of evaluating learning outcomes. During the pandemic, assessments must be carried out remotely. Teachers were presented to use Google Forms linked to the timer feature from Quilgo (13, 14). Teachers were asked to make examples of formative assessments. Google Forms can be used to improve students' participation and engage their learning. Moreover, it helps teachers save paper and time grading assignments (15).
Workshop 3: Utilization of Pacer Health application for monitoring physical activity. <i>Facilitators: Tyas Hestningsih, D.D., Indra Frana Jaya, Ns.</i>	Teachers had introduced an application to monitor physical activity remotely. A highly rated application is the Pacer Health pedometer step counter (4). Teachers were asked to implement the application remotely. They were then asked to create a group with their students. They could accompany students to stay active at home. Through this application, teachers can promote and evaluate student's activity (16).
Workshop 4: Making good quality videos through mobile phones. <i>Facilitators: Maskun Alaya, B.Com., Muhammad Irfannuddin, M.D.</i>	Teachers had introduced an easy way to make a good video with mobile phones. Creative teachers as influencers are expected to spread their creativity to other teachers. Teachers were briefed on lighting, audio, recording, editing, and converter settings techniques. Videos can make learning more varied, and able to maintain the concentration of learners. Video can be useful for flexible, blended, and distance learning (6).
Workshop 5: Easy ways to become a YouTuber. <i>Facilitators: Maskun Alaya, B.Com., Arwan Bin Laeto, B.Ed.,</i>	Teachers were trained on an easy way to create a personal YouTube account and uploaded all learning videos (3). Thus, learners can access learning materials at anytime and anywhere. YouTube channels facilitate teachers transferring educational content through e-content. YouTube can promote active learning, improve learning outcomes, as well as improve student technology skills (17).
Workshop 6: Build distance learning modules with multimedia <i>Facilitators: Arwan Bin Laeto, B.Ed., Muhammad Irfannuddin, M.D., Ph.D.</i>	The purpose of this workshop was to increase creativity and to develop distance learning modules with multimedia. Teachers were required to modify the PE module that can be used by students at home. Teachers were advised to adopt an independent learning approach developed by Cambridge (18). The format referred to the guidelines of the Indonesian Ministry of Education and Culture. (1, 19). The example of the module can be accessed on <a href="http://fk.unsri.ac.id/images/data/jurnal/Contoh_E-Modul_Kemdikbud.pdf">http://fk.unsri.ac.id/images/data/jurnal/Contoh_E-Modul_Kemdikbud.pdf</a>

**Table 3.** Mean of the score of participants' evaluations

Evaluated Items	Mean Score
Appropriate topics	4.59±0.54
Time of activities	4.21±0.84
Quality of audio	4.45±0.83
Quality of visual	4.51±0.77
Quality of interactive presentation	4.65±0.68
Discussions and Q&A session	4.79±0.50
Registration process	4.51±0.54
The attention of the organizing committee (before the event)	4.80±0.42
The attention of the organizing committee (during the event)	4.50±0.50
The attention of the organizing committee (after the event)	4.70±0.48
Committee appreciation to participants (certificate)	4.58±0.51

Values are means ± SD of responses ranked according to a 5-point Likert scale (1 very bad, 5 = excellent). Q&A, question and answer.

committee modulated the attendance of participants until 0800. The opening ceremony of the workshop began with a speech from Dr. Budi Santoso, Head of Physiology Department, Faculty of Medicine, Universitas Sriwijaya. Furthermore, the welcome speech was given by Dr. Syarif Husien, Dean of the Faculty of Medicine, Universitas Sriwijaya. The opening was ended with a welcome speech from Professor Hardi Darmawan, as chairman of the Indonesian Physiology Association of the South Sumatra region.

The core activities of the first day of the workshop began at 0900 with a 20-min pretest session. The first day of activities included three lectures and two workshops (Table 1). In the last session of the first day, participants carried out a task to draw up a questionnaire to assess students' physical activity. On the second day, the activity began with participants filling out the attendance form. The activities were three workshops presented in the sequence described in Table 1. In the afternoon session, participants were asked to perform two tasks. The first task was to make an educational video of physical activity in their students. The video was later uploaded on YouTube (3). For the second task, participants ran the Pacer Health app and formed a group with their students (4). The activity on the last day also began with the recapitulation of attendance, followed by one lecture and one workshop. After that, the remainder of the workshop consisted of participant presentations and discussions of independent tasks. Presenters were selected randomly.

At the end of the activity, before the closing session, participants were asked to fill out a posttest via a Google form. Participants were also asked to provide feedback on the workshop activities. The closing session consisted of a closing statement from the chairman. The closing statement contains encouragement to stay active in educating children and strive to be an educational influencer. The chairman also explained the final task of building a distance learning module by utilizing multimedia. Modules were arranged according to the format in workshop no. 6 (see Tables 1 and 2).

### PROGRAM EVALUATION

Evaluation of the workshop was carried out in several manners. The first evaluation was the participation at each event

and collecting tasks. Participants received a workshop certificate when attending at least 80% of all activities, and submitting all of the tasks, and 152 participants of the 177 enrolled were eligible to receive certificates. The second evaluation was a questionnaire using Google Forms. Each questionnaire item used a Likert scale of 1 (very poor) to 5 (very good). The questionnaire was answered as soon as the participant received the certificate. The questionnaire was completed by 147 teachers. Table 3 shows that participants were satisfied with the implementation of all aspects of the workshop. The best-rated items were the interactive presentations, attention of the committee before and after the event, discussion session, and provision of the certificate. Meanwhile, the items with the lowest value were the time of activities, quality of visual, and quality of audio.

Evaluation of the workshop also came from free comments in the feedback. The committee highlighted five of the most common comments. Most comments related to participants' expectations to develop their competencies, the organizing of workshops, and comments about time and internet signal (Table 4).

The committee also evaluated the participant implementation of workshop recommendations to their students. The committee requested reports from the participants 1 mo after the workshop. Eighty-seven teachers provided reports of evidence that they had implemented distance learning modules and included links from both modules and educational videos. Here are examples of a Google Form link and an educational video link that were provided to the committee that can be accessed by everyone.

- 1) <https://youtu.be/N6rWKAldSv4>
- 2) <https://www.youtube.com/watch?v=uLLI4PWPBmc&feature=youtu.be>
- 3) <https://quillgo.com/form/zjoSpNfuySMKZTJb> (please note that the link can only be accessed once on the same e-mail account)

### CONCLUSIONS

The PE teachers in Indonesia were impacted by the COVID-19 pandemic, increasing their motivation to implement new learning methods. The workshop encouraged this change by increasing their comfort with multimedia technology. After

**Table 4.** Highlighted free comments from participants

Comments
Participants' expectations
1. We want to learn about improving student learning motivation (46 comments).
2. We want to learn about interactive presentation tips (44 comments).
3. We want to learn about techniques to train children's motor skills (36 comments).
4. We like to develop an interactive learning module between teachers, students, and parents (31 comments).
5. We want to know aspects of child psychology in pandemics (24 comments).
The organizing of workshops
1. Schedule adjustments that accommodate time zone differences (11 comments).
2. Difficulties in discussion sessions due to internet signal interference (7 comments).

the workshop, teachers found it helpful to adapt to interactive distance learning methods. This workshop also made teachers develop various distance learning modules. In addition, teachers become influencers in learning development and innovation. These results improved the quality of distance learning in Indonesian schools. This workshop is also expected to have a positive impact on students as students can implement independent learning and healthy living during the pandemic.

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## DISCLOSURES

No conflicts of interest, financial or otherwise, are declared by the authors.

## AUTHOR CONTRIBUTIONS

M.I. and A.B.L. conceived and designed research; M.I., A.B.L., E.F.Z., B.S., A.M.K. and T.H. analyzed data; A.B.L. prepared figures; M.I., A.B.L., and E.F.Z. drafted manuscript; M.I. edited and revised manuscript; M.I. approved final version of manuscript.

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