

SCIENCE AND TECHNOLOGY AWARENESS PROGRAMME (PPST) 2020

(Family Home Based Programme)






Empowering Students' Leadership in Sustainable Development Goals (SDGs) via Innovation and Inventions

1 **WEBINAR**
ON YOUTUBE
7TH SEP 2020



FIND US ON:

-  RCE Penang at USM
-  www.rce-penang.usm.my
-  RCE Penang

2 **VIDEO**
COMPETITION
END:
15TH OCT 2020



THEMES:



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SCIENCE AND TECHNOLOGY AWARENESS PROGRAMME 2020

EMPOWERING STUDENTS' LEADERSHIP IN SUSTAINABLE
DEVELOPMENT GOALS (SDGs) VIA INNOVATION AND INVENTIONS

BY RCE PENANG

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1.0 INTRODUCTION

Student leadership in sustainability cannot be achieved if depended on a single stakeholder. One of the proven strategy in developing students' leadership is via collaboration. In line with 21st century learning competencies, it is essential to empower students in creating innovation and inventions related to sustainability. Thus, it is necessary for students in Penang play a leading role in SDG and share with other students around the globe through RCE Centers.

In this program, students will be involved in innovations and inventions via video competition focusing on Sustainable Development Goals themes. This year three themes were selected: Quality Education (SDG 4), Affordable and Clean Energy (SDG 7) and Life on Land (SDG 15). With this program, students in Penang are given the opportunity to share and exchange ideas on sustainability related to the specific themes. However, due to the Covid-19 pandemic, the seminar (webinar) and competition will be conducted via online.

2.0 OBJECTIVES

The objectives of this program are

- To develop student leadership for building a sustainable society through education focusing on the following themes which are Quality Education (SDG 4), Affordable and Clean Energy (SDG 7) and Life on Land (SDG 15)
- To promote Penang as a state in Malaysia that is actively engaging students in promoting SDGs at school level
- To strengthen the collaboration between industry and school in cultivating an innovation ecosystem for the creation of knowledge, talent development and product excellence.
- To create leaders who are able to transform their knowledge for a sustainable society
- To empower students to be the leaders in promoting SDGs

3.0 PROJECT RATIONALE

RCE Penang is a United Nations recognized Regional Centre of Expertise (RCE) on Education for Sustainable Development (ESD) that has partnership with key stakeholders. The purpose of partnership is to empower sustainability at the community level. Our network includes partners from the voluntary, public, education and business sectors, who work together to develop and implement innovative ESD projects and programs in Penang. RCE Penang as one of the global RCEs has the platform to offer student in Penang to collaborate with students in other participating RCEs.

This project focuses on three Sustainable Development Goals (SDGs) themes, Quality Education (SDG 4), Affordable and Clean Energy (SDG 7) and Life on Land (SDG 15). The SDG 4, Quality Education is to promote inclusive and equitable quality education and enhance lifelong learning opportunities for all. Whereas in SDG 7, Affordable and Clean Energy, it aims to ensure access to affordable, reliable, sustainable and modern energy for all. It also covers the aspects from poverty eradication via advancements in health, education, water supply and industrialization to mitigating climate change. This SDG is important in driving the country development, but inefficient energy consumption can hinder progress in areas such as health and climate change, and ultimately create socio-economic barriers. In SDG 15, Life on land, it focused on forests and agricultural systems which can sustain our air, water, and food, but extreme deforestation and land degradation will threaten the vital biodiversity and billions of people who depend on the land for their livelihoods. All the themes were chosen as its very close to students' life experience and dynamic for empowering students about ESD and SDG.

Students' inventions and innovations will be exhibited as a competition based on SDG content and leadership initiatives and creativities.

4.0 WORKING COMMITTEE

PROJECT MANAGER: Dr. Nooraida Yakob

ASSISTANT PROJECT MANAGER: Wan Sharipahmira Mohd Zain

CONTENT EXPERT:

Professor Dr. Munirah Ghazali

Assoc. Prof. Dr. Mohammad Zohir Ahmad @ Shaari

Dr. Rabiatal Adawiah Ahmad Rashid

Dr. Nurul Salmi Abd Latip

Dr. Mohd Sukri Shafie

SECRETARIAT:

Nur Syazwana Hamzah

Kamsiah Kamarudin

5.0 PROGRAMME

5.1. Webinar on Empowering Students' Leadership in Sustainable Development Goals (SDGs) via Innovation and Inventions (in preparation for video competition)

The webinar programme was broadcast online on 7th September 2020 (Monday). We invited expertise from different background to empower students on Sustainable Development Goals (SDG) focusing on the three themes which are Quality Education (SDG 4), Affordable and Clean Energy (SDG 7), and lastly Life on Land (SDG 15). The expertise briefly discussed about the three themes in the webinar. The webinar was uploaded in RCE Penang YouTube Channel and can be accessed via the link: <https://rb.gy/u4zu54>

**SCIENCE AND TECHNOLOGY
AWARENESS PROGRAMME (PPST) 2020**
(Family Home Based Programme)

WEBINAR

Empowering Students' Leadership in Sustainable
Development Goals (SDGs) via Innovation and Inventions

SPEAKERS

**DR. RABIATUL ADAWIAH
AHMAD RASHID**
SDG4: QUALITY EDUCATION

DR. MOHD SUKRI SHAFIE
SDG7: AFFORDABLE AND
CLEAN ENERGY

**DR. NURUL SALMI
ABD LATIP**
SDG15: LIFE ON LAND

FREE TO WATCH ON YOUTUBE!
BROWSE THE LINK BELOW OR
<https://rb.gy/u4zu54>

SCAN THE QR CODE ON YOUR MOBILE DEVICE:

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5.2 Video Competition on Empowering Students' Leadership in Sustainable Development Goals (SDGs) via Innovation and Inventions

SCIENCE AND TECHNOLOGY AWARENESS PROGRAMME (PPST) 2020
(Family Home Based Programme)

VIDEO COMPETITION

Empowering Students' Leadership in Sustainable Development Goals (SDGs) via Innovation and Inventions

2 CATEGORIES: PRIMARY & SECONDARY SCHOOL
Contestants may choose one of these THEMES
SDG 4: Quality Education SDG 7: Affordable and Clean Energy SDG 15: Life on Land

SUBMISSION DATE
15TH OCTOBER 2020

WINNERS ANOUNCEMENT
5TH NOVEMBER 2020

SCAN THE QR CODE TO JOIN
OR
BROWSE THE LINK BELOW
<https://rb.gy/1ze3qj>

PRIZES

PRIMARY SCHOOL

| | |
|-----------------------|-----------|
| 1 st Place | : MYR 900 |
| 2 nd Place | : MYR 600 |
| 3 rd Place | : MYR 300 |
| Consolation | : MYR 150 |

SECONDARY SCHOOL

| | |
|-----------------------|------------|
| 1 st Place | : MYR 1200 |
| 2 nd Place | : MYR 900 |
| 3 rd Place | : MYR 600 |
| Consolation | : MYR 300 |

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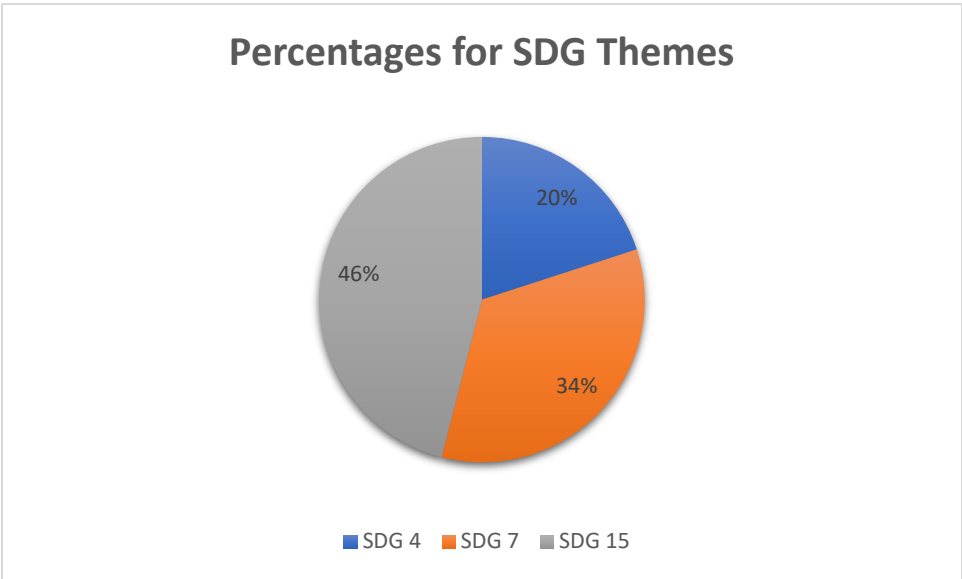
USM UNIVERSITY SAINS MALAYSIA APEX RCE

This year, the video competition was launched on 7th September 2020 and the submission date was on 15th October 2020. Due to Covid-19 pandemic, we have extended the submission date until 31st October 2020. The reason for this extension was to give ample time for students and schools to participate in this competition. In ensuring the successful of this program, we collaborated with Penang State Education Department (PSED) to maximize the engagement of participants for the competition. We had a meeting with the PSED representative, Mr Shamsir

Jemain to advertise the program to all schools in Penang. We also opened the competition to all schools in Peninsular Malaysia.

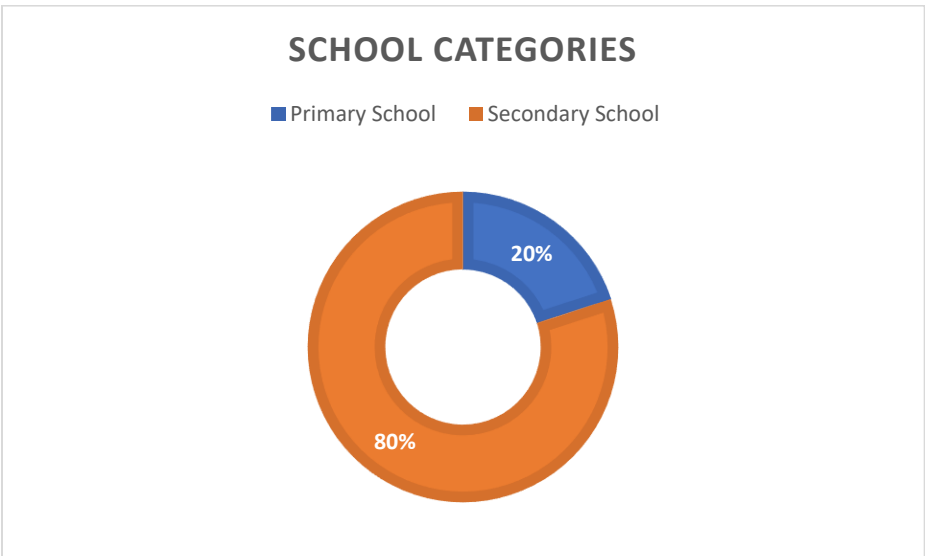
5.2.1 Themes

Based on the number of entries, there were 46% (19 videos) submitted the video on SDG 15 theme, 34% (14 Videos) on SDG 7 and Well-Being and 20% (8 videos) for SDG 4.

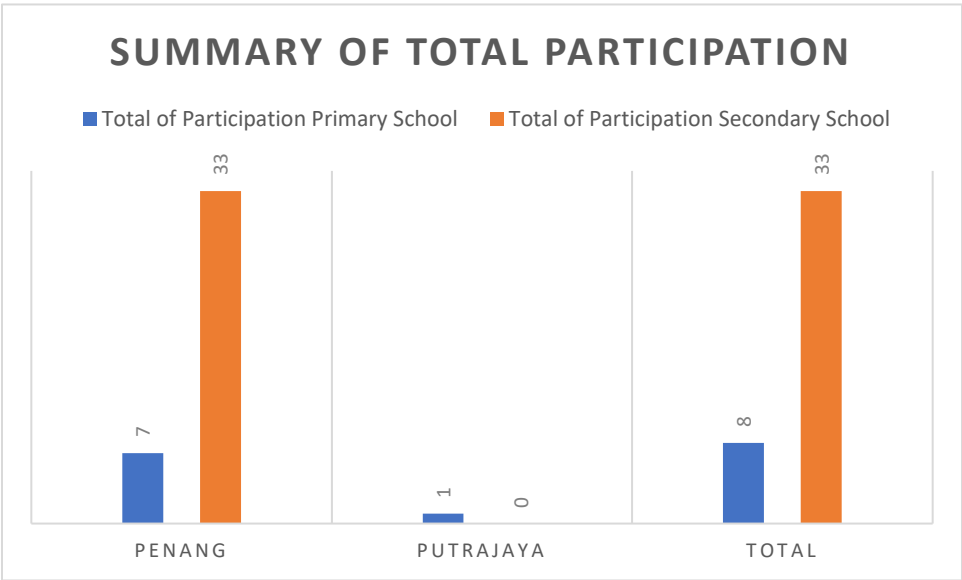


5.2.2 Schools

For this year, the video competition was open into two categories, primary school and secondary school. Based on the entry, there were 20% of the participants from primary school, seven schools from Penang and one school from Putrajaya and 80% of the participants from the secondary school, 33 schools from Penang.



As summary, the total participation was eight primary schools and 33 secondary schools.



5.2.3 State

This year, we received participation mainly from Penang which is 98% and 2% from Putrajaya. We received 41 videos covered all the three themes.



5.2.4 Judging process

The videos were judged by four judges which are Dr Nooraida Yakob, Dr Rabiatul Adawiah Ahmad Rashid, Dr Nurul Salmi Abd Latip and Dr Mohd Sukri Shafie. In ensuring the judging process fair and equitable, a rubric was used. The rubric consisted five criterias which are Introduction, Delivery, Images & Graphics, Content (Creativity) and Content (SDGs).

5.2.5 Winners

Below are the winners for Empowering Students' Leadership in Sustainable Development Goals (SDGs) via Innovation and Inventions for 2020.

EMPOWERING STUDENTS' LEADERSHIP IN SUSTAINABLE DEVELOPMENT GOALS (SDGs) VIA INNOVATION & INVENTIONS

CONGRATULATIONS TO OUR WINNERS



PRIMARY
SCHOOL



SECONDARY
SCHOOL

| Rank | School Name | State |
|----------------------|--------------------------------|-----------|
| Grand Prize | SK SUNGAI NIBONG | PENANG |
| 2nd Prize | SJKT BAYAN LEPAS | PENANG |
| 3rd Prize | SK PUTRAJAYA PRESINT 11 (1) | PUTRAJAYA |
| Consolation Prize | SK BAYAN LEPAS | PENANG |

| Rank | School Name | State |
|----------------------|------------------------------|--------|
| Grand Prize | SMK BUKIT MERTAJAM | PENANG |
| 2nd Prize | SMJK HENG EE | PENANG |
| 3rd Prize | SMJK JIT SIN | PENANG |
| Consolation Prize | SMI AL ITQAN | PENANG |
| Consolation Prize | SMJK JIT SIN | PENANG |
| Consolation Prize | SMK BAKTI | PENANG |
| Consolation Prize | SMK DATUK ONN BUTTERWORTH | PENANG |
| Consolation Prize | SMJK HENG EE | PENANG |

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MAJLIS PENDIDIKAN NEGERI PULAU PINANG

SUSTAINABLE DEVELOPMENT GOALS

4
QUALITY
EDUCATION

7
AFFORDABLE AND
CLEAN ENERGY

15
LIFE ON LAND

6.0 FINANCE

| PPST EXPENSES 2020 | | | |
|--------------------|---|--------------------|-------------|
| No | Items Descriptions | | RM |
| 1 | Project Management <ul style="list-style-type: none"> Honorarium to 3 speakers and judges Honorarium to designer (e-poster) Copyright Video | | 1200 |
| 2 | Award for Best Projects Primary: | | |
| | a) Grand Prize | 1 school x RM 900 | 900 |
| | b) 2 nd Runner Up | 1 school x RM 600 | 600 |
| | c) 3 rd place | 1 school x RM 300 | 300 |
| | d) Consolation Prize | 1 schools x RM 150 | 150 |
| | Award for Best Projects Secondary: | | |
| | a) Grand Prize | 1 school x RM 1200 | 1200 |
| | b) 2 nd Runner Up | 1 school x RM 900 | 900 |
| | c) 3 rd place | 1 school x RM 600 | 600 |
| | d) Consolation Prize | 5 schools x RM 300 | 1500 |
| 3 | Publication book of abstract | 20 copies x RM 15 | 300 |
| | Total | | 7650 |

7.0 LESSON LEARNED

Although the dissemination of the program has been done by the PSED, the number of school participation were very low due to many other programs organized at a school level. This is compounded by the current situation, Covid-19 pandemic. Thus, we extended the video submission date from 15 October 2020 to 31 October 2020.

Initially, the judging process was planned to be conducted face-to-face, unfortunately due to Covid19 pandemic, the judging was done via online.

8.0 CONCLUSIONS

The overall programme was successfully implemented. All participants gained knowledge and understanding about those three themes, Quality Education, Affordable & Clean Energy and Life on Land. They able to produce videos creatively in chosen theme. Through this competition, students showed their leadership skills in Sustainable Development Goals especially on these three themes.