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Invent an App Learning Sessions:

Empowering Girls in STEM

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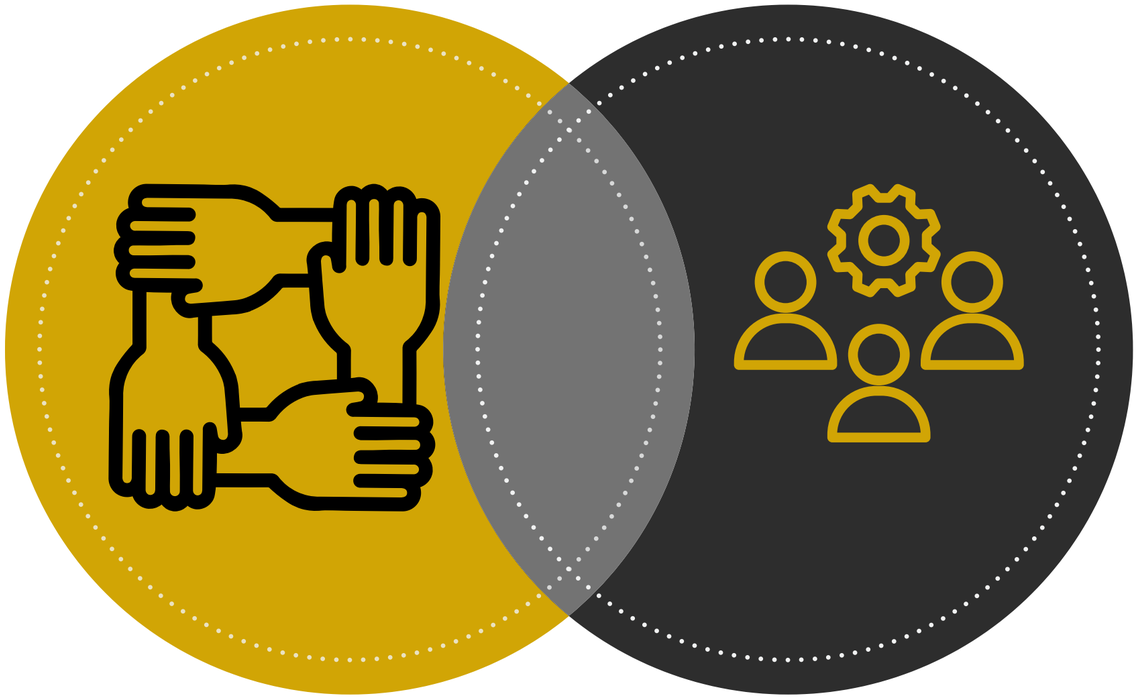
Objectives

Equip

To equip girls with the knowledge and skills in developing their own applications using block-based coding.



Empower

To empower girls in STEM

Delivery Modalities of the Remote Learning Sessions

Zoom

The 16 2-hour synchronous sessions were conducted online via Zoom.

Google Classroom

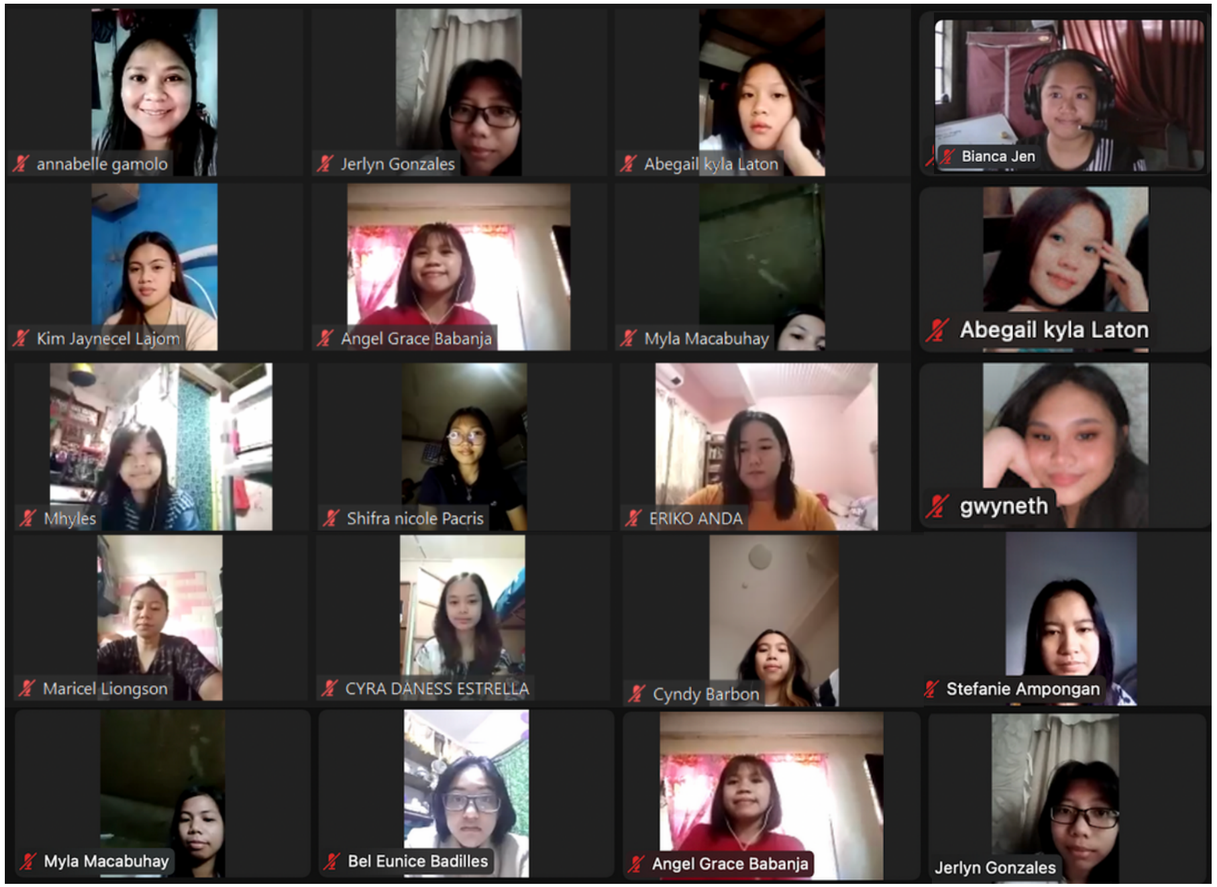
Asynchronous activities were delivered via the Google Classroom after each synchronous sessions

Recording of Synchronous sessions

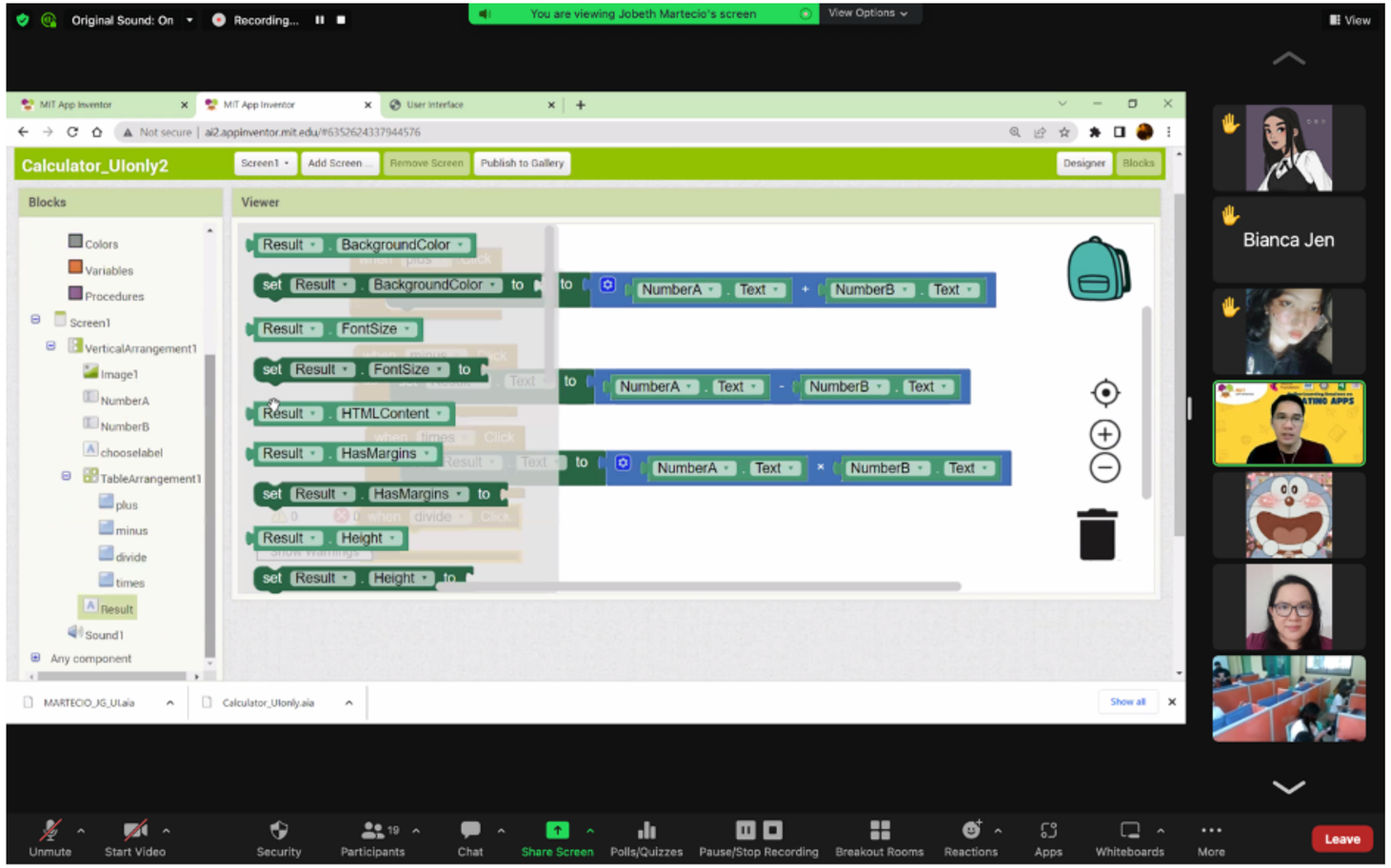
Synchronous sessions were recorded and shared via the Google Classrroom as a resource

Profile of Participants

- 20 female ICT-track senior high school students of a secondaary school;
- 19 Grade 12 students and 1 Grade 11
- Age ranged from 16 to 35 years olds with a mean age of 19.2 years.
- 16 (or 80%) had no background in block-based coding while 4 (or 20%) had some knowledge in programming (had little experience in using Java or HTML 5 basic).
- 4 ICT teachers



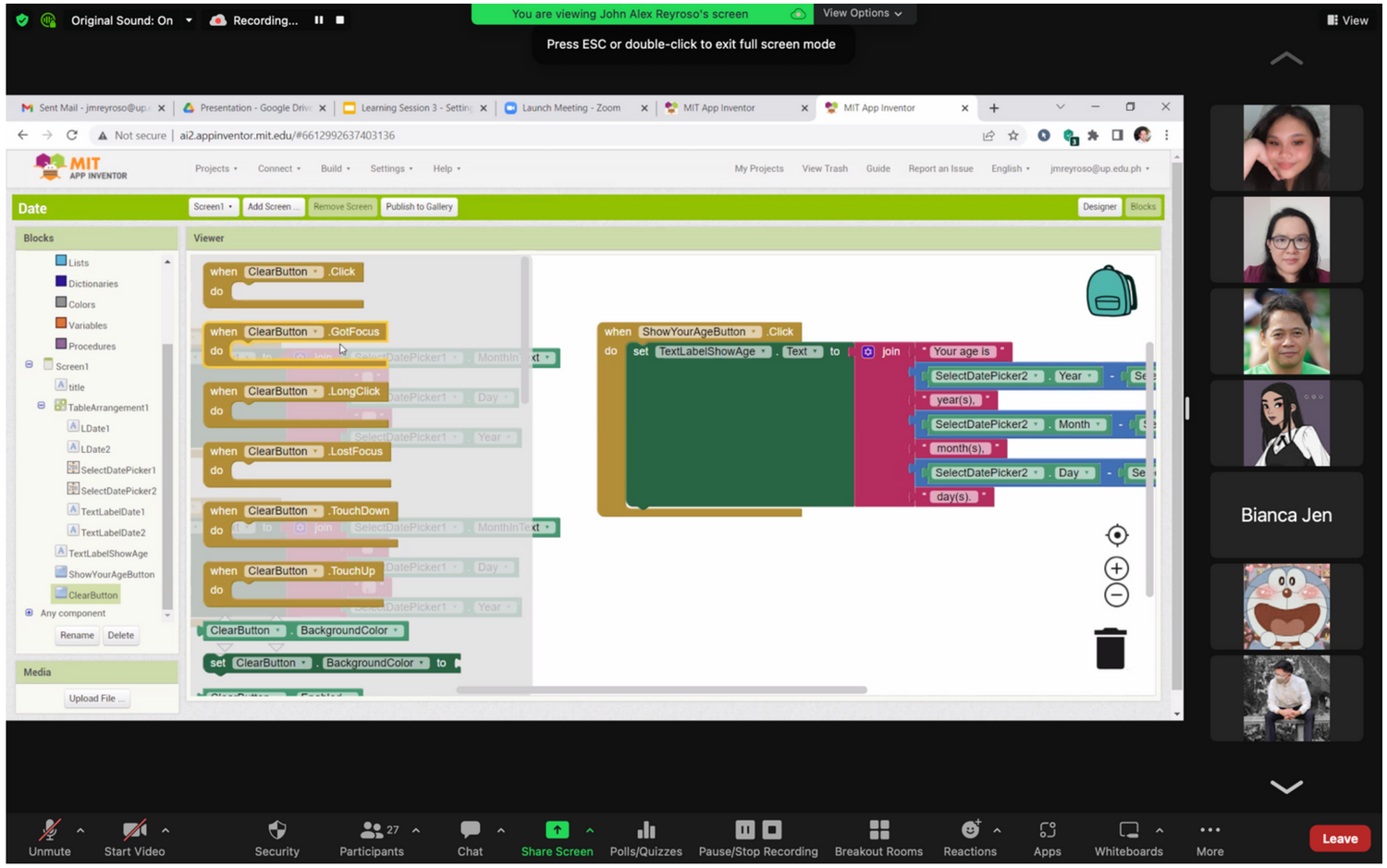
Learning Sessions



Students

- explored the how to use the MIT App Inventor; and
- learned block-based coding.

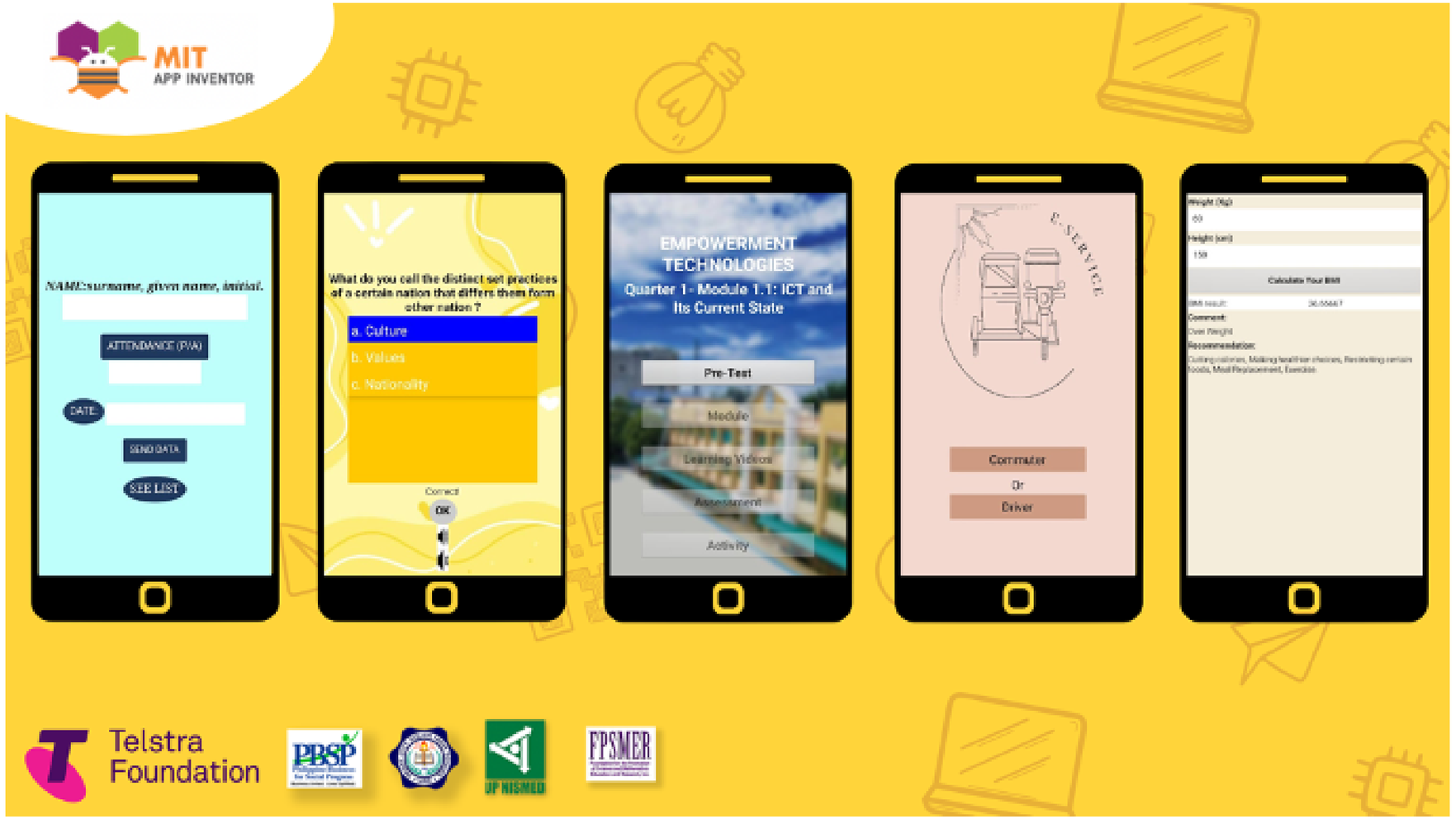
Learning Sessions



Students

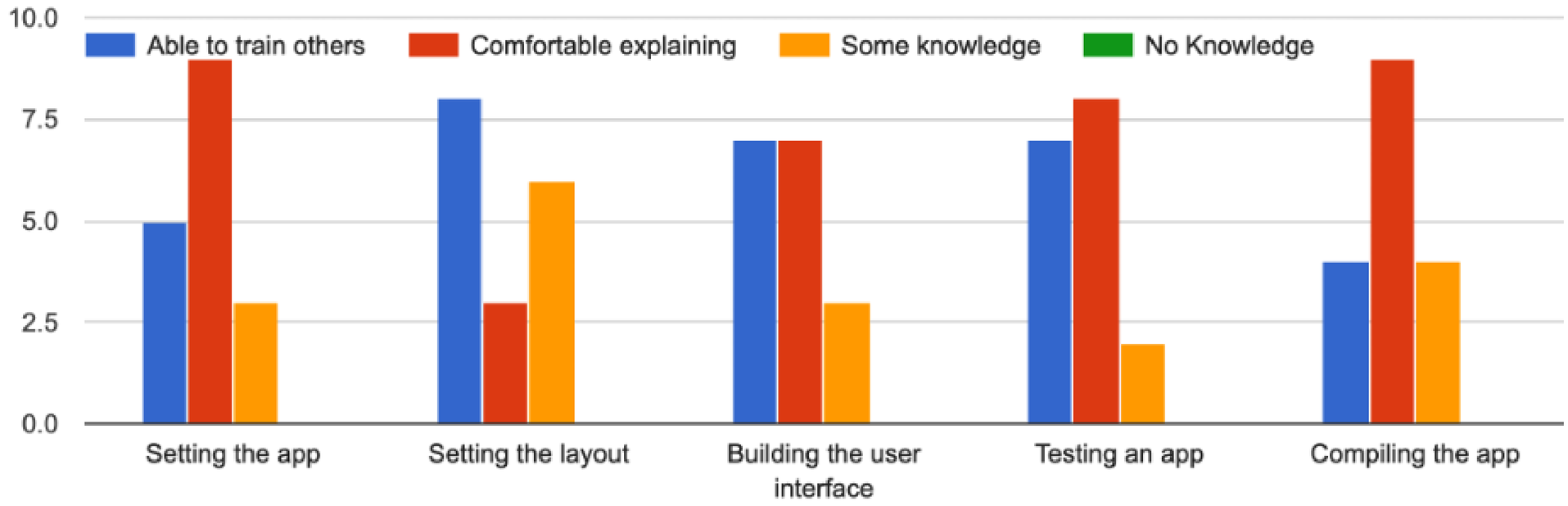
- planned their own app that provides solution to a community problem; and
- developed their own app.

The Apps

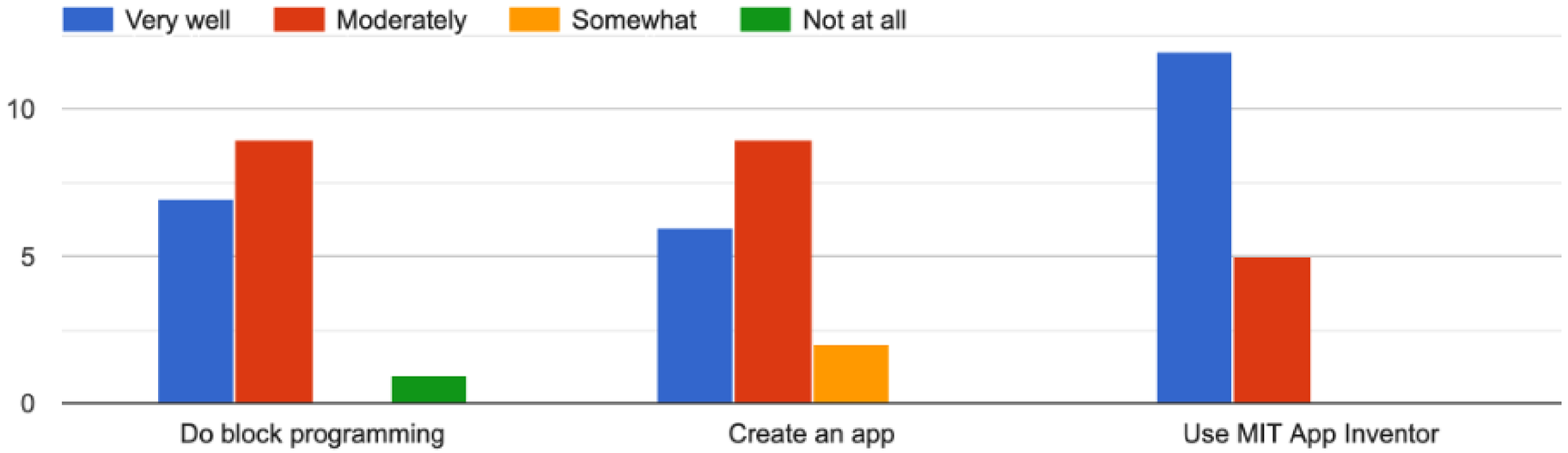

MIT
APP INVENTOR
NAME:surname, given name, initial.
ATTENDANCE (P/A)
DATE
SEND DATA
SEE LIST
What do you call the distinct set practices of a certain nation that differs them form other nation?
a. Culture
b. Values
c. Nationality
Correct
OK
EMPOWERMENT TECHNOLOGIES
Quarter 1- Module 1.1: ICT and Its Current State
Pre-Test
Module
Learning Videos
Assessment
Activity
E-SERVICE
Commuter
Or
Driver
Weight (Kg)
65
Height (cm)
159
Calculate Your BMI
Comment:
Over Weight
Recommendation:
Telstra Foundation
PBSP
DepEd
UP NISMED
FPSMER

- Overall results of the pretest and posttest of participants’ knowledge and skills related to the specific topics of the learning sessions showed significant improvement, with t-value equal to 4.732 and p = 0.0006.

- Participants' mean pretest score was 9.91 and their mean posttest score was 14.25.



Distribution of participants by their self-report level of knowledge and skills in creating apps after the training.



Distribution of participants by their preparedness to do block programming, create an app, and use MIT App Inventor after the training.

Verbatim feedback showed that the students were grateful and happy that they have joined the training as it helped them validate interest to pursue an ICT course in college.

Recommendations

Training Duration

Increase the duration of the learning sessions to 30 hours. This will enable participants to master the block coding skills they have gained from the training.

Reinforcement of the Skills

- Provide more video tutorials to participants which they can refer to when reviewing the activities they did during the learning sessions. These are good resources that they can use when they practice to do block programming and practice using the MIT App Inventor.
- Conduct a follow-up or enhancement training to participants who performed well during the first batch of learning sessions. This is to sustain the interest of the participants and to help them further enhance their coding skills.

Assessment

- Assess the computational thinking of students.

Thank You.


Sir Edwin Abella
Bianca Jen
Bianca Jen
Gwyneth Orpilla
Jeffrey Eurolfan
PSSP Lei Paller
Angel Grace Babanja
Gerald Garcia
efren lopezII
Jobeth Martecio
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