

Program Summary  
Digital Innovation Challenge 2022:

# Perempuan Inovasi

Digital Solutions for Women, from Women, by Women





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## Markoding Foreword



As an Indonesian woman, I consider myself fortunate to have had a mother who is an environmental researcher. Her work exposed me to the important role that women can play in STEM fields at a young age, which motivated me to pursue a degree in computer science and set me on the path to my current career. Unfortunately, this is not the reality for most women in Indonesia, where only 22% work in the technology industry – the lowest percentage in Southeast Asia (BCG, 2017). Despite this, Indonesia's technology sector is rapidly growing, and the country will require 9 million digital talents by 2030 (World Bank, 2019).

However, societal beliefs and stigmas in Indonesia often discourage women from pursuing STEM fields. Women are often seen as lacking the ability, logic, and potential of their male counterparts, and gender-based violence is on the rise, particularly during the COVID-19 pandemic. Adolescent girls also lack a voice in policy-making that affects their lives.

To address these challenges, Markoding has launched the "Digital Innovation Challenge 2022: Perempuan Inovasi" program. This 9-month program empowers adolescent girls, particularly those who are marginalized, by improving their 21st-century skills and enabling them to create digital innovation solutions to address

gender-based social problems such as sexual violence and harassment against women, gender equality, child marriage, and sexual and reproductive health. The program offers opportunities for active participation with professional mentors and industry practitioners. Last year, the Perempuan Inovasi program reached 4,122 adolescent girls (83.3% female) and 777 teachers (81.7% female) from 742 schools and community learning centers across 27 provinces in Indonesia. Under the guidance of 47 industry practitioner mentors (78% female), the program generated over 537 innovative ideas.

We are grateful and honored to receive the Power of Radiance Award 2022 from Clé de Peau Beauté, which supports the Perempuan Inovasi program. This award allows us to achieve our mission of empowering Indonesian women through 21st-century skills education on a national scale. We would also like to thank UNICEF for their support from the beginning of our journey until now.

By equipping women with STEM skills, particularly in digital technology, they will have access to higher-paying job opportunities, which can help break the cycle of poverty and improve their overall quality of life. Our hope is that the Perempuan Inovasi program will provide Indonesian women with equal access to quality education, empower them to become confident learners and creators in technology and innovation, and ultimately advance and empower women across Indonesia.

### **Amanda Simandjuntak**

Co-Founder

## About The Organizer



### CLÉ DE PEAU BEAUTÉ

Clé de Peau Beauté, a luxury beauty product brand of Shiseido Co Ltd, was founded in 1982 as the ultimate representation of elegance and science. Clé de Peau Beauté means the key to skin beauty. The brand's philosophy is to unlock the power of a woman's radiance by utilizing advanced makeup and skincare technologies worldwide. Guided by aesthetic sensibility and exceptional intellect, Clé de Peau Beauté has infused its products with modernity, charm, and dynamism to emerge as an industry leader in delivering a radiant glow from within. Available in 23 countries and territories around the world.

### UNICEF

The United Nations Children's Fund (UNICEF) is a United Nations agency committed to working for a better life for children, defending their rights, and helping them fulfill their potential from childhood to adolescence. UNICEF works with governments, educational institutions, civil society organizations, private sector organizations, and adolescent and youth groups and networks as change-makers to empower the most vulnerable and marginalized adolescents through innovative and inclusive approaches to education, participation, and entrepreneurship.

### MARKODING

MARKODING <Mari Kita Koding!> or Yayasan Daya Kreasi Anak Bangsa, is an organization whose mission is to empower disadvantaged youth in Indonesia by teaching coding and innovation. Founded in 2017, Markoding aims to improve the digital skills of youth. Markoding develops a free integrated learning ecosystem to teach programming (coding) in a fun and simple way.

## Executive Summary

Markoding, supported by Cle de Peau Beaute and UNICEF, conducts a 9-month skills development program for adolescent girls (12-18 years old) focusing on the most disadvantaged youth to ensure they are empowered with the skills to fulfill their potential goals through increased access to high-quality learning opportunities.

The adolescent girls will be equipped with 21st-century, digital, and entrepreneurial skills to help them identify gender-related issues that are important to them and co-develop digital solutions to address those issues.

Digital Innovation Challenge 2022: Perempuan Inovasi have reached 4,122 teenagers (88.7% girls) from 742 schools across 27 provinces in Indonesia. 777 teachers (81.7% female teachers) and 35 female mentors from the industry were involved in helping and supporting the teens with their expertise.

Teenage participants submitted 537 digital solution ideas at the Preliminary Round stage of the 2022 Digital Innovation Challenge: Perempuan Inovasi. Furthermore, 50 solution ideas

from 50 teams were selected to enter the Final Round of the 2022 Digital Innovation Challenge: Perempuan Inovasi and received 4-Days Innovation Challenge training to finalize the solution ideas they had submitted. From the 50 solution ideas, 24 selected teams continued their journey to realize their solution ideas into web, app, or game through Product Development and Coding Bootcamp.

Digital Innovation Challenge 2022: Perempuan Inovasi is a platform to encourage teenagers, especially young women, to voice their aspirations and problems by creating innovative digitalbased solutions. The program reaches out to adolescent girls and other marginalized youth, where they are trained through a series of innovative workshops and intensive mentoring from professional mentors to enable them to identify problems in their surrounding environment and create innovative digital-based solutions to be presented to the general public as prototypes that can be used to encourage the participation of adolescent girls in their environment throughout Indonesia.



## Program Background

Girls and boys leave school without the skills they need to get a decent job, and 24% of Indonesian youth aged 15 to 19 are defined as not in education, employment, or training (SAKERNAS, 2020). This is also corroborated by a survey from the ILO on the skills mismatch. According to a survey from the ILO, 50% of employers surveyed in the ASEAN region said high school graduates do not have the skills needed to work in the industry (ILO, 2015). Both boys and girls feel they have little or no influence in decision-making on issues that directly affect them, such as education, health, and protection. One factor influencing this is the lack of female role models in the STEM sector due to the gender stereotype that "boys are better at science and math" (womenintech.co.uk). World Bank data also confirm the lack of female role models in technology. In 2018, only 12% of female STEM graduates in Indonesia, compared to other countries in Southeast Asia, such as Malaysia 26%, the Philippines 18%, Thailand 15% and Vietnam 15% (datacatalog.worldbank.org). Based on the results

of our coding training for secondary students in 2018, girls had significantly lower confidence levels than boys, despite their better work. (Markoding, 2018)

Through this program, adolescent girls are trained through training, innovative workshops, and mentoring and equipped with 21st-century skills, entrepreneurship, and digital skills. They are challenged to create innovative solutions to voice their aspirations for problems in the surrounding community. In the final stage, through digital skills training, their solutions are digitized into digital products to having a wide impact throughout Indonesia.



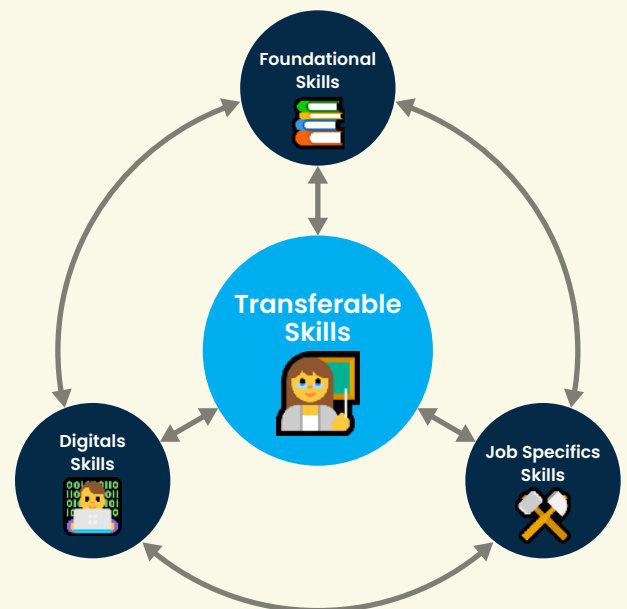


## Introduction

### What are Skills for Adolescents?

According to UNICEF, there are several skills that young people (especially adolescents) need to succeed in school, life, and work. These skills are

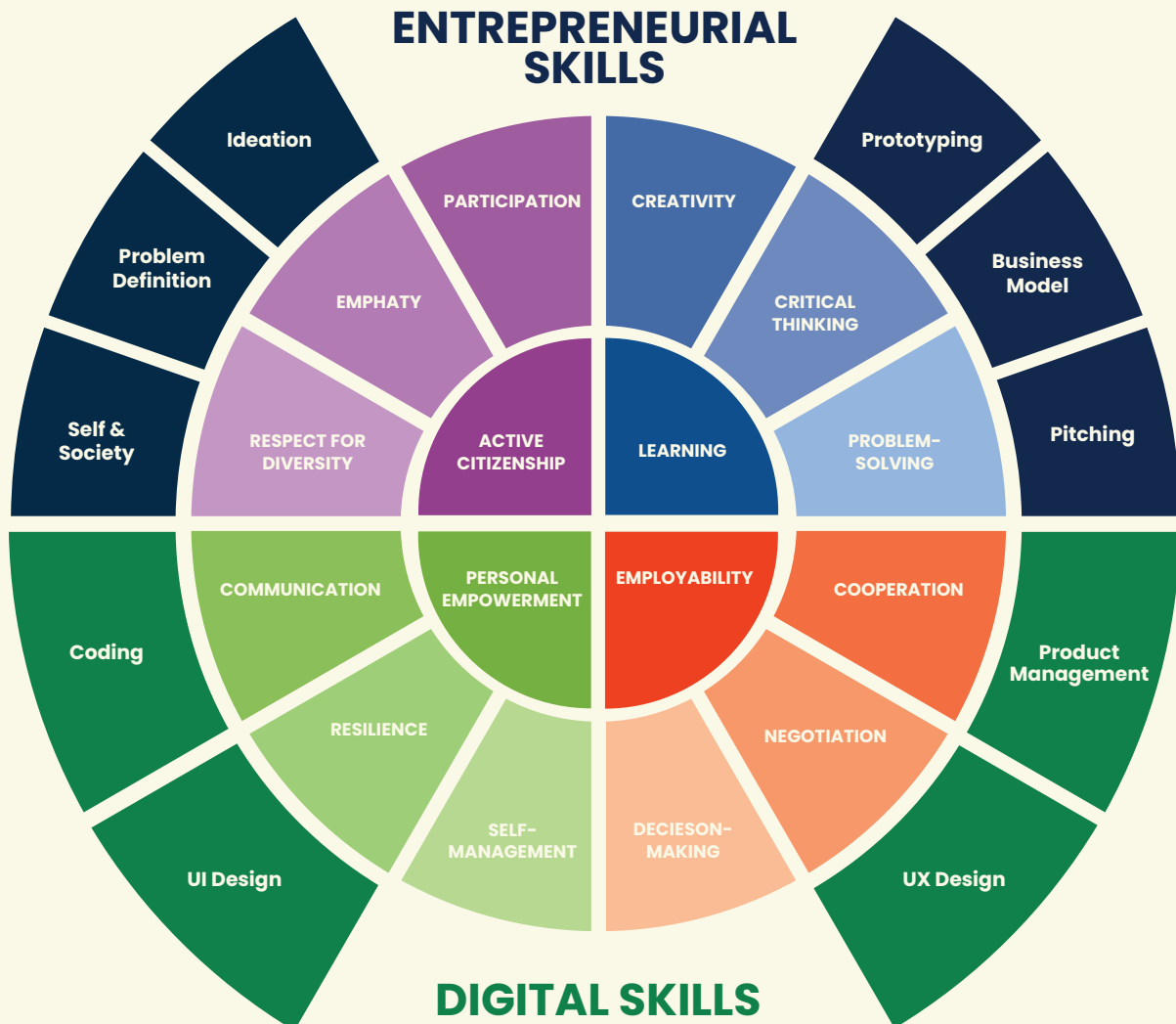
- 1. Foundational skills.**  
 Literacy and numeracy skills are essential for further learning, productive employment, and active civic engagement.
- 2. Digital skills.**  
 Digital skills support the development of digitally literate children, enabling them to use and understand technology, search for and manage information, create and share content, collaborate, communicate, build knowledge, and solve problems safely, critically, and ethically.
- 3. Transferable skills.**  
 Known as 'life skills', 'twenty-first-century skills', 'soft skills', or 'socio-emotional skills', these skills enable young people to become agile learners and citizens equipped to navigate personal, social, academic, and economic challenges. Transferable skills also help crisis-affected youth overcome trauma and build resilience. These skills include problem-solving, negotiation, managing emotions, empathy, and communication.
- 4. Job-specific skills.**  
 Job-specific skills support older adolescents' transition into the world of work with technical skills that are directly related to specific jobs.



## Program Design

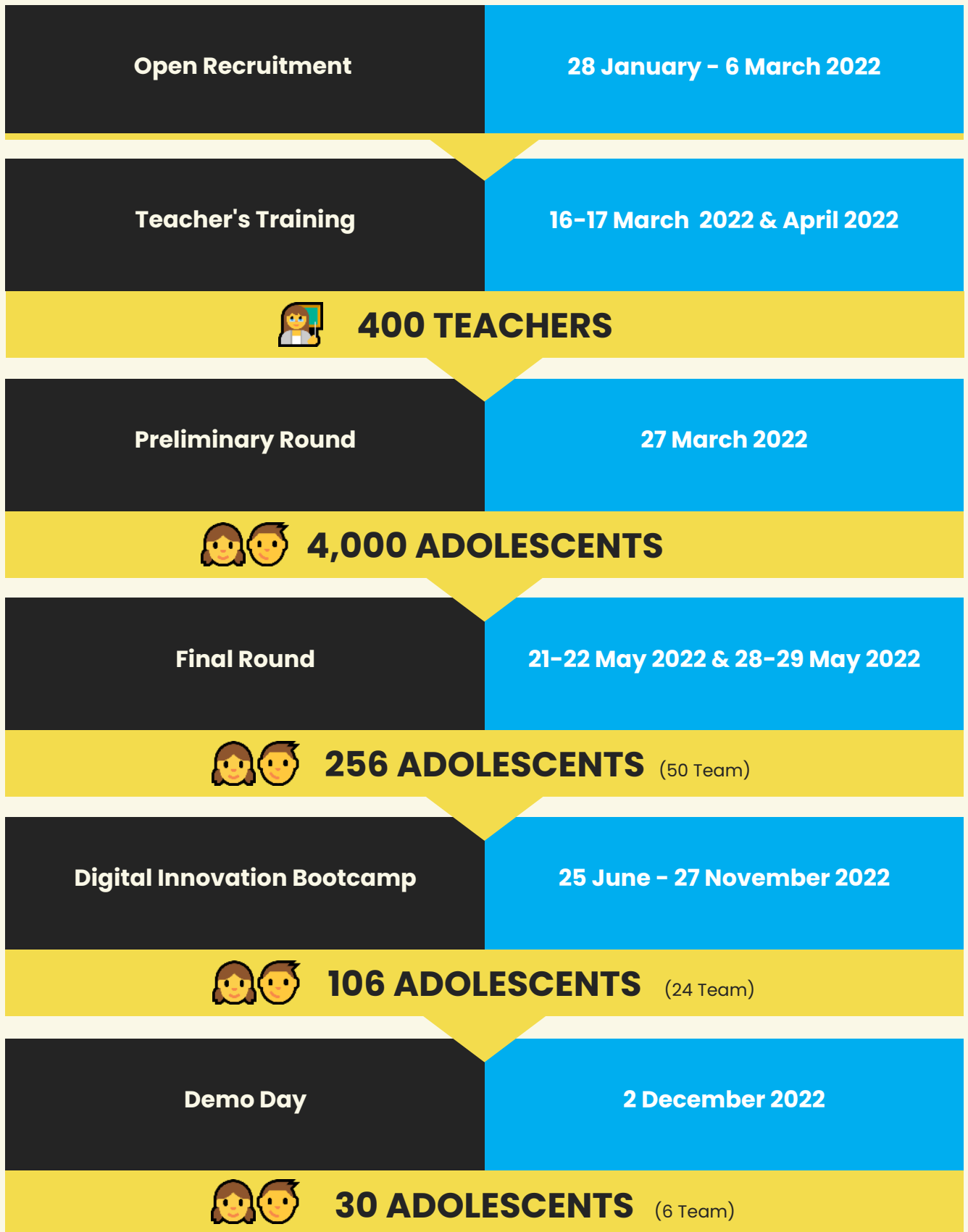
Digital Innovation Challenge 2022: Perempuan Inovasi is a 9-month program organized by MARKODING supported by Clé de Peau Beauté and UNICEF to enhance 21st-century skills to empower teenagers, especially marginalized teenagers, through active participation with the guidance of professional mentors and industry practitioners. Adolescent girls will be equipped with 21st-century, digital, and entrepreneurial skills to innovate sustainable digital solutions to solve gender-based social problems in their communities.

Using UNICEF's 12 Core Life Skills Framework, the youth were equipped with 21st-century, digital, and entrepreneurial skills to help them identify the issues that matter to them and codevelop innovative solutions to address these challenges.



12 Core Life Skills from UNICEF

## Program Phase and Schedule



**Significant Figure of Digital Innovation Challenge 2022: Perempuan Inovasi**

**343\***



**Participating schools**

(17 schools advanced to Bootcamp stage) from junior high schools, senior high schools, vocational high schools, and community learning centers

**4.122**



**Participating adolescents**  
(88.7% female)  
aged 12-18 years old

**27**



**Provinces in Indonesia reached**

**777**



**Participating teachers**  
(81.7% female teachers) from junior high schools, senior high schools, vocational high schools, and community learning centers

**47**



**Professional mentors participated**  
(78% female mentors) from Software Developers, UI/UX Designers, Product Managers, and related professionals from other industries.

**537**



**Digital solution ideas submitted by adolescents**

**24**



**Digital solution ideas that were successfully realized into innovative solution prototypes**

\*We have made 399 corrections to the original information on the 742 school data. These corrections were made on March 6, 2023, to ensure the accuracy and reliability of our data.

# School Profile



## School Profile



# 343\*

### school participating in the Digital Innovation Challenge 2022: Perempuan Inovasi program

- Cinta Budaya Medan
- MA Al Ihsan
- MA Miftahul Anwar
- MA Plus Keterampilan Wadi Sofia
- MA Negeri 1 Hulu Sungai Tengah
- MA Negeri 12 West Jakarta
- MA Negeri 7 Jakarta
- MTs Negeri 1 Lumajang
- MTs Negeri 11 Jakarta
- PKBM Negeri 35
- PKBM Piwulang Becik
- SMA 2 Unggulan Talang Ubi
- SMA Al Amin
- SMA Bina Anak Soleh Jogja
- SMA Darul Arafah
- SMA Hang Tuah 2 Gedangan Sidoarjo
- SMA Islam Al Jabr
- SMA Katolik St Louis 2
- SMA Katolik Yos Sudarso Kepanjen
- SMA Kristen IPH 2
- SMA Kristen Kalam Kudus Surabaya
- SMA Kristen Kasih Kemuliaan
- SMA Kristen Satu Bakti
- SMA LabSchool Kebayoran
- SMA LabSchool UNESA 1
- SMA Little Sun Surabaya
- SMA Mazra'atul Ulum Paciran Lamongan
- SMA MIMI School Surabaya
- SMA Muhammadiyah 25 Setiabudi Pamulang
- SMA Negeri 1 Dayeuhluhur
- SMA Negeri 1 Muara Jawa
- SMA Negeri 1 Tenggara
- SMA Negeri 2 Tungal Jaya
- SMA Negeri 8 KKT
- SMA Plus Negeri 17 Palembang
- SMA Swasta Kristen YPKPM Ambon
- SMA Tunas Bangsa Palembang
- SMA Kristen Satu Bakti Bogor
- SMA Negeri 03
- SMA Negeri 05
- SMA Negeri 1 Andong
- SMA Negeri 1 Asembagus
- SMA Negeri 1 Batu Sopa
- SMA Negeri 1 Boyolali
- SMA Negeri 1 Buru
- SMA Negeri 1 Dimembe
- SMA Negeri 1 Gading
- SMA Negeri 1 Gangga
- SMA Negeri 1 Girimarto
- SMA Negeri 1 Indralaya Selatan
- SMA Negeri 1 Jakarta
- SMA Negeri 1 Jakenan
- SMA Negeri 1 Jatisrono
- SMA Negeri 1 Jempang
- SMA Negeri 1 Kakas
- SMA Negeri 1 Kandangan
- SMA Negeri 1 Kandat
- SMA Negeri 1 Kandis
- SMA Negeri 1 Karanganyar
- SMA Negeri 1 Kepanjen
- SMA Negeri 1 Kota Mungkid
- SMA Negeri 1 Kudus
- SMA Negeri 1 Kutorejo
- SMA Negeri 1 Lumbang
- SMA Negeri 1 Mentaya Hilir Selatan
- SMA Negeri 1 Muara Wis
- SMA Negeri 1 Parenggean
- SMA Negeri 1 Pariaman
- SMA Negeri 1 Pati
- SMA Negeri 1 Pematang Karau
- SMA Negeri 1 Plaosan
- SMA Negeri 1 Ponggok
- SMA Negeri 1 Plaosan
- SMA Negeri 1 Prajekan
- SMA Negeri 1 Pulau Punjung
- SMA Negeri 1 Puri
- SMA Negeri 1 Purwosari
- SMA Negeri 1 Sei Suka
- SMA Negeri 1 Sijunjung
- SMA Negeri 1 Simo
- SMA Negeri 1 Sindue
- SMA Negeri 1 Solok
- SMA Negeri 1 Sragen
- SMA Negeri 1 Srengat
- SMA Negeri 1 Sukoharjo
- SMA Negeri 1 Sumbawa Besar
- SMA Negeri 1 Sumberlawang
- SMA Negeri 1 Surakarta
- SMA Negeri 1 Talang Ubi
- SMA Negeri 1 Tebing Tinggi
- SMA Negeri 1 Tinangkung
- SMA Negeri 1 Turen
- SMA Negeri 1 Ujan Mas
- SMA Negeri 1 Wringinanom
- SMA Negeri 1 X Koto
- SMA Negeri 10 Tangerang
- SMA Negeri 12 Ambon
- SMA Negeri 13 Surabaya
- SMA Negeri 15 Palembang

\*We have made 399 corrections to the original information on the 742 school data. These corrections were made on March 6, 2023, to ensure the accuracy and reliability of our data.

## School Profile

- SMA Negeri 2 Bontang
- SMA Negeri 2 Bukittinggi
- SMA Negeri 2 Dusun Hilir
- SMA Negeri 2 Kei Kecil
- SMA Negeri 2 Kuala Kapuas
- SMA Negeri 2 Muara Badak
- SMA Negeri 2 Pamekasan
- SMA Negeri 2 Salatiga
- SMA Negeri 2 Tungkal Jaya
- SMA Negeri 3 Blitar
- SMA Negeri 3 Kei Kecil
- SMA Negeri 3 Kota Depok
- SMA Negeri 3 Pati
- SMA Negeri 3 Surakarta
- SMA Negeri 3 Tual
- SMA Negeri 38 Jakarta
- SMA Negeri 4 Blitar
- SMA Negeri 4 Kediri
- SMA Negeri 4 Ogan Komering Ulu
- SMA Negeri 4 Sumbawa Besar
- SMA Negeri 5 Surabaya
- SMA Negeri 5 Tual
- SMA Negeri 6 Kediri
- SMA Negeri 7 Pekanbaru
- SMA Negeri 79 Jakarta
- SMA Negeri 8 Kepulauan Tanimbar
- SMA Negeri 9 North Balikpapan
- SMA Negeri Colomadu
- SMA Negeri Karangpandan
- SMA Negeri South Sumatera
- SMA Swasta Bina Insani
- SMA Swasta Marsudirini
- SMA Swasta Muhammadiyah 1 Muaradua
- SMA Swasta Muhammadiyah Tual
- SMA Swasta Santo Yosef
- SMK 2 Bukittinggi
- SMK Adhikawacana
- SMK Al Khozini Gondanglegi
- SMK Bhakti Luhur
- SMK Bina Nusantara
- SMK Boedi Luhur
- SMK Budi Mandiri
- SMK Darul Ma'arif IKAMA
- SMK Forward Nusantara
- SMK Islam Krembung
- SMK Karya Nasional Kuningan
- SMK Kesehatan Kader Bangsa Palembang
- SMK Kesuma Margoyoso
- SMK Ketintang Surabaya
- SMK Ma'arif Sudimoro
- SMK Motivasi Insani
- SMK Muhammadiyah 02 Malang
- SMK Muhammadiyah 03 Palembang
- SMK Muhammadiyah 1 Pekanbaru
- SMK Muhammadiyah 5 Kepanjen
- SMK PGRI
- SMK PGRI 1 Nganjuk
- SMK Poncol
- SMK PPN Mataram
- SMK Prestasi Prima
- SMK Swadhipa 2 Natar
- SMK Syekh Abdul Qodir Al Jailani
- SMK Telkom Lampung
- SMK Telkom Malang
- SMK Theresiana
- SMK Tunas Harapan Pati
- SMK Widyagama Malang
- SMK Negeri 01
- SMK Negeri 02 Palembang
- SMK Negeri 1 Air Batu
- SMK Negeri 1 Amlapura
- SMK Negeri 1 Batang
- SMK Negeri 1 Bojongpicung
- SMK Negeri 1 Boyolali
- SMK Negeri 1 Buduran Sidoarjo
- SMK Negeri 1 Bunguran Timur
- SMK Negeri 1 Cerme Gresik
- SMK Negeri 1 Cianjur
- SMK Negeri 1 Cijulang
- SMK Negeri 1 Cilacap
- SMK Negeri 1 Cilaku
- SMK Negeri 1 Cipunagara
- SMK Negeri 1 Gedong Tataan
- SMK Negeri 1 Jabon
- SMK Negeri 1 Jayapura
- SMK Negeri 1 Kademangan
- SMK Negeri 1 Karawang
- SMK Negeri 1 Kawunganten
- SMK Negeri 1 Kikim Tengah
- SMK Negeri 1 Kudus
- SMK Negeri 1 Mojosongo
- SMK Negeri 1 Nganjuk
- SMK Negeri 1 Ngawen
- SMK Negeri 1 Padaherang
- SMK Negeri 1 Pagerwojo
- SMK Negeri 1 Pracimantoro
- SMK Negeri 1 Pringapus
- SMK Negeri 1 Probolinggo
- SMK Negeri 1 Pundong
- SMK Negeri 1 Rao Selatan
- SMK Negeri 1 Rembang
- SMK Negeri 1 Sawan
- SMK Negeri 1 Sawit
- SMK Negeri 1 Sekampung
- SMK Negeri 1 Semarang
- SMK Negeri 1 Sidenreng
- SMK Negeri 1 Sikur
- SMK Negeri 1 Silangkitang
- SMK Negeri 1 Singkawang
- SMK Negeri 1 Sinjai
- SMK Negeri 1 Sapiro

## School Profile

- SMK Negeri 1 Somba Opu
- SMK Negeri 1 Sukoharjo
- SMK Negeri 1 Tampaksiring
- SMK Negeri 1 Tanah Abang
- SMK Negeri 1 Tanjung
- SMK Negeri 1 Tanjungpinang
- SMK Negeri 1 Wonorejo
- SMK Negeri 10 Garut
- SMK Negeri 2 Ambon
- SMK Negeri 2 Bangkalan
- SMK Negeri 2 Bangli
- SMK Negeri 2 Banjarmasin
- SMK Negeri 2 Bukittinggi
- SMK Negeri 2 Jakarta
- SMK Negeri 2 Kudus
- SMK Negeri 2 Magelang
- SMK Negeri 2 Padangsidempuan
- SMK Negeri 2 Palangkaraya
- SMK Negeri 2 Surakarta
- SMK Negeri 2 Tasikmalaya
- SMK Negeri 2 Tehnologi Tanjungbalai
- SMK Negeri 2 Wajo
- SMK Negeri 25 Jakarta
- SMK Negeri 26 Jakarta
- SMK Negeri 3 Magelang
- SMK Negeri 3 Malang
- SMK Negeri 3 Medan
- SMK Negeri 3 Ogan Komering Ulu
- SMK Negeri 3 Penajam Paser Utara
- SMK Negeri 3 Salatiga
- SMK Negeri 2 Sekayu
- SMK Negeri 3 Surakarta
- SMK Negeri 3 Tasikmalaya
- SMK Negeri 38 Jakarta
- SMK Negeri 4 Jakarta
- SMK Negeri 4 Jember
- SMK Negeri 4 Kuningan
- SMK Negeri 4 Sukoharjo
- SMK Negeri 4 Surakarta
- SMK Negeri 4 Tanjungpinang
- SMK Negeri 40 Jakarta
- SMK Negeri 69 Jakarta
- SMK Negeri 7 Batam
- SMK Negeri 7 Medan
- SMK Negeri Bali Mandara
- SMK Negeri Nusawungu
- SMK NU 1 Karanggeneng
- SMK Nurul Ilmi
- SMKS Analis Kesehatan Bhakti Wiyata Kediri
- SMKS Bina Profesi Maros
- SMKS Darul Ma'Arif
- SMKS Islam 1 Kota Blitar
- SMKS Ketintang Surabaya
- SMKS Kristen Pelangi
- SMKS Muhammadiyah 1 Kotaagung
- SMKS Muhammadiyah 1 Jakarta
- SMKS Muhammadiyah Sampit
- SMKS PGRI 1 Mejobo Kudus
- SMKS Ruhul Anshor
- SMKS Sandhy Putra
- SMKS Saraswati 3 Tabanan
- SMKS Strada Jakarta
- SMKS Swadhipa 2 Natar
- SMKS Telkom Sandhy Putra
- SMKS Widya Nusantara Maros
- SMKS Wikrama Bogor
- SMKS Yapentob Toboali
- SMKS Yusuf Abdussatar
- SMKS Zainul Hasan Genggong
- SMP 17 Tangerang
- SMP 171 Gedong Tataan
- SMP 19 Pesawaran
- SMP 2 Jati Kudus
- SMP 2 Kramatwatu
- SMP 2 Undaan
- SMP 3 Imogiri
- SMP 6 Surabaya
- SMP Al Muhajirin
- SMP Bhinneka Karya Musuk
- SMP Cinta Budaya / Chong Wen
- SMP Elsadai Agape
- SMP Ma Arif Imogiri
- SMP Muhammadiyah 36
- SMP Pandu
- SMP PGRI Kramatwatu
- SMP Santo Yoseph Denpasar
- SMP Swasta Charitas
- SMPK Don Bosco Atambua
- SMPK Satu Bakti Bogor
- SMP Negeri 01 Semarang
- SMP Negeri 03 Pineleng
- SMP Negeri 1 Banuhampu
- SMP Negeri 1 Bringin
- SMP Negeri 1 Denpasar
- SMP Negeri 1 Lapandewa
- SMP Negeri 1 Mojo
- SMP Negeri 1 Musuk
- SMP Negeri 1 Semarang
- SMP Negeri 1 Wringinanom
- SMP Negeri 12 Gresik
- SMP Negeri 141 Jakarta
- SMP Negeri 147 Jakarta
- SMP Negeri 16 Semarang
- SMP Negeri 16 Surabaya
- SMP Negeri 168
- SMP Negeri 172 Jakarta
- SMP Negeri 193 Jakarta
- SMP Negeri 2 Bambanglipuro
- SMP Negeri 2 Jati



## School Profile

- SMP Negeri 2 Kediri
- SMP Negeri 2 Moyudan
- SMP Negeri 2 Pekalongan
- SMP Negeri 2 Penukal Utara
- SMP Negeri 2 Pulau Malan
- SMP Negeri 2 Rambutan
- SMP Negeri 2 Sompak
- SMP Negeri 2 Undaan
- SMP Negeri 20 Pekanbaru
- SMP Negeri 22 Semarang
- SMP Negeri 253 Jakarta
- SMP Negeri 283
- SMP Negeri 2 Ampek Angkek
- SMP Negeri 2 Ampek Nagari
- SMP Negeri 3 Imogiri
- SMP Negeri 3 Sewon
- SMP Negeri 4 Manado
- SMP Negeri 41 Jakarta
- SMP Negeri 5 Cirebon
- SMP Negeri 5 Denpasar
- SMP Negeri 5 Padangsidimpuan
- SMP Negeri 5 Sidoarjo
- SMP Negeri 6 Surabaya



# 36

### **schools made it to the Final Round Digital Innovation Challenge 2022: Perempuan Inovasi**

- 8 schools from East Java
- 6 schools from Central Java
- 6 schools from West Java
- 2 schools from South Sumatra
- 2 schools from East Kalimantan
- 2 schools from DKI Jakarta
- 2 schools from Maluku
- 2 schools from West Sumatra
- 1 school from Bali
- 1 school from DI Yogyakarta
- 1 school from Papua
- 1 school from South Kalimantan
- 1 school from South Sulawesi
- 1 school from Southeast Sulawesi

#### • **East Java Regional School**

- SMA Hang Tuah 2 Sidoarjo
- SMK Bhakti Wiyata
- SMK Ketintang Surabaya
- SMK Negeri 1 Nganjuk
- SMA Mimi Surabaya
- SMK NU 1 Karanggeneng
- SMA Little Sun
- SMA Negeri 1 Turen

#### • **Central Java Regional School**

- SMK Kesuma Margoyoso
- SMA Negeri 1 Boyolali
- SMA Negeri 1 Simo
- SMK Negeri Nusawungu
- SMA Negeri 1 Sukoharjo
- SMK Negeri 3 Surakarta

#### • **West Java Regional School**

- PKBM Piwulang Becik
- SMK Negeri 1 Karawang
- SMK Forward Nusantara
- SMK Motivasi Insani
- SMP Pandu
- SMK Negeri 1 Padaherang

#### • **South Sumatra Regional School**

- SMK Negeri 3 Ogan Komering Ulu
- SMA Tunas Bangsa Palembang

#### • **East Kalimantan Regional School**

- SMK Negeri 3 Ogan Komering Ulu
- SMA Tunas Bangsa Palembang

#### • **DKI Jakarta Regional School**

- MA Negeri 7 Jakarta
- SMK Negeri 2 Jakarta

#### • **Maluku Region Schools**

- SMA Negeri 5 Tual
- SMA Negeri 2 Kei Kecil

#### • **West Sumatra Regional School**

- SMA Negeri 1 Pariaman
- SMA Negeri 1 Solok

## School Profile

- **Bali Regional School**
  - SMK Negeri Bali Mandara
- **Special District Yogyakarta Regional Schools**
  - SMP Negeri 3 Gamping
- **Papua Regional School**
  - SMK Negeri 1 Jayapura
- **South Kalimantan Regional School**
  - SMK Negeri 2 Banjarmasin
- **South Sulawesi Regional School**
  - SMK Negeri 1 Sinjai
- **Southeast Sulawesi Regional School**
  - SMP Negeri 1 Lapandewa
- **West Java Regional School**
  - SMK Motivasi Insani
  - SMK Negeri 1 Karawang
  - SMK Negeri 1 Padaherang
- **South Sumatra Regional School**
  - SMA Tunas Bangsa Palembang
  - SMK Negeri 3 Ogan Komering Ulu
- **East Kalimantan Regional School**
  - SMA Negeri 2 Muara Badak
  - SMA Negeri 9 Balikpapan
- **East Java Regional School**
  - SMA MIMI School
  - SMA Negeri 1 Turen
- **Special Capital District Jakarta Regional School**
  - MA Negeri 7 Jakarta
  - SMK Negeri 2 Jakarta
- **North Sumatra Regional School**
  - SMP Cinta Budaya/Chong Wen
- **West Sumatra Regional School**
  - SMA Negeri 1 Solok



17

### school that made it to the Bootcamp stage of the Digital Innovation Challenge 2022: Perempuan Inovasi

- 4 schools from Central Java
- 3 schools from West Java
- 2 schools from South Sumatra
- 2 schools from East Kalimantan
- 2 schools from East Java
- 2 schools from DKI Jakarta
- 1 school from North Sumatra
- 1 school from West Sumatra
- **Central Java Regional School**
  - SMA Negeri 1 Boyolali
  - SMK Kesuma Margoyoso
  - SMK Negeri Nusawungu
  - PKBM Piwulang Becik

# Adolescents Profile



## Adolescents Profile


### Overview of Adolescents Participants

#### Preliminary Round

**4.122** adolescents participated

in the program up to the Preliminary Round stage (**88.7% female**) aged 12-18 years old

▶  **3.659**  
Female

▶  **463**  
Male

4,122 adolescents participated in the program (**88% female**) aged 12-18 years old from 27 Provinces in Indonesia and participated in the Preliminary Round stage, a live webinar through Zoom. This stage aims to help all adolescents participants create solution ideas based on social issues about gender through learning about how to identify problems, map problems, and map solutions.

#### Final Round

**226** adolescents participated

in the program until the Final Round stage (**81.7% female**) aged 12-18 years old

▶  **185**  
Female

▶  **41**  
Male


226 adolescents (**81.7% female**) in 50 teams were selected to advance to the Final Round of the 2022 Digital Innovation Challenge: Perempuan Inovasi and participated in the 4-Days Innovation Challenge to finalize their proposed solution ideas. During this stage, adolescents participants learned various topics to strengthen self-development, teamwork, idea mapping, growth mindset, and social entrepreneurship.


## Adolescents Profile

### Bootcamp

**106** adolescents participated

in the program up to the Bootcamp stage (**81,7% female**) aged 12-18 years old

▶  **89**  
Female

▶  **17**  
Male

Of the 50 teams participating in the Digital Innovation Challenge 2022: Perempuan Inovasi Final Round stage, 24 of 106 adolescents participants (**81.7% female**) were selected to advance to the Bootcamp stage. At this stage, teenage participants were equipped with knowledge about 21st-century skills and digital skills to build their solution ideas into useful digital products. The digital skills they have acquired in this stage are UI/UX Design, Front-End Web Development, and Game Development to build their solution ideas into usable prototypes in the form of Websites, Web-Based Applications, and Games.



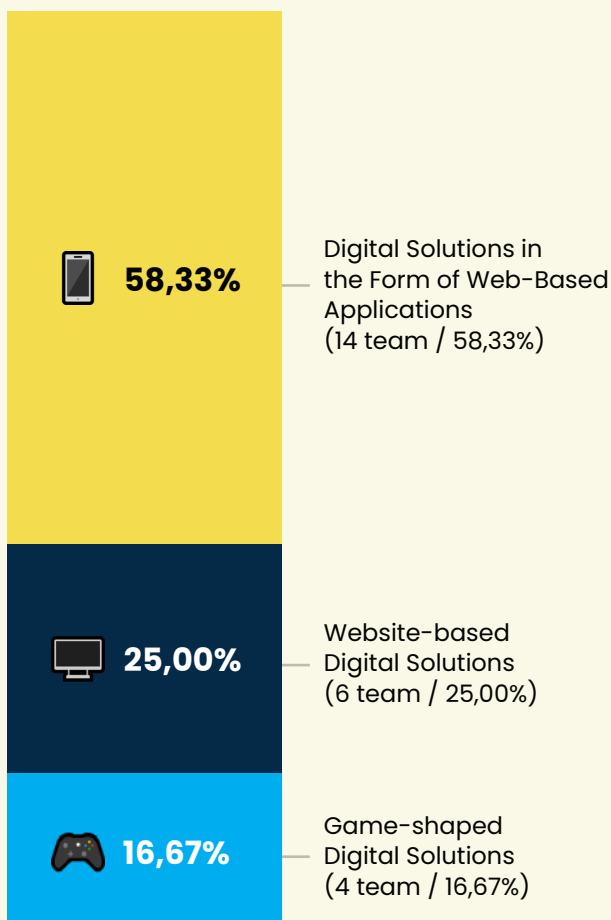
## Adolescents Profile

### Innovative Solution Ideas developed based on Issues of Concern for Adolescents

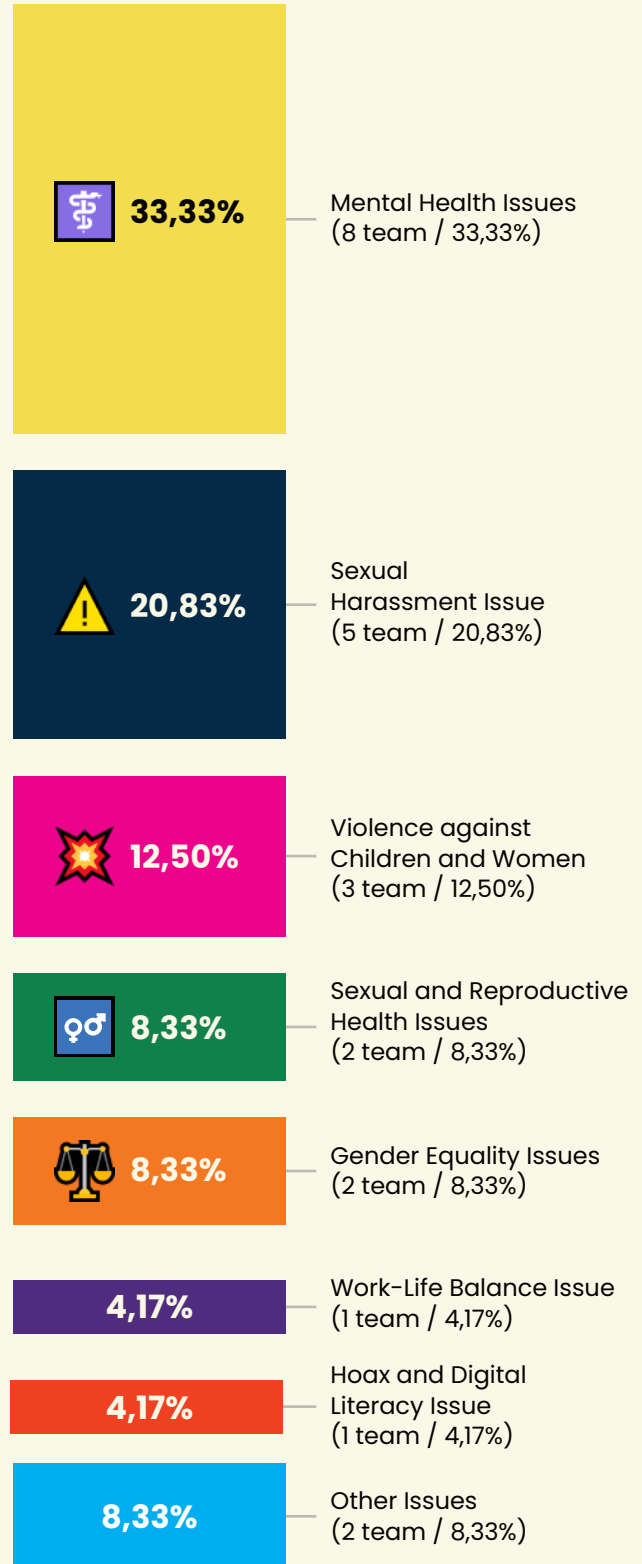
Adolescents see various problems in the surrounding environment as their concern. Various issues that concern them are mental health issues, sexual harassment issues, violence against children and women, and other issues.

Based on these concerns, 106 adolescents in 24 teams who participated in the Bootcamp stage developed innovative digital solution ideas as a way to solve the problem.

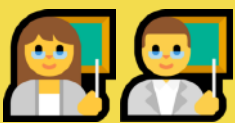
### Type of Digital Solution Idea developed:



### Issues of concern to Adolescents:



# Teachers & Mentor Profile



## Teacher Profile

### Overview of Participating Teachers

#### Preliminary Round

**777** teachers participated

in the program up to the Preliminary Round stage (**81,7% female**) aged 26-50 years old

▶  **635**  
Female

▶  **142**  
Male

#### Final Round

**50** teachers participated

in the program until the Final Round stage (**88% female**) aged 26-50 years old


▶  **44**  
Female

▶  **6**  
Male

#### Bootcamp

**23** teachers participated

in the program up to the Bootcamp stage (**82,6% female**) aged 26-50 years old

▶  **19**  
Female

▶  **4**  
Male

Teachers participating in the 2022 Digital Innovation Challenge: Perempuan Inovasi program were equipped with the skills to mentor adolescents participants through the Innovation Teacher workshop and Creative Teacher workshop training.

288 teachers consisting of 260 female and 28 male teachers, attended the Innovation Teacher workshop. The workshop aimed to support teachers in facilitating their students in designing solution ideas. At the Teacher Innovation workshop, teachers were introduced to Tree Diagram Analysis, Fishbone Analysis, and Double Diamond Design Thinking.

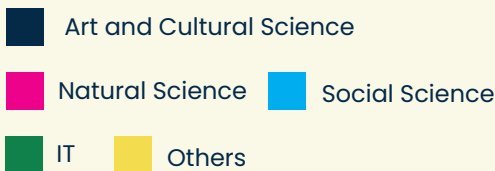
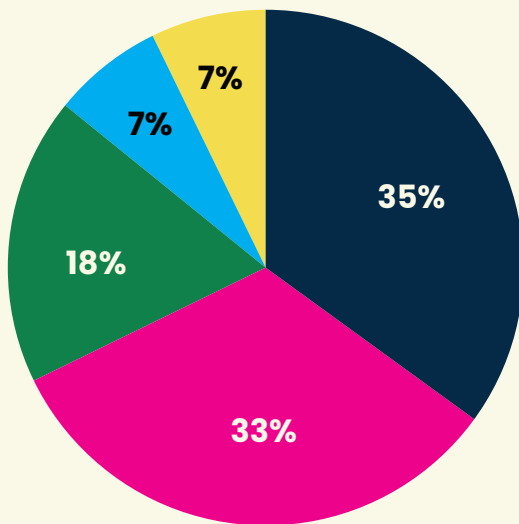
83 teachers consisting of 79 female teachers and 4 male teachers, participated in the Creative Teacher workshop. The Creative Teacher workshop training was given to teachers who successfully registered 5 or more teams to participate in the 2022 Digital Innovation Challenge: Perempuan Inovasi program. In this workshop, the teachers were given training on the characteristics of adolescents and tips to optimize their potential of adolescents.



## Teacher Profile

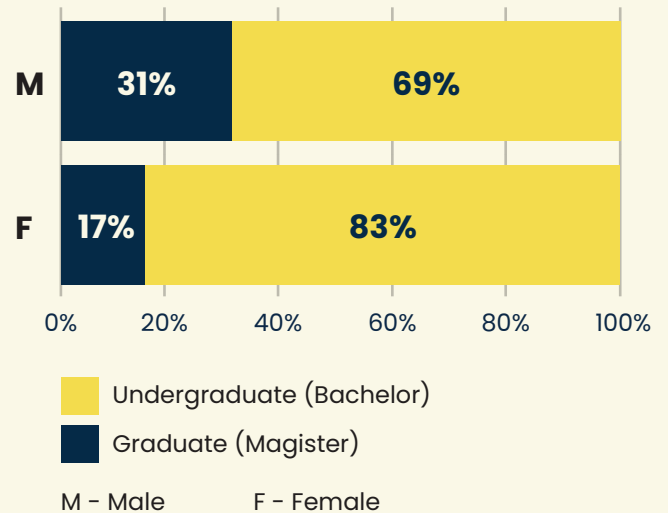
If teachers' subjects are categorized into several categories, the largest category is for teachers of Language, Arts, and Culture subjects at 35%, followed by Science subjects at 33%.

### Teacher Subject Category



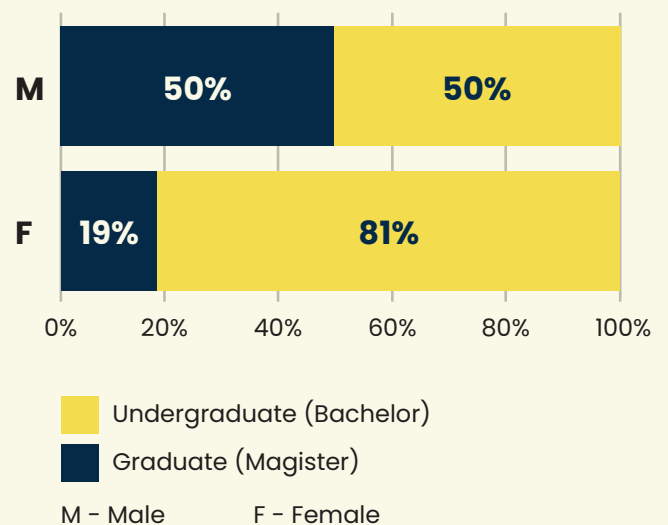
If male and female teachers who participated in the Guru Inovasi workshops are divided by education level, most female teachers have a bachelor's degree (83%) and a master's degree (17%). Meanwhile, most male teachers have an undergraduate education (69%).

### Education and gender category of teachers that participated in innovation workshops



If the female and male teachers who participated in the Creative Teachers workshop are divided by education level, most female teachers have an undergraduate education level of 81% and an undergraduate level of 19%. Meanwhile, male teachers have 50% of the Bachelor and Magister levels.

### Education and gender category of teachers that participated in creative workshops





## Mentor Profile

The involvement of mentors greatly contributes to the success of the program. Professional mentors from the industry support the youth in their learning process to realize their innovative solution ideas.

**47** professional mentors

who participated in the 2022 Digital Innovation Challenge: Perempuan Inovasi program, **78% were female mentors with details:**

▶  **24**  
**Industry Mentors**  
(73% female)

▶  **11**  
**Coding & Gaming Mentors**  
(63% female)

▶  **9**  
**UI/UX Design Mentors**  
(100% female)

▶  **3**  
**Design Thinking Mentors**  
(100% female)



# Program Achievement Results



## Program Achievement Results



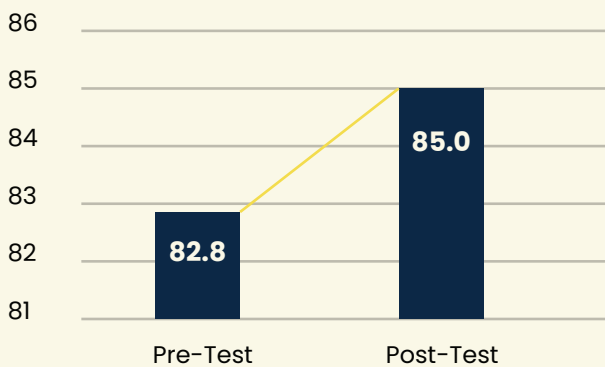
### Adolescents

#### Improving Adolescents Coding Skills

The improvement of youth coding skills here is obtained based on the results of the analysis obtained from the comparison of the scores of youth participants before participating in the program and after participating in the program

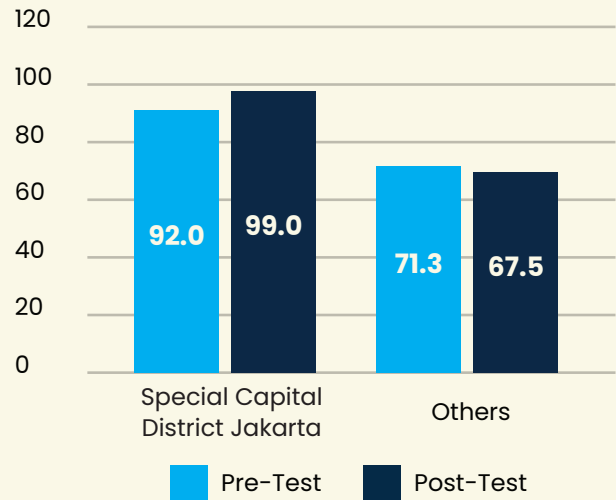
In Basic Coding skills, there was a good increase from the Pre-Test (82.8) and Post-Test (85) scores for a maximum score of 100.

#### Comparison of Pre-Test and Post-Test scores for Basic Coding



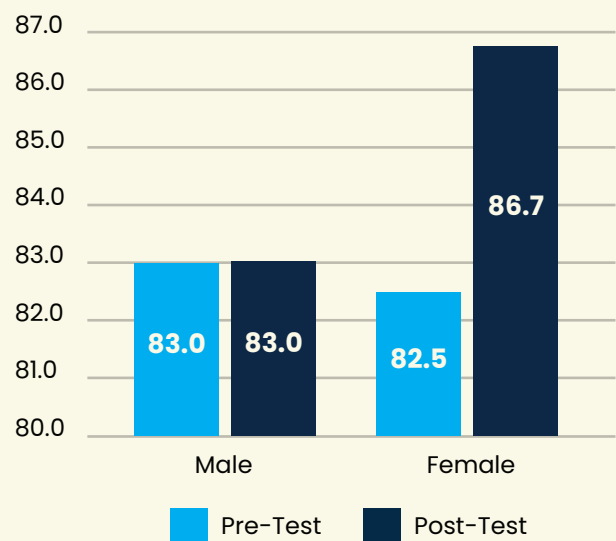
If the Basic Coding score is divided by province, there is a good increase in teenage participants from Special Capital District Jakarta who have reached a score of 90, from the Pre-Test score (92) to (99) on the Post-Test, but there was no significant increase in the scores of adolescent participants from outside Special Capital District Jakarta, although their average score was already in the 70 range.

#### Comparison of Pre-Test and Post-Test scores for Basic Coding By Province



If the Basic Coding scores are split by gender, there was a good increase of female participants who had a Pre-Test (92) and Post-Test (99) score but no significant increase in the male participants' scores. However, the average score of male participants was already relatively high, with a score of 83.

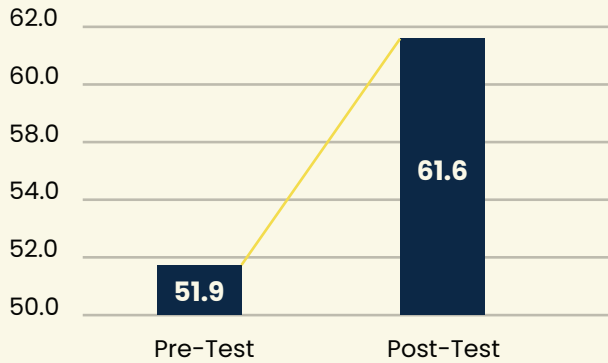
#### Comparison of Pre-Test and Post-Test scores for Basic Coding By Gender



## Program Achievement Results

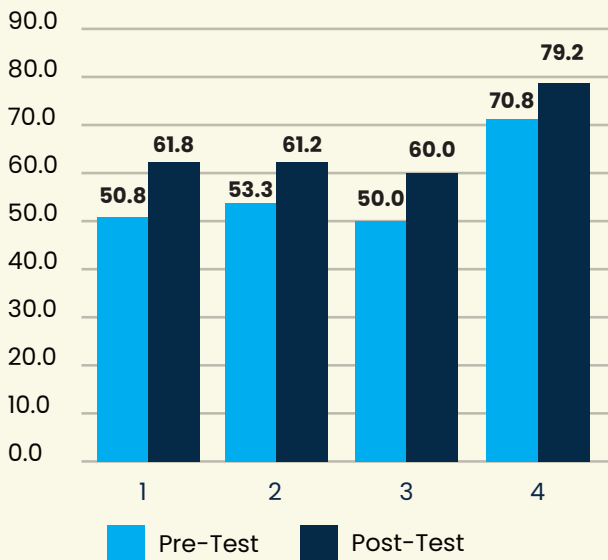
At the Preliminary Round stage, there was a considerable increase from the Pre-Test score. (51.9) and Post-Test (61.6).

### Comparison of Pre-Test and Post-Test scores Preliminary Round



If the Preliminary Round stage is divided by the education level category, then all education levels experienced an increase in scores.

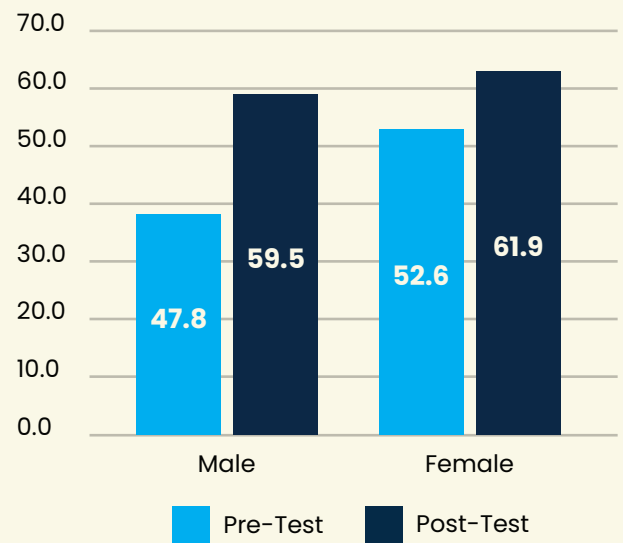
### Comparison of Pre-Test and Post-Test scores for the Preliminary Round By Education Level



- 1) High School | 2) Vocational School
- 3) Madrasah | 4) Community Learning Centre

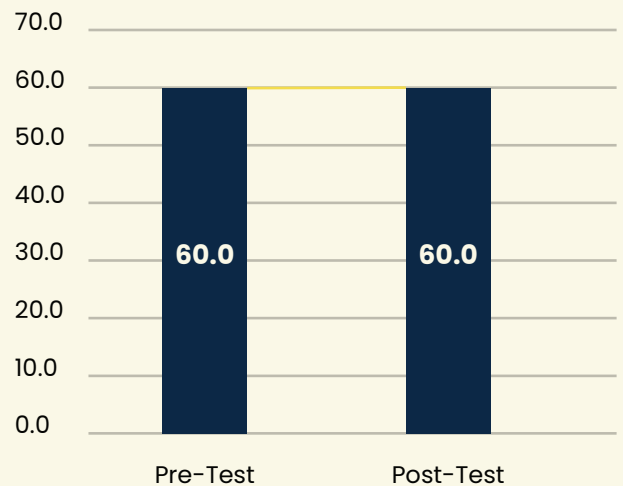
If the Preliminary Round stage scores are divided by gender, there is a considerable increase in the Pre-Test and Post-Test scores for both male and female adolescent participants.

### Comparison of Pre-Test and Post-Test scores for the Preliminary Round By Gender



In the Final Round stage, there was a relatively similar score of 60.

### Comparison of Pre-Test and Post-Test scores for the Final Round



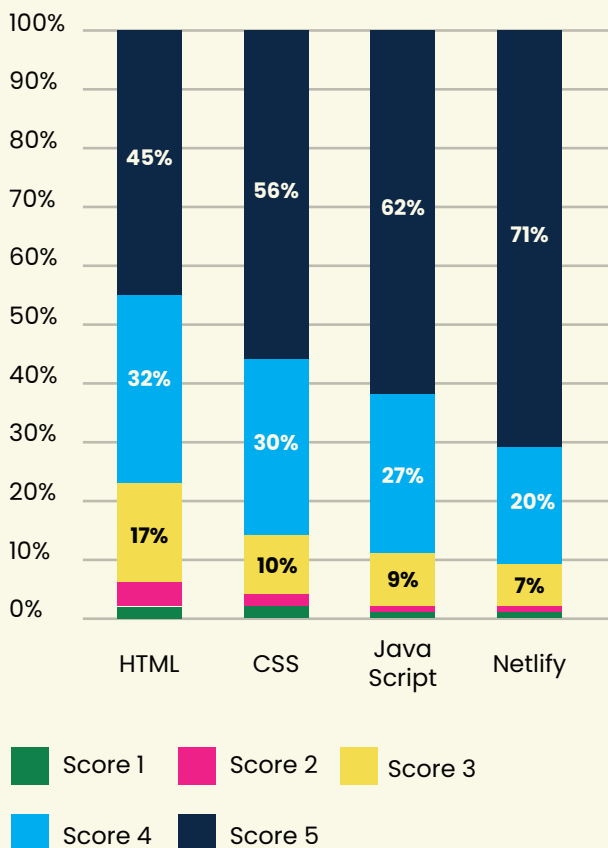
## Program Achievement Results

### Digital Skills Capabilities and 21st-century Skills

The improvement of digital skills and 21st-century skills here is based on the results of the analysis obtained from the comparison of the scores of adolescent participants before the program and after the program.

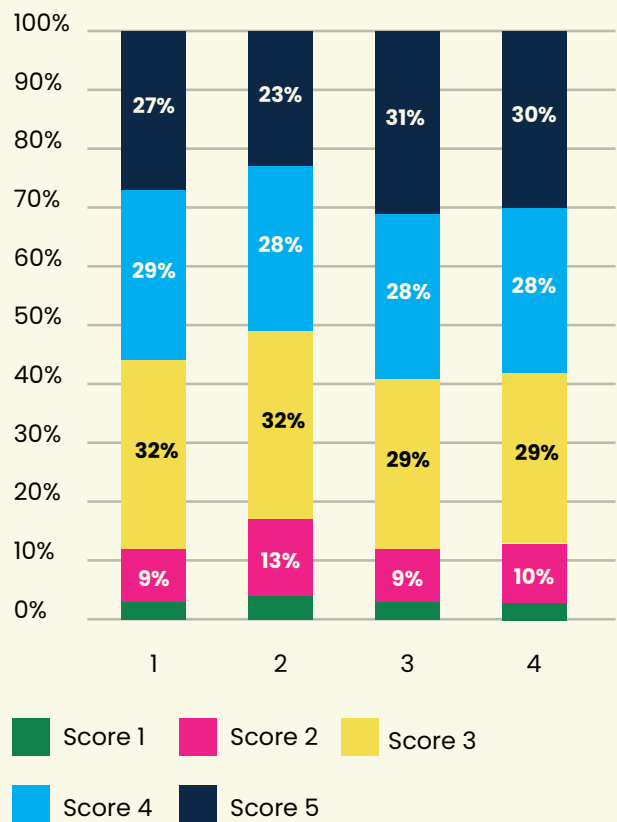
The participants' Web Development skills are already quite good. This is because participants who answered scores 5 & 4 (the two highest scores) dominated all categories. The two categories with the highest percentage of Score 4 and 5 are the ability to use Netlify and JavaScript.

#### Web Development Skills



### Negotiation Skills

The participants' negotiation skills were already quite good. This is because participants who answered scores 5 & 4, the two highest scores, were close to or exceeded 50% of the answers in all categories.



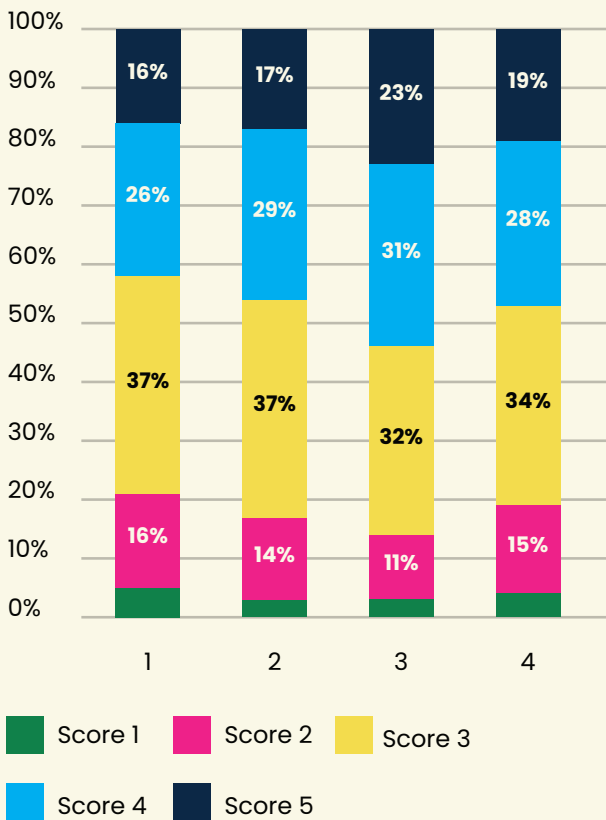
1. I provide an opportunity for the other party to express opinions
2. I don't give opinions that only benefit me but benefit the group
3. In the discussion process, I feel the need to listen to the opinion of the other person
4. I try to find mutual agreement in the discussion process

## Program Achievement Results



### Creativity Skills

Participants' creativity skills were already quite good. This is because the participants who answered scores 5 & 4, the two highest scores, were close to or exceeded 50% of the answers in all categories.

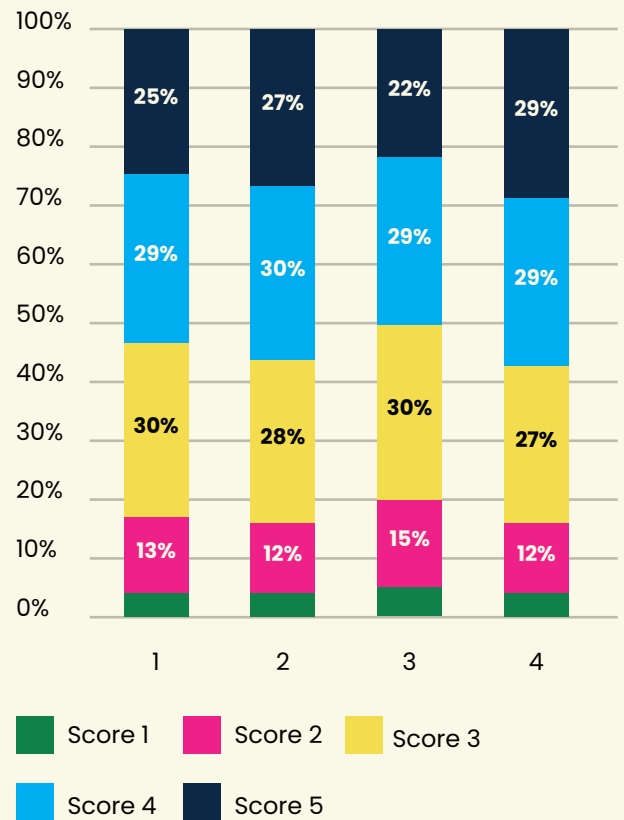


1. I need to quickly explain the idea I have in mind to someone else
2. The quality of an idea can be judged by its uniqueness in solving problems
3. A good idea is one that is easy to use in most situations
4. I'm used to thinking about ideas in depth and detail



### Decision making Skills

The participants' decision-making skills are already quite good. This is because participants who answered scores 5 & 4, the two highest scores, were close to or exceeded 50% of the answers to all categories.



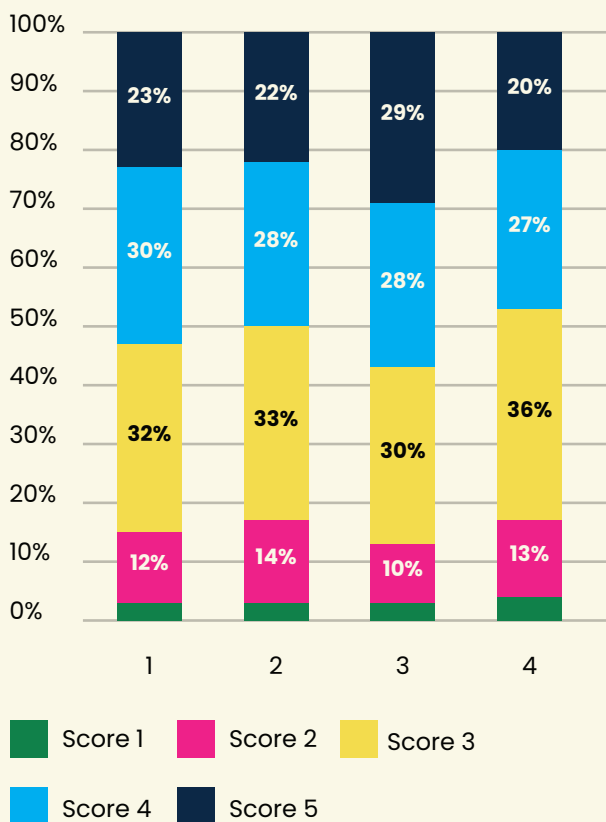
1. I determine the goals to be achieved before making a decision
2. Before making a decision, I gather information from reliable sources
3. I prepare more than one alternative solution before making a decision
4. In choosing a solution to a problem, I consider the positive and negative impacts

## Program Achievement Results



### Participation Skills

The participation skills of the participants were good enough. This is because participants who answered scores 5 & 4, the two highest scores, were close to or exceeded 50% of the answers to all categories.

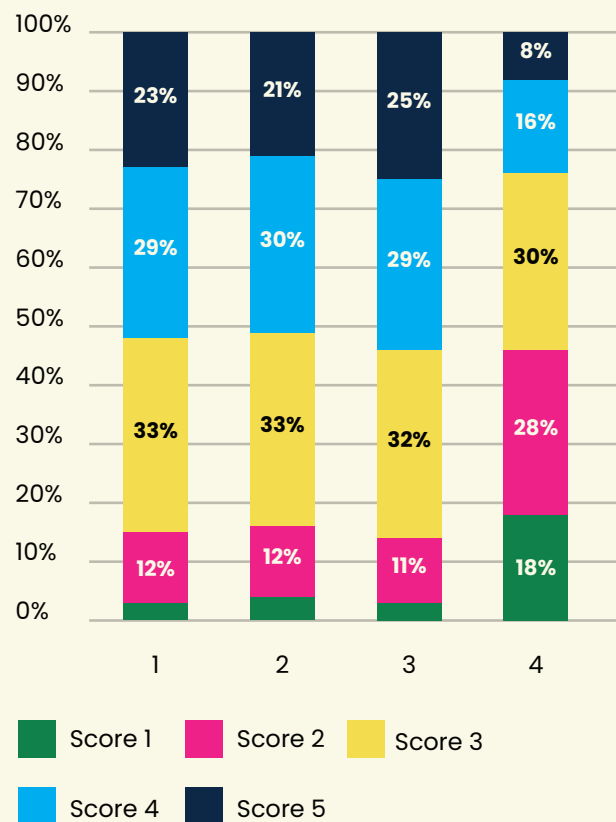


1. I put more effort into contributing to group work
2. In group work, I am responsible for contributing to the final decision
3. I am responsible for implementing mutually agreed decisions
4. In the group, I wait until it's my turn to express my opinion



### Self-management Skills

The participants' self-management skills were already quite good. This is because participants who answered scores 5 & 4, as the two highest scores, were close to or exceeded 50% of the answers to all categories, except for the category "It is difficult for me to control my anger".



1. I recognize the negative feelings that occur to myself
2. I understand why I behave less favorably towards other people
3. I can restrain myself when engaging in unpleasant behavior
4. It's hard for me to control my anger

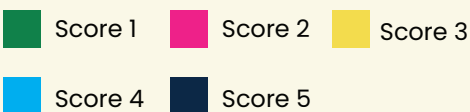
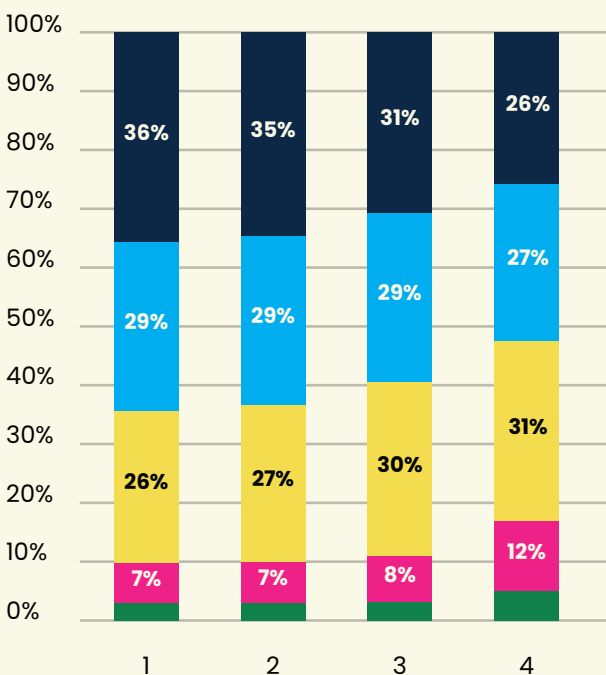


## Program Achievement Results



### Skill to Appreciate Differences

Participants' ability to appreciate differences is already quite good. This is because participants who answered scores 5 & 4, the two highest scores, were close to or exceeded 50% of the answers to all categories.

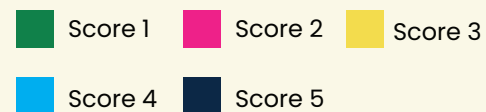
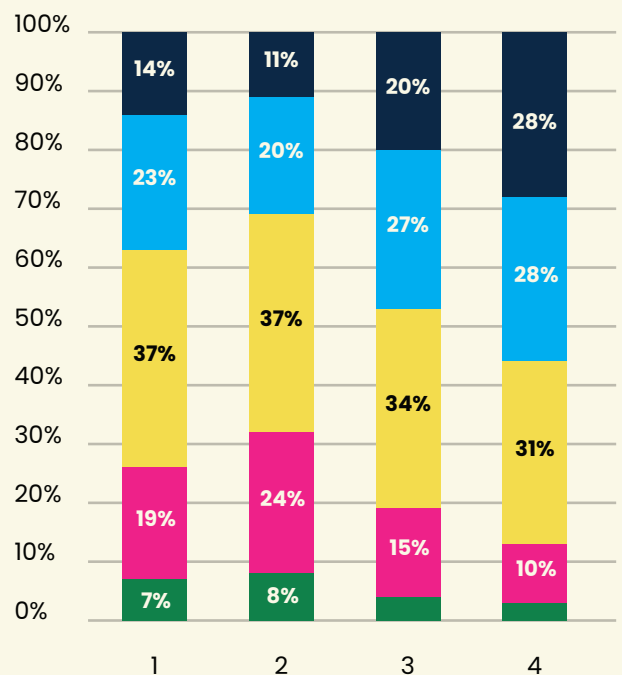


1. I accept the differences in backgrounds that other people have
2. I understand that all people are equal regardless of differences
3. I am impartial or neutral to the differences that other people have
4. I do not support friends who show partiality towards people with certain characteristics



### Persistence Skills

Participants' persistence skills were already quite good. This is because participants who answered scores 5 & 4 in the two highest scores were close to or exceeded 50% of the answers to all categories.



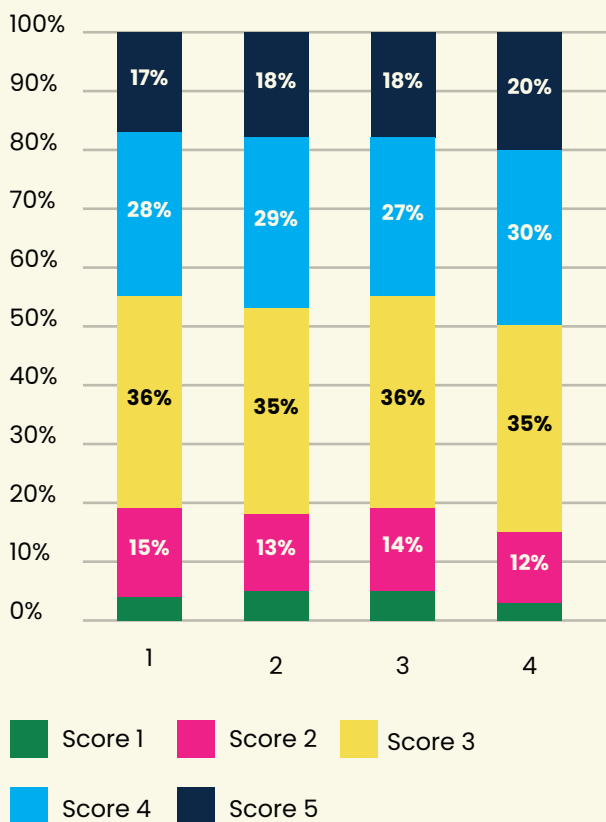
1. I need the help of others to be able to understand the changes that occur within myself
2. I need more time to adjust myself to change
3. I'm not down for long in failure
4. I try to do better than my previous achievements

## Program Achievement Results



### Empathize Skills

The participant's ability to empathize was good enough. This is because participants who answered scores 5 & 4, as the two highest scores, were close to or exceeded 50% of all category answers.

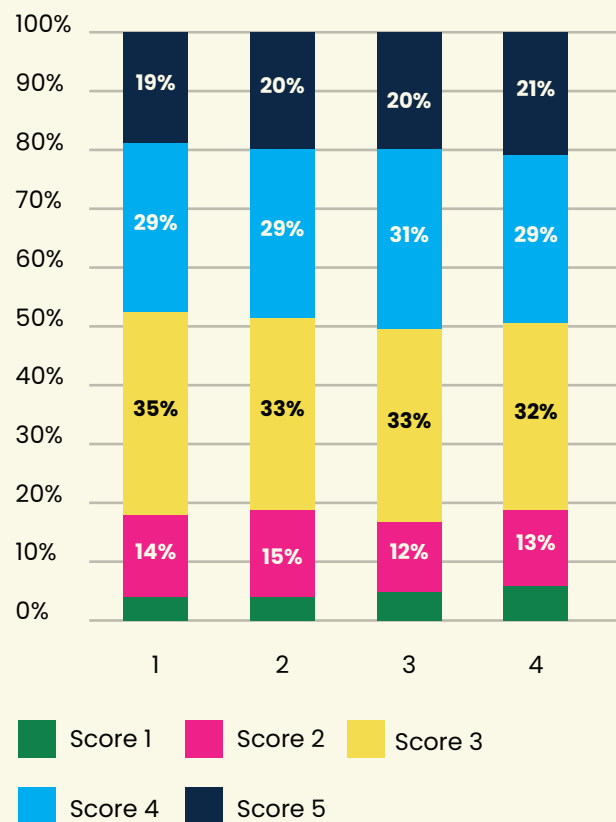


1. I do not need long when I have to understand the situation experienced by other people
2. It doesn't take me long to try to understand how other people feel
3. I do not separate my own feelings from those of others
4. I provide appropriate assistance to others problem



### Problem Solving Skills

The participants' problem-solving skills were already quite good. This is because participants who answered scores 5 & 4, the two highest scores, were close to or exceeded 50% of the answers in all categories.



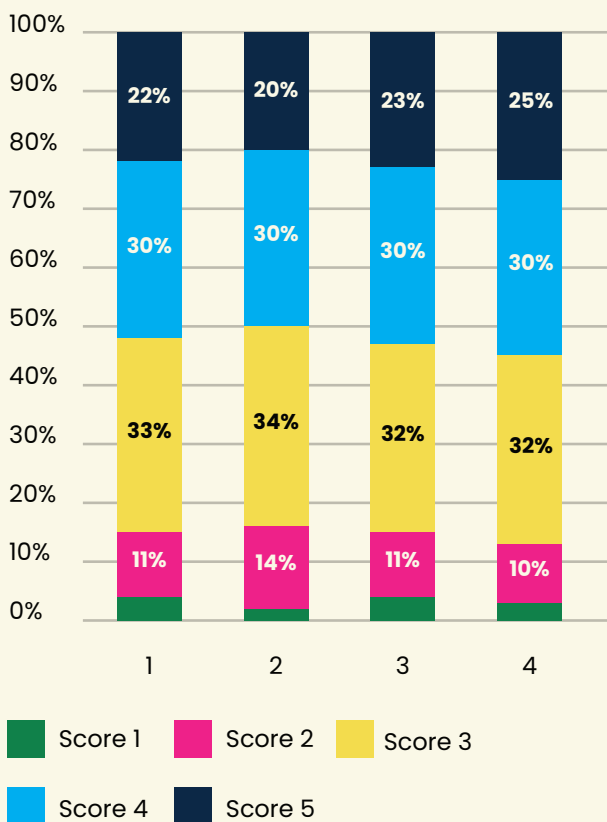
1. In dealing with problems, I classify problems based on the information I already have
2. I made several alternative solutions to solve one problem
3. I accessed a variety of help that I can use to run the solution
4. I evaluate the solutions that I have run

## Program Achievement Results



### Communication Skills

The participant's ability to communicate was quite good. This is because participants who answered scores 5 & 4, the two highest scores, were close to or exceeded 50% of the answers in all categories.

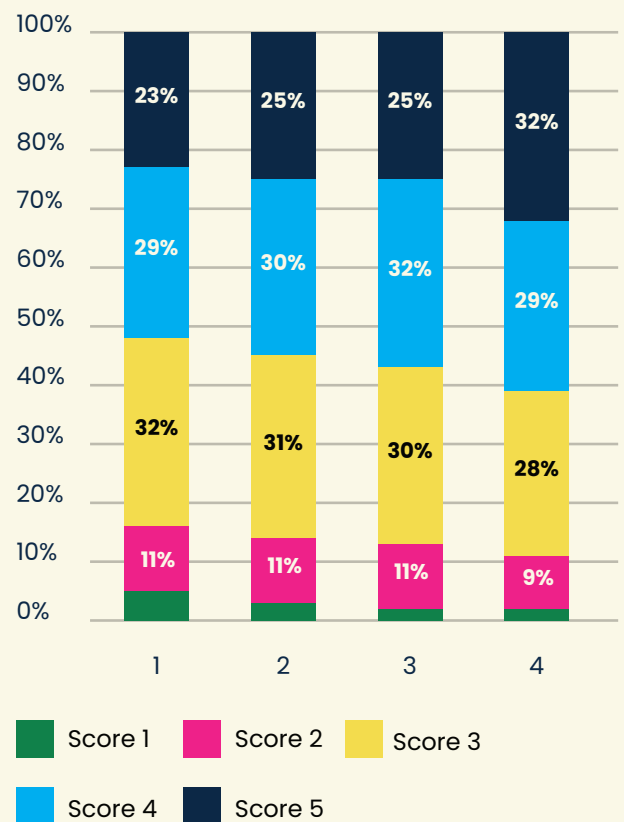


1. I'm waiting for the right situation and time to express my opinion
2. I adjust the grammar for the opinion that I want to convey with the level of understanding of the other person
3. After conveying the information, I make sure the person I'm talking to understands
4. I give other people the opportunity to express their opinion first



### Teamwork Skills

The participant's ability to work together was quite good. This is because the participants who answered scores 5 & 4, the two highest scores, were close to or exceeded 50% of the answers in all categories.



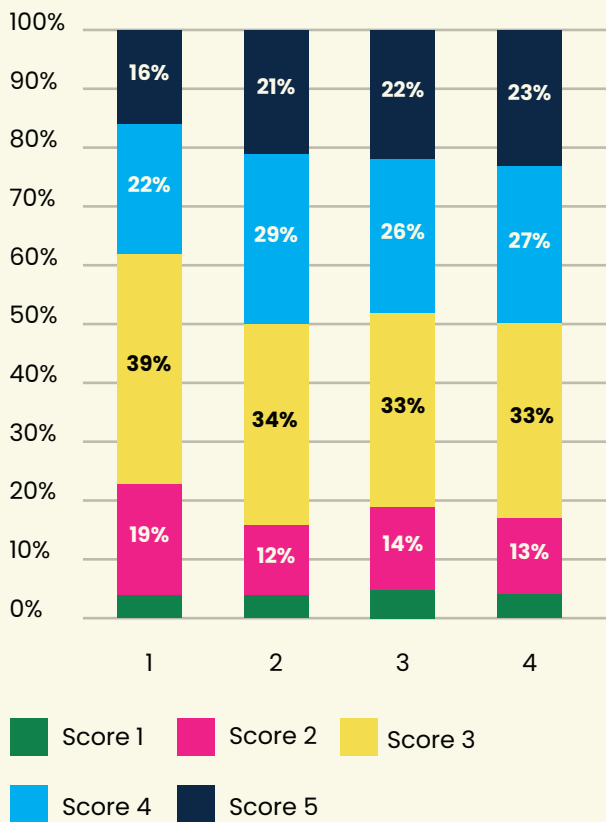
1. I don't just listen to friends who have the same ideas as me
2. In the group, I bring together various opinions from friends, to achieve a common goal
3. I think it's important to provide constructive feedback
4. I need input from other friends to develop myself

## Program Achievement Results



### Critical Thinking Skills

The participants' critical thinking skills were good enough. This is because participants who answered scores 5 & 4, the two highest scores, were close to or exceeded 50% of the answers to all categories



1. In order to think objectively, I need to separate facts and opinions
2. It is important for me to test the truth before making a decision
3. I do not immediately believe the information that other people provide
4. When I receive information, I look for other points of view

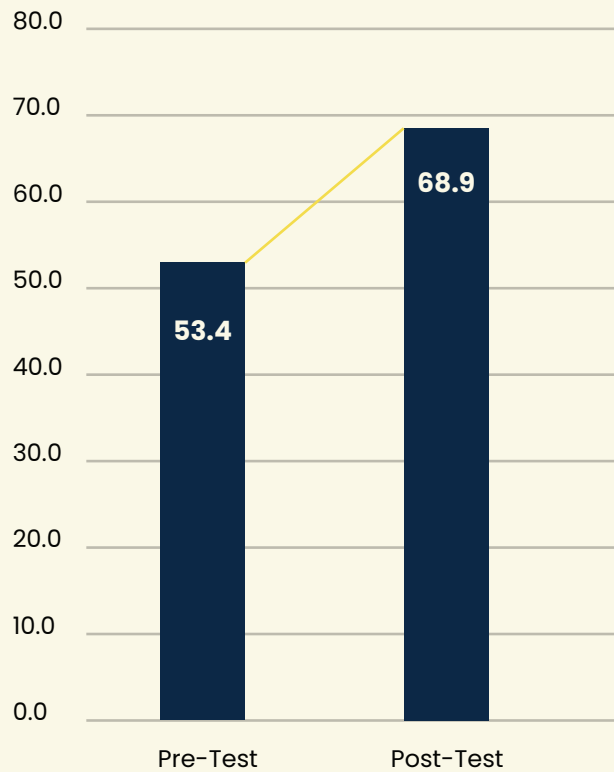


### Teacher

In general, after attending 2 workshops in the Digital Innovation Challenge 2022: Perempuan Inovasi program, almost all teachers experienced an increase in their skill scores based on the Pre-Test and Post-Test analysis results.

In the Innovation Teacher workshop, there was a considerable increase in the Pre-Test score (53.4) and the Post-Test (68.9) for overall teacher skills.

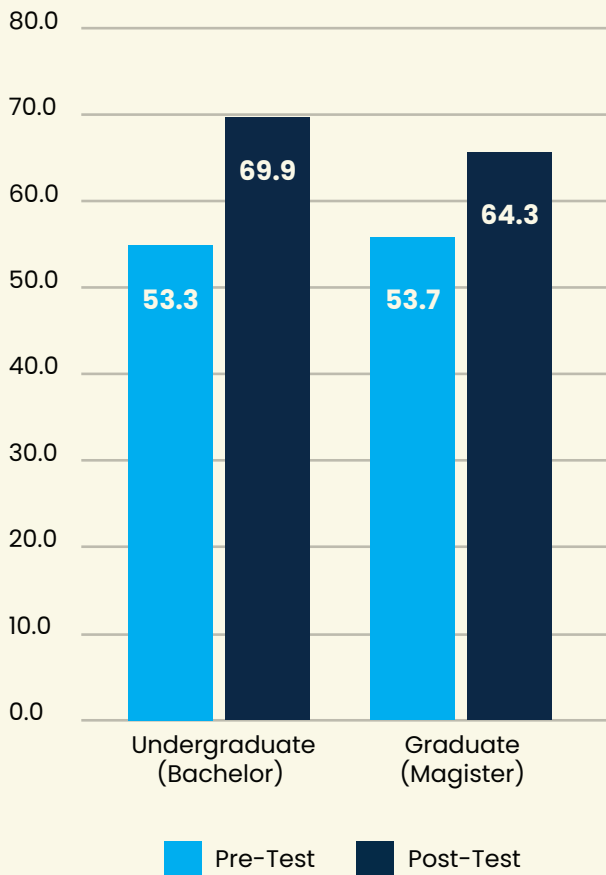
### Comparison of Pre-Test and Post-Test scores for Innovation Teacher



## Program Achievement Results

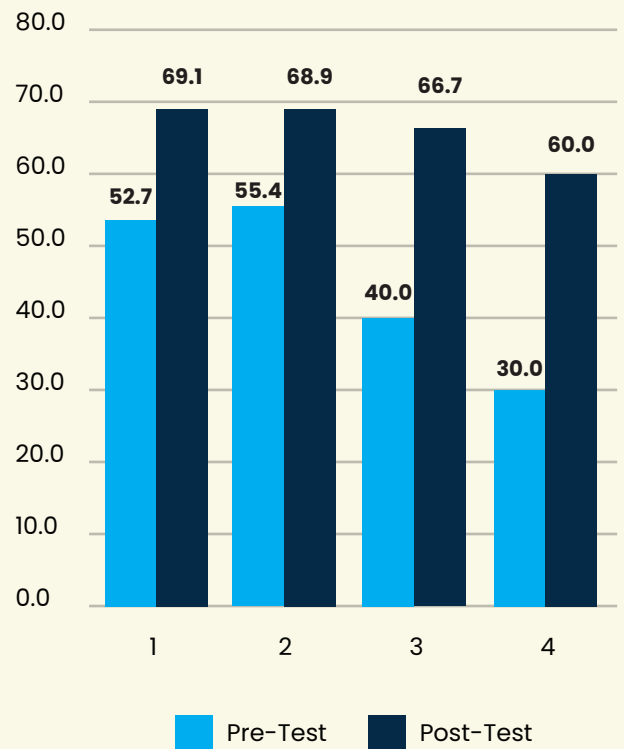
If the scores in the Innovation Teacher workshop are divided by education level, there is a considerable increase in the Pre-Test and Post-Test scores of participants with different educational backgrounds.

### Comparison of Pre-Test and Post-Test scores for Innovation Teacher By Education Level



If the scores on the Innovation Teacher workshop are divided by the type of school they teach in, there is a good overall increase from the Pre-Test and Post-Test scores, with scores above 60 from participants with different school backgrounds.

### Comparison of Pre-Test and Post-Test scores for Innovation Teacher By School Category

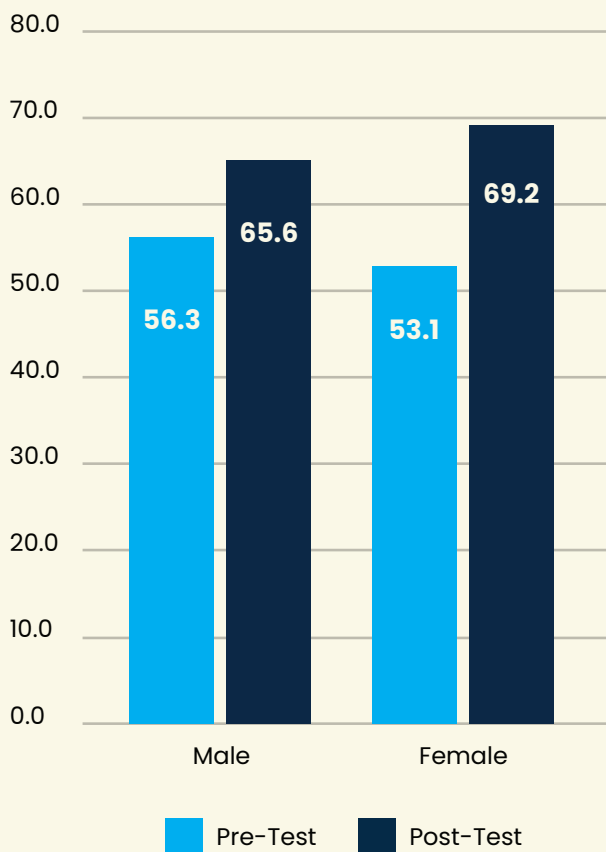


- 1) High School | 2) Vocational School
- 3) Madrasah | 4) Community Learning Centre

## Program Achievement Results

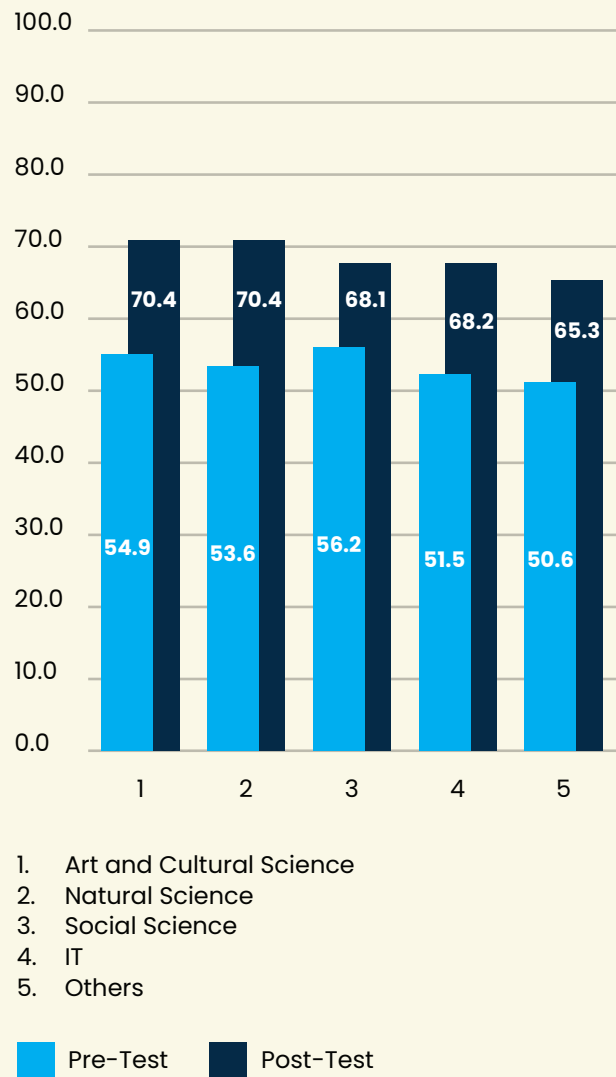
If the scores in the Innovation Teacher workshop are divided by gender, there is a considerable increase from the Pre-Test and Post-Test scores of more than 65 for both male and female participants.

### Comparison of Pre-Test and Post-Test scores for Innovation Teacher By Gender



If the scores at the Innovation Teacher workshop are divided by teacher subject category, then overall, there is a good increase from the Pre-Test and Post-Test scores of more than 65 from teachers of different subject categories.

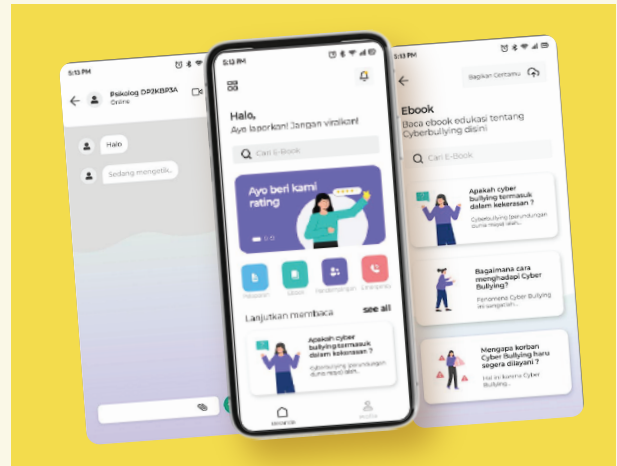
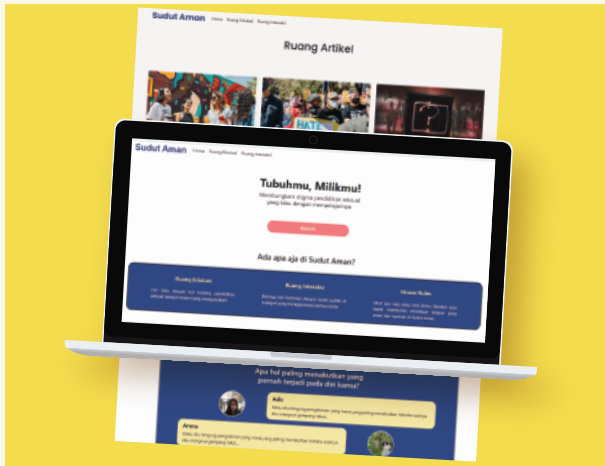
### Comparison of Pre-Test and Post-Test scores for Innovation Teacher By Subjects



# Prototype Innovative Solutions by Adolescents



## Prototype Innovative Solutions by Adolescents



# Sudut Aman

Sudut Aman (The Safe Corner) is an innovative solution idea in the form of an interactive website to help users understand sexual and reproductive health rights for both women and men.

### Built by female adolescents from PKBM Piwulang Becik

- Diandra Aruna Mahira
- Aliyya Nurani Leksono
- Pramudita Saraswati
- Raisa Adistra Sasikirana

### Features built

- Education Room, containing information in the form of articles, videos, and quizzes
- The interaction Room contains features for venting and frequently asked questions.
- Safe Space contains discussion features that Ama Aku and Ama Dia can choose from

**Solution idea explanation video link**  
[bit.ly/pi-sudut-aman](https://bit.ly/pi-sudut-aman)

# Sancybu

Sancybu (Say No To Cyber Bullying) is an innovative solution in a web-based mobile application that protects people from cyberbullying. Sancybu works closely with government organizations to provide support for survivors.

### Built by adolescents from SMA Negeri 1 Boyolali

- Julianne Sharon Pawestri
- Khonsa Rahima Setyolaras
- Albian Rahmawan
- Liya Syarafah
- Violeta Renata

### Features built

- Reporting Feature, to report acts of cyberbullying and will be followed up by the DP2KBP3A Agency.
- Assistance Feature, to provide psychological and mental assistance to victims with a psychologist
- Educational Features aims to provide education in a written and fun way.
- Emergency Call feature, a feature that can be used for emergencies that will directly connect users to the DP2KBP3A Agency.

**Solution idea explanation video link**  
[solusi/bit.ly/pi-sancybu](https://solusi/bit.ly/pi-sancybu)

\*24 Innovative solution ideas were successfully realized by teenagers who participated in the Product Development and Coding Bootcamp stage, and 6 of them were selected to advance to the Demo Day stage.



## Prototype Innovative Solutions by Adolescents



# DaysGoneBy

DaysGoneBy is an innovative game-like solution that focuses on helping teenagers who struggle to express their emotions through social interactions.

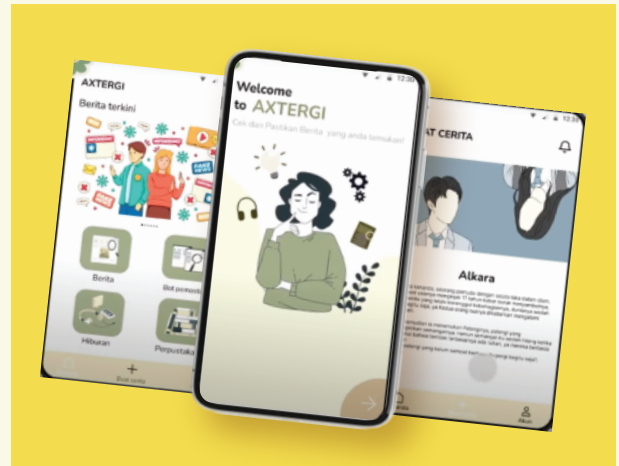
### Built by adolescents from SMK Negeri 2 Jakarta

- Nabila Dewi Sabrina
- Raden Najla Ramadhani
- Anisa Rahmawati
- Triana Mukarromah
- Archie Satria Pamungkas

### Features built

- Role Choosing feature, users can choose a role to play according to what is available in the game.
- Character Conversation feature: The game's characters become more interactive with the conversation feature according to the selected role.
- Multiple Choice feature, users can choose the answers provided to build a conversation according to the selected role.
- Multiple Ending feature, the ending of the story in the game can vary according to the answer chosen by the user in the previous conversation.

**Solution idea explanation video link**  
[bit.ly/pi-days-gone-by](https://bit.ly/pi-days-gone-by)



# Axtergi

Axtergi (Hoax, Literature, Digital) is a solution idea in the form of a news aggregator web that contains a collection of the latest news from trusted sources to prevent hoaxes and misinformation.

### Built by adolescents from SMA Negeri 2 Muara Badak

- Muhammad Ilham Maulana
- Rani Angelika Putri Rahmawati
- Nur Asinta Noviyani
- Aisyah Eca

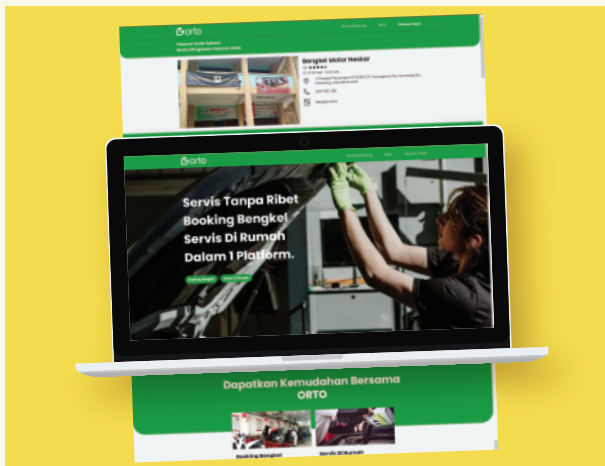
### Features built

- Latest News feature, featuring the latest news from various trusted sources
- Confirmation Bot feature, the possibility to make sure the information in the news is not fake.

**Solution idea explanation video link**  
[bit.ly/pi-axtergi](https://bit.ly/pi-axtergi)

\*24 Innovative solution ideas were successfully realized by teenagers who participated in the Product Development and Coding Bootcamp stage, and 6 of them were selected to advance to the Demo Day stage.

## Prototype Innovative Solutions by Adolescents



# Vektor Otomotif

Vector Automotive is a website solution that makes it easier for women to maintain and repair their vehicles.

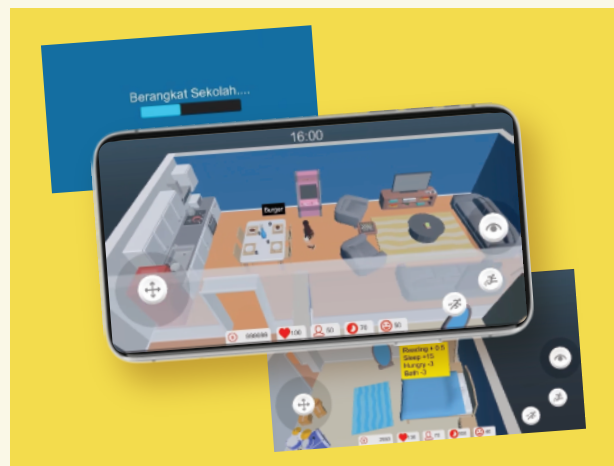
### Built by adolescents from SMK Negeri 1 Karawang

- Grisella Naomi A
- Afera Nurfariah
- Talita Zahran
- Zheriel Novalian Aisyah M
- Muhammad Padli Septiana

### Features built

- Reservation feature, a feature for booking workshops available on the website
- Home Service feature, a feature to summon a mechanic to the user's home or office
- The Nearest Workshop Information feature displays the nearest workshop information from the user's area.
- Service On-Demand feature, a feature to summon a mechanic in times of emergency

**Solution idea explanation video link**  
[bit.ly/pi-vektor-otomotif](https://bit.ly/pi-vektor-otomotif)



# Grows-y

is an innovative game-like solution that focuses on gender equality issues. In this game, users will play the role of a woman who lives with certain stereotypes and expectations from society.

### Built by female adolescents from SMA Negeri 1 Solok

- Serina Aprilia Hutasoit
- Nayla Siti Taurissa

### Features built

- Life Stage feature, characters in the game can experience growth and puberty like girls in general.
- In the life Management System feature, characters in the game can feel hunger and thirst, need sleep, and feel various emotions.
- Career Path System feature, characters can determine the careers available in the Career Path System.
- Game Character Customization feature, a feature to customize the appearance of the user character in the game.

**Solution idea explanation video link**  
[bit.ly/pi-grows-y](https://bit.ly/pi-grows-y)

## Demo Day

25 adolescents in 6 selected teams presented prototypes of innovative digital solutions developed during the 2022 Digital Innovation Challenge: Perempuan Inovasi program to the general public, government representatives, and industry players.

### Road to Demo Day

Ahead of Demo Day, 23 teams of participants who passed the boot camp stage and successfully created digital products according to their proposed solution ideas have conducted presentation sessions to show the work they have built. Furthermore, 6 of the 23 selected youth teams will present their solution ideas on the Demo Day stage to the jury, the general public, government representatives, and industry players.

### Demo Day

As the culmination of the 2022 Digital Innovation Challenge: Perempuan Inovasi program, 6 selected teams qualified for the Demo Day stage on December 2, 2022. At the Demo Day stage, the 6 selected teams presented the results of their solution ideas, which were broadcast live via the Markoding YouTube channel and were given a direct assessment by the judges, representatives from government agencies, and industry players.

Based on the jury's assessment, the solution idea Sudut Aman, which is the work of PKBM Piwulang Becik teenagers, was chosen as the team with the best solution idea as well as the winner of the People's Choice Award with the most likes for the product presentation video on YouTube Markoding. The solution built by teenagers from PKBM Piwulang Becik is an interactive website to help young people in Indonesia provide a comfortable space to access comprehensive and inclusive sexual health education.

24 private sectors, representing industry players, government agencies, and representatives from schools and offices, attended the Demo Day event on December 2, 2022. All the individuals present from the private sector were interested in collaborating with the participating teams





**"The most interesting part of the Finals was the session where we were asked to write down our unlimited dreams and learn new tools, which I had never even heard of before, like Miro.**

**I am very grateful to Markoding and Mentor for allowing me to create solutions to solve problems related to women."**

**Janitra Rizki Irawati**

SMA Negeri 1 Boyolali, Central Java

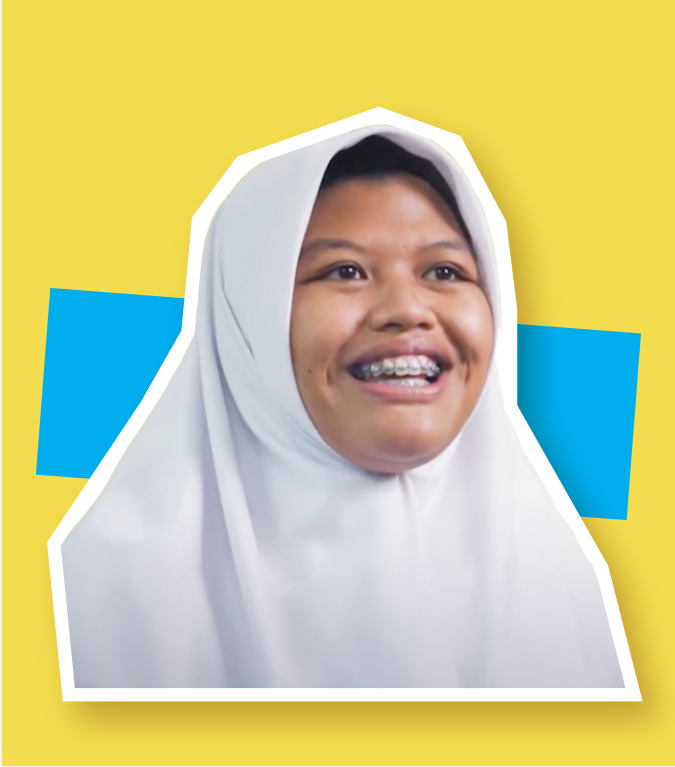


**"The 2022 Digital Innovation Challenge: Perempuan Inovasi was very memorable. From the Preliminary stage to the Bootcamp, the activities were fun. Like looking for possible ideas, thinking about the focus of the problem, looking for targets for our solution ideas, validating ideas, and many more. In addition, we can learn with other friends in Markoding, and there are very good mentors who are ready to help us."**

**Fetoacia Tania**

SMP Cinta Budaya, North Sumatera

## Adolescents & Alumni Voice



**"The most exciting stage was the Preliminary Round, where we met our Mentors, especially Kak Merriska. I love her.**

**Digital Innovation Challenge 2022: Perempuan Inovasi is exciting, challenging, confusing, but ultimately skillful."**

### **Aisyah Eca**

SMA Negeri Muara Badak,  
East Kalimantan



**"Digital Innovation Challenge 2022: Perempuan Inovasi is one of the pages of my life story, where I am very happy to get to know great mentors and get a lot of inspiration from them. And the rest of the team is equally great. I am very proud to be part of the 2022 Digital Innovation Challenge: Perempuan Inovasi."**

### **Alma Fitriyana**

SMK Motivasi Insani, West Java



**"During the Innovation Teacher training held by Markoding. In my opinion, the most useful material was the 10 Approaches to Cooperation with Adolescents. The material is useful for teachers to better understand their students. I am happy to attend the Innovation Teacher Training because I can gain knowledge and apply it to educate my students at school. Hopefully, this Innovation Teacher Training can be held frequently so that more fellow teachers can participate."**

**Kiki Octavia Aditama**

Guru SMK Negeri 2 Banjarmasin

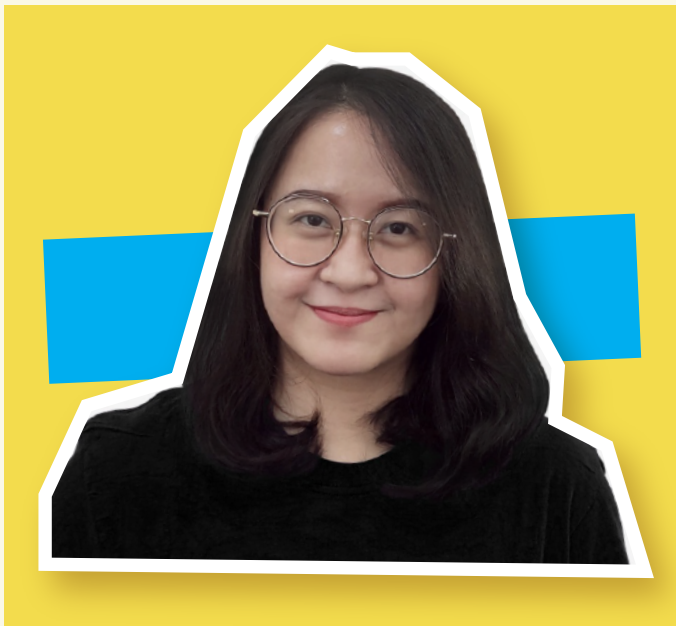


**"My impression after attending the Teacher Workshop training from Markoding is GREAT. I am grateful to be able to get knowledge for free and meet great teachers from all over Indonesia. I gained a lot of valuable experience, especially about teenage problems and how to overcome them. All the material presented relates to what I experienced as a teacher. Thank you to the entire team and facilitators at Markoding."**

**Putu Yuliantari Dwi Candra**

Guru SMK Negeri Bali Mandara

## Teacher & Mentor Voice



**"Initially, I did not expect the 2022 Digital Innovation Challenge: Perempuan Inovasi participants to have such great potential, even beyond my expectations. At a young age, some can create applications in the Play Store and are also experts in programming. Honestly, this inspires me!**

**Being a mentor at Markoding brought many positive changes in me. One of them is when I have to share my knowledge in several webinars. Especially for me, who used to be shy about speaking in public, now I'm used to it and more confident. My potential soft skills are getting trained for my work in the office."**

**Anastania Melinda**  
Senior Product Designer



**"Being involved in the 2022 Digital Innovation Challenge: Perempuan Inovasi was an eyeopening experience and made me optimistic about Indonesia's future because of the participants' enthusiasm. Through this program, I learned a lot from the courage of these children to experiment and develop despite all limitations.**

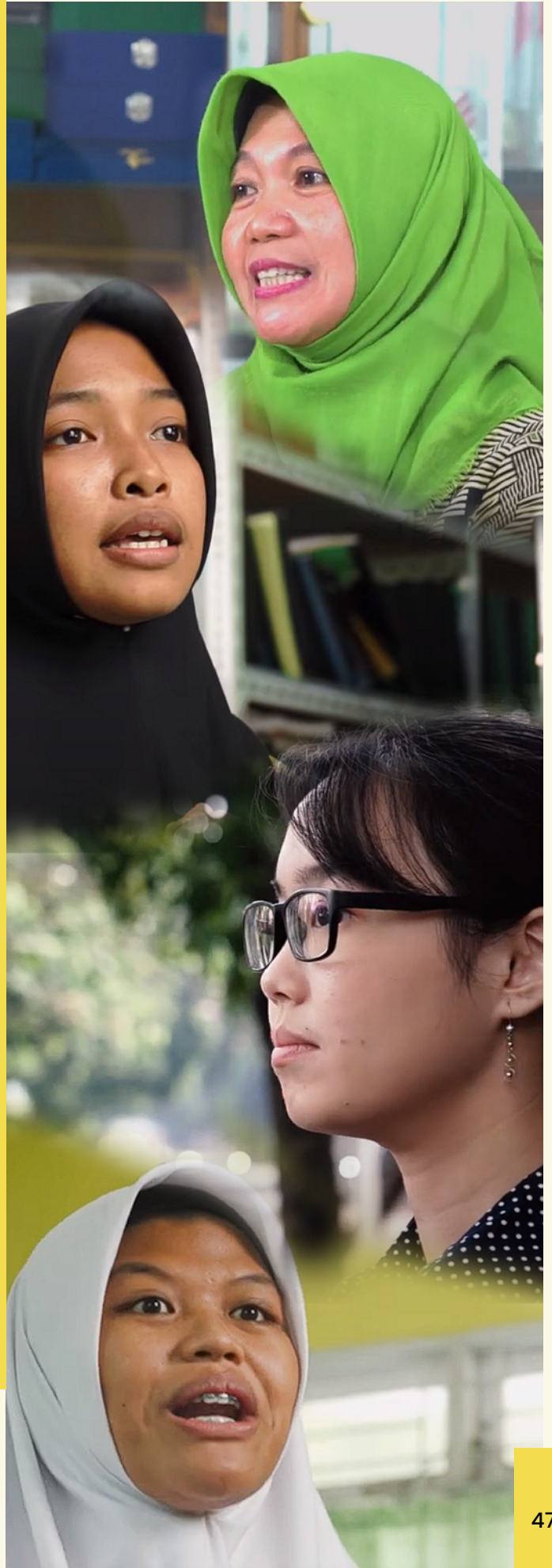
**Thank you, Markoding!"**

**Augustine Merriska**  
Co-founder & Director  
Meta Innovation Lab





# Program- related Learning



## Program-related Learning

### Challenge



#### Innovation Teacher Workshop

- Infrastructure challenges in terms of devices and the internet are still major obstacles, as the training is conducted online.
- The digital literacy challenge of using digital tools also hampered the training process. Teachers need more time to get used to using the training tools.



#### Creative Teacher Workshop

- Infrastructure challenges regarding devices and the internet remain major obstacles as online training is conducted.
- The digital literacy challenge of using digital tools also hampered the training process. Teachers need more time to get used to using the training tools.



#### Preliminary Round

- Infrastructure challenges regarding devices and the internet are still major obstacles because learning is done online.
- The difference in digital literacy between teachers and students causes difficulties in using tools that support learning and collecting ideas for solutions.

- Participation of registered participants in the Preliminary Round amounted to 77.2% of 4122 registrants.
- The bureaucratic process of some government agencies to conduct hearings takes a lot of time.
- Participant registration was carried out with a coverage of 34 provinces in Indonesia, but participants from the island of Java outnumbered those from provinces outside Java by 47%.



#### Final Round

- Infrastructure challenges regarding devices and the internet are still major obstacles because learning is done online.
- The difference in digital literacy between teachers and students causes difficulties in using tools that support learning and collecting ideas for solutions.



#### Bootcamp Round

- Infrastructure challenges regarding adequate devices and the internet are still major obstacles because learning is done online.
- Differences in students' digital literacy cause difficulties using tools that support learning and collecting assignments.

## Program-related Learning

- Participants' challenges in their school schedules affect their attendance and commitment to learning in Bootcamp Round.
- Online learning for the 9-month program led to a decline in participants' enthusiasm for the Bootcamp Round.
- The Mentor's ability to assist and be an encouragement system for participating in the Bootcamp Round also plays a big role.



### Demo Day

- Participants' challenges in the school schedule affected their attendance and commitment to completing the final project of the Bootcamp Round to be displayed on Demo Day.
- Some responders and speakers invited to Demo Day were unable to attend suddenly, which affected the smooth running of the event.

## Advice



### Innovation Teacher Workshop

- Facilitate laptops or internet quotas for teachers to make it easier to undergo the online training program.
- Provide additional specialized training related to the use of digital applications as a way to improve teachers' digital literacy.



### Creative Teacher Workshop

- Facilitate laptops or internet quotas for teachers to make it easier to undergo the online training program.
- Provide additional specialized training related to the use of digital applications as a way to improve teachers' digital literacy.



### Preliminary Round

- Facilitate laptops or internet quotas for teachers so that it is easier to undergo the online training program.
- Provide additional specialized training related to the use of digital applications to improve the digital literacy of teachers and participants of the 2022 Digital Innovation Challenge: Perempuan Inovasi, especially in collecting their solution ideas on the Markoding website platform.

## Program-related Learning

- To achieve 100% enrollment at the beginning of the preliminary round, it is possible to provide regular information to teachers /schools who register directly and information through social media platforms about ongoing registration activities.
- In submitting files or hearings with the government, it is necessary to schedule which institutions you want to work with so that it does not interfere with the ongoing program activities/processes.
- Special time is needed to attract applicants through hearings with the government and dissemination of information to each school so that all regions in Indonesia can be reached equally.



### Final Round

- Facilitate laptops or internet quotas for participants to make it easier to undergo the online training program.
- Provide additional specialized training related to the use of digital applications as a way to improve participants' digital literacy.



### Bootcamp Round

- Facilitate laptops or internet quotas for participants so it is easier to undergo the online training program
- Provide additional specialized training related to the use of digital applications as a way to improve participants' digital literacy.

- It is necessary to pay attention to the learning load given to participants so that in the boot camp program, participants are not overwhelmed with many tasks. As well as choosing boot camp time during school holidays.
- The learning program for the bootcamp is expected to be not too long and, at most, 3 months so that the spirit of participation of participants does not decline.
- It is necessary to provide a short training for Mentors so that while accompanying participants, they can become an encouragement system for participants during the bootcamp.



### Demo Day

- The learning program for the bootcamp is expected to be not too long and, at most, 3 months only so that the spirit of participation of participants does not decline and does not hamper participants in completing the final project of the Bootcamp Chapter.
- A dedicated time audience with the government (responders) is required to confirm attendance better.

# Thank You Note



## Thank You Note

# Markoding would like to thank the following parties for their dedication and support to the success of this program.

### Partners

- Clé de Peau Beauté
- UNICEF

### Government

- Ministry of Education, Culture, Research and Technology of the Republic of Indonesia
- Directorate General of Teachers and Education Personnel
- Directorate of Junior High School
- Directorate of Senior High School
- Directorate of Partnership and Alignment with Business and Industry
- National Achievement Center
- East Kalimantan Provincial Office of Education and Culture
- Central Java Provincial Education and Culture Office
- Salatiga City Education Office
- Persatuan Guru Republik Indonesia

### Mentor

- Industry Mentor
- Mentor Product Innovation
- Mentor Product Development
- Mentor Front-End Web Development
- Game Development Mentor
- Co-Facilitator

### Other Supporting Parties

- Magnifique Indonesia
- Dian Foundation
- Principal
- Accompanying Teacher
- Parents of Participants
- Dian Sastrowardoyo
- Azalea Ayuningtyas
- Sherly Septiani
- Debora Temmy
- Priscilla Anais



**Program Summary**  
**Digital Innovation Challenge 2022:**  
**Perempuan Inovasi**

Digital Solutions for Women, from Women, by Women