



**USM**

UNIVERSITI  
SAINS  
MALAYSIA



**BJIM**  
Berkualiti, Berprestasi, Berkeadilan & Berkeadilan  
Division of Industry & Community Network

# TRANSFORMING COMMUNITY THROUGH EDUCATION IN THE 21<sup>ST</sup> CENTURY

## TRACE-21

Author : Muhammad Fahmi Sobree Bin Basree, Nur 'Izzah Nadiyah Marsam,  
Sofea Sharudin

Editor : Syed Yusof Syed Kechik, Shaik Abdul Malik Mohamed Ismail,  
Muhamad Nur Hazim Mazlan, Noor Hakimah Sudin



**USM**  
UNIVERSITI  
SAINS  
MALAYSIA



**BJJM**  
Badan Pengajian  
Teknologi & Masyarakat  
Johor Bahru

## TRANSFORMING COMMUNITY THROUGH EDUCATION IN THE 21ST CENTURY (TRACE-21)

Empowering community through academic programs to balance social class gaps in line with the objectives to enhance soft skills, provide holistic education as well as supporting the digitalization of education to prepare students to meet the needs of digital learning in tertiary education with the goal to increase marketability in human capital resources.

### COMMUNITY EMPOWERMENT

Refers to the process of enabling the community to work collaboratively with university and subsequently take charge and improve the well-being of their own community through sustainable and impactful initiatives.

## INTRODUCTION

Universiti Sains Malaysia (USM) continuously supports the goals of USM's Apex agenda; to empower the bottom billion, and to propel USM's visibility as a knowledge powerhouse in support of our country's socio-economic progress and human capital development. This is in-line with the Ministry of Higher Education's agenda; the "University for the Community-U4S" initiative positioning knowledge transfer for the good of the community. In actualizing the agenda, USM has collaborated with the Northern Corridor Implementation Authority (NCIA) and Bumiputera Participation Coordination Division of Prime Minister's Department Implementation Coordination Unit (ICU JPM) to implement educational programs which focused on improving and empowering communities through education as a measure to balance social status gaps through its objective, by providing holistic education to the B40 group to achieve educational excellence and soft skills. Furthermore, a collaboration with Finnish Education Solutions (FEDS) Sdn. Bhd. representing Code School of Finland has been initiated for a coding project which focuses on design-based project learning for secondary schoolers.

Through the collaborations and strategic partnerships, NCIA has awarded USM a total amount of RM4,500,000.00 to implement the empower NCER program for a period of four (4) years (2020-2021 & 2021-2022) which focuses on academic training for Form 5 students, and complementary workshops for teachers and parents. On the other hand, ICU JPM has also awarded RM600,000.00 to USM for the implementation of developmental and educational programs focused on SPM candidates, parents and kindergarten students for a period of two (2) years (2020-2022).

In line with the emerging of new norms and development of the current education system, the use of technology has become a necessity and one of the important components in the implementation of the program. In this regard, USM has taken the initiative to assist program participants by providing gadgets and data plans. Through the efforts and collaborations with telecommunication and network provider companies, U Mobile Sdn.Bhd. has sponsored a data plan package amounting up to RM138,720.00 to 340 program participants in phase 1 of empower NCER, while Celcom Axiata Berhad with a total sponsorship of RM1,094,940.00 to 1705 program participants in the second and third phase of the program.

# FRAMEWORK

## TRANSFORMING COMMUNITY THROUGH EDUCATION IN THE 21ST CENTURY (TRACE-21)

### VISION

Dedication to support & create equal learning opportunity for community empowerment

### MISSION

To empower community of learners through purpose driven strategy by providing tailor-made solutions for bottom billion group to transform their socio-economic well being via education

### IMPACT STATEMENT

Revolution of education has impacted bottom billion group to strive in coping with educational challenges. Hence, we are providing tailor-made approach for targeted community to achieve quality education and socio-economic development in the long run.

| PARENTS                             | STUDENTS                         |  |  | TEACHERS                                  |
|-------------------------------------|----------------------------------|--|--|---|
| B40                                 | PRE-SCHOOL                       | PRIMARY  | SECONDARY  | PRIMER MOVER                              |
| Parenting Enhancement Program (PEP) | Early Childhood Enrichment (ECE) | Human Capital Enhancement & Academic Training for Youth (CHANCE) | empowerNCER: Akademik<br>Academic Intensive Training Project (AITP-21)<br>Pre-SPM Academic Training Project 2022 (PSAT-22) | 21st Century Teaching Strategies Workshop |

Blended Learning | Coaching | 21st Century Learning | Digitalisation of Education | Hands On | Minds On | Social Emotional Learning (SEL) | Career Guidance | Remedial & Enrichment | Gamification | Group Guidance

## TRANSLATIONAL RESEARCH

## TRACK RECORD

**empowerNCER:**

**Akademik**

### SCOPE

To provide students with the skills, knowledge and technological education to prepare the to meet the needs of digital learning in tertiary education with the goal to elevate marketability in human capital resources.

### ACTIVITY

Engagement, rapport, online coaching, STEMtation, interactive quiz, fun learning, self mind survival, Techniques of answering SPM exam questions and workshops.

**ICU**

### SCOPE

This program was developed with the aim of helping bumiputera low income families, especially B40 families in Penang. The programs implemented include the involvement of students, parents and school teachers through two (2) program categories in phases, namely :

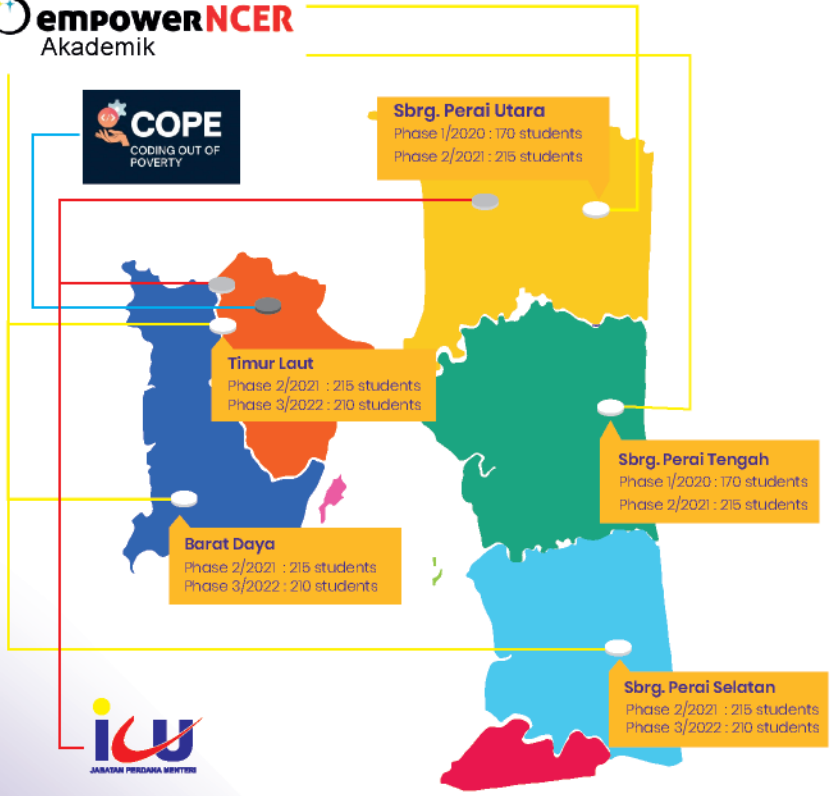
- Program Pembangunan Pendidikan (Keibubapaan)
- Early Childhood Enrichment Program (ECE)

### ACTIVITY

Needs assessment, psychometric testing, development of guidance and training modules, coaching, fun learning, Jawi literacy, basic introduction to islamic spirituality, academic training, parenting workshops, spiritual talks, group guidance, creative video, case study based learning, problem solving techniques and workshops.

**MEDIUM**

Whatsapp, Video Call, SMS, Google Meet, Kahoot, Quizziz, Zoom, Webex



## IMPLEMENTATION SCOPE

### 1 Groundwork (Profiling & Designing Process)

#### Activity 1

- Engagement of stakeholders
- Selection of schools
- Profiling process
- Designing/Enhancing program module

### 2 Execution (Implementation & Monitoring Process)

#### Activity 2

- Training of trainers (ToT)
- Module verification & endorsement
- Preparation & distribution of learning materials

#### Activity 3

- Knowledge transfer
- Remedial & enrichment
- Assessments

### 3 Exit Strategy (Placement & Reporting Process)

#### Activity 4

- Roll out in placement
- Execution of marketing activities

#### Activity 5

- Evaluate performance based on deliverables
- Reports

LEARNING  
STRATEGIES FOR  
EDUCATIONAL PEDAGOGY  
( L.E.AP )

01 Coaching

02 Blended Learning

03 Remedial & Enrichment

04 Design-based Project Learning

05 Phenomenon-based Learning

06 Social emotional Learning (SEL)

07 Fun learning & Gamification

08 Formative Assessment

09 Career Guidance

10 Community Empowerment



# COLLABORATIONS

## BENEFICIARY

B40 Pulau Pinang Communities

## IMPLEMENTING AGENCY



## SPONSORS



## GOVERNMENT AGENCIES



## PRIVATE SECTORS



## OVERALL OUTCOME



**01** 90% overall passing rate



**06** Empower over 1750 participants



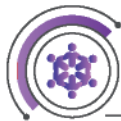
**02** 55% students have improved in GPM



**07** Generate at least 1 student innovation initiative



**03** At least 10% of students obtained 5A's & above in SPM



**08** Improve the educational standard of the community



**04** 80% students' participation in program



**09** Educational growth to boost the future life prospects



**05** 100% participation from low-income group(B40)



**10** Improve marketability of B40 group

## SUCCESS STORY: SPM 2020

EMPOWERNER AKADEMIK PULAU PINANG (PHASE 1)

### SPM 2020 ACHIEVEMENT (PHASE 1)

| DISTRICT              | TOTAL OF SCHOOL | NUMBER OF SPM CANDIDATES | TOTAL OF OVERALL PASSING STUDENTS |          | PERCENTAGE OF OVERALL PASS |          | TOTAL OF STUDENTS WITH 5A'S AND ABOVE |          | PERCENTAGE OF STUDENTS WITH 5A'S AND ABOVE |          |
|-----------------------|-----------------|--------------------------|-----------------------------------|----------|----------------------------|----------|---------------------------------------|----------|--|----------|
|                       |                 |                          | TRIAL SPM                         | SPM 2020 | TRIAL SPM                  | SPM 2020 | TRIAL SPM                             | SPM 2020 | TRIAL SPM                                  | SPM 2020 |
| SEBERANG PERAI UTARA  | 4               | 150                      | 132                               | 150      | 88                         | 100      | 7                                     | 19       | 5  | 13       |
| SEBERANG PERAI TENGAH | 4               | 150                      | 108                               | 150      | 72                         | 100      | 5                                     | 11       | 3  | 7        |
| TOTAL                 | 8               | 300                      | 240                               | 300      | 80%                        | 100%     | 12                                    | 30       | 4%   | 10%      |

- Overall Passing Rate : 100% (300)
- Students Improved in GPM : 83% (249)
- 5A's & Above : 10% (30)
- Best Achievement : 10A's (1)

PRACTICE MODULE

# ENGLISH SPM

PROGRAM empowerNCER AKADEMIK  
PULAU PINANG 2021/2022



MODUL LATIHAN AKADEMIK

# BAHASA MELAYU SPM

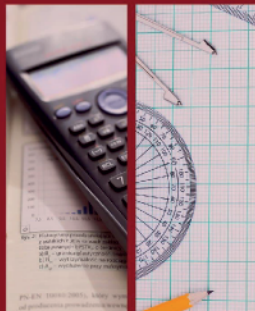
PROGRAM empowerNCER AKADEMIK  
PULAU PINANG 2021/2022



MODUL LATIHAN AKADEMIK

# MATEMATIK SPM

PROGRAM empowerNCER AKADEMIK  
PULAU PINANG 2021/2022



MODUL LATIHAN AKADEMIK

# SAINS SPM

PROGRAM empowerNCER AKADEMIK  
PULAU PINANG 2021/2022



MODUL LATIHAN AKADEMIK

# SEJARAH SPM

PROGRAM empowerNCER AKADEMIK  
PULAU PINANG 2021/2022



# MODUL BAHASA MELAYU SPM



U PINANG

# ENGLISH MODULE SPM



# MODUL MESMA SAINS SPM



U PINANG

# MODUL MESMA MATEMATIK SPM



PINANG

# MODUL SEJARAH SPM



ANG



# LEARNING INSTRUMENT



## TESTIMONY



“  
**Kaedah PdP yang menarik dan unik...**  
”

**DR. ASAITHAMBY  
RAMAYAH**

PK, Pentadbiran



“  
**Membantu saya dalam melatih diri untuk menjadi seorang guru,**  
”

**CIK NANG SOFWATUN  
NAJWA NEK ALI**

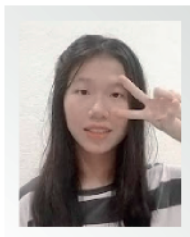
Ketua Coaches



“  
**Suasana pengajaran dan pembelajaran yang baharu,**  
”

**PN. NORAZLIN BINTI  
ZAINAL**

PEN. PPD SPU



“  
Kelebihan program ini adalah saya dapat bersiap sedia untuk menduduki peperiksaan dan tidak perlu menambah sebarang bebanan keluarga saya seperti menyertai kelas tambahan, memberi banyak nota dengan kos yang tinggi dan sebagainya.  
”

**CHUA SU JOE**

Pelajar



“  
Banyak kelebihan yang saya dapat dari program ini antaranya saya mendapat tablet dan simkad. Hal ini sangat membantu saya dalam pembelajaran di rumah kerana saya mendapat data Unmobile percuma yang disediakan oleh program ini.  
”

**AHMAD AIMAN IDHAM  
ANUAR**

Pelajar



“  
Program ini memberi peluang kepada murid untuk kemudahan belajar dan membantu murid mendapat pencapaian yang terbaik dalam akademik.  
”

**NUR SYAMIRA BT ISHAK**

Pelajar



## PROGRAM COMMITTEE

### BAHAGIAN JARINGAN INDUSTRI DAN MASYARAKAT

| NAMA  | JAWATAN                  | MAKLUMAT PERHUBUNGAN                     |
|---|--------------------------|--|
| En. Syed Yusof Syed Kechik                          | Pengarah                 | 04-653 6411<br>syusof@usm.my             |
| Profesor Madya Dr. Shaik Abdul Malik Mohamed Ismail | Felo Penyelidik Kanan    | 04-653 6413<br>samohame@gmail.com        |
| En. Muhamad Nur Hazim Mazlan                        | Penolong Pendaftar Kanan | 04-653 6416<br>mnhazim@usm.my            |
| En. Muhammad Fahmi Sobree Bin Basree                | Penolong Pendaftar       | 04-653 6593<br>fahmisobree@usm.my        |
| Pn. Noor Hakimah Sudin                              | Penolong Pendaftar       | 04-653 6598<br>noorhakimah@usm.my        |
| Pn. Nur 'Izzah Nadiyah Marsam                       | Pengurus Program         | 04-653 6425<br>nadiamarsam@gmail.com     |
| Pn. Sofea Sharudin                                  | Pengurus Program         | 04-653 6462<br>sofeasharudin46@gmail.com |
| En. Wan Anas Farhan Wan Amir                        | Pengurus Program         | 04-653 6418<br>wananasworkmail@gmail.com |



Contact Person:  
Muhammad Fahmi Sobree Bin Basree  
Assistant Registrar  
Bahagian Jaringan Industri & Masyarakat (BJIM)  
Universiti Sains Malaysia  
Ext: 04-6536593 Tel: 013-4683148  
E: fahmisobree@usm.my