



Kolej Matrikulasi
Sarawak

PERANAN & IMPAK SEORANG GURU FIZIK

OLEH
SHAFIQ RASULAN



Pengajaran Saya



Perihal 1: PPPM

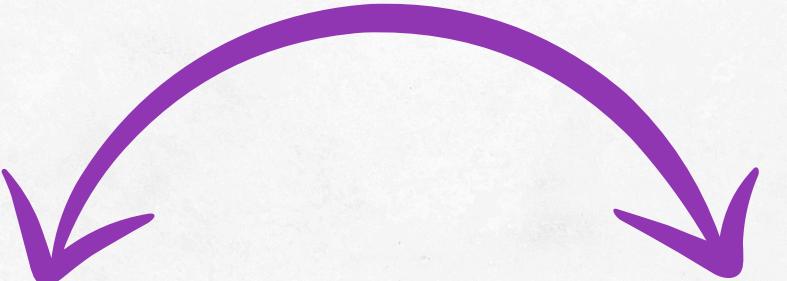
Anjakan 1:
Menyediakan kesamarataan
akses kepada pendidikan
berkualiti bertaraf
antarabangsa



Differentiated Learning

MOTIVASI

- Teori Penentuan Kendiri
 - Deci & Ryan (SDT)
- Kerangka Pemikiran Berkembang
 - Carol Dweck

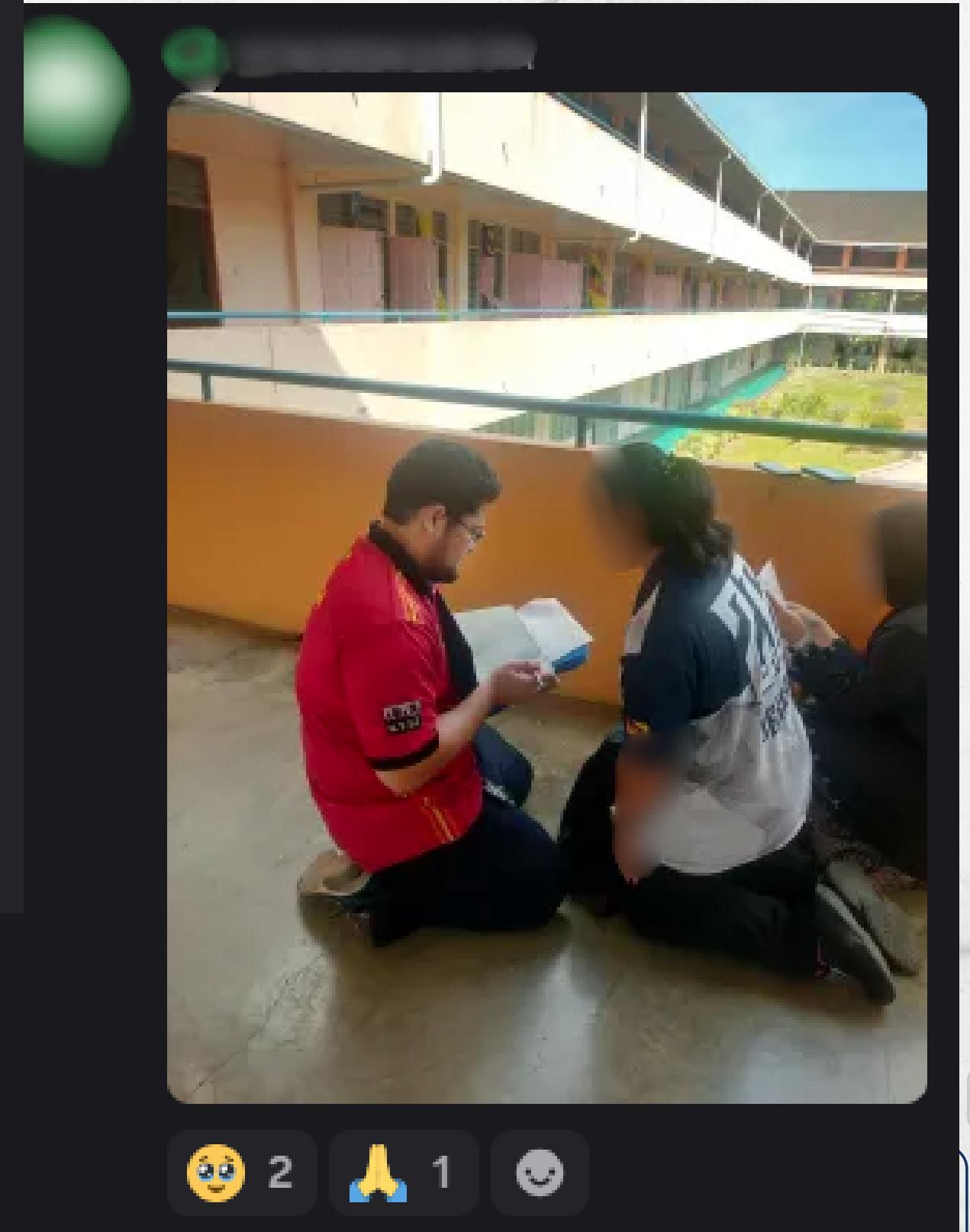
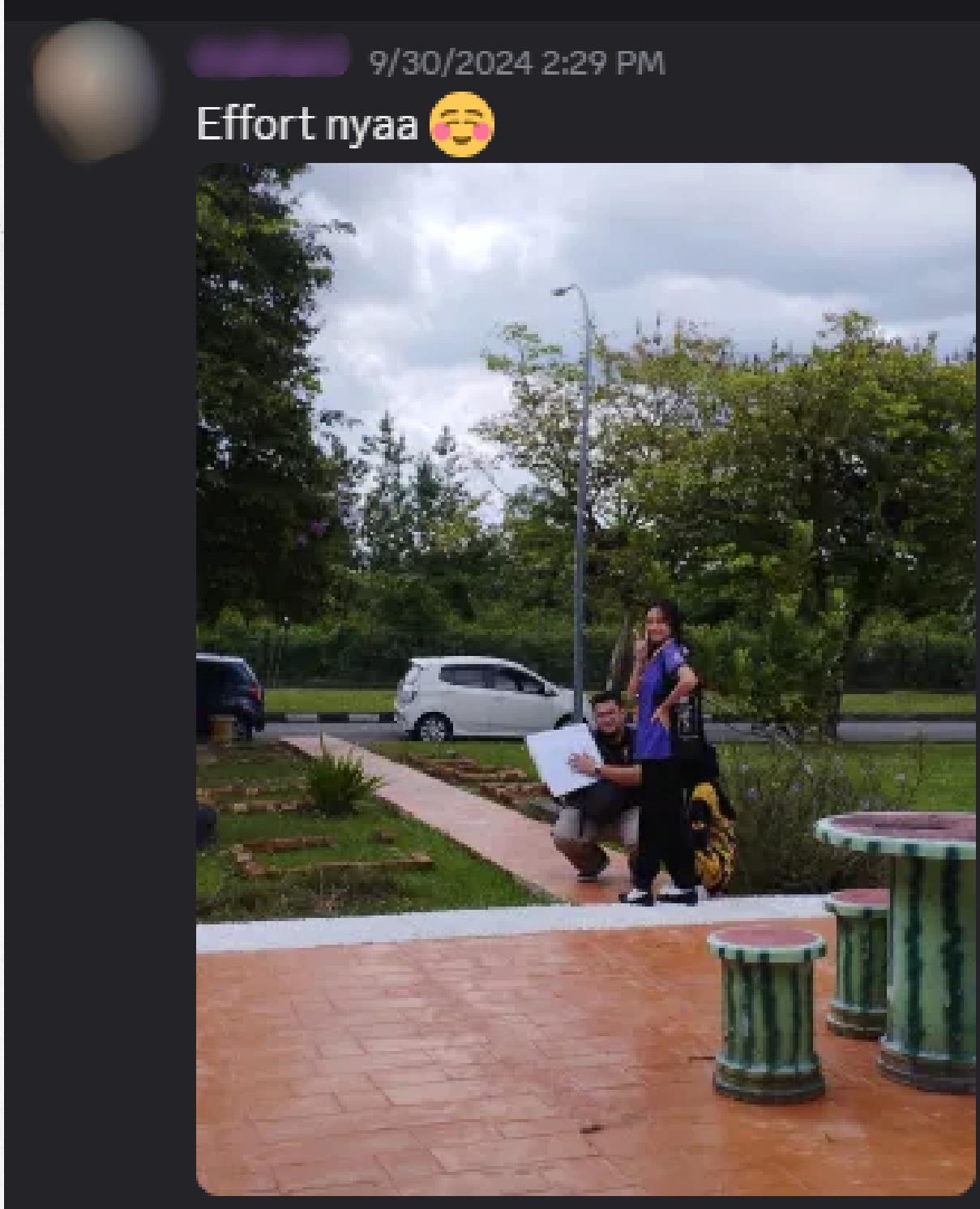
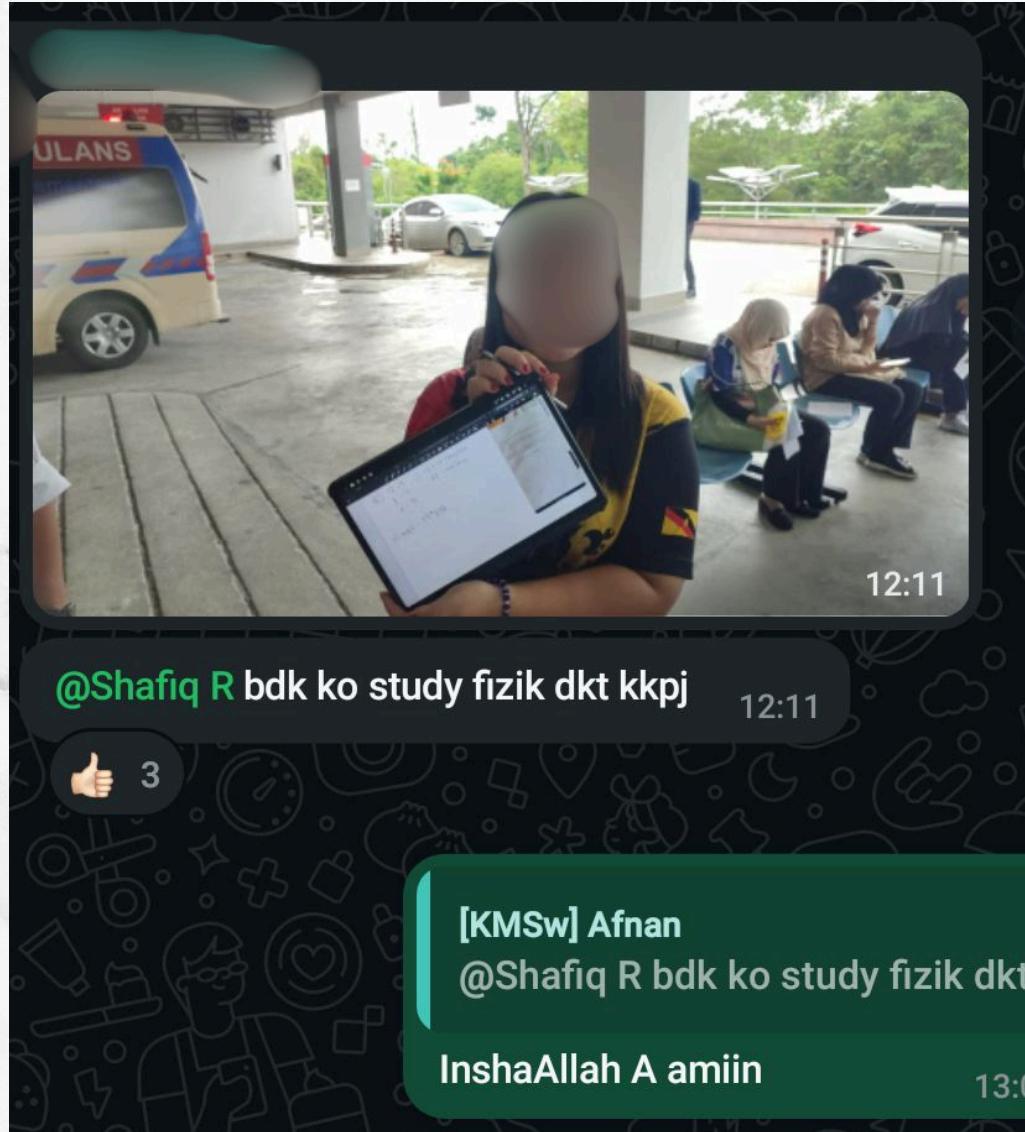


PHET
INTERACTIVE SIMULATIONS™
Gamification
 
Digital Educational Learning Initiative Malaysia



Anjakan 7:
Memanfaatkan ICT bagi
meningkatkan kualiti
pembelajaran di Malaysia

Indikator Motivasi Pelajar



Anjakan 3:
Malahirkan rakyat
Malaysia dengan
penghayatan nilai

Menggalakkan pelajar menzahirkan motivasi mereka

Alat Sokongan Pembelajaran Kendiri

SP025 Random Practice Question

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Click on any chapter below!

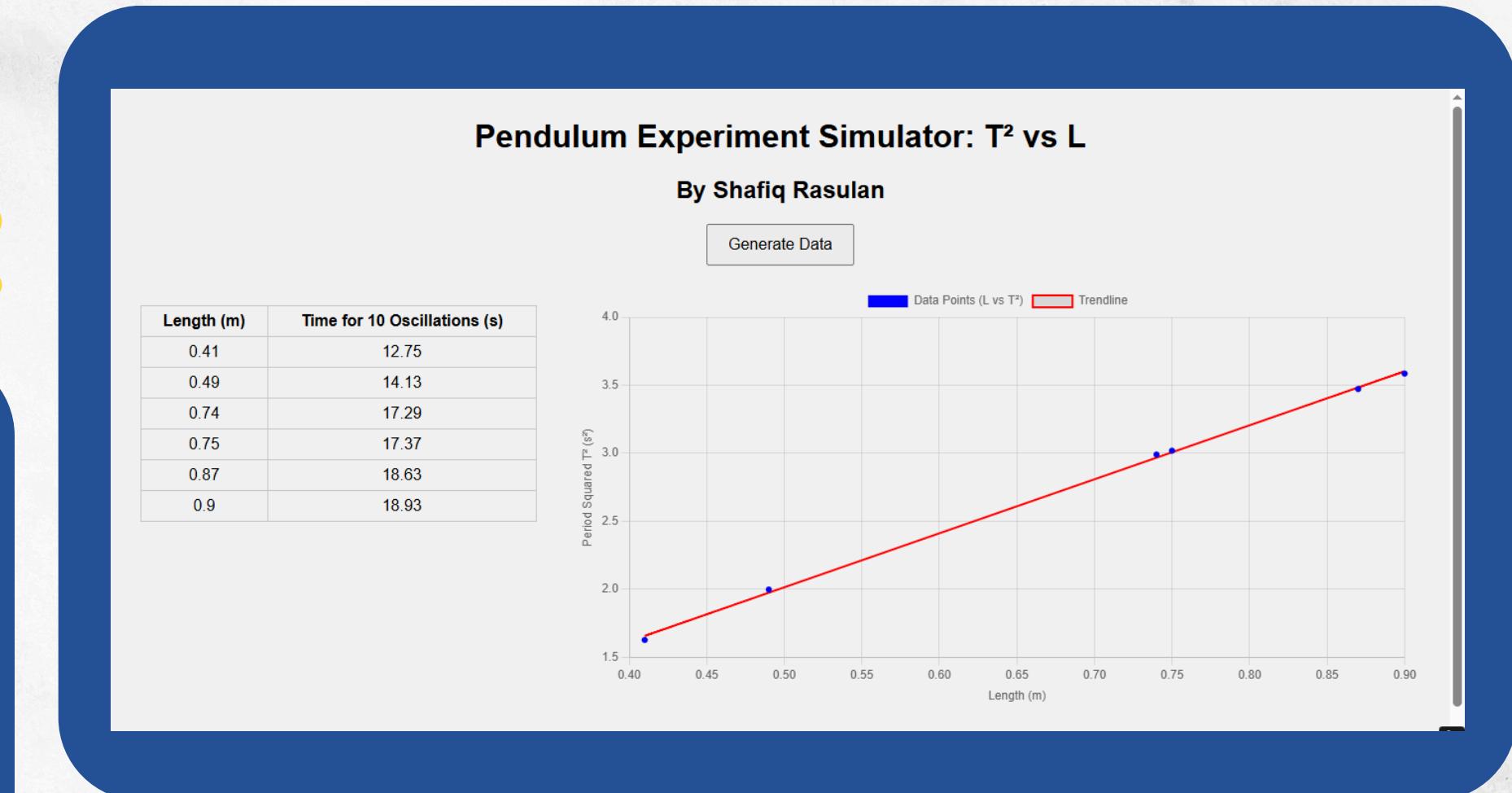
- Chapter 1
- Chapter 2
- Chapter 3
- Chapter 5
- (N/A) Chapter 6
- Chapter 7 (G.O.)
- Chapter 7 (P.O.)
- Chapter 8
- (N/A) Chapter 9

FIGURE 1

Three point charges, $Q_1 = +15 \mu\text{C}$, $Q_2 = -25 \mu\text{C}$ and $Q_3 = -35 \mu\text{C}$ are arranged as in **FIGURE 1**.

- Copy **FIGURE 1** and draw the direction of the electrostatic forces on Q_2 .
- Calculate the magnitude and direction of the resultant force on Q_2 .
 $[F = 6.19 \times 10^3 \text{ N}, \theta = 37.31^\circ \text{ above } x\text{-axis}]$

Anjakan 7:
Manfaatkan ICT
bagi meningkatkan
kualiti pembelajaran
di Malaysia



**Konvensyen Penyelidikan, Komuniti Pembelajaran Profesional dan Inovasi Pendidikan
Program Matrikulasi KPM (KonPPI-5) 2025**

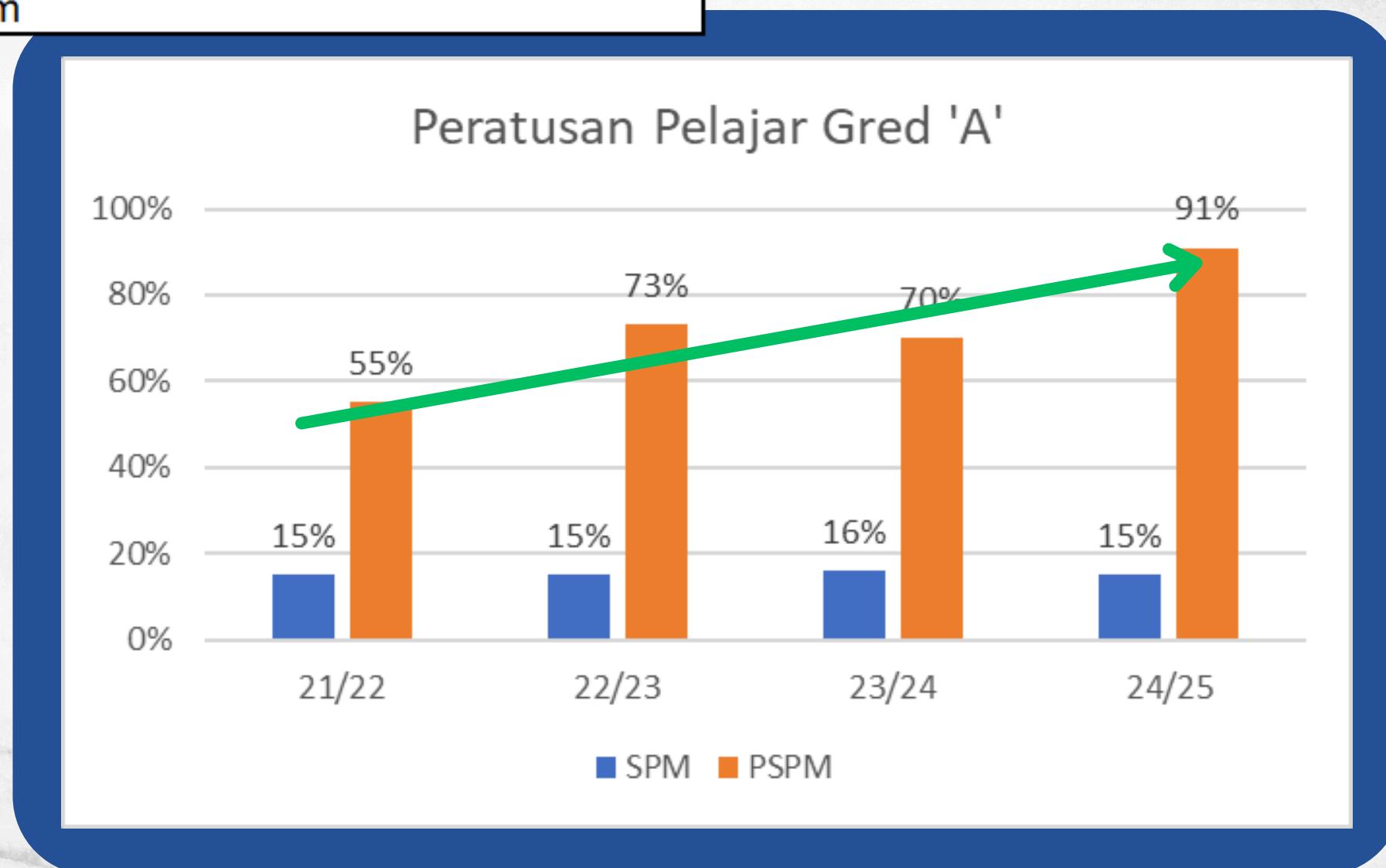
AI-Powered Tutoring for Conceptual Clarity in Energy and Momentum among Sarawak Matriculation College Physics Students

Shafiq Bin Rasulan¹

¹Sarawak Matriculation College

Impak Amalan Pengajaran Saya

Thank you sir, your motivation has positively affected how I feel about exam



THANK YOU SIRR! SIR, FINALLY I GOT A IN PHYSIC. I'm grateful to be one of your student. Thank you for pushing us to become the best version of ourselves. Thank you for making physic fun for the past 10 months.

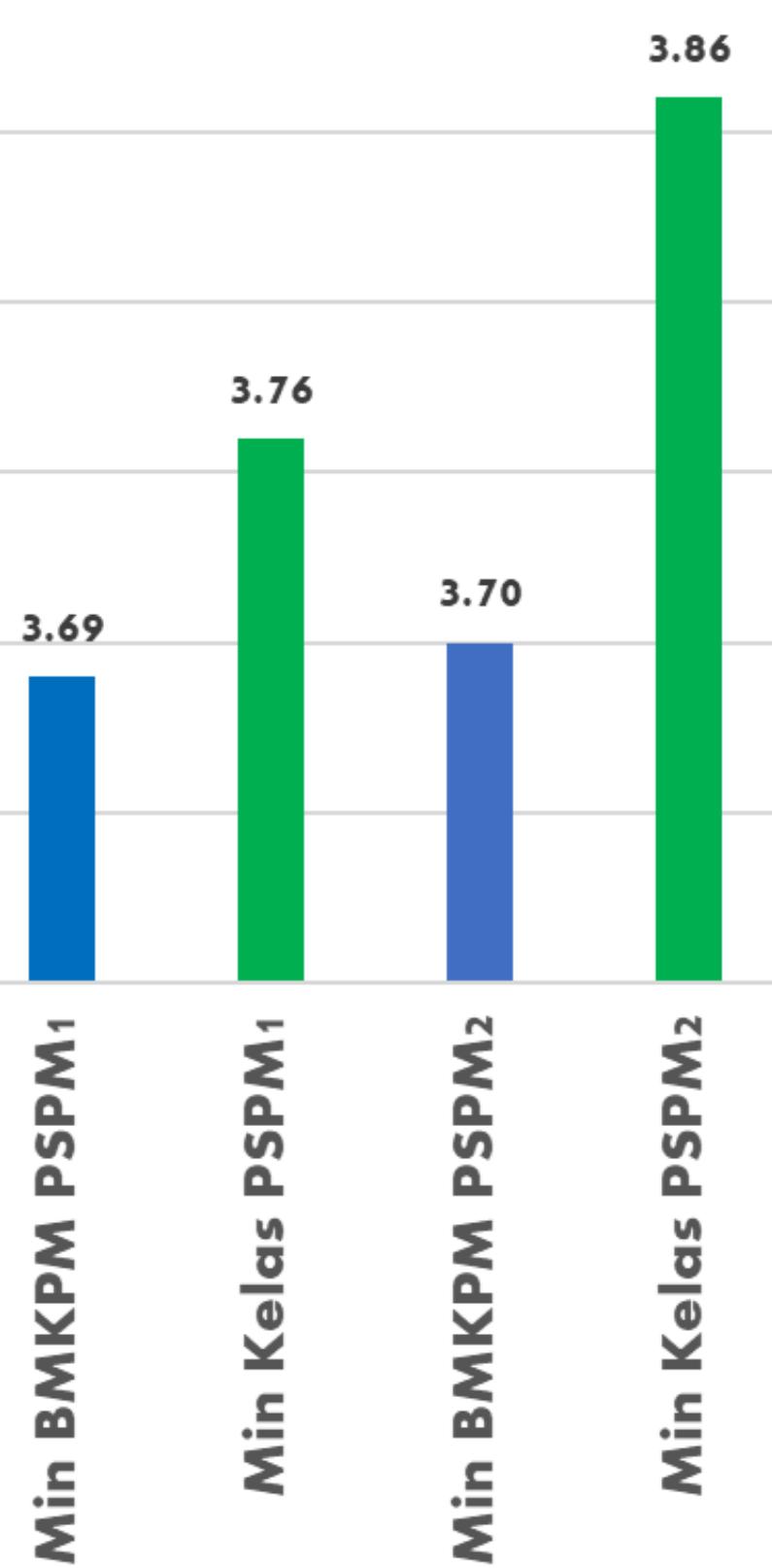
**21
pelajar
(SP015)
36.8%**



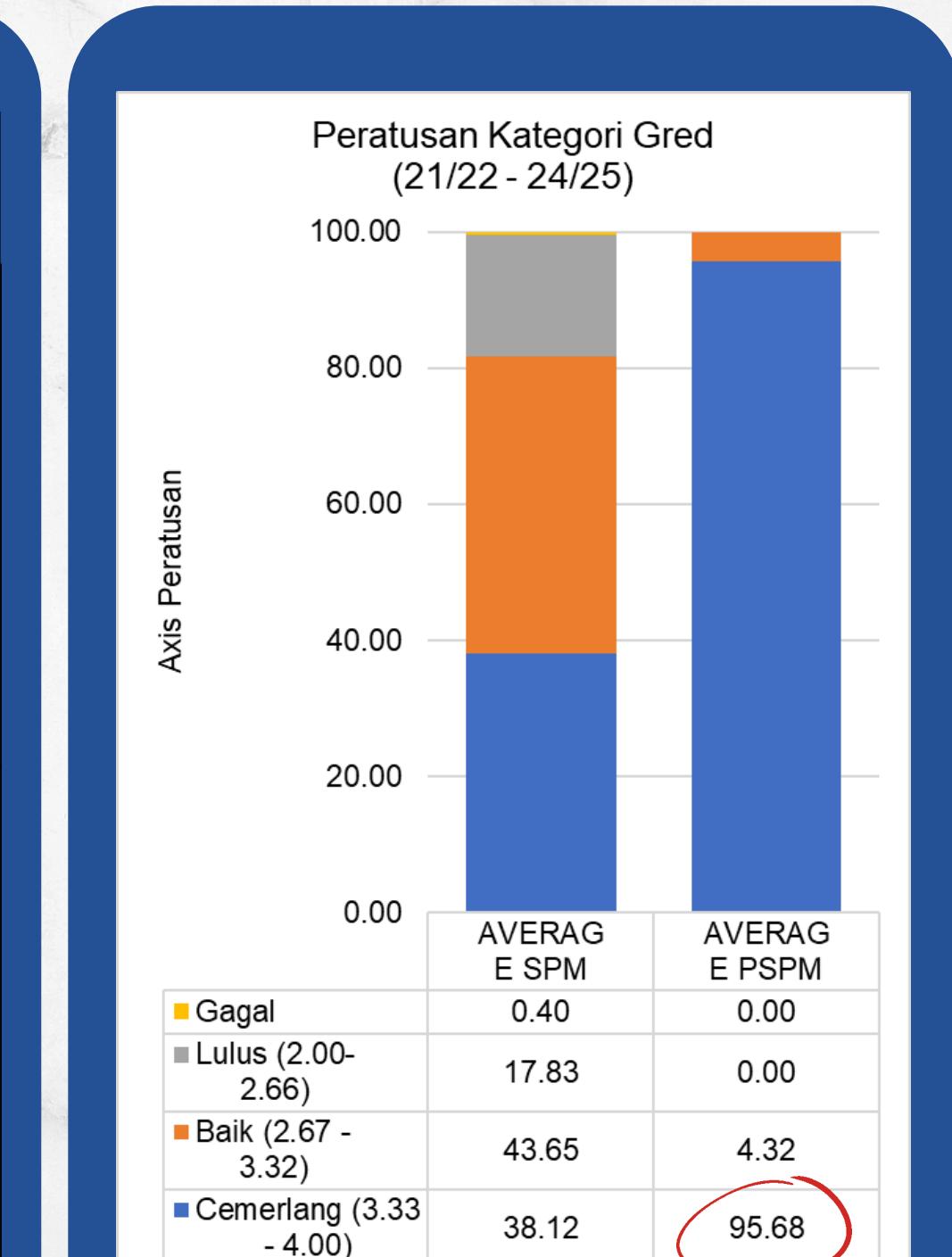
Anjakan 10:
Memaksimumkan
Keberhasilan Murid
Bagi Setiap Ringgit

**52
pelajar
(SP025)
91.2%**

Min Keseluruhan
(21/22 - 24/25)



● ● Impak Amalan Pengajaran Saya



Anjakan 10:
Memaksimumkan
Keberhasilan Murid
Bagi Setiap Ringgit

Sarjana Holistik



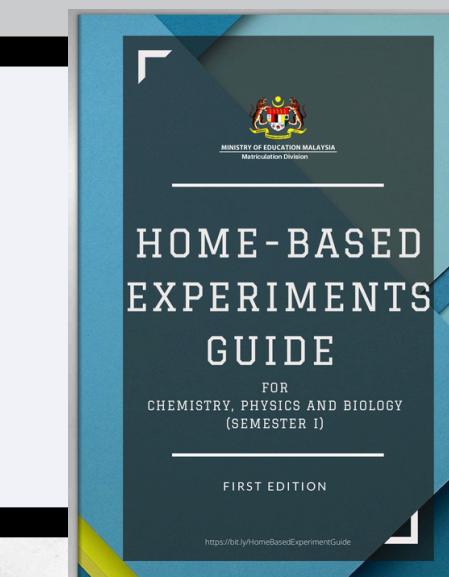
KIK & Inovasi
Lesson Crafter
Test Scheduler
Matrix Metric Match



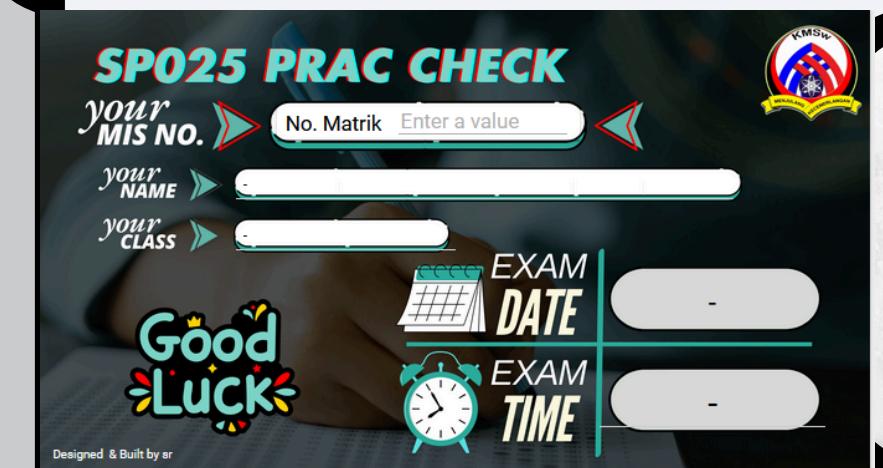
Sumbangan Luar
Bengkel Discord IPGKBL
Sinergi Inkubator STEM SMTS
Easy Math & Science



Kajian Tindakan
AI-Powered Tutoring for Conceptual Clarity



Kurikulum & Pentaksiran
Pemeriksa Skrip Jawapan PSPM
Penggubal Modul Amali



Anjakan 4:
Transformasi
keguruan sebagai
profesional pilihan

Anjakan 7:
Manfaatkan ICT
bagi meningkatkan
kualiti pembelajaran
di Malaysia

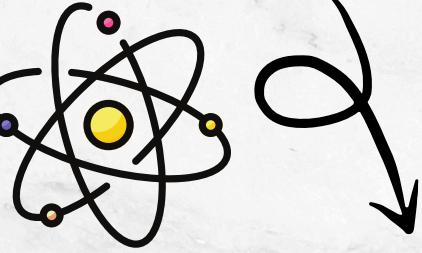
Sarjana Kolaboratif



**Inovasi
Merentas
Jabatan**

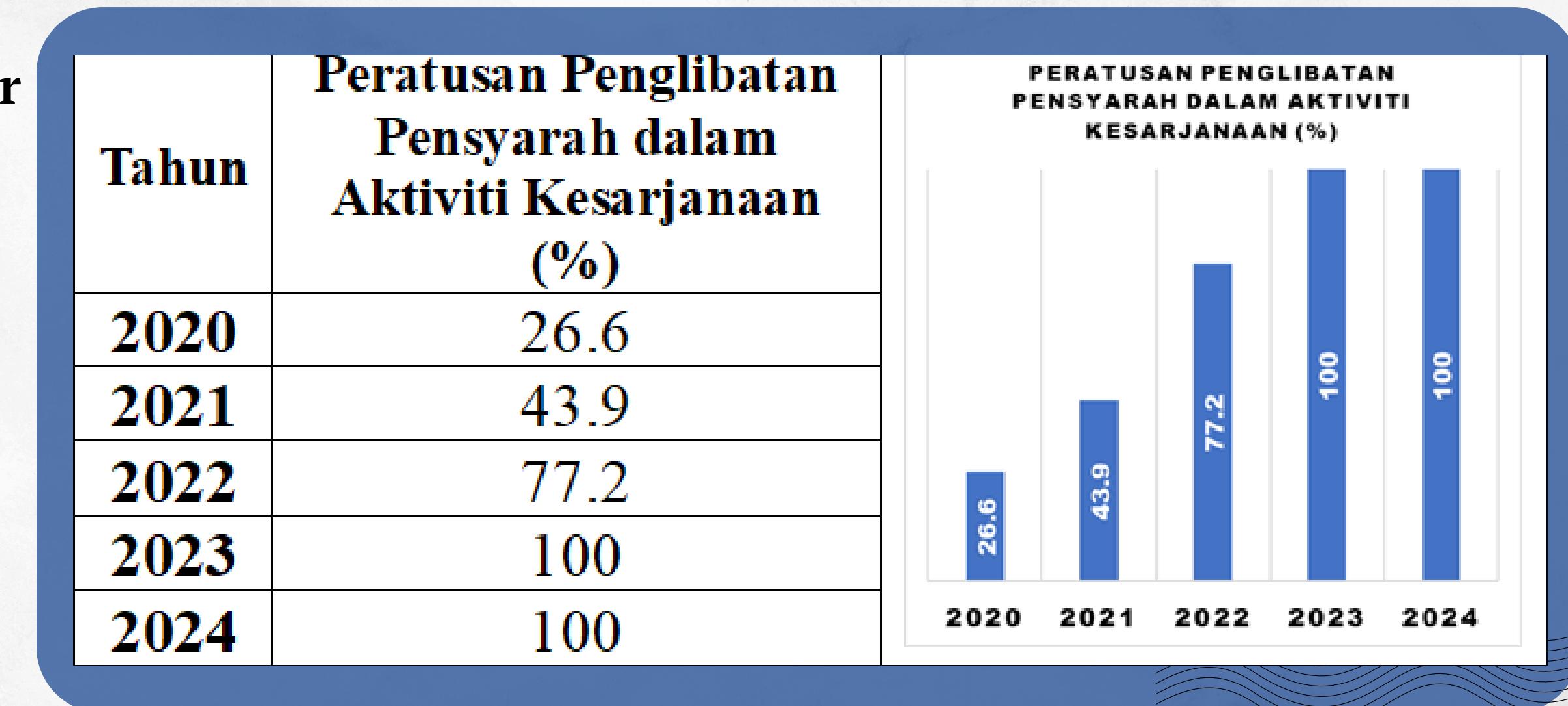
Lesson Crafter
Bersama Unit
Sains Komputer

Merit Matrix Match
Bersama Unit Kaunseling

**Unit Fizik
Inovatif**

**Coursework
Analyzer**

Anjakan 9:
Bekerjasama dengan ibu bapa, komuniti dan sektor swasta secara meluas

Anjakan 11:
Meningkatkan Ketelusan dan Akauntabiliti Awam



Peranan saya?

Menyokong pembangunan dalam kalangan warga pengurusan KIK dan Inovasi

budaya kesarjanaan kolej sebagai ahli

Silang Semak Aspirasi Negara & Global



ASPIRASI KEBANGSAAN

Prakarsa Pendidikan Madani 1:
Akses Pendidikan Saksama



Pengaplikasian *Differentiated Learning*

Prakarsa Pendidikan Madani 4:
Membina Ekosistem
Pendidikan Digital



Penggunaan *Discord, PhET*
dan juga pembinaan
Dashboard Digital

Prakarsa Pendidikan Madani 5:
Ekspresi Aspirasi Malaysia
MADANI



Mengatur pelajar daripada
pelbagai latar belakang secara
strategik

TIMSS Science Framework:
Practice 3: Working with data



Pembinaan *e-Phylab,*
Experiment Simulator

PISA: Learning in the digital
world (2025)



Spreadsheet untuk data
analisis data Fizik

UNESCO's ICT Competency
Framework for Teachers



Pembinaan *Lesson Crafter*
Kursus *Discord for Teachers*

ASPIRASI GLOBAL



Anugerah



Peratusan A Tertinggi SPO15 Peringkat Kebangsaan 2025

e-Penilaian Pelajar Tertinggi Peringkat Kolej 2024

Pensyarah Terbaik Peringkat Kolej 2023



Kain batik corak berseri,
Dijahit rapi tangan sendiri.
Hati tenang rasa dihargai,
Sudi mendengar, terima kasih diberi.