



اَوْنِيُو تِكْنُوْلُو جِي مَارَا
UNIVERSITI
TEKNOLOGI
MARA

What's *what* PSPM

EISSN: 2756-7729

OKTOBER 2024/VOL 2



- **EXTREME EVENT ANALYSIS: ESTIMATING BOUNDARIES FOR DATA EXTREMITY**
- **ROBOTICS, STEM & IOT: LEADING THE MALAYSIAN STUDENT GENERATION TOWARDS A SUSTAINABLE FUTURE**
- **ARE WE EATING PLASTIC?**
- **MASTERING VIDEO PRODUCTION: TECHNIQUES, TOOLS, AND THE CREATIVE PROCESS**
- **BRIDGING TECHNO-DIVIDE IN TAHFIZ EDUCATION WITH DIGITAL SKILL TRAINING**

SMART CALCULATOR 4.0

Yusrina Andu, Nadiyah Mohamed, Norlida Othman, Norul Fadhilah Ismail & Siti Noor Dina Ahmad
Pengajian Sains Matematik
Kolej Pengajian Pengkomputeran, Informatik dan Matematik,
Universiti Teknologi MARA (UiTM),
Cawangan Negeri Sembilan, Kampus Kuala Pilah,
72000, Negeri Sembilan Darul Khusus, Malaysia.
yusrinaandu@uitm.edu.my

EXECUTIVE SUMMARY

Smart Calculator 4.0 program is designed to support the pre-diploma and diploma students to get the most out of their calculator to solve mathematics and statistics questions. This program aims to narrow the gap between manual calculation methods and modern technological tools as well as provide support to students in improving their accuracy, efficiency and problem-solving skills. Through this program, these students can increase their experience, knowledge and understanding on the practical usage of their calculators to the fullest.

INTRODUCTION

Precision and efficiency are important in problem-solving. For students who find solving mathematics as challenging, the ability to use calculator efficiently is essential. As digitalization and educational advance further, mastering smart tools such as calculators can significantly increase the ability of problem-solving among students.

Although manual calculations still present, nonetheless the adaptation of calculator in speeding the calculation time for mathematics problem cannot be neglected. Besides that, using calculator smartly can reduce student error especially when solving complex calculations. This would benefit students who may struggle with accuracy when calculating manually. Therefore, these advantages presented here shows that it is highly essential to empower students with these calculator skills. Thus, Smart Calculator 4.0, the fourth instalment of using calculator was held from 13th May 2024 until 17th of May 2024 during mathematics class and the participants are from Pre-Diploma and Diploma students from UiTM Cawangan Negeri Sembilan, Kampus Kuala Pilah.

The introduction of the program begins by identifying which scientific calculator the students are using. It was found out that most of them use Casio ClassWiz fx-570EX and several have the classic Casio fx-570MS. Before starting, it is necessary to know about this as both features are different, with the former have a wider screen and natural textbook display. In this workshop, both types of calculators were demonstrated to the students. Although they have been using these calculators since secondary school, there are still many mathematical functions in calculator that they have yet to explore. Therefore, this program is carried out to cater to the needs of students by providing them practical solutions to improve their computational skills using scientific calculator. The program covers a wide range of topics, from basic arithmetic to more complex calculations, ensuring that all students can benefit regardless of their mathematical proficiency.

From the hands-on training and module, students were able to explore features like programmable functions and automated solutions to enhance accuracy and efficiency. The skills developed through this program can also be apply in their other subjects and assignments. This is because, scientific calculator is not use only in mathematics and statistics, it is also applicable to other subjects as well. Thus, whether students are dealing with basic calculations or more complex problems, smart calculators offer a versatile tool for enhancing their capabilities. In terms of learning experience, most of the students participate actively and gain better understanding of the mathematical concepts and can apply them more effectively.

RESULTS /ACHIEVEMENTS

The output from the participant was obtained through the feedback form. It was found that the overall response from the participant of Smart Calculator 4.0 has been mostly positive, with majority of them appreciating how the program has increased their proficiency in using calculator. During the observations of the program, students have better understanding of the different calculator functions, which contributes to more efficient and quicker use compared to before. Furthermore, by consistently applying the correct methods in the calculator, it has improved the participants accuracy in problem-solving, thus reducing mistakes in writing their final answer. Overall, participants hope that the program continues as it will benefit many students especially those who face challenges in mathematics.

CONCLUSION

Smart Calculator 4.0 addresses essential needs and offers valuable tools for overcoming mathematical challenges by prioritizing education, accuracy, efficiency, and confidence-building. The outcome of the program shows that there is an improvement in the pre-diploma and diploma student's calculator proficiency and their confidence level, particularly those who find mathematics challenging. Thus, this program has successfully shown that by integrating calculator into educational practices, eventually will lead to enhanced precision, efficiency, and confidence for all students.



MAT013 AS002/AS003



MAT083 AS0071A1



MAT122 IC1201A3