What's what PSPM
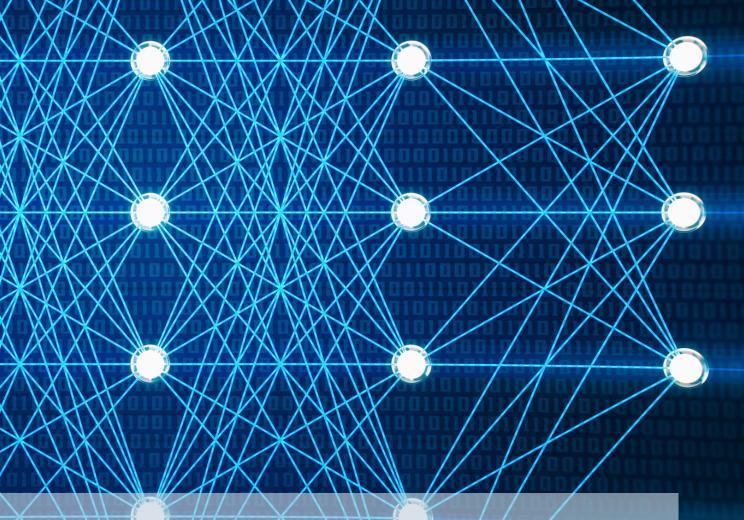
- THE BASICS OF MULTI-LAYER FEEDFORWARD NEURAL NETWORKS
- MICRO:BIT – A BEGINNER-FRIENDLY TOOL TO INTRODUCE CODING TO CHILDREN
- UNFOLDING THE SECRETS OF PASCAL'S TRIANGLE
- HOW DATA SCIENCE WORKS IN OUR DAILY LIFE WITHOUT US EVEN NOTICING
- POMODORO TECHNIQUE FOR LECTURERS' PRODUCTIVITY

MATHMARVEL 3.0

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EXECUTIVE SUMMARY

The "MathMarvel 3.0" program took place at UiTM Negeri Sembilan's Kuala Pilah Campus from January 3 and January 10, 2025. It involved 216 students and 6 facilitators from a variety of academic backgrounds. The event aimed to enhance peer tutoring and exam skills through diverse question-solving methodologies due to high failure rate in math subject. Participants reported improved learning and facilitator skills, with greater confidence and enjoyment. Despite these successes, challenges such as identifying subject-specific facilitators and monitoring students' attendance were noted. To maintain educational momentum and address these issues, it is recommended that the program be held regularly each semester. Regular offerings will assist the Department of Mathematical Sciences Studies in improving student performance and reducing failure rates.

INTRODUCTION

The "MathMarvel 3.0" program, launched at UiTM Negeri Sembilan, was designed to improve test preparation and foster peer learning within the Department of Mathematical Sciences. This initiative emphasizes the strategy of collaborative learning, elucidating how it can enhance traditional educational methods by incorporating interactive and cooperative elements that may be beneficial for educators looking to apply similar strategies in their respective fields."

It was scheduled from January 3 and January 10, 2025, and targeted students enrolled in academic programs IC120, AS116, AS114, AS122, AS007, and AS002. The initiative aimed to advance problem-solving skills and create a supportive learning environment. Key participants included students, department heads, and faculty facilitators who concentrated on collaborative education strategies to enhance both individual and collective academic achievements. The program's primary objectives were to boost exam confidence, deepen understanding of complex mathematical concepts, and strengthen peer support networks. Its success would be evaluated based on student feedback and improvements in exam scores.

RESULTS /ACHIEVEMENTS

The MathMarvel 3.0 program at UiTM Negeri Sembilan significantly improved academic performance and successfully reduced the final exam failure rates for all participating courses to below 25%. The peer-to-peer facilitation approach not only increased classroom attendance but also fostered a positive learning atmosphere. Students reported a considerable increase in motivation and self-assurance, reflecting the overwhelmingly positive feedback from participants and stakeholders. The program's interactive approach to education made even the most difficult mathematical issues simpler and more entertaining. This strategy improved the identification of individual learning issues and enabled tailored preparation for semester-end exams, resulting in a more specific and successful learning experience. The comfortable environment encouraged students to interact more freely and discuss more openly, which was crucial in developing a collaborative learning culture. Additionally, program participation helped students graduate on time and minimized the potential financial burden of additional tuition. Figure 1 illustrates the activities throughout the program.

Figure 1: Students engaged in group discussions and problem-solving activities.

CONCLUSION

Under the MathMarvel 3.0 program, student performance, engagement, and confidence in solving mathematical issues all significantly improved. Peer-to-peer tutoring not only successfully reduced the failure rate to less than 25% but also fostered a helpful and cooperative learning atmosphere. Feedback from participants indicated that the program made mathematical concepts more approachable and entertaining, which in turn increased motivation and enhanced engagement in class.