

UNIVERSITI TEKNOLOGI MARA

**EDUCATIONAL MANAGEMENT SYSTEM OF
MATHMEMATICS AND SCIENCE (E-MASC)
FOR LOWER SECONDARY SCHOOL IN NAK
TUTOR TUITION**

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ABSTRACT

The Educational Management System of Mathematics and Science (E-MASC) is a computerized platform designed for Nak Tutor Tuition to enhance the management of academic tasks, particularly for Mathematics and Science subjects. Previously, most tasks were carried out manually or through messaging apps, leading to issues like disorganization, limited resources, and difficulty tracking student performance. E-MASC was developed to centralize learning materials, test and quiz management, and student performance monitoring in a single system to overcome these challenges. The development followed the Waterfall Model of the SDLC, progressing through planning, analysis, design, development, testing, and documentation phases. Shneiderman's Eight Golden Rules were applied to ensure the system was user-friendly and consistent. The system's functionality was evaluated using test plan approved by tester. In contrast, usability was evaluated by three expert evaluators who reported on ease of use, efficiency, and overall satisfaction. The results showed the system satisfied its functional intended outcomes and were positive among the testers who evaluated it as usable for actual teaching contexts. While E-MASC helps teachers assign materials and tasks, students can now access better-organized learning materials. In summary, E-MASC is an organized and effective way to manage academic processes with strong potential for development as the mechanism is extended to further subjects and enhanced reporting.

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