

UNIVERSITI TEKNOLOGI MARA

**E-GEO: AN E-LEARNING PORTAL FOR
FORM 6 STUDENTS**

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August 2025

ACKNOWLEDGEMENT

Praise be to Allah, the source of all blessings and guidance, for enabling me to finish this project when the time was due.

First, I would like to thank my research advisor, Ms. Wan Anisha Binti Wan Mohammad, for her great assistance, moral and guidance support, as well as constant encouragement during this research.

Her expertise and constructive feedback have helped in the accomplishment of this study in this study in its final form. I would like to take this opportunity to thank my lecturer for the subject CSP650, Miss Hasnul Azirah, for teaching this subject with passion and dedication, helping me to learn the basics that were needed for this work.

To my amazing parents, I appreciate the love, prayers and support that you have always given to me. You have always been my strength and belief in me.

I would like to take this opportunity to thank my wonderful friends, my classmates, and my roommates, for supporting me through thick and thin. Your encouragement, kind words and your constant support gave me the strength to continue even when the going was at its toughest. In conclusion, I would like to express my gratitude to all the people who in one way or another, have helped me on this journey. Your kindness and help will always be remembered.

ABSTRACT

This project focused on the development of E-GEO, an interactive e-learning portal designed for Form Six Geography students at SMK Tengku Mahmud 1. The system addressed challenges such as limited access to interactive resources, dependence on static textbooks, and delayed teacher feedback by providing a centralized platform aligned with the STPM syllabus. Developed using the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation) and guided by Cognitive Load Theory, the portal was built with PHP, MySQL, HTML, and CSS and integrated modules for learning notes, past year papers, quizzes, videos, and interactive games. Evaluation involving 38 students and teachers through questionnaires and expert reviews showed high usability (92%) and effectiveness in improving content accessibility, interactive engagement, and independent learning. Users highlighted the portal's simple navigation, well-structured content, and potential to assist teachers in managing teaching resources. In conclusion, E-GEO successfully enhanced digital Geography learning through a multimedia-rich and user-friendly platform, meeting its objectives of promoting interactive, independent, and curriculum-based learning. Future enhancements may include mobile optimization, multilingual support, and real-time communication features to further increase its accessibility and functionality.

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