UNIVERSITI TEKNOLOGI MARA

PENGEMBARAAN ATOMIK (PAtomik) E-LEARNING COURSEWARE FOR FORM FOUR CHAPTER 12 -NUCLEAR ENERGY USING BLOOM TAXONOMY

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JANUARY 2025

ACKNOWLEDGEMENT

Above all, I give thanks to God for giving me the strength, wisdom, and determination to complete this project successfully. I would also like to take this opportunity to express my deep appreciation to my project supervisor, Dr. Gloria Jennis Tan, for her valuable guidance, encouragement, and steadfast support in the course of this journey. Her constructive feedback and expertise were important in shaping this project and surmounting some challenges. Madam Siti Nurul Hayatie, my final year project lecturer for the motivating me to complete this project.

Special thanks also go to the teachers and students of Sekolah Menengah Kebangsaan Cochrane Perkasa who participated in both the survey and testing phases of this project. It is their valuable insights and feedback that helped in the development and evaluation of the e-learning courseware. To my family and friends, thanks for the unwavering support, patience, and encouragement through this demanding process. Your belief in me has been my driving force. Lastly, I am grateful to everyone who contributed directly or indirectly to the success of this project. This accomplishment would not have been possible without your kindness and support.

ABSTRACT

Students nowadays are no longer dependent on the traditional learning method to study instead they use various approaches especially when it comes to high schoolers and involve different learning styles. This study addresses the challenges faced by the students in SMK Cochrane Perkasa in comprehending Form Four Science subject specifically in understanding Chapter 12: Nuclear Energy, the conventional method makes the learning experience dull, and unengaging learning methods. The objective of this project to determine the functional, technical, and educational requirements of the e-learning courseware, to develop e-learning courseware for Science Chapter 12: Nuclear Energy, and to evaluate the functionality and usability of the e-learning courseware. The e-learning courseware PAtomik was developed using the ADDIE methodology which starts with analysis followed by design. After that, the development of the project leads to implementation, and the last phase of the project is the evaluation phase. Incorporating Bloom's Taxonomy remembering, understanding, and applying it strengthens students' comprehension and skills. PAtomik leverages multimedia applications, including text, videos, animations, images, and sound, to cater to diverse learning styles and simplify learning concepts. By bridging pedagogical gaps, PAtomik provides an innovative and effective solution to support educators and students in understanding the nuclear energy chapter specifically. This project includes evaluation from three experts to get comments and suggestions about the courseware and the tester fills up the test case as they use the courseware to ensure all of the elements of functioning.

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