

**UNIVERSITI TEKNOLOGI MARA**

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

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## 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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