

Abstract

This research aims to increase students' interest and understanding in learning SQL through the application of animated pedagogical agents (APA) with the Scaffolding method in educational game-based learning applications. SQL, as the main language for managing data in relational database management systems (RDBMS), is often considered difficult by students. Initial surveys indicated low student interest and difficulty in learning SQL. To overcome this problem, APA is implemented using the Scaffolding method which provides gradual assistance in the form of step-by-step explanations, practical examples, and direct feedback. As students' abilities develop, support from APA is gradually reduced, allowing for learning independence. The pre-test was carried out with the application without a pedagogical agent, while the post-test was carried out after using the application with a pedagogical agent. The research results showed an increase in interest as measured by an increase in test scores from Pre-Test to Post-Test. However, a decrease in students' perceptions regarding the value of SQL in the real world was found, indicating the need for improvement in this aspect of the material. Overall, the application of the Scaffolding method to APA provides positive results in increasing students' interest in SQL, although there are several areas that still need improvement.

Keywords: SQL, Pedagogical Agent, Scaffolding, learning applications, learning interest, agent-based learning.