

Hao-Chiang Koong Lin, Sheng-
-Hsiung Su, Yi-Chun Hsieh,
Shang-Chin Tsai
Taiwan

Impacts of Affective Tutoring System on the Academic Achievement of Primary School Students with Different Cognitive Styles – An Example of Marine Education

Abstract

The study is trying to use ATS (Affective Tutoring System) with emotional calculating technology in the activity of the shell education program. The result is used to study the academic achievement of students with different cognitive styles and system usability. There were 61 fifth-grade children from two different classes participating in this experiment. Every child had to do GEFT (Group Figure-Embedded Test) and academic achievement pre-test before they started the ATS. Then students engaged in ATS learning. Academic achievement post-test was done and the System Usability Scale for Learning Questionnaire after they finished the ATS. The experiment yielded the following results: (1) Learning with ATS not only can give learners an excellent feeling of system usability, but also help learners to promote academic achievement more effectively. (2) According to the system usability and academic achievement, the Field-independent learners were acting better than the Field-dependent learners.

Keywords: academic achievement, Affective Tutoring System, cognitive style

Introduction

Research Problem

In this study, we hoped to integrate affective computing into the intelligent tutoring system. With regard to recognizing learners' emotions, image processing, affective computing, and semantic computing are used to increase the recognition