

Abstract

In this research, Latent Semantic Analysis and Artificial Neural Network were used to assess the quality of Thai-language essays written by 40 tenth grade high school students in the Thai-language subject and biology subject. Written essays were each evaluated by high school teachers and assigned a human score. The primary hypothesis of the research is that the system has the ability to assign scores closely to those given by humans. The experimental results showed that the system assigned scores not significantly different from scores assigned by humans for the Thai-language subject at 0.5 significant level. However, the system-assigned scores for the biology subject differed from those assigned by humans. Additionally, the results showed that the use of Latent Semantic Analysis reduced scoring errors over traditional term-frequency technique. Lastly, the Sigmoid transfer function used for the neural network reduced scoring error over the Linear transfer function.