

Comparison analysis between linear and nonlinear models to predict language proficiency in proportion to language learning strategy

ABSTRACT

An extension to previous studies, the model comparison of all five models whereby the consideration of nonlinear models, specifically Gompertz model and Modified Gompertz model, were fit into the social data of Language Learning Strategies (LLS) as its independent variables and its dependent variable, Language Proficiency. A self-report questionnaire called the Strategy inventory for language learning (SILL) was administered to two hundred and thirty pre-university students of Universiti Malaysia Sabah, and their language proficiency was measured using the Malaysian University English Test (MUET). A comparison analysis was done between the three best linear models and the two nonlinear models using these goodness of fit tests and information criterions; root mean square error (RMSE), mean absolute error (MAE), residual standard error (RSE), corrected Akaike's information criterion (AICC) and Bayesian Information Criterion (BIC)