

Measuring teaching and learning performance in higher education

ABSTRACT

The purpose of this paper was to establish a psychometric scale for measuring teaching and learning performance in the institution of higher learning. It is enlisted based on Kirkpatrick's four levels of evaluation model. The researcher also establishes the content validity through a series of expert review, pre-test and pilot testing using Exploratory Factor Analysis (EFA). The EFA provides dimensionality of measures for teaching and learning performance and the scale alpha coefficient (Cronbach's alpha) in the range of 0.894 to 0.904 provides a reliable measure of internal consistency in pilot testing. Later, the confirmatory factor analyses (CFA) using Structural Equation Model (SEM) provide empirical evidence of the unidimensionality, convergent, discriminant, and construct validity together with the normality of data and reliability of the teaching performance scales in the survey of 592 students' evaluation. Based on the field study data, the confirmatory factor analysis (CFA) for the measurement model in SEM verified the construct of the teaching and learning performance scales. Establishing a psychometric scale of teaching and learning performance using Kirkpatrick's four levels of evaluation is an innovative step towards teaching quality and efficiency. Theoretically, this study had provided a new dimension for the psychometric scale of teaching and learning performance based on Kirkpatrick's model of the reaction (level 1) and learning (level 2). Practically, both trainers and academic staff may use this measurement to assess their performance based on student evaluation in the context institution of higher education.

Keyword: Confirmatory Factor Analysis (CFA); Higher learning; Kirkpatrick's Evaluation model; Psychometric scale; Structural Equation Modelling (SEM); Teaching performance