

ZMATH 2016b.00433

Sabbag, Aneliese G.; Zieffler, Andrew

Assessing learning outcomes: an analysis of the GOALS-2 instrument.

Stat. Educ. Res. J. 14, No. 2, 93-116, electronic only (2015).

Summary: The test instrument GOALS-2 was designed primarily to evaluate the effectiveness of the CATALST curriculum. The purpose of this study was to perform a psychometric analysis of this instrument. Undergraduate students from six universities in the United States ($n = 289$) were administered the instrument. Three measurement models were fit and compared: the two-parameter logistic model, the mixed model (comprised of both the two-parameter logistic and the graded-response model), and the bifactor model. The mixed model was found to most appropriately model students' responses. The results suggested the revision of some items and the addition of more discriminating items to improve total test information.

Classification: D65 K75 C35

Keywords: statistics education research; assessment; item response theory; simulation/randomization approaches; statistical inference

[http://iase-web.org/documents/SERJ/SERJ14\(2\).Sabbag.pdf](http://iase-web.org/documents/SERJ/SERJ14(2).Sabbag.pdf)