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Reliability of Emergent Tree Universal Screener

Psychometric analysis conducted by Gibson Consulting Group, an educational research and consulting organization, indicated that the Emergent Tree Universal Screener for Behavior is a reliable measure. Across all three administration windows (Fall, Winter, Spring), Cronbach's alpha coefficients ranged from 0.78 to 0.89 and averaged 0.87, and confirmatory factor analyses results showed evidence that all three questions yielded similar responses on each student from raters. This is compelling evidence of measurement reliability, meaning the three items are measuring the same underlying construct. This evidence indicates that it is statistically appropriate to combine scores across items to identify students. Further research is necessary to assess the validity of the screener, to determine if it measures what is intended to be measured.[1]



Safe



Respectful



Responsible

Cronbach's Alpha

In practice, items scores are averaged into one behavior score for each student. Because of this, it is important that the three items are reflective of the same underlying construct. Cronbach's alpha quantifies the relationship between these items. An alpha of 0.8 is an adequate level of relatability. Across the years of analyzed data, alpha values ranged from 0.78 to 0.89 and averaged 0.87 **indicating items are related to an appropriate degree.**

Confirmatory Factor Analysis

Confirmatory Factor analysis indicated that each of the three questions explain part of the combined score construct and that there is **evidence of a close relationship between all three items**. The standardized factor loading for these items were high, indicating the three questions were related.

[1] See Burke, M. D., Davis, J. L., Lee, Y.-H., Hagan-Burke, S., Kwok, O., & Sugai, G. (2012). Universal Screening for Behavioral Risk in Elementary Schools Using SWPBS Expectations. Journal of Emotional and Behavioral Disorders, 20(1), 38–54. https://doi.org/10.1177/1063426610377328 and Burke, M. D., Davis, J. L., Hagan-Burke, S., Lee, Y.-H., & Fogarty, M. S. (2014). Using SWPBS Expectations as a Screening Tool to Predict Behavioral Risk in Middle School. Journal of Positive Behavior Interventions, 16(1), 5–17. https://doi.org/10.1177/1098300712461147