

We will analyze a random subset of data from a school climate dataset where 3,894 teachers from 254 schools provided their perceptions of student engagement (Huang and Cornell 2015). Six questions (variables x1 to x6) asked teachers about their perceptions of student Engagement (see below for the questions) and response options used a six point scale (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree).

Student Engagement Scale

- x1 Students generally like this school.
- x2 Students are proud to be at this school.
- x3 Students finish their homework at this school.
- x4 Students hate going to school. (Reverse coded)
- x5 Getting good grades is very important to most
- x6 Most students want to learn as much as they can at this school.

Huang, F. L., & Cornell, D. G. (2016). Multilevel factor structure, concurrent validity, and test–retest reliability of the high school teacher version of the Authoritative School Climate Survey. *Journal of Psychoeducational Assessment*, 34(6), 536-549.