THE SCIENCE BEHIND TRUMOTIVATE
Todd W. Hall, PH.D. - Chief Science Officer – January 2020

BACKGROUND
TRUMOTIVATE is an online, self-report assessment of core motivation that identifies the five motivations that represent an individual's strongest natural drives. In addition, TRUMOTIVATE provides scores and rankings for all 27 motivational themes. Although the assessment is self-report and provides quantitative results, it is based on students’ own achievement stories. We believe it to be one of the first commercial assessments to accomplish this important breakthrough.

RELIABILITY
In general terms, reliability refers to the consistency or precision of a scale score (or that part of the score that is not due to random error). Based on results from numerous statistical analyses with young people (17-29), TRUMOTIVATE facilitators and users can be confident that the scores are consistent and reliable. One of the main statistical indicators of reliability is the alpha coefficient.

Conventional standards suggest that an alpha coefficient of .70 or higher indicates adequate reliability. Our results show that nearly all 27 motivational themes have alpha coefficients above .80 and the alpha coefficient range for all 27 themes is .82 to .90, indicating strong reliability overall.

VALIDITY
Validity refers to how well a scale score measures what it is intended to measure. Our results show that TRUMOTIVATE accurately measures core motivation. For example, a statistical procedure called Factor Analysis showed that all motivational themes measure one construct. In addition, the pattern of correlations between the themes and the Big-5 personality scales was consistent with theoretical expectations, supporting the construct validity of TRUMOTIVATE.

MAPPING TO O*NET
O*NET provides online resources and tools to explore careers and analyze jobs. It is sponsored by the U.S. Department of Labor, specifically the Training and Employment Administration. O*NET OnLine has detailed descriptions of the world of work for use by job seekers, workforce development and HR professionals, students and researchers. Each of the hundreds of occupations listed in O*NET is described and rated across a common set of O*NET metrics across multiple dimensions including: 40 Skills, 6 Values, 16 Work Styles, 40 Work Activities, etc. Using the underlying O*NET dimensions and occupational rating taxonomy, a team of TRUMOTIVATE and O*NET experts rated each motivational theme across the dimensions of this O*NET taxonomy. This method was created and used in partnership with leaders in the field of career assessment development. This process produced an algorithm which combines motivational theme scores with existing O*NET occupational ratings to generate a descending order list of best occupational matches. TRUMOTIVATE lists occupational matches based on an individual's top five motivations in two ways: (1) based on an integration of the top 5 motivations, and (2) the top job match for each unique motivation.