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Validity of the IDEA Student Ratings of Instruction Student Characteristic Items

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In the IDEA Student Ratings of Instruction (SRI) system, students complete self-ratings of their *work habits*, *motivation*, and *background preparation*. Average course ratings on these characteristics are important variables used in adjusting scores on student ratings of progress on relevant objectives (PRO), excellence of the instructor, and excellence of the course (Benton, Li, Brown, Guo, & Sullivan, 2015). The purpose of this study was to examine whether student self-ratings are related to the instructor's corresponding ratings of the class as a whole.

Method

Data Source

Analyses were performed on data collected through the [IDEA Legacy SRI](#) platform from 2002 to 2016. To increase reliability, we restricted the analytic sample to courses with a minimum of 10 responses. To reduce bias introduced by courses with low response rates, we included only classes with a response rate of at least 50%. Course-level mean score ratings were included for student responses to items on the Diagnostic Form (DF) and Short Form (SF), if the instructor responded to the respective student characteristic items on the Faculty Information Form (FIF). As a result, 242,538 average course ratings were included from the DF and 102,919 were included from the SF.

Measures

Students rated themselves on the following three items, using a five-point scale (1 = *Definitely false*, 2 = *More false than true*, 3 = *In between*, 4 = *More true than false*, 5 = *Definitely true*):

"As a rule, I put forth more effort than other students on academic work." (**work habits**)

"I really wanted to take this course regardless of who taught it." (**motivation**)

"My background prepared me well for this course's requirements." (**background preparation**)

Instructors rated the class as a whole on the following characteristics, choosing one of four possible

responses (*Had a positive impact on learning, Neither a positive nor a negative impact, Had a negative impact on learning, Can't judge*):

"Student effort to learn" (**work habits**)

"Student enthusiasm in the course" (**motivation**)

"Adequacy of students' background and preparation for the course" (**background preparation**)

Hypothesis and Analyses

We hypothesized that average student self-ratings on work habits, motivation, and background preparation would be higher in classes where the instructor indicated the respective characteristic had a positive impact on learning than a negative impact. To test this hypothesis, we performed independent t-tests where the dependent variable was the respective average student self-rating and the independent variable was the instructor group (positive- vs. negative-impact). Due to the large sample sizes, type I error was set at .001. We employed Cohen's *d* (1992) as a measure of effect size, where small = 0.20, medium = 0.50, and large = 0.80.

Results and Discussion

Table 1 presents results of the t-tests and Cohen's *d* computations. Average student self-ratings were significantly higher on all three dependent variables in classes where the instructor indicated the respective characteristic had a positive impact on learning than in classes where it had a negative impact. A strong effect was found for student motivation ($d = 0.76$), whereas background preparation (0.57) and work habits (0.28) showed medium and small effects, respectively.

The current findings provide evidence of the concurrent validity of student self-ratings on work habits, motivation, and background preparation. Significant and meaningful relationships exist between average student self-perceptions on these characteristics and the instructor's overall impressions of the students enrolled in the course.

Table 1

Summary of Means, Standard Deviations, and t-tests for Student Self-ratings by Instructor-reported Impact of the Student Characteristic

| Student ratings | Instructor-reported positive impact | | | Instructor-reported negative impact | | | <i>t</i> | <i>p</i> | Cohen's <i>d</i> |
|-----------------|-------------------------------------|-----------|----------|-------------------------------------|-----------|----------|----------|----------|------------------|
| | <i>M</i> | <i>SD</i> | <i>n</i> | <i>M</i> | <i>SD</i> | <i>n</i> | | | |
| Work habits | 3.97 | 0.31 | 196,448 | 3.88 | 0.30 | 44,609 | 55.27 | < .001 | 0.28 |
| Motivation | 3.70 | 0.54 | 186,977 | 3.29 | 0.55 | 45,214 | 143.80 | < .001 | 0.76 |
| Background | 3.97 | 0.42 | 39,370 | 3.73 | 0.44 | 17,591 | 61.17 | < .001 | 0.57 |

References

Benton, S. L., Li, D., Brown, R., Guo, M., & Sullivan, P. (2015). [IDEA Technical Report No. 18: Revising the IDEA Student Ratings of Instruction System](#). Manhattan, KS: The IDEA Center.

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155-159.