Sources of Error
2010 Social Desirability Bias
Other Quality Indicators – Social Desirability

Are NSSE scores influenced by a desire to respond in a socially desirable manner?

Purpose

If there is reason to believe that questions on a survey will prompt respondents to answer untruthfully in an attempt to provide a socially appropriate response, researchers may want to explore the potential presence of social desirability bias (DeVellis, 2003). This process is most often employed with surveys containing items of a sensitive nature. For student engagement, it may be that students are aware that answering items in ways that display higher levels of engagement is desired by their institutions and they want to appear to be "good" students. Many scales have been developed to measure the tendency to respond in a socially desirable manner (Crowne & Marlowe, 1960; Paulhus, 1984). If an instrument is free from social desirability bias, scores on the instrument should not be related to scores on a measure of social desirability.

Data

In 2010, 3,169 students at six institutions participating in NSSE were selected to receive a short social desirability scale (Ray, 1984) in addition to the NSSE core survey. These institutions varied in terms of Carnegie classification, size, and geographic region. Results were weighted by gender, enrollment status, and institution size.

Methods

To investigate the presence of social desirability bias, Pearson correlations for first-year and senior students were conducted between the social desirability score and several NSSE measures—the five Benchmarks of Effective Educational Practice, three self-reported gains subscales, three subscales which measure deep approaches to learning, self-reported grades, and students' ratings of their overall institutional experiences. Due to the large number of analyses, a Bonferroni correction (Field, 2009) was used and the alpha level was set at .002 (.05/26). The number of respondents, the correlation coefficient, and the R2 value (a measure of explained variance that provides an effect size for bivariate correlations) are presented in Table 1. The number of respondents varied for each correlation because item-wise deletion, rather than list-wise deletion, was used.

Results

Results indicated no significant relationship with social desirability for most benchmarks and subscales. Furthermore, there were no significant relationships between social desirability and the individual items of self-reported grades and overall institutional evaluation. For all but six correlations, no evidence for social desirability bias was found.

For first-year students, there were significant positive relationships between social desirability and Level of Academic Challenge, as well as between social desirability and Reflective Learning. For seniors, there were significant positive relationships between social desirability and Supportive Campus Environment, Reflective Learning, Gains in Personal and Social Development, and Gains in General Education.

Table 1: Social Desirability Correlations and Effect Size by Class[1]

	First-Year			Senior		
	r	R^2	N	r	R^2	N
Level of Academic Challenge	.11*	.01	867	.03	.00	1632
Active and Collaborative Learning	.05	.00	860	.06	.00	1627
Student-Faculty Interaction	.06	.00	865	-.02	.00	1629
Enriching Educational Experiences	-.03	.00	866	-.07	.00	1629
Supportive Campus Environment	.03	.00	862	.13*	.02	1630
Higher-Order Learning	.05	.00	867	.03	.00	1629
Reflective Learning	.14*	.02	867	.10*	.01	1635
Integrative Learning	.10	.01	867	.07	.01	1630
Gains in Practical Competence	.06	.00	862	.06	.00	1630
Gains in Personal & Social Development	.08	.00	860	.14*	.02	1624
Gains in General Education	.08	.01	862	.09*	.01	1631
Self-reported grades	-.08	.01	866	-.05	.00	1635
Overall institutional experience	.05	.00	869	.01	.00	1627

[1] Analyses weighted by gender, enrollment status, and institution size

*p<.002

When significant relationships are detected, their magnitude is an indicator of effect size. It is important to distinguish statistical significance, which is more easily detected with very large samples, from practical significance, which is informed by effect size. The magnitude of the significant relationships was very small, according to Cohen's (1992) guidelines, with the largest correlation at .14. Results from squaring the *r* value to estimate explained variance showed that social desirability explained only 1% to 2% of the variance in scores which had significant correlations, indicating that a tendency to respond in a socially desirable manner had very little, if any, impact on responses to the NSSE items.

For more detailed information and extensive analyses, see Miller (2011).

References

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

Crowne, D.P., & Marlowe, D. (1960). A new scale of social desirability independent of psychotherapy. *Journal of Counseling Psychology, 24,* 349-354.

DeVellis, R.F. (2003). *Scale development: Theory and applications* (2nd ed). Thousand Oaks, CA: Sage Publications.

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). London: Sage Publications.

Miller, A.L. (2011, May). Investigating social desirability bias in student self-report surveys. Paper presented at the Annual Forum of the Association for Institutional Research, Toronto, Ontario.

Paulhus, D.L. (1984). Two-component models of socially desirable responding. *Journal of Personality and Social Psychology, 46,* 598-609.

Ray, J.J. (1984). The reliability of short social desirability scales. *The Journal of Social Psychology, 123,* 133-134.