

Do different versions of NSSE questions produce the “same” or similar results? Specifically, how often is “often”?

Purpose

Based on the [NSSE Psychometric Reliability Framework](#), one way to measure reliability is to test whether or not different versions of questions produce similar results. Survey researchers often wonder about the meaning of vague quantifiers such as “sometimes” or “often” as employed by the NSSE survey. This analysis examined a set of NSSE questions asked in two different ways, first with vague quantifiers and second with a quantifiable amount per time period. If the two versions of items were essentially asking for the same information we would expect much of the following to be true: each response option will have a distinct meaning (e.g., “often” means something different than “sometimes”), the intervals between response options would progressively increase in frequency from “never” to “very often,” and the intervals would be approximately equal (e.g., “very often” means nine times per week, “often” means six times per week, and “sometimes” means three times per week).

Data

This analysis examined responses from 26,204 first-year and 36,263 senior students from 149 colleges and universities that participated in NSSE in 2006. Students in this sample had characteristics similar to all 2006 respondents with regard to such demographics as race/ethnicity, parental education, and age. The sample also covered a range of different institution types.

Methods

Twelve items from the core NSSE survey were repeated at the end of the web version of the survey for students at a subgroup of institutions. These questions were items that focused on active and collaborative learning activities as well as forms of student-faculty interaction. The students were reminded of their original response to the item and then were asked to quantify their response by indicating how many times they did the activity per day, week, month, academic term, or year.

Two different versions of scales were created, the first with the vague quantifier survey items and the second with the quantifiable survey items. Multivariate regression and hierarchical linear modeling techniques were used to analyze the data. Student-level controls

consisted of gender, enrollment status, age, living arrangement, first-generation status, and academic major. Institution-level controls were Carnegie type, institutional size, and control.

Results

Median frequencies associated with the vague quantifiers were very close to linearly related, and generally any differences between subgroups of students or institutions were small. The results show that students on average assigned distinct and increasing quantities to “never,” “sometimes,” “often,” and “very often.” For example, when asked how often they asked questions in class or contributed to class discussions, students said that “never” meant 0 to 1 times per week, “sometimes” meant 2 times per week, “often” meant 6 times per week, and “very often” meant 15 times per week. As this example shows, for most items the intervals between response options are roughly even (see figures below). Additionally, students adapted the meaning of the vague response options from item to item. In the figures below, for example, “very often” means 15 times per week for one item and only 5 times per week for the other. These results imply a high degree of equivalence reliability—the different versions of these questions produced similar results.

Figure 1

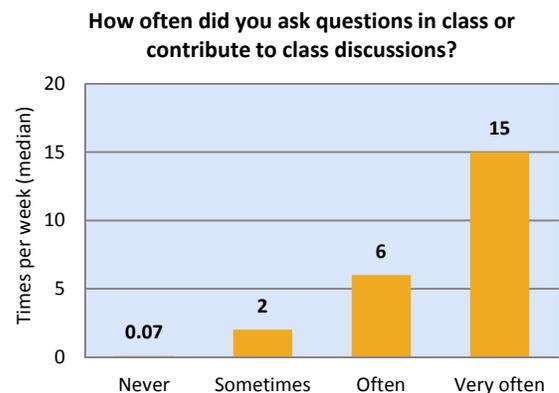
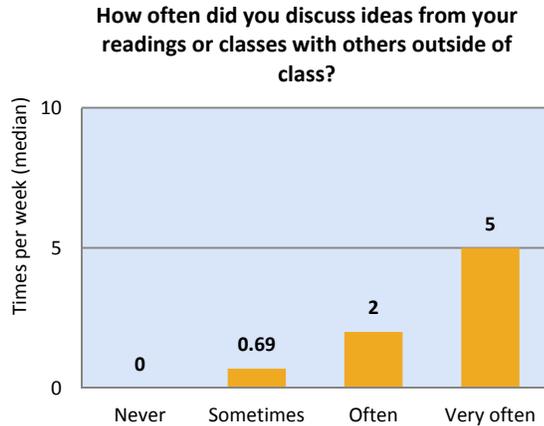


Figure 2.



References

- Nelson Laird, T. F., Korkmaz, A., & Chen, P. D. (April 15, 2008). [How often is “often” revisited: The meaning and linearity of vague quantifiers used on the National Survey of Student Engagement.](#) Paper presented at the Annual Meeting of the American Educational Research Association. San Diego, CA.
- NSSE Psychometric Portfolio. (2009). Bloomington, IN: Center for Postsecondary Research, Indiana University, School of Education. www.nsse.iub.edu
- NSSE Psychometric Reliability Framework. (2009). Bloomington, IN: Center for Postsecondary Research, Indiana University, School of Education. www.nsse.iub.edu