The Student Opinion Scale: A Measure of Examinee Motivation

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With the assessment movement well underway, and the calls for accountability mounting daily, assessment practitioners find themselves collecting student achievement data in a variety of contexts. Every institution would like to be able to generate large, representative, and highly motivated samples of students, but the realities of higher education render access to such samples difficult. As a result, students are asked and sometimes required to complete assessment activities in a dizzying array of conditions. Data collection opportunities readily observed have included: new student orientation activities; classroom activities that contribute to a course grade; embedded classroom tasks that do not count for a course grade; volunteer Saturday or evening assessment day activities; and activities required as part of a formal assessment day. Even with the best data collection strategies, many campuses will have distinct cultures, some have developed an ethos concerning assessment while others seem to lack energy and commitment. Within even the most active assessment campuses, there will be pockets in which assessment is tolerated rather than embraced. These conditions result in highly variable student responses to assessment data collection, and much has been written about potential threats to the validity of inferences drawn from such data. The National

Assessment of Educational Progress (NAEP) program commissioned several validity studies to explore the effect of student motivation on performances (see for example, Jakworth, Stancavage & Reed, 1999; Kiplinger & Linn, 1995/1996; Linn, 1993; O'Neil, Sugrue, Abedi, Baker & Golan, 1992). This research has provided assessment practitioners with an enhanced and very concerned understanding of the impact of varied types of tasks and the presence or absence of consequences, sometimes referred to as "stakes", on student performances. Having an instrument that can help us to assess the level of student motivation can aid in more appropriate interpretation of the data we collect. Further, comparisons of these scores across conditions and in relation to actual performances can influence enhanced assessment practice and lend clarity to data interpretation. The Student Opinion Survey (SOS) was developed to fill this need, and as later described, can be used for experimental studies in which varying motivational strategies are manipulated and compared.

The Student Opinion Survey is a short, easily administered self-report measure of motivation. The instrument is generally administered at the end of an assessment session; the 10-item scale has seen considerable use at James Madison University in assessment work conducted there. The instrument and scoring instructions are available for download at http://www.jmu.edu/assessment. Look for the link to assessment resources and methods at that site. In contrast to the single factor structure originally reported by Wolf and Smith (1995), the scale has been refined to measure two factors: Effort and Importance (Sundre, 1999). The first factor, comprised of five items, assesses the level of effort and persistence students put forth during task completion. The five-item Importance scale measures the personal relevance or importance of the tasks just

completed. This factor structure parallels current conceptions of motivation theory (Pintrich, 1988, 1989; Pintrich and De Groot, 1990) in which an individual's willingness to put forth the effort to learn or to display learning would be contingent upon the individual's interest or the perceived importance of the task, as well as their disposition to put forth the necessary work to complete the task. As Pintrich and De Groot (1990) concluded, "Students need to have both the 'will' and the 'skill' to be successful in classrooms." (p.38). Clearly, students with the skill but lacking the will to diligently complete assessment tasks will produce gross underestimates of student abilities and learning growth over time.

Use of the SOS at James Madison University has produced strong evidence of its validity and usefulness. The revised instrument has been administered to over 15,000 students in a variety of assessment contexts. Reliability evidence for the Total, Effort and Importance scores is consistently in the .80s. Interestingly, the reliability is not diminished when either subscale is assessed separately. It should be noted that when the instrument is used with student samples for which "high-stakes" testing is being conducted, a tremendous reduction in variability is observed. In other words, when students participate in testing for which individual consequences such as grades result, all students report consistently high levels of total motivation, effort, and importance. While the resulting high scores provide evidence of the validity of the scales, the reduction in variability dramatically reduces the reliability. The descriptive statistics and reliability estimates for many student cohorts can be viewed at the James Madison University Center for Assessment and Research Studies website at http://www.jmu.edu/assessment/. Many factor analysis study results can be viewed at the same website. The two-factor

model is consistently evidenced. A consistent factor structure is prerequisite to successful validity study.

Validation for any instrument is by definition an ongoing effort; however many studies have been conducted. The following provide examples of theoretical expectations that have been explored and empirically supported in our continuing studies. Total, Importance, and Effort scores are positively correlated with performance scores. "High stakes" and "low stakes" test conditions result in significantly different motivation and performance scores. Expected differences between groups have also been confirmed, such that entering first-year students report assessment activities to be of higher importance than do juniors, though their Effort subscores are not much smaller. Juniors perform more capably than entering students on our general education assessment instruments. We have also observed higher motivation in assessment rooms where motivation enhancing strategies were employed (i.e., welcoming speakers, students being interviewed about assessment and the instruments used). Lower motivation has been reported in rooms where test administration difficulties occurred (i.e., timing errors, incorrect answer sheets). Motivation appears to be lower when students are asked to complete arduous tasks (i.e., essays, complex or multi-part constructed response items). All of these findings support current motivation theory and provide evidence of the validity of the inferences we would like to make on the basis of the SOS motivation scale. In parallel fashion, they bolster the confidence we have in the inferences we make concerning our students' academic growth and development.

We invite you to join us in the continued study of the impact of examinee motivation in assessment practice. We have found consistent evidence that while some

students do not report high importance to assessment, the vast majority of student do report putting forth good effort. We will continue to study examinee motivation, not just to describe it, but to find the means by which to reliably increase it and promote enhanced examinee volition. We are happy to be able to respond with more than anecdotal evidence to the faculty who ask us the question we were previously unable to answer, "Why should I pay attention to assessment results when the students don't try?"

References

Jakwerth, P. R., Stancavage, F. B., and Reed, E. D. (1999). An investigation of why students do not respond to questions. (A NAEP Validity Studies Panel Paper). Washington, D.C.: American Institutes for Research.

Kiplinger, V. L., & Linn, R. L. (1995/1996). Raising the stakes of test administration: The impact on student performance on NAEP. *Educational Assessment, 3,* 111- 133.

Linn, R. L. (1993). Final Report- Raising the stakes of test administration: The impact on student performance on NAEP. U. S. Department of Education, National Center for Education Statistics. Grant RS90159001. Washington, DC.

O'Neil, Jr., H. F., Sugrue, B., Abedi, J., Baker, E. L., and Golan, S. (1992). Final Report on experimental studies on motivation and NAEP test performance. NAEP TRP Task 3a: Experimental Motivation study. Los, Angeles, CA: National Center for Research on Evaluation, Standards and Student Testing.

Pintrich, P. R. (1988). A process-oriented view of student motivation and cognition. In J. S. Stark & R. Mets (Eds.), *Improving teaching and learning through research* (pp. 55-70). San Francisco: Jossey-Bass.

Pintrich, P. R. (1989). The dynamic interplay of student motivation and cognition in the

college classroom. In C. Ames & M. Maehr (Eds.), *Advances in achievement and motivation, 6,* (pp. 117-160). Greenwich, CT: JAI Press.

Pintrich, P. R. & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology, 82,* 33-40.

Sundre, D.L. (1999). Does examinee motivation moderate the relationship between test consequences and test performance? Paper presented at AERA annual conference. Montreal, Canada: April.

Wolf, L. F. and Smith, J. K. (1995). The consequence of consequence: Motivation, anxiety, and test performance. *Applied Measurement in Education, 8* (3), 227-242.