The Limited Use of Self-Reports in Educational Research

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The Limited Use of Self-Reports in Educational Research

As an editor, I receive many papers for this journal in which the research is based on self-report. Often these studies are purely descriptive. Authors have measured one characteristic of a group of students—e.g., these students’ self-efficacy, or anxiety—and report on the results. Such one-shot studies are largely unpublishable because they lack context. Is the self-efficacy of the studied group to be considered high, medium, or low? And why? What causes the anxiety among the students? Answers on these questions are mostly missing and leave the reader dissatisfied.

Only slightly better are studies that correlate two self-report measures, for instance self-reported learning style and preference for certain school subjects. However, these correlations typically revolve around the low but significant value of 0.30. Some attribute such correlations to shared method variance: any two self-report measures, however different, always correlate 0.30.2

Even more problematic are the assumptions that underlie the use of self-reports, namely that those who are questioned do not lie about themselves, are not interested in presenting a positive self-image, understand the questions posed to them, and are sufficiently able to engage in introspection.3 Anybody who has ever responded to a questionnaire knows that these assumptions are unlikely to be met.

I do not suggest however that we should entirely discard self-report measures. There are two situations in which they may turn out to be valuable.

The first is when students are not asked to report about themselves, observing an inner state (such as self-efficacy), but to report on what they have observed in the world around them. A classic example from educational research is student judgements of teacher behaviors. Of course, individual student perceptions of what happens in the classroom may be subjective. However, there is a simple statistical method, called interrater agreement, that provides a check on the relative subjectivity of what student have observed. The higher the agreement among students, the more truthful their observations.

The second situation in which self-reports may be valuable is in relation to behavioral measures. A behavioral measure is any measure that is the result of direct observation by an independent judge or judges. The most common example is validity research. If an achievement motivation measure correlates highly with observed behaviors in the classroom setting or at a sports club (some students show more effort than others in completing tasks, they show more intense joy when they are the best, they always want to win a game, etc.) than we can assume that this measure is a valid indicator of the construct measured.

2This suggests why psychology, a science relying heavily on self-report, quite often produces houses of cards rather than solid theory.
A special category of behavioral measures in the context of education is the performance measure. Examples are: scores on knowledge tests, performance on clinical skills tests, intelligence tests. However, it is this author's long and somewhat unnerving experience that correlations between self-reports and behavioral measures are generally not impressive; one is lucky to find values close to 0.40. The stability of one's perception of oneself, and the variability of behavior in everyday life may be a major reason.

Therefore, educational researchers should rely more on what students actually do, rather than on what they say they do.

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