

IN M. HERSEN & A.S. BELLACK (EDS.)  
DICTIONARY OF BEHAVIORAL ASSESSMENT  
TECHNIQUES. NEW YORK: PERGAMON  
PRESS, 1988.

## Procrastination Assessment Scale - Students

*Laura J. Solomon and Esther D. Rothblum*

### *Description*

Solomon and Rothblum (1984) developed the Procrastination Assessment Scale - Students (PASS) to measure the frequency of cognitive-behavioral antecedents of academic procrastination. The PASS contains two parts. The first part assesses the prevalence of procrastination in six academic areas: (a) writing a term paper, (b) studying for an exam, (c) keeping up with weekly reading assignments, (d) performing administrative tasks, (e) attending meetings, and (f) performing academic tasks in general. Subjects indicate on a 5-point Likert scale the extent to which they procrastinate on each task (1 = never procrastinate; 5 = always procrastinate) and the extent to which procrastination on each task is a problem for them (1 = not at all a problem; 5 = always a problem). Because definitions of procrastination include both behavioral delay and psychological distress, the extent of self-reported procrastination and the extent to which it presents a problem are summed for each academic task (score

ranging from 2 to 10) as well as across the six academic areas (total score ranging from 12 to 60).

The second part of the PASS describes a procrastination scenario (delay in writing a term paper) and then suggests many possible reasons for procrastination in the task, including: (a) evaluation anxiety, (b) perfectionism, (c) difficulty making decisions, (d) dependency and help seeking, (e) aversiveness of the task and low frustration tolerance, (f) lack of self-confidence, (g) laziness, (h) lack of assertion, (i) fear of success, (j) tendency to feel overwhelmed and poorly manage time, (k) rebellion against control, (l) risk-taking, and (m) peer influence. For each of these reasons, two statements are given, and students rate each statement on a 5-point Likert scale according to how much it reflects why they procrastinated the last time they delayed writing a paper. For example, the two perfectionism statements are "You were concerned you wouldn't meet your own expectations" and "You set very high standards for yourself and you worried that you wouldn't be able to meet those standards."

### *Purpose*

Before development of the PASS, assessment of academic procrastination had focused largely on the measurement of study habits; however, procrastination seems to involve more than inadequate time management and study skills. Clinical observations of procrastinators (Burke & Yuen, 1983) suggested other possible reasons for the delay behavior. Yet, there had been no empirical examination of the reasons for procrastination. Additionally, few researchers used behavioral measures in their assessment, and no studies compared the self-report of procrastination with behavioral measures.

Development of the PASS had three purposes: (a) to assess the prevalence of academic procrastination among college students; (b) to examine the reasons for academic procrastination; and (c) to develop a self-report measure of procrastination that could be compared with behavioral indices of procrastination and standardized self-report measures of potentially related constructs (e.g., anxiety, study habits, depression, self-esteem, irrational cognitions, and assertion).

### *Development*

In a pilot study that investigated the relative frequency of procrastination in academic, domestic, and social areas, college students reported that procrastination was most common and presented more

of a problem in the academic arena. The six academic areas included on the PASS consist of most of the school tasks students are engaged in and in which procrastination is possible.

The list of antecedents of procrastination was generated in a pilot study in which undergraduate students and clinical psychology faculty were asked to indicate why they procrastinate on academic tasks. An open-ended format was used. Responses were categorized, and two statements were generated reflecting each antecedent. The list of antecedents thus derived was given to a third pilot sample of undergraduates, who were asked to match each statement (e.g., "You had difficulty requesting information from other people") with its correct reason (e.g., "lack of assertion"). Only statements that were identifiable to the majority of subjects were included in the PASS, resulting in 26 statements (two statements reflecting 13 possible antecedents of procrastination).

#### *Psychometric Characteristics*

##### *Normative Data.*

Normative data on the PASS were obtained from a sample of 323 university students who were enrolled in two sections of Introductory Psychology. The sample included 101 male and 222 female students. Of the subjects 85% were freshmen, 13% sophomores, and the remaining 2% juniors or seniors. Ninety percent of the subjects were 18 to 21 years old.

Frequency of self-reported procrastination data indicated that 46% of the subjects nearly always or always procrastinate on writing a term paper, 27.6% procrastinate on studying for exams, and 30.1% procrastinate on reading weekly assignments. To a smaller degree subjects procrastinate on administrative tasks (10.6%), attendance tasks (23.0%), and school activities in general (10.2%).

Regarding the extent to which subjects felt procrastination created a problem for them, 23.7% reported that it was always or nearly always a problem when writing a term paper, 21.2% said it was a problem when studying for exams, and 23.7% said it was problem when doing weekly readings. Procrastination created less of a problem for the remaining tasks and for school activities in general.

There were no significant gender differences in any area of academic procrastination or total self-reported procrastination.

*Factor Structure of Reasons for Procrastination.* Factor analysis of subjects' reasons for

procrastination revealed two main factors. The first factor, accounting for 49.5% of the variance, reflects fear of failure. It is composed of items related to anxiety about meeting others' expectations (evaluation anxiety), concern about meeting one's own standards (perfectionism), and lack of self-confidence. The second factor accounts for 18% of the variance and reflects aversiveness of the task and laziness. It includes items indicative of lack of energy and task unpleasantness. No other factors had eigenvalues after the varimax rotation that were greater than 1.50. Therefore, factor analysis suggests that fear of failure and aversiveness of the task are the two independent reasons for academic procrastination.

Analyses of variance of gender differences on the two primary reasons for procrastination revealed a significant difference for the Fear of Failure factor,  $F(1,273) = 7.0, p < .001$ . Female subjects were significantly more likely to endorse items within this factor than were male subjects. There was no significant gender difference on endorsement of Aversiveness of the Task items.

*Comparison of the PASS with Other Self-Report Measures.* The self-report scales that correlated most significantly with the total procrastination score on the PASS were the Beck Depression Inventory ( $r = .44, p < .0005$ ), the Ellis Scale of Irrational Cognitions ( $r = .30, p < .0005$ ), the Rosenberg Self-Esteem Scale ( $r = .23, p < .0005$ ), and the Delay Avoidance Scale of the Survey of Study Habits and Attitudes ( $r = .24, p < .0005$ ). The latter scale measures punctuality and organized study habits. Total procrastination score was significantly correlated with the Spielberger Trait Anxiety Inventory ( $r = .13, p < .05$ ), but the correlation was very small, and there was no significant correlation between procrastination and the College Self-Expression Scale of Assertion.

When the Fear of Failure factor was correlated with the foregoing self-report measures, this factor correlated significantly not only with depression ( $r = .41, p < .005$ ), irrational cognitions ( $r = .30, p < .0005$ ), punctuality, and organized study habits ( $r = -.48, p < .005$ ), but also with anxiety ( $r = .23, p < .0005$ ). To a lesser extent, the Fear of Failure factor was negatively correlated with assertion ( $r = -.12, p < .05$ ).

When the Aversiveness of the Task factor was examined in relation to the other self-report measures, this factor was found to correlate significantly with depression ( $r = .36, p < .0005$ ),

irrational beliefs ( $r = .36, p < .0005$ ), and punctuality and organized study habits ( $r = -.53, p < .0005$ ). However, the Aversiveness of the Task factor was not significantly correlated with anxiety or assertion, and the correlation with self-esteem ( $r = -.13, p = .013$ ), although significant, was low.

**Test-Retest Reliability.** There have been no repeated administrations of the PASS to a subject sample. The PASS has been administered in class (sample = 323) and then readministered to a subsample consisting of one third of the class (sample = 98) who attended a psychology experiment held later in the semester. This yielded a Pearson product-moment correlation coefficient of 0.57 ( $p < .005$ ) on the total frequency score of the PASS.

**Validity.** *Behavioral measures of procrastination in self-paced quizzes:* Subjects in a self-paced section of Introductory Psychology (samples = 161) took 23 self-paced quizzes during the semester. The number of self-paced quizzes that subjects took during the last third (5 weeks) of the semester was used as a behavioral index of procrastination. Those students who took more quizzes during the final weeks of the semester were considered to be greater procrastinators than were students who took fewer quizzes in those last weeks. A frequency distribution of the number of self-paced quizzes taken by all students during the last 5 weeks revealed a range of 0 to 23 and a median of 12.5.

Significant positive correlations were found between the number of self-paced quizzes and PASS scores of self-reported procrastination on writing a term paper ( $r = .24, p < .001$ ), studying for exams ( $r = .19, p < .01$ ), and doing weekly readings ( $r = .28, p < .0005$ ). Therefore, subjects who reported that they frequently procrastinated on these tasks also delayed taking their quizzes. There were no significant correlations between the number of quizzes taken late in the semester and procrastination on administrative or attendance tasks.

**Attendance at extra-credit sessions:** One hundred students attended one of three extra-credit sessions held during the early, middle, or late part of the semester. The results revealed a significant effect for sessions with regard to self-reported procrastination on administrative tasks as measured by the PASS,  $F(2,99) = 3.4, p < .05$ . Students who attended the late session reported that they procrastinated on administrative tasks significantly more than did students who attended the earlier sessions ( $M = 4.02, 4.10, \text{ and } 5.75$  for the early,

middle, and late experimental sessions, respectively, for the sum of self-reported procrastination and the degree to which procrastination presented a problem). There were no other significant effects.

**Grades:** Psychology course grade was not significantly correlated with self-reported procrastination on the PASS. However, subsequent research correlating the PASS with students' total grade point average (GPA) resulted in significant negative correlations between total self-reported procrastination on the PASS and GPA, as well as between Fear of Failure on the PASS and GPA (Rothblum, Solomon, & Murakami, 1985).

#### *Clinical Use*

To date, the PASS has been used exclusively with nonclinical populations of college students. The scale not only can help identify procrastinators, but also can help determine the effective, cognitive, and/or behavioral basis for the problem. This information is valuable, as intervention efforts can then be tailored to address the specific reasons for academic procrastination. Finally, the PASS can be used to evaluate the effectiveness of procrastination intervention programs.

#### *Future Directions*

Future research with the PASS includes collecting normative data with younger populations as well as with adults in the work setting.

#### *References*

- Burka, J., & Yuen, L. (1983). *Procrastination: Why you do it, what to do about it*. Reading, MA: Addison-Wesley.
- Rothblum, E.D., Solomon, L.J., & Murakami, J. (1985). Behavioral, effective, and cognitive differences between high and low procrastinators as an academic deadline approaches. Paper presented at the annual convention of the Association for Advancement of Behavior Therapy, Houston, TX.
- Solomon, L.J., & Rothblum, E.D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology, 31*, 503-509.