

U.S. Army Recruiting Research: An Update

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The objective of this research program is to develop and validate a new screening test battery for selecting U.S. Army recruiters. The approach has been to first conduct a concurrent validation study by administering a trial test battery to production recruiters currently on the job and also obtain performance measures of these same recruiters. The concurrent validation research has been completed and this paper describes results of that research.

We also have under way a predictive validation study to evaluate the validity of the test battery for predicting the subsequent performance of recruiters in a testing setting that is more similar to an actual operational environment for the test administration. Non-commissioned officers (NCOs) entering the Recruiting and Retention School are being administered the test battery, and the plan is to follow-up on a sample of these personnel after they have had at least 6-9 months experience as a recruiter to evaluate their performance.

Long term goals for the project are to establish a standard screening process for NCO candidates for a recruiting assignment prior to their being accepted into the Recruiting and Retention School. NCOs scoring well on the battery would be encouraged to volunteer for recruiting. NCOs scoring low on the battery might be discouraged from seeking a recruiting assignment. An even broader goal is to develop a classification test battery to target placement into all possible second-stage jobs, including recruiter, drill instructor, and special forces. This classification battery would be administered routinely to NCOs at the beginning of their second tour, and predicted performance scores would be generated for each

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target job. Under this scenario, NCOs could be counseled about which second-stage job(s) suite them best.

The Concurrent Validation Study

We first conducted a job analysis of the Army recruiter military occupational specialty (MOS). This analysis had two purposes: to identify the recruiter performance requirements and thus to suggest performance measures that might be used as criteria in the validation study; and to identify candidate predictor tests for the validation research.

Criteria. The job analysis suggested that production rates (number of prospects brought into the Army per unit time), and peer and supervisory ratings of job performance on the main dimensions of performance would provide relevant criteria. We also decided to develop a situational judgment test to measure problem-solving, judgment, and decision making skills important in recruiting. More details of the criterion measures will be provided in a moment.

Predictors. Predictor measures for the test battery included: (1) The Army Research Institute's Background Information Questionnaire (BIQ), with eight scales including "natural" leader, social perceptiveness, and interpersonal skills; (2) The Army Research Institute's Assessment of Individual Motivation (AIM), with six scales including work motivation, leadership, and stress tolerance; (3) The Sales Achievement Profile (SAP), with 21 scales including validity scales, sales success, motivation and achievement, work strengths, interpersonal strengths, and inner resources; (4) The Emotional Quotient Inventory (EQI), with 15 scales including intrapersonal, adaptability, general mood, interpersonal, and stress management components; and (5) The NEO, with five scales measuring the Big 5 personality factors.

Sample. A total of 732 Army recruiters from 10 recruiting battalions comprised our original sample. Forty-four percent had volunteered for recruiting duty, 56% were assigned to recruiting by the Department of the Army.

Results. First, regarding the criteria, we obtained production data for a 12-month period, 1 July 2000 to 30 June 2001 for many of the recruiters in the sample. Not all members of the sample had 12 months data. In fact, on average, they had about eight months. We computed reliability coefficients for two months through 12 months data and found that four months provided reasonable levels of reliability (intraclass correlation = .589). Fewer months data reduced reliability substantially. Thus, only recruiters who had at least four months production data were included in the validation analyses.

It is well documented that some territories are inherently easier or more difficult to recruit in than others. Thus, we experimented with correcting production data using the mean values for territories of various sizes, including at the brigade (N = 5), battalion (N = 41), and company (N = 243) levels. Corrections using brigade mean production levels proved to yield the most reliable production data, and this was therefore the correction employed.

Peer and supervisor ratings of job performance were gathered on eight behavior-based rating scales. A total of 1,542 raters provided ratings on 641 recruiters, an average of 2.41 sets of ratings per rater. Results of the performance ratings are presented in Table 1.

Table 1.
Results of the Criterion Performance Ratings

Performance Factor	Means*	SD	Interrater Agreement
Selling Skills	6.83	1.49	.67
–Prospecting			
–Rapport with Prospects			
–Obtaining Prospect-Army Fit			
–Closing			
Human Relations Skills	6.84	1.46	.55
–DEP Management			
–Community Relations			
Organizing Skills	6.36	1.71	.55
–Planning			
–Time Management			

*1-10 Scale

Means and standard deviations suggest reasonable distributions of the ratings. Also, the interrater agreement results are quite good, with peers and supervisors showing comparatively high agreement in their ratings of recruiters. Finally, to summarize the eight dimensions into a simpler system, three factors were identified: Selling, Human Relations, and Organizing Skills.

The situational judgment test (SJT) had 25 items in multiple-choice format that presented difficult but realistic recruiting-related situations and four to five response options that represented different possibly ways to handle each situation. Effectiveness ratings for each response were provide by subject matter experts (SMEs), and these effectiveness ratings formed the basis of the scoring key. The best scores on the SJT were obtained when the recruiters’ responses most closely corresponded to the responses the SMEs regarded as most effective.

For the validation analyses, a final sales performance composite was derived. Recruiting Command policy makers provided the following weights on the criterion measures: (1) production data (corrected) = 50%; (2) Selling Skills ratings = 30%; (3) SJT scores = 10%; (4) Human Relations and Organizing

Skills ratings = 5% apiece. Weighted standard scores for each component of the composite were summed and became the criterion against which the validity of the predictors was determined.

Table 2 represents the significant validities for the AIM and BIQ scales. Three of the six AIM scales and five of the eight BIQ scales proved to have validities significantly different from zero. Various cross-validation analyses suggested that the six validities in Table 1 are reasonable estimates of these two instruments' validity, without capitalizing on chance.

Table 2.
Correlations of AIM and BIQ Scales With Sales Performance Criterion

Scale	Performance Composite N=349 to 355
AIM Work Orientation	.29
AIM Dominance	.27
AIM Agreeableness	.14
BIQ Social Perceptiveness	.21
BIQ "Natural" Leader	.34
BIQ Hardiness	.29
BIQ Self-Esteem	.28
BIQ Interpersonal Skill	.29

Table 3 shows the significant validities for the SAP scales. A lower ratio of valid scales to the total number of scales means that there is more danger of capitalizing on change with these results, and indeed cross-validation analyses indicated this was the case. Results for the EQI and NEO were not as positive as were, especially, the AIM and BIQ results.

Table 3.
Correlations of SAP Scales With Sales Performance Criteria

Scale	Performance Composite N=349 to 355
SAP Sales Disposition	.21
SAP Initiative	.23
SAP Sales Closing	.16
SAP Achievement	.16
SAP Competitiveness	.22

SAP Diplomacy	.25
SAP Social Interests	.25
SAP Enterprising Interests	.30
SAP Investigative Interests	.20

Table 4 provides a final summary of the concurrent validation findings. Combining all of the scales on each predictor test using weights based on each scale's validity, total estimated validity levels are given for each test alone and in combination with other tests. As can be seen, the best combination with is the BIQ and AIM ($r = .39$).

Table 4.
Summary Validation Results

Test	Correlation
BIQ alone	.37
AIM alone	.33
SAP alone	.30
BIQ + AIM	.39
BIQ/AIM/SAP	.36

Another way to view these validities is that recruiters scoring in the top 20% on the BIQ and AIM can be expected to bring in 30% more recruits than recruiters who score in the bottom 20% on these tests. This is a desirable outcome because these two instruments are Army tests, whereas the SAP and the other two tests are commercial products, and would cost the Army a considerable amount of money to administer and score.

Conclusions and Next Steps

The recruiter screening battery has considerable potential for identifying NCOs likely to be successful recruiters. However, we believe it is highly important to evaluate, as well, the validity of the battery over time in a predictive validation design. As mentioned, this study is underway at the Recruiting and Retention School, where incoming students at the school are being administered the tests. Subsequent performance as a recruiter will be evaluated beginning six to nine months after completion of the school, when many of these NCOs will be on recruiting duty.

Again, the larger objective is to use an extension of this battery to classify NCOs into all second-stage Army jobs. Predicted performance scores on each of these MOS would allow counseling of NCOs regarding the MOS they are likely to succeed in and MOS they might want to avoid.