



Summary of Validation and Applications

Employee Aptitude Survey (EAS)

Test Applications

Employee Selection, Career Exploration, Training and Development, Promotion, and Placement

Test Validity

CONTENT-RELATED evidence of validity for the EAS was gathered during the test construction process by representatively sampling defined content domains. Test developers identified 10 abilities as important for a wide variety of jobs, and then selected item types that had been shown to tap the ability well.

CONSTRUCT-RELATED validity evidence for the EAS is provided by factor analyses and correlations with other measures of identified constructs, which show that common, general mental abilities underlie performance on the EAS.

CRITERION-RELATED evidence of validity for the EAS has been gathered for over 40 years. A total of 725 validity coefficients from 160 studies are summarized and presented in the Technical Manual. The EAS has been found to be statistically predictive of both training success and job performance in a wide variety of employment settings.

Construct Inference – Job Component Validity

In some situations, no criterion and perhaps only limited job-related information is available. In these situations, predictive hypotheses can still be made about the abilities required to do well on the job, and tests that are known to be valid measures of these abilities can be selected. Factor analyses and correlations with other tests provide evidence that the EAS tests are measuring identifiable constructs that are important for job performance and training success. Therefore, the EAS is useful in

these situations where construct inference, job component validity, or synthetic validation is used.

Generalized Validity

The best way to estimate the true validity of a test or test battery is through the accumulation of evidence from all available studies. Meta-analysis is a set of procedures used to combine research findings across studies.

The table presents the generalized validity coefficients (best estimate of true test validity) for the EAS tests in major occupational groupings.

psi	OCCUPATIONAL GROUPING									
	Professional, Managerial & Supervisory		Clerical		Light Industrial Production Mechanical		Technical		All Jobs	
	Job Performance	Training Success	Job Performance	Training Success	Job Performance	Training Success	Job Performance	Training Success	Job Performance	Training Success
EAS 1 – Verbal Comprehension	.53	.42	.38	–	.36	.63	.17	.49	.35	.53
EAS 2 – Numerical Ability	.55	.60	.46	–	.38	.69	.53	.76	.41	.66
EAS 3 – Visual Pursuit	–	.27	–	–	.36	–	–	.41	.37	.39
EAS 4 – Visual Speed and Accuracy	–	.28	.46	–	.32	.31	.31	.40	.39	.37
EAS 5 – Space Visualization	–	.34	.50	–	.38	.48	.38	.47	.38	.45
EAS 6 – Numerical Reasoning	.63	.34	.29	–	–	.34	.52	.64	.40	.51
EAS 7 – Verbal Reasoning	.67	.29	.46	–	.13	–	.33	.48	.33	.47
EAS 8 – Word Fluency	–	.40	–	–	–	–	–	.22	.47	.41
EAS 9 – Manual Speed and Accuracy	–	.27	.27	–	.29	–	–	.30	.22	.34
EAS 10 – Symbolic Reasoning	–	.48	–	–	–	–	.57	.59	.44	.59

Based on meta-analysis of over 160 studies; validities are N-weighted mean coefficients adjusted for range restriction and criterion unreliability.



PSYCHOLOGICAL SERVICES, INC.

Building Workforce Quality through Effective Testing

100 West Broadway, Suite 1100, Glendale, CA 91210 phone 800.367.1565 or 818.244.0033 www.psionline.com