

Select Assessment for Manufacturing: Meta-Analysis Summary

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TECHNICAL REPORT

Summary

Since 1993, Select International has been helping organisations assess and hire individuals at all positions, from entry-level to executive, in a wide range of industries. The process of selecting, promoting and developing effective employees is fundamental to the success of any organisation.

Systems vs. Tools

Performance is multi-faceted. Therefore, no single assessment method is enough. Select International firmly believes, and their research demonstrates, that multiple assessment approaches are warranted. The result is a comprehensive assessment system – one that yields more robust results than by using a single approach. The Select Assessment for Manufacturing[®], or SAM, is an example of this multidimensional approach to assessment.

Overview of SAM

From 1995 through 2005, Select International conducted 21 separate empirical validation studies of its assessment system for entry-level manufacturing employees in the U.S. All told, the sample represented 2,114 individuals from a broad range of manufacturing organisations. The sample size by study ranged from 31 to 384. In each of these studies there was information about the individual's performance on the assessment as well as their performance on the job. A correlation was calculated between performance on the assessment and job performance.

Using an approach referred to as meta-analysis, Select was

able to combine the results across these studies, taking into account the sample size as well as the magnitude of the correlation. The results of this meta-analysis indicated the average correlation for the Select Assessment for Manufacturing is $r = .58$. This indicates that a very strong relationship exists between the assessment scores and actual job performance.

To put this into perspective, according to similar meta-analyses, the Select system is:

- 2 times more accurate than a structured, behavioural interview
- ~4 times more accurate than an unstructured behavioural interview
- ~5 times more accurate than Big 5 personality scales

It's important to keep in mind that these results are only for the computer based portion of the assessment process. When combined with an up-front screen, and followed up with an interview, role play production simulation or other types of assessments, the overall accuracy can be increased by as much as 20 percent.

Closing

The Select Assessment for Manufacturing provides a comprehensive and accurate assessment of competencies critical for success in a wide range of entry-level manufacturing positions. The results are consistent, fair, and powerful and clearly indicate that using SAM as part of a comprehensive selection process can significantly increase productivity, quality and performance of the entire workforce.

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