Simulation Exercises – The Missing Tool From the Selection System

Tom Oliver
PhD Candidate – Simulation Assessments

White Paper Prepared for Hire Results Ltd
October 3, 2011

Simulation Exercises – The Missing Tool From the Selection System

Based on nearly a century of organizational research, we know that a typical selection system can only predict the differences in job performance across a candidate pool with about 40% accuracy[i]. And that's only if the selection system is well implemented! Clearly, there is a tool missing from the typical selection system!

The missing tool from the typical selection system is the simulation exercise. The simulation exercise is an assessment method that requires candidates to demonstrate their actual behavioral skills in an activity that resembles an actual organizational situation. Simulation exercises can take on several forms. Some simulations involve mostly written materials, such as a business case. In these exercises candidates need to demonstrate behavioral skills, such as critical thinking and dealing with ambiguity, in order to develop an effective business plan. Other simulations involve interactions with a role player, such as a new potential sales client. In these exercises candidates need to demonstrate behavioral skills, such as building rapport and persuasive communication, in order to make a successful sale.

The typical selection system found in most organizations includes a few processes for screening resumes and checking references, a couple levels of interviews, and if they're lucky . a couple of tests for cognitive ability, personality, and job knowledge[ii]. Evidence-based research has demonstrated that organizations can increase the predictive accuracy of their selection system, and improve candidates' reaction to their selection process by adding simulation exercises to their selection systems

The predictive benefits of adding simulation exercises to an organization's selection system toolkit have long been known. When AT&T pioneered the use of simulation exercises as part of their assessment center program, their program successfully identified 42 out of the 49 entry-level employees who, *eight years after the assessment*, were successfully promoted to middle management[iii]. That is a predictive accuracy of 85%!

The results found at AT&T have been replicated for organizations, big and small, across the globe. A study that amalgamated the results of 34 different simulation exercise studies, found that simulation exercises explain about 20% of the difference in candidates' performance[iv]. More importantly, a study soon to be published in the *Journal of Applied Psychology*, found that some of this variance in job performance explained by simulation exercises is incremental to the variance explained by lower fidelity simulation (i.e., knowledge tests or interviews)[v]. By rating candidates' ability to take their words (i.e., procedural knowledge and past experience) and translate them

into actions (i.e., performance in simulation exercises), organizations gather additional predictive information. In other words, the simulation exercise adds more prediction to the typical selection system because it allows hiring managers to evaluate candidates as they "walk the walk".

With the traditional selection system, behavioral skills are primarily assessed with the interview. Hiring managers can only evaluate candidates based on how they "talk the talk", which reduces the accuracy of behavioral skill ratings. For the unstructured interview candidate ratings are highly susceptible to rater biases[vi]. For example, a recent study found that the quality of a candidate's handshake (i.e., a form of first impression bias) was the largest contributing factor to interviewers' ratings[vii]. It is safe to say there are far more important behavioral skills that organizations should be looking for from candidates beyond their ability to create a good first impression!

Even structured interviews ratings tend to be highly influenced by factors other than candidates' behavioural skills. Take the typical structured interview question (i.e., the "*What did you do*?" question). This type of question requires candidates to recall a relevant previous work event, often which occurred several years prior, and be able to describe a detailed step-by-step account of all of their actions. To answer such questions effectively, candidates need to have really good memories. Thus, the ratings of structured interviews capture the candidates' cognitive ability[viii], which distorts the ratings of the candidates' on the actual behavioral skills that organizations are trying measure.

Beyond adding more prediction to the selection system, another benefit to the simulation exercises is that candidates react enthusiastically to them. In fact, candidate reactions to simulation exercises have been found to be more favorable than to any other common selection tool. For example, one study surveyed 390 job seekers who took part in 13 different selection practices, including various types of job interviews, employment tests, and simulation exercises[ix]. Job seekers were asked to indicate their reactions to each practice with the following two items: "After this experience, my attitude toward the company would be much more favorable," and "After this experience, I would be very motivated to further pursue this company." More than any of the other selection tools, candidates most strongly agreed with these items when reporting about simulation exercises.

Given that simulation exercises add predictive accuracy and improve candidates' reactions to the hiring process, why aren't all organizations using simulation exercises? It is because all too often organizations are wary of the cost. Simulation exercises can be one of the more costly selection tools, and are often referred to as the *Rolls Royce* of selection tools[x]. However, organizations that have added simulation exercises have been rewarded with excellent returns on investment.

The most recently documented example of the economic utility of simulation exercises comes from the Dallas Police Department. The Dallas Police Department added simulation exercises as part of the promotional examination to police sergeant. Due largely to the additive incremental prediction that the simulation exercises added to their selection system, the economic benefit from the program was conservatively estimated to be over $400,000, for a return on investment of over 250%[xi]. Similar results have been reported for selection systems used for managerial positions in office settings[xii] and sales[xiii]. Thus the benefits of selecting managers with better behavioral skills through the use of simulation exercises clearly outweigh the additional design and administration costs incurred.

So how do simulation exercises fit into your existing selection system toolkit? Some management gurus, suggest that organizations can do away with interviews all together, in favor of just simulation exercises[xiv]. However, such a recommendation is naïve. The simulation exercise is a tool that should complement a host of additional selection tools in your selection system, rather than replace them. In order to find out how you can integrate the simulation exercise tool into your existing selection system, contact a trusted organization simulation provider.

==

Tom Oliver is acting consulting for Hire Results Ltd – Hiring Simulation Assessments.

Tom Oliver is a PhD candidate in the Industrial-Organizational Psychology program at the University of Guelph. His primary expertise is in the area of personnel assessment and selection. Tom has consulted for Knightsbridge Human Capital Solutions, MICA Consulting Partners and Organization and Management Solutions (OMS)

Industrial-Organizational (I-O) Psychology is the study of how people behave at work. More specifically, I-O psychologists are interested in such topics as: recruiting and hiring the best people, improving employee skills, developing performance appraisal and reward systems, ensuring fair workplace procedures, motivating employees, fostering team work, leadership, and employee well-being

Reference on article on next page

==

i Schmidt, F. L., & Hunter, J. E. (1998). The validity and utility of selection
  methods in personnel psychology practical and theoretical implication of
  85 years of research findings. *Psychological Bulletin, 124,* 262-274.

ii Ryan, A. M., McFarland, L., Baron, H., & Page, R. (1999). An international look
  at selection practices: Nation and culture as explanations for variability in
  practice. *Personnel Psychology,* 52, 359-391.

iii Bray, D. W., & Grant, D. L. (1966). The assessment center in the measurement
  of potential for business management. *Psychological Monographs, 80,* 1-27.

iv Arthur, W., Day, E. A., McNelly, T. L., & Edens, P. S. (2003). A meta-analysis of
  the criterion-related validity of assessment center dimensions. *Personnel
  Psychology, 56,* 125 . 154.

v Lievens, F., & Patterson, F. (in press). The validity and incremental validity of
  knowledge tests, low-fidelity simulations, and high-fidelity simulations for
  predicting job performance in advanced-level high-stakes selection.
  Journal of Applied Psychology.

vi McDaniel, M. A., Whetzel, D. L., Scmidt, F. L., & Maurer, S. D. (1994). The
  validity of employment interviews: A comprehensive review and meta-
  analysis. *Journal of Applied Psychology, 79,* 599-616.

vii Stewart, G. L., & Dustin, S. L., Barrick, M. R., & Darnold, T. C. (2008). Exploring
  the handshake in employment interviews. *Journal of Applied Psychology,
  93*, 1139-1146.

viii Krajewski, H. T., Goffin, R. D., McCarthy, J. M., Rothstein, M. G., & Johnston,
  N. (2006). Comparing the validity of structured interviews for managerial-
  level employees: Should we look to the past or focus on the future. *Journal of
  Occupational and Organizational Psychology, 79,* 411-432.

ix Rynes, S.L. and Connerly, M.L. (1993). Applicant reactions to alternative
  selection procedures. *Journal of Business and Psychology, 7,* 261-78.

x Lievens, F. An examination of the accuracy of slogans related to assessment
  centres. *Personnel Review, 31,* 86-102.

xi Thornton, G. C., & Potemra, M. J. (2010). Utility of assessment center for
  promotions of police sergeants. *Public Personnel Management, 39,* 59-69.

xii Cascio, WF., & Ramos, R.A. (1986). Development and application of a new
  method for assessing job performance in behavioral/economic terms.
  Journal of Applied Psychology, 71, 20-28.

xiii Burke, M.J., & Frederick, J.T. (1986). A comparison of economic utility
  estimates for alternative SDy estimation procedures. *Journal of Applied
  Psychology, 71,* 334-339.

xiv Heath, D., & Heath, C. (2009). Hold the Interview. *Fast Company, 136,* 51-52