

# White Paper: #7

# Predicting Potential Across the Organisation.

The Science & Application of Psychometric Assessments

#### Foreword

In today's fast-moving digital business environment, organisations cannot rely solely on traditional selection methods that require extensive training or certification. Hiring managers at every level need tools they can engage with quickly, accurately, and independently.

People today interact seamlessly with technology in their daily lives - they access information on demand, make purchasing decisions online, and communicate instantly. Businesses, likewise, must embrace solutions that are intuitive, scientifically rigorous, and capable of supporting real-world decision-making.

The **Predictor of Potential (POP™)** assessments from Validity Group offer such a solution. These tools provide reliable, objective, and actionable insights for selection, promotion, succession planning, and development — across all organisational levels and roles, from individual contributors to senior executives.

For years, POP™ assessments have been proven to enhance hiring decisions, improve retention, and increase business performance across industries, geographies, and cultures. They empower organisations to act quickly, avoid delays, and confidently select candidates with the highest likelihood of success.

#### Introduction

The POP™ assessment range has been administered to over 20 million people in 45 countries and is available in over 40 languages. This extensive dataset enables the development of normative benchmarks, calibrated for both industry and location, that reliably predict on-the-job performance.

Since they were introduced, the POP $^{\text{m}}$  assessments have evolved into a comprehensive suite of tools, including:

- o Executive & Leadership roles (Senior Executive level and above)
- Management and Supervisory Roles
- o Professional and technical roles (e.g., Accountants, IT, Analysts, Lawyers)
- Operational and customer-facing roles
- Sales teams (across all industry sectors)

For the full range of solutions, visit: Validity Group Assessments.

# The Role of Selection Tools in Modern Hiring

Contemporary selection processes must go beyond face-to-face interviews, which are inherently limited by interviewer skill and objectivity. And must also importantly cut through the noise of Al-generated Resumes and interview preparations. Best practices now incorporate multiple assessment tools to reduce errors:

- Type I errors: selecting unsuitable candidates
- o Type II errors: overlooking top-performing candidates

A robust selection process provides a measurable Return on Investment (ROI) by ensuring that organisations hire candidates who are most likely to perform and remain engaged.



# Types of Pre-Employment Assessments

When selecting assessment tools, organisations must differentiate between:

#### Normative vs Ipsative Measures

- Ipsative tools (forced-choice responses) are unsuitable for selection because they
  prevent accurate between-person/candidate comparisons.
- o **Normative tools** (Likert scale responses) enable precise comparisons and are scientifically validated to predict performance.

#### IQ vs Personality

- IQ tests may predict academic performance but are weak predictors of workplace effectiveness.
- o Personality assessments, particularly the multidimensional POP™, reliably forecast behaviours, work habits, and role fit across diverse jobs.

### Screening vs Selection

- o Screening tools pre-qualify candidates for consideration.
- o Selection tools, like SCREEN™ and POP™, evaluate the probability of success, guiding informed hiring decisions beyond simple pass/fail metrics.

# How POP™ Predicts On-the-Job Performance

POP™ assessments evaluate **Performance** = **Can Do x Will Do x Fit**, addressing three critical dimensions:

- 1. Talent (Can Do): Inherent abilities, personality traits, and relevant skills.
- 2. Habits (Will Do): Motivation, work ethic, and past behaviours.
- 3. Opportunity (Fit): Alignment with organisational culture and team dynamics.

This holistic model ensures a scientifically robust prediction of potential for any role.



# Psychometric Properties of POP™

POP™ assessments undergo rigorous annual validation to ensure reliability and accuracy:

- Item Analysis and Scale Construction: 168 validated items measure core personality traits.
- Factor Analytic Procedures: Confirmed an 8-factor (4 bipolar) structure using EQS modelling.
- o Internal Reliability: Coefficients range from .73 to .91.
- o Test-Retest Reliability: Stability over time (.90-.97 correlation).
- o Split-Half Reliability: Consistency across items (.83–.92).
- Convergent Validity: Statistically significant correlations with established instruments, e.g., 16 PF.

For leadership and management roles, POP™ provides objective insights into character, communication style, and dynamic cognitive attitudes, critical for effective decision—making and team leadership.

# **Predictive Validity and Customisation**

#### Generic Predictive Validity

Concurrent validation studies consistently demonstrate that high POP™ scores correlate with top performance. Across multinational organisations, top performers scored significantly higher on traits such as Enterprising Potential, Achievement Potential, and People Orientation.

#### Customised Predictive Models

POP™ can be tailored to industry, role, and organisational context, enhancing predictive accuracy. Clients have reported measurable improvements:

- Investment Advisors: 87.8% higher commissions for high-scoring candidates
- Field Sales Reps: Doubling of Year 1 sales among top-rated hires

Validity Group, in conjunction with our partners, continually refines these models to ensure optimal alignment with business outcomes.



# Leadership, Management, and Professional Applications

Beyond sales, POP™ is equally powerful for leadership and numerous management roles. The assessments help organisations:

- o Identify high-potential leaders for promotion or succession planning
- o Evaluate management style compatibility and team fit
- o Predict retention and performance in complex operational and professional roles
- o Support development planning for career growth

Customised leadership models have been used globally, with data supporting increased team performance, engagement, and retention.

# Global Application and Equal Employment Considerations

POP™ assessments comply with EEOC and international employment guidelines, ensuring:

- o No gender, age, or ethnicity bias
- o Assessment of social desirability and response accuracy
- Use of low-face validity questions to prevent "gaming"

The tool has been applied successfully in over 45 countries, with normative benchmarks adaptable for regional and cultural contexts.

# Demographics and Enhanced Predictive Power

Research over 37 years highlights additional demographic predictors for competitive roles, including:

- Employment history and tenure
- Geographic stability
- o Previous experience with variable compensation

Incorporating these factors into  $POP^{\mathbf{m}}$  scoring increases accuracy in predicting both performance and retention.



### Conclusion

POP™ assessments provide organisations with:

- o Scientifically validated insights for all roles, from sales to leadership
- o Objective, actionable metrics for hiring, promotion, and succession
- o Customisable models aligned with industry, culture, and organisational objectives
- o Enhanced retention and performance outcomes

In today's competitive talent landscape,  $POP^{\mathbb{M}}$  ensures that organisations select candidates with the highest probability for success, fostering strong teams and resilient leadership.

For more information, visit: Validity Group.

### References

- o Blinkhorn, S.F., Johnson, C.E., & Wood, R.F. (1988). *Spuriouser and Spuriouser: The use of ipsative personality tests.* Journal of Occupational Psychology, 61, 153–162.
- Cattell, R.B. (1944). Psychological measurement: Normative, ipsative, interactive.
   Psychological Review, 51, 292–303.
- o Cornwell, J.M., & Dunlap, W.P. (1994). *On the questionable soundness of factoring ipsative data.* Journal of Occupational and Organization Psychology, 67, 89–100.
- Meade, A. (2004). Psychometric problems and issues involved with creating and using ipsative measures for selection. Journal of Occupational and Organizational Psychology, 77, 531–552.
- McClelland, D.C. (2008). Intelligence is not the best predictor of job performance.
   Current Directions in Psychological Science, 2, 5–6.
- Saks, A.M. (2006). Antecedents and consequences of employee engagement.
   Journal of Managerial Psychology, 21, 600–619.

