

Applying validated employee selection methods to improve talent acquisition and retention outcomes in cannabis laboratories.

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THE PROBLEM:

Cannabis laboratory employee turnover is:

- Common
- Extraordinarily expensive
- Time consuming
- Harms internal culture
- Loses institutional knowledge

Most cannabis laboratories use employee selection methods (ESMs) that have very low predictive scores for job success (<40%) which directly contribute to low productivity and exceptionally high turnover (est. 1 yr turnover = 44%) when compared to clinical laboratories (3 yr avg. turnover rate = 13.1%)^{1,2}.

THE SOLUTION:

By using validated ESMs, predictive job success scores can increase to $>90\%^3$. To achieve these results, in addition to standard talent acquisition methods, the E4 Bioscience ESM system includes:

- Quantitative job eligibility testing
- Quantitative job suitability testing
- Quantitative paradoxical trait testing
- Quantitative technical knowledge testing

Pre-hire predictive testing helps cannabis laboratories hire and retain high value employees.

Unstructured Interview

Structured Interview Only

Knowledge Test Only

Knowledge Test + **Structured Interview**

Knowledge Test + **Structured Interview +** Job Eligibility & Suitabilty Test



THE DATA:

n = 341 emplo

Best performers Average to good per Poor performers

Figure 1: Turnover rates and actual job performance correlate closely with predictive job suitability testing. In a study with 341 employees, each employee completed a pre-hire assessment and overall performance was rated by supervisors scoring attendance, productivity, service quality, and safety at 6 months. Of the employees predicted to have probable success using pre-hire assessment testing, 91% were successful. Of the employees **predicted** to fail using pre-hire testing, 75% were identified as poor performers or did not complete 6 months in the job.

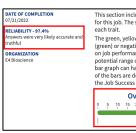


Figure 2: Quantitative job suitability analysis. When behavioral competencies including work preferences, emotional intelligence, and personality are measured, a high degree of accuracy is attained to predict individual performance in specific jobs4. Job suitability is specific to a position and cannot be determined from a resume or CV (i.e. lab technician and lab sales representative have different suitability needs). Typical unstructured interviews are generally ineffective at revealing these key factors or retention rates would be higher.

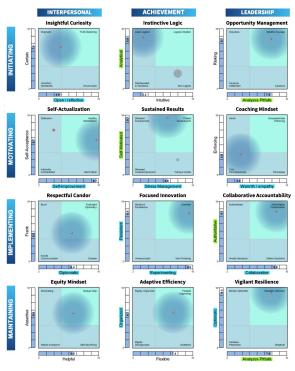
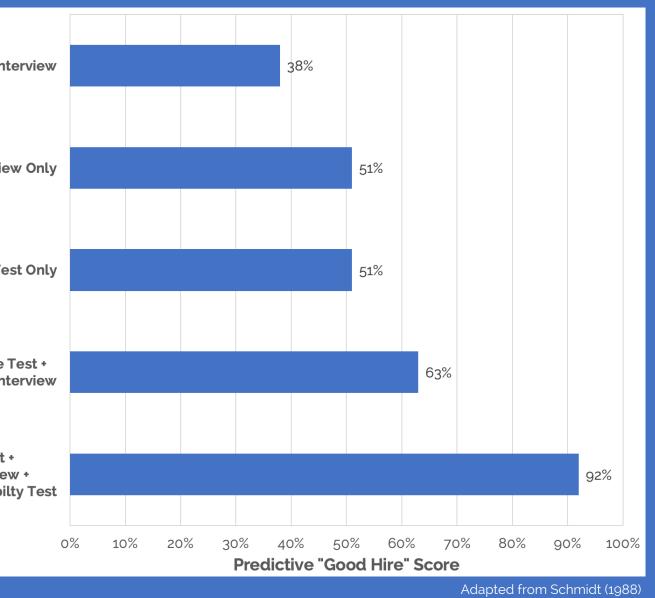


Figure 3: Quantitative paradoxical trait analysis. These traits are pairs of traits which appear to be contradictory and may derail job performance but are in fact complementary and synergistic and ideally balanced in the upper right quadrant.

THE REFERENCES:

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³ Schmidt, FL, & Hunter, JE., "The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. Psychological Bulletin, (1988) 124(2), 262-274. 4 Harrison D, "Harrison Assessments Technical Manual Section I" 2015

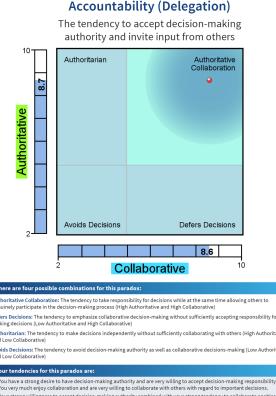


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/ees	Employee Turnover Rate (Under 6 Months)	Employee Turnover Rate (Projected Annually)					
	2%	4%					
formers	5%	10%					
	24%	48%					

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tive anc of i nave dete	e (yel e. Th impa e a d	llow ne ba act t iffer ned	and all is hat ent by t	red alw the f leng) im ays facto th fo	pac insi or ca or ea	indi t tha de a an hi ach f gs th	at th bar ave fact	e fao gra on p or. T	ctor ph, v erfo he le	is pi whic rma	edi h in nce hs a	cted dica . No ind p	to h ites te th posit	the lat t	he s
verall Percentage of Suitability Fit = 83%																
20	25 1	30 1	35 1	40 1	45 1	50 I	55 I	60 1	65 1	70 1	75 1	80 1	85 1	90 1	95 1	100
Unlikely Fit				1	Possi	hin Ex			Proba			_				
									1.038	UNP I K			Prods	D99 P.K		

(in order of importance)	Shaun's Score	Very stron	Strong	Substantia	Moderate	Slight	No impact
Writing / language: The interest in work that involves formulating words to convey meaning (i.e., journalism or translator) Narrative: Shaun is quite interested in writing or language. Shaun's level of interest in writing or language is sufficient for this job.	8.0			(
Collaborative: The tendency to collaborate with others when making decisions Narrative: Shawn wery much enjoys collaboration and is probably very willing to collaborate with others with regard to making important decisions. Shawn's degree of enjoyment from collaborating is sufficient for this job.	8.6						
Diplomatic: The tendency to state things in a tactful manner Narrative: Shaun tends to state things in a moderately diplomatic manner. Shaun's degree of diplomacy is sufficient for this job.	6.4						
Open / reflective: The tendency to reflect on many different viewpoints Narrative: Shaun probably only moderately enjoys reflecting on different ideas and opinions. Shaun's degree of enjoyment of reflecting on different ideas and opinions is sufficient.	4.9						
Optimistic: The tendency to believe the future will be positive Narrative: Shaun tends to be very optimistic and cheerful. Shaun's positive attitude will be very beneficial when dealing with staff and co-workers. Shaun's degree of optimism is sufficient for this job.	9.4				_		
Persistent: The tendency to be tenacious despite encountering significant obstacles Narrative: Shaun is very determined and perseveres with a task despite many obstacles. Shaun's tendency to be persistent is sufficient for this job.	8.5						
Self-Improvement: The tendency to attempt to develop or better oneself Narrative: Shaun has a very strong intention to improve himself. Shaun's level of interest in self-improvement is sufficient for this job.	9.7						
Warmth / empathy: The tendency to express positive feelings and affinity toward others Narrative: Shaun may be quite moderate in expressing warmth and empathy. Shaun's degree of expressing warmth and empathy is sufficient for this job.	3.8						



¹Novis, D, et. Al, "Laboratory Staff Turnover: A College of American Pathologists Q-Probes Study of 23 Clinical Laboratories" Arch Pathol Lab Med (2020) 144 (3): 350-355. ² <u>https://greencultured.co/combat-cannabis-industry-turnover-rate/</u>. Last accessed