



# **An Alternative to Personality Questionnaires**

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Example question 2.

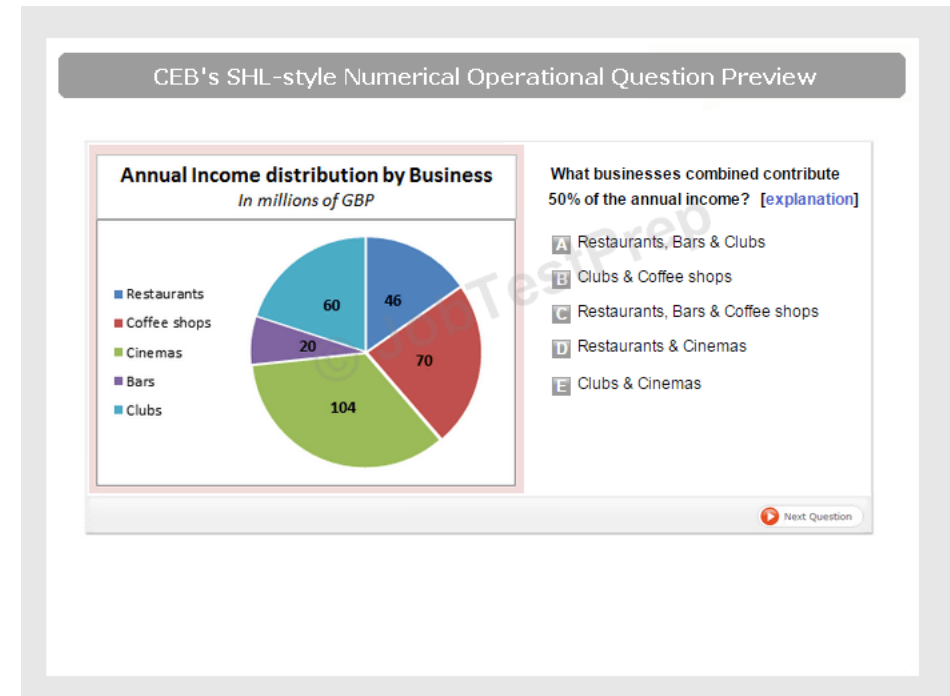
To what extent do you agree or disagree with the following statement:

**I like to be surrounded by people**

- Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

▶ If you need to make a Numerical Reasoning Assessment you don't ask a person to report on how good they are with numbers

▶ Instead we use a Numerical Reasoning Test



- ▶ Why should personality assessment be any different?
- ▶ With personality self-report (questionnaires) we get error from “faking” and a person’s blind spots

- ▶ What is the alternative?
- ▶ Personality Tasks: direct measurement of personality in action

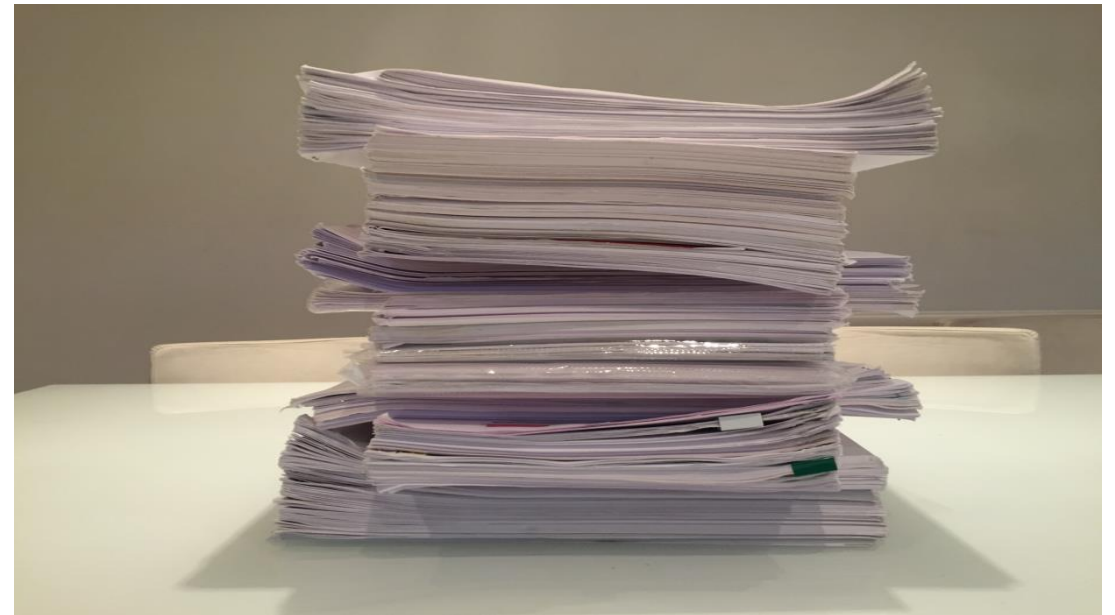
# What are Personality Tasks like?



1. Short, online puzzles, activities or games
2. Easy to complete and get right
3. Each task produces multiple measures or scores for the assessor to use
4. Measures of behaviour on each task are captured LIVE during completion
5. Scoring Algorithms are derived from Research
6. The research matches scores on each task measure to a personality scale e.g. Reaction Times on a Task to Anxiety
7. We call them Objective Personality Tasks (OPTs)

# Research & Academic Literature

- ▶ 2 years reading decades of research; very disparate literature
- ▶ e.g. Colour Reactions OPT is based on dozens of papers and 1 major meta analysis
- ▶ Some other tasks are based on a much smaller numbers of papers
- ▶ Provides a background of construct validity to our measures
- ▶ We are doing our own additional thorough research before launch



# Demo of OPTs



## A “mosaic” of different behavioural measures are possible from Personality Tasks

- ▶ Corrects, Omissions, Mistakes
- ▶ The order activities on screen are completed
- ▶ Reaction times, completion times
- ▶ Alternative ways of solving the same problem
- ▶ Memory performance for different types of material
- ▶ Ratios of corrects to mistakes, mistakes to omissions
- ▶ Ratios of corrects for different types of material
- ▶ Contrasts in performance across different rounds of same task
- ▶ Variations in reaction times
- ▶ Performance on very easy parts of tasks
- ▶ Number of question attempts before correct
- ▶ Time before starting next round
- ▶ Number of times instructions are read
- ▶ Time thinking / Decision time
- ▶ Error rate
- ▶ Impulse control
- ▶ Time checking work
- ▶ Number of times correcting answers
- ▶ Standard versus “unusual” answers

# Can Personality Tasks be Faked?

1. Almost impossible to fake
2. Participants are unaware of which aspects of personality are being assessed
3. We checked with our volunteers – few could guess



# Can Personality Tasks be Faked?

- ▶ Additionally, the behaviours collected are often instinctual
- ▶ For example, our Big 5 Conscientiousness assessment uses 20 different behavioural measures collected from 6 different personality tasks

We believe deliberate faking on all of these would be almost impossible

# Some Data on Social Desirability Responding & Personality Tasks...



# Social Desirability Effect on Different Personality Measures

	Social Desirability
<b>BIG FIVE CONSCIENTIOUSNESS</b>	
• NEO Questionnaire	0.346***
• MOSAIC Personality Tasks	-0.02 n/s
<b>BIG FIVE NEUROTICISM</b>	
• NEO Questionnaire	- 0.596***
• MOSAIC Personality Tasks	-0.147#

n=117 to 144; \*\*\* p <0.001 #p <0.1

# Personality Tasks **Validity Research**



- ▶ n = 115 Volunteers completed:
  1. 10 Personality Tasks
  2. a NEO personality questionnaire

# Match between Questionnaires & Personality Tasks?

Questionnaire Measure	Personality Tasks Measure
NEO "BIG FIVE" CONSCIENTIOUSNESS	0.41***
NEO "BIG FIVE" NEUROTICISM	0.40***
NEO "BIG FIVE" AGREEABLENESS	0.51***
NEO "BIG FIVE" EXTRAVERSION	0.44***
NEO "BIG FIVE" OPENNESS to EXPERIENCE	0.41***

n=115; \*\*\* p <0.001; Multiple Rs

# Match between Questionnaires & Personality Tasks?

Questionnaire Measure	Personality Tasks Measure	Self-Other Agreement (Watson et al 2000)
NEO "BIG FIVE" CONSCIENTIOUSNESS	0.41***	0.47
NEO "BIG FIVE" NEUROTICISM	0.40***	0.46
NEO "BIG FIVE" AGREEABLENESS	0.51***	0.42
NEO "BIG FIVE" EXTRAVERSION	0.44***	0.52
NEO "BIG FIVE" OPENNESS to EXPERIENCE	0.41***	0.53
		n=558

n=115; \*\*\* p <0.001; Multiple Rs



# Personality Tasks and Measuring A&DC Competencies

- ▶ NEO Personality Facets measured so far...
- ▶ **O**PENNESS to EXPERIENCE: *Imagination; Intellect; Liberal; Adventurousness*
- ▶ **C**ONSCIENTIOUSNESS: *Orderliness; Self Confidence (Efficacy); Achievement; Cautiousness*
- ▶ **E**XTRAVERSION: *Gregariousness; Excitement-seeking; Assertiveness*
- ▶ **A**GREEABLENESS: *Co-operation; Trust; Morality; Sympathy*
- ▶ **N**EUROTICISM: *Anxiety; Vulnerability; Depression; Anger; Immoderation*

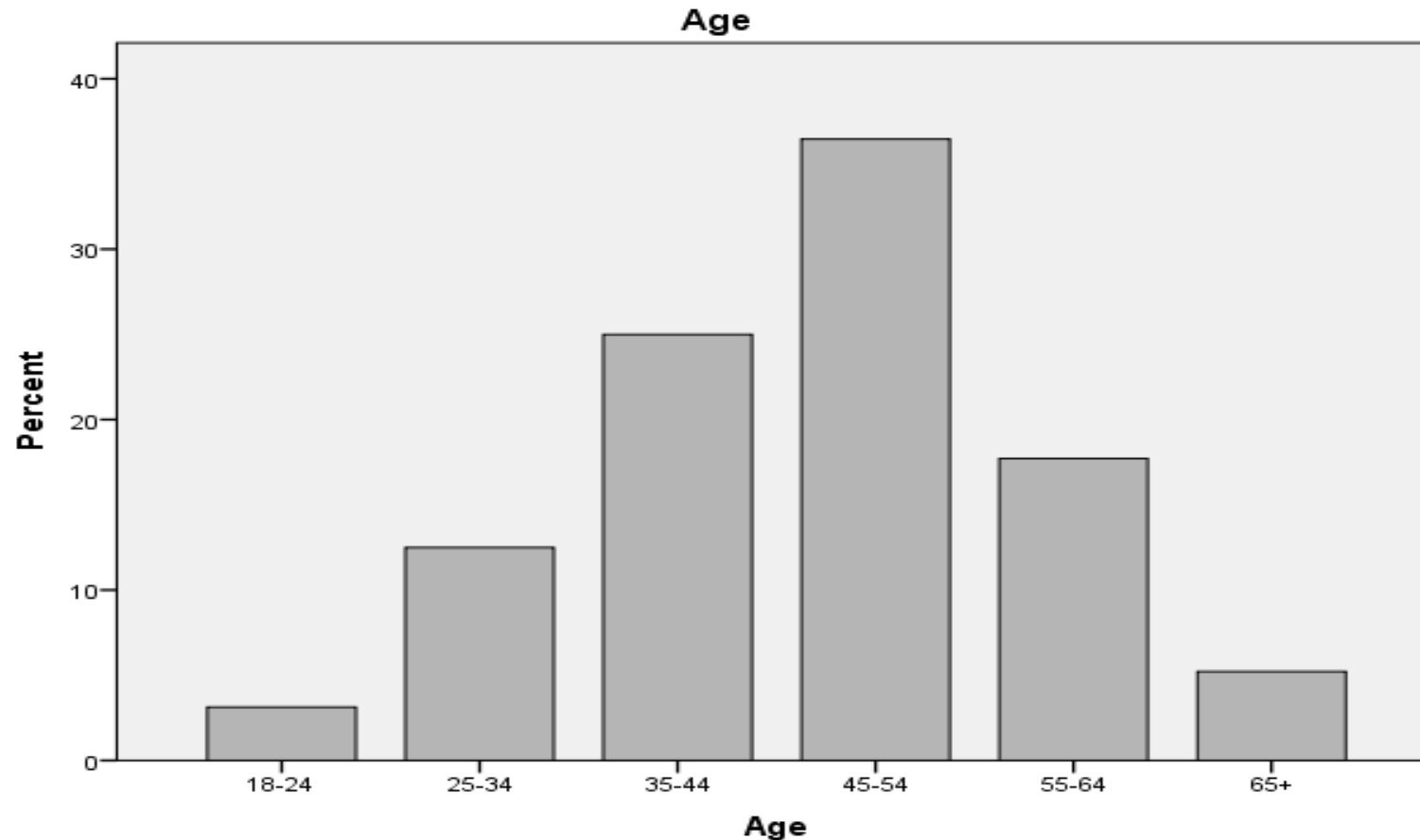
# Personality Task Reliability

- ▶ Most of our Behavioural Measures allow internal reliability analysis
- ▶ Typically Alphas are acceptable to very high e.g. 0.65 to 0.95.
- ▶ We are yet to look at test retest reliability

# Are Personality Tasks **more engaging** than Questionnaires?

- ▶ 80% of our volunteers found the Tasks enjoyable or very enjoyable to complete
- ▶ 60% of our volunteers found the Questionnaires enjoyable or very enjoyable to complete
- ▶ *“I thought it was much better to complete tasks than answer questions because I always view the question as circumstantial and not a clean answer.”*
- ▶ *“There was less struggle for me with the tasks as opposed to surveys. With surveys I often feel annoyed by not knowing where to rate myself. I find I can act or react differently depending on situations so assigning myself to a box without more context seems more arbitrary than completing a task.”*
- ▶ *“I feel that a behaviour preference test (questionnaire) gives better information about a person...unless of course, your job deals with observation skills and analysis.”*
- ▶ *“With surveys, not that I did, but I find that people are more likely to rate what their ideal option is as opposed to an honest reflection of their personality. So I do not trust self-report survey.”*

# Personality Tasks: do you need to **play computer games, be a gamer, be young?** Our volunteers...



- ▶ 80% of volunteers found the Tasks enjoyable or very enjoyable to complete

# Practical Applications

1. As an Alternative to Personality Questionnaires
2. Using Personality Questionnaires & Tasks together



# 1. As an Alternative to Personality Questionnaires

- ▶ We are recommending Personality Tasks as an alternative to Personality Questionnaires
- ▶ Especially if there is a risk of faking / lack of self awareness distorting results e.g. high stakes assessment & hiring
- ▶ Personality Tasks directly assess personality, so we are not relying on self-report and the distortion that this can bring in many cases



## 2. Using Personality Questionnaires & Tasks Together?

1. For self-awareness & personal development, including in coaching.
  - Gaps between questionnaire and task-based data can provide personal insight e.g. unrecognised strengths or developmental blind-spots.
2. Add personality tasks to provide robustness to assessment when hiring e.g. when Emotional Stability is key for the role, but questionnaires are too transparent for candidates.
3. Add personality tasks as a final hiring check on those candidates who scored highly on social desirability when completing a personality questionnaire



# Advantages of Personality Tasks

- ▶ Minimal distortion
- ▶ Engaging candidate experience
- ▶ Captures 'real-time' behaviour (just like any assessments)
- ▶ Suitable for all levels of seniority and age
- ▶ Robust and evidence based





## Please work with us

- ▶ Mosaic will launch in 2019, please let us know if you would like to use Mosaic e.g. have a pilot project in mind
- ▶ If you think Mosaic aligns with your current work then get in touch for business partnership opportunities
- ▶ Also a free trial is available if you would like to complete our OPTs for yourself and get an in-depth feedback report
- ▶ Visit our website [www.mosaictasks.com](http://www.mosaictasks.com) to stay in touch with our research and product development