TALOGY

Modular Assessment Technology: Overview & Case Study

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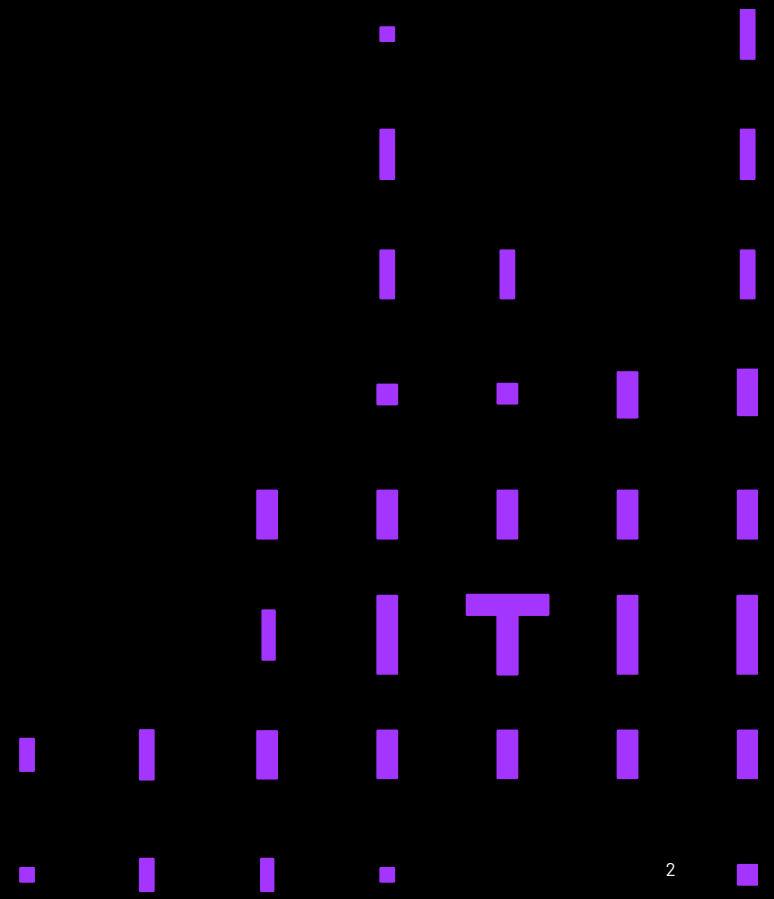
PSYCHOLOGY + TECHNOLOGY

We're not just a technology platform,
and we're not just psychology – we're **both**,
and with good reason.



Your presenters

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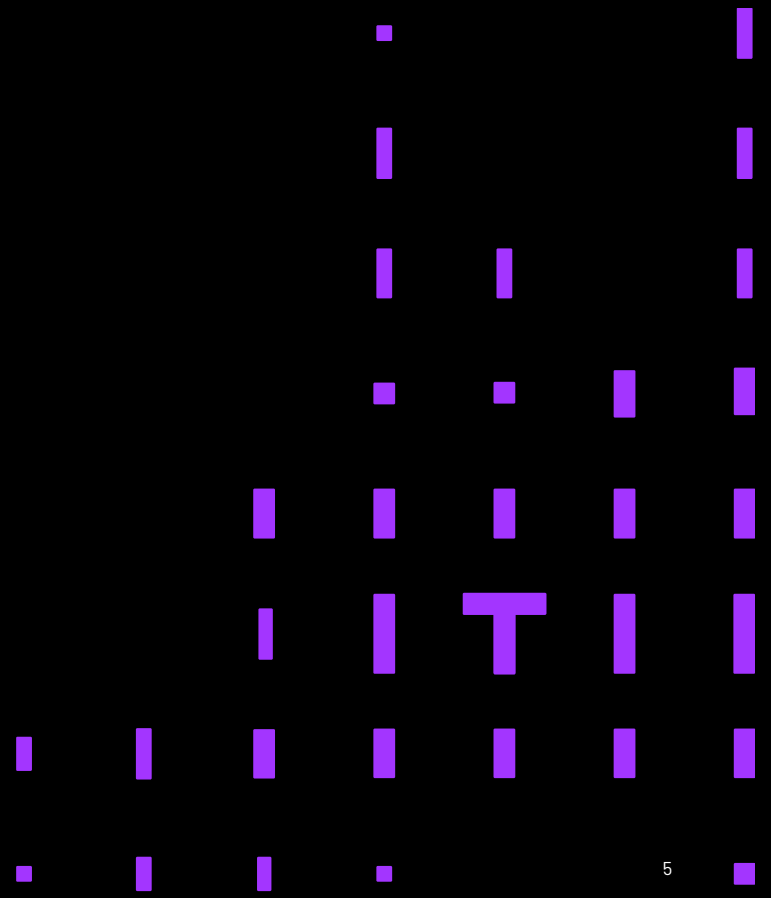
Topics for today

- What is Modular Assessment?
  - A peek under the vendor side hood
  - Increasingly seen in private sector

Topics for today

- Case Study
  - Manufacturing setting example
    - But modularity is NOT specific to manufacturing
    - Applies broadly to entry-level, professional and leadership assessment for selection and development
  - Example includes online and physical modules
  - Validation results
  - Candidate feedback



TALOGY

Let’s set the table first .

modularity

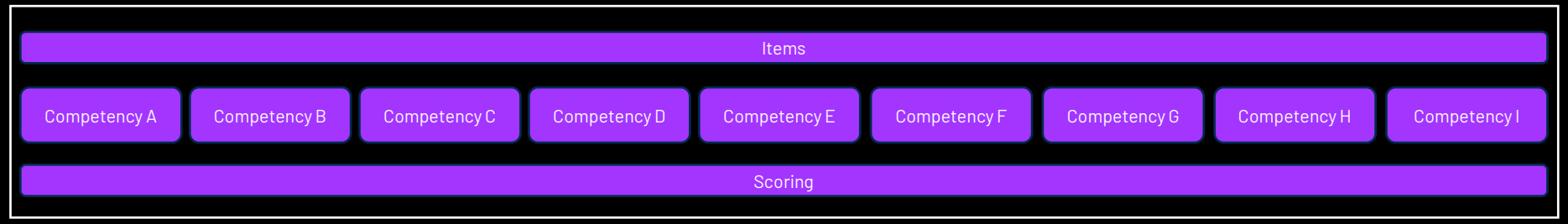
noun [U]

US /ˌmɑː.dʒəˈler.ə.t̬i/ UK /ˌmɒd.jəˈlær.ə.ti/

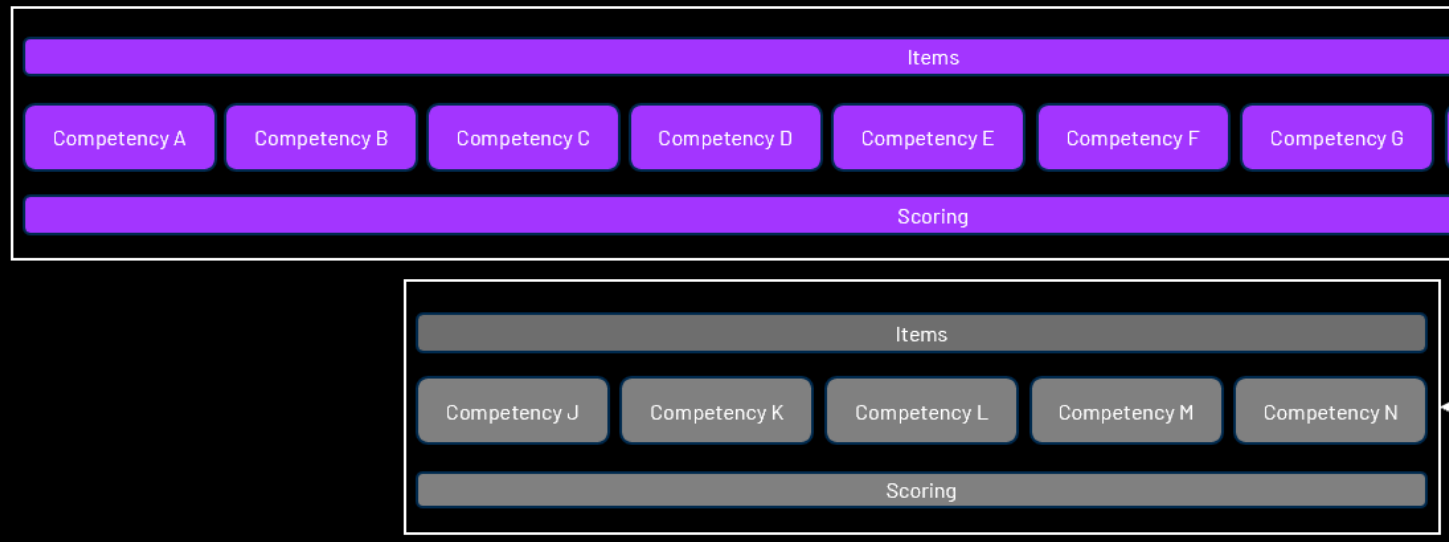
the quality of consisting of separate parts that, when combined, form a complete whole:

- *It is a philosophy and technology capability that allows assessment scientists to combine discrete assessments components into a cohesive whole.*
- Evolutionary
- Designed to improve speed and efficiency of configuration; candidate experience.
- Typical use case is online assessment, but concept can be applied to other assessment delivery models.

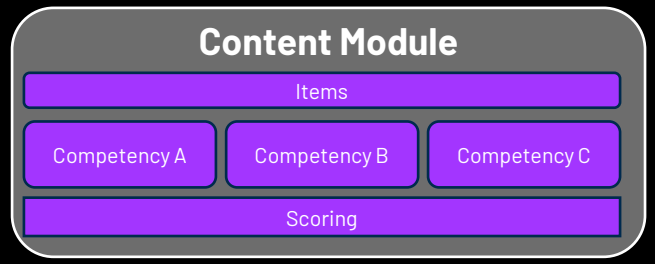
Traditional off-the-shelf assessments



Battery of assessments

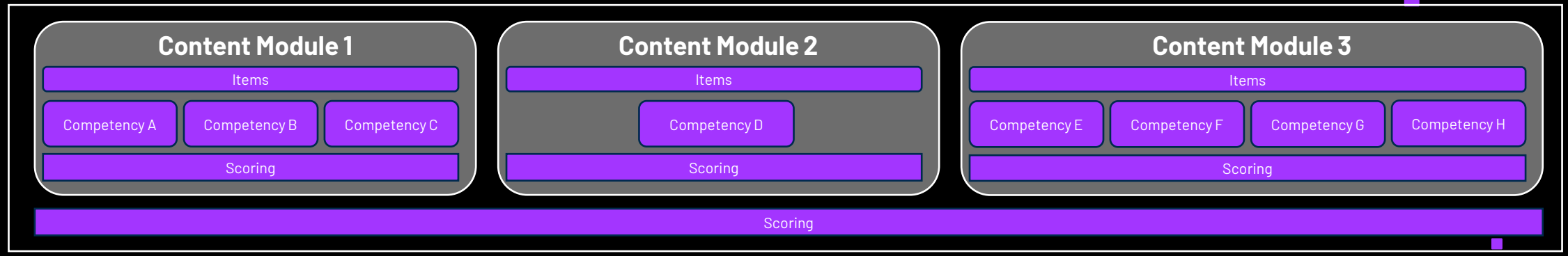


Modularity: Content modules



- Building blocks for modular assessments
- Smaller item sets that measure (usually) multiple competencies
- Typically using multiple measurement methods (e.g., personality + SJT)
- Backed by data with known psychometric characteristics

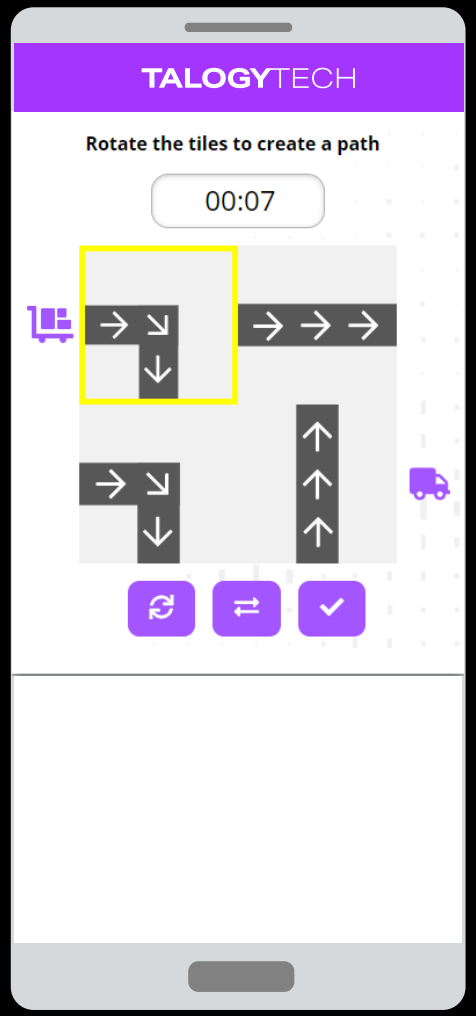
Modular assessments



- Mix-and-match approach
- Build unique assessment content modules
- Target specific competencies
- Benefits
  - Content module library allows for greater customization across settings.
  - Better candidate experience — consistent look and feel with control over section flows within the assessment.

Quickly configure a targeted assessment

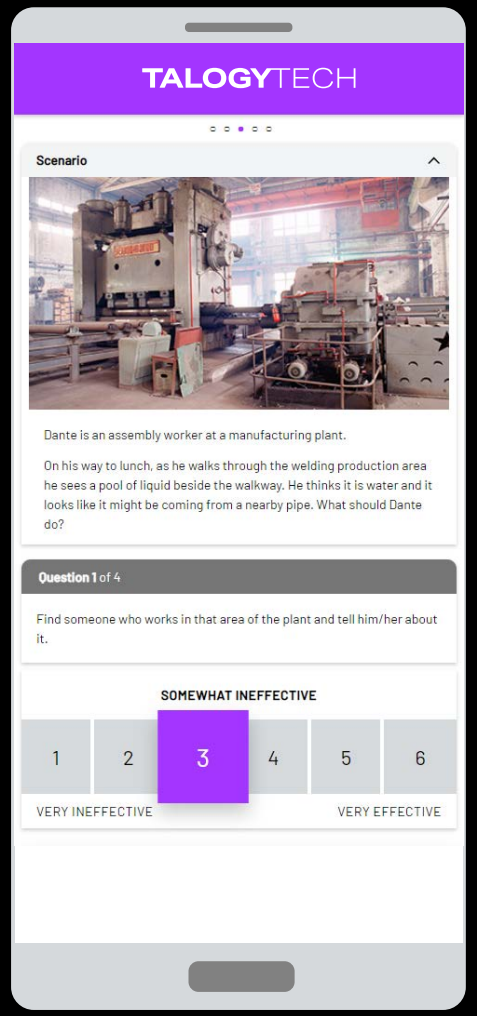
Module 1



Cognitive Ability

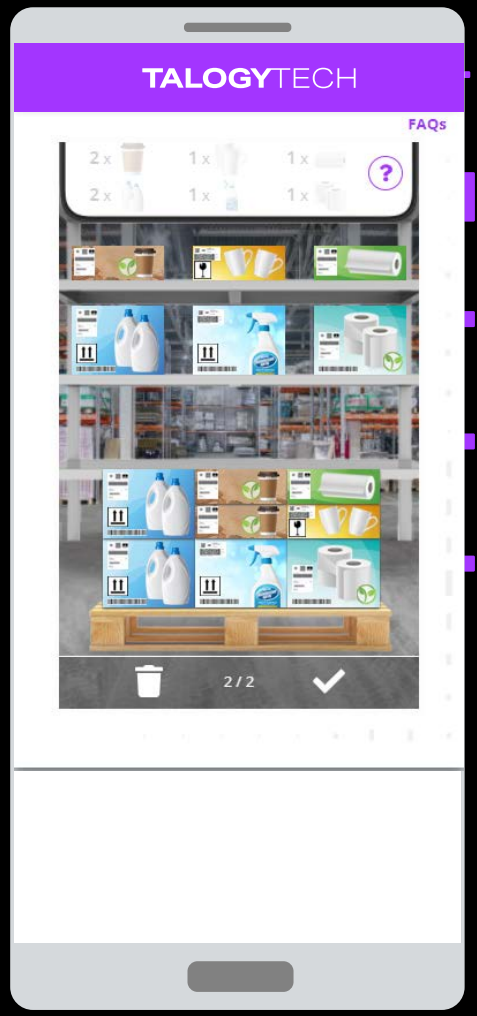
Module 2

Personality



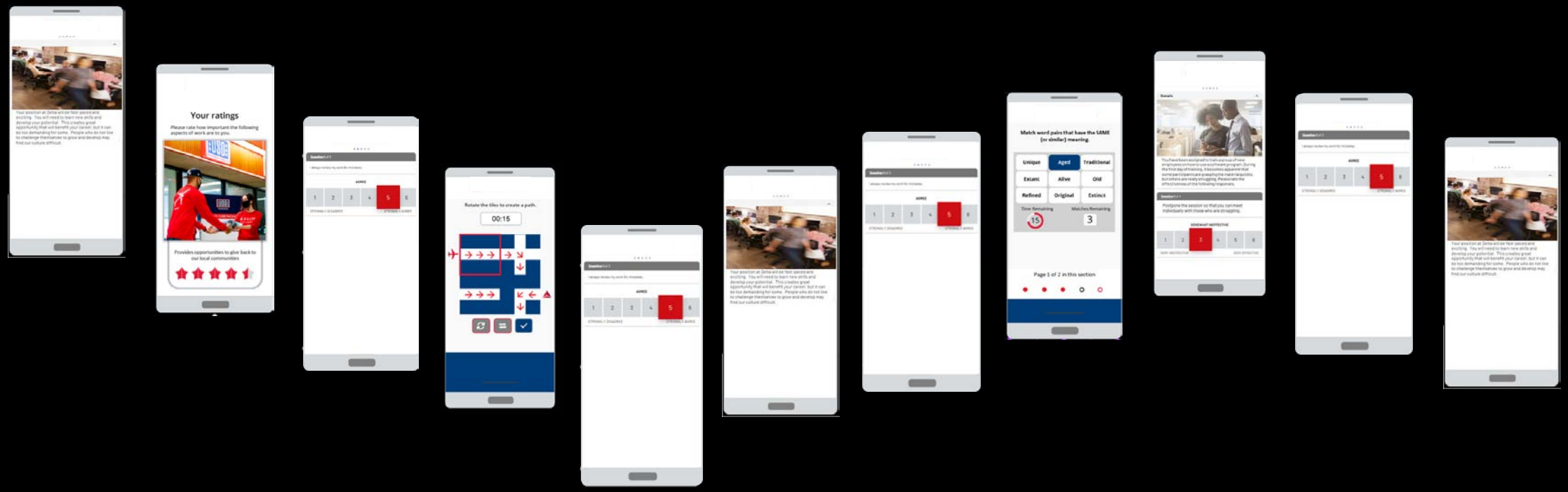
Situational Judgment

Module 3



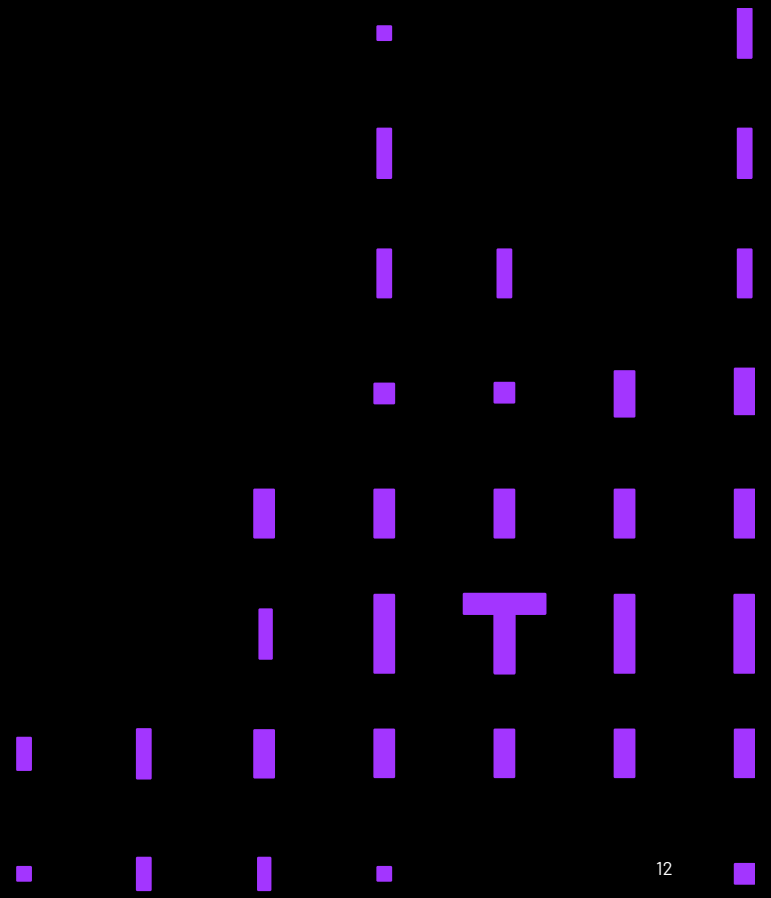
Pick & Pack Simulation

Helps to create a cohesive candidate experience



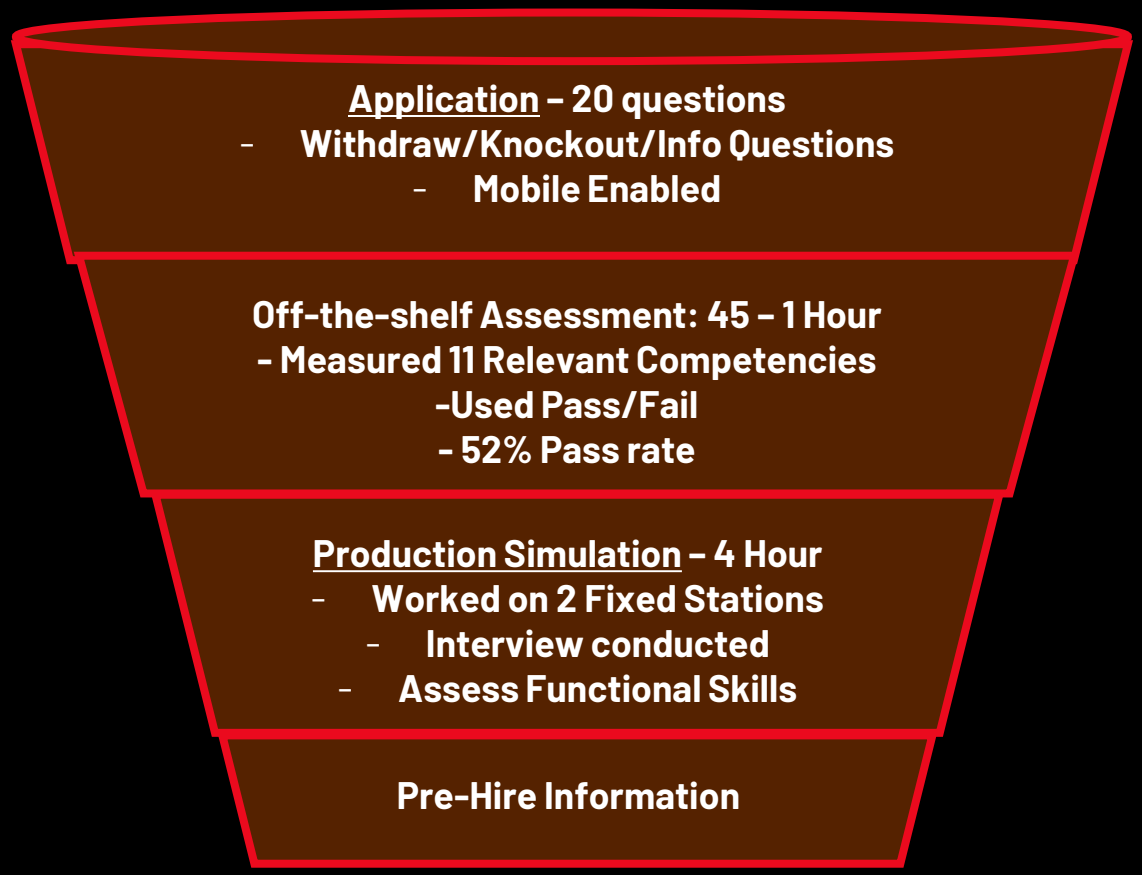
Modularity Case Study - Manufacturing

- Major auto manufacturing client
- Looking to redesign two selection process stages
  - Online pre-screen
  - Hands-on aptitude testing
- Address labor market challenges
  - Improve candidate experience & throughput
- Elements of modular solution
  - Online
  - Portable briefcase

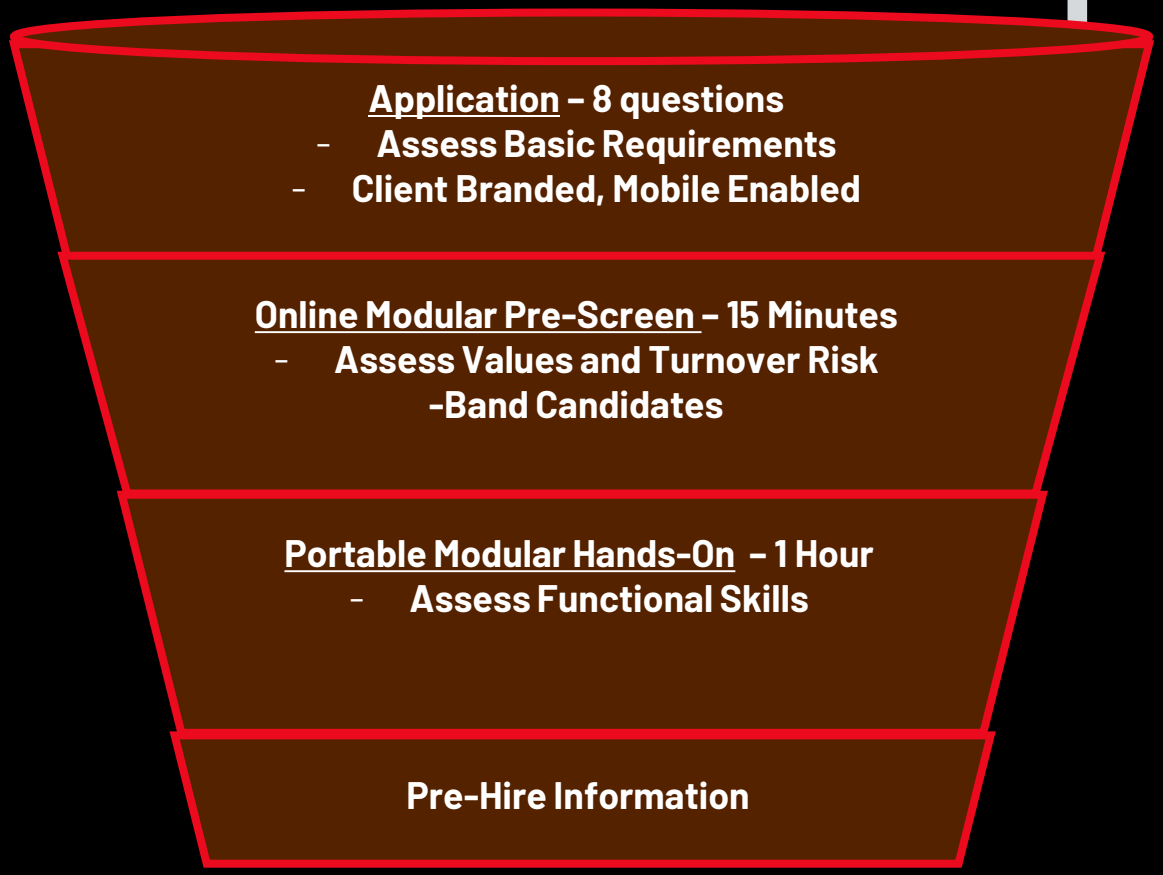


New Selection Process Elements

Previous Process

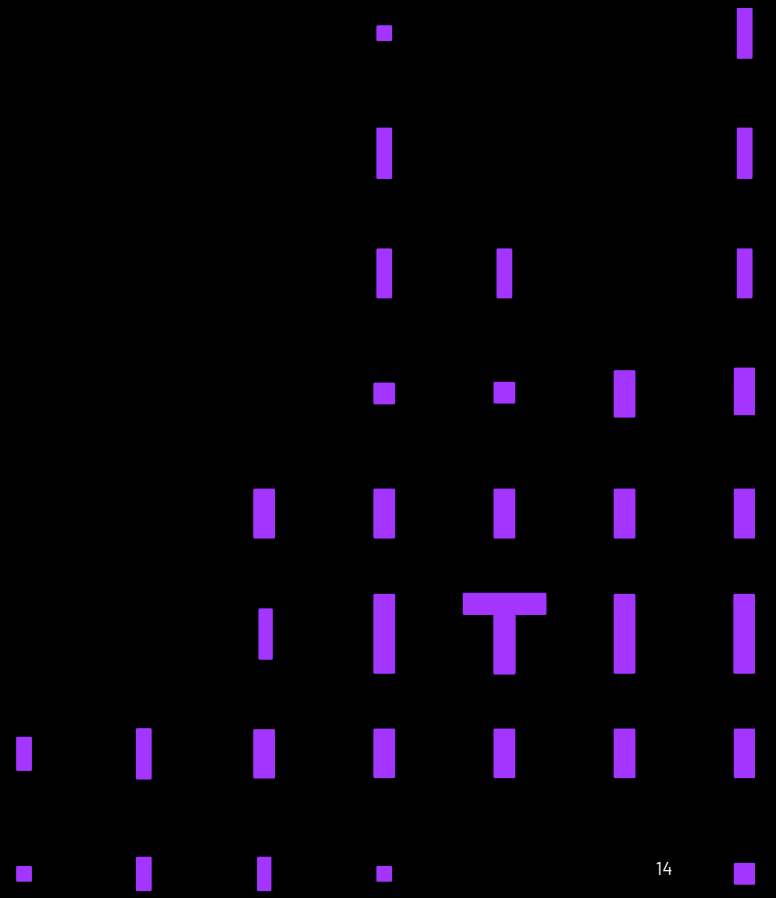


Redesigned Process



Online modular pre-screen

- Includes three assessment modules covering values, turnover risk, spatial ability
- Yields a short list of critical competencies
  - Teamwork
  - Continuous Improvement
  - Dependability
- Assessment flow designed for engagement
  - Personal beliefs
  - SJT
  - Biodata
  - Spatial ability



Modular Manufacturing Briefcase

Virtual Simulations
Multi-Tasking
Quality Focus
Work Pace

Lift Assist
Work Pace

Clip Insert
Fine Motor Skills

Bolt Mount
Hand Tightening
2-Hand Tighten
Work Pace

Case Overview

Weight: Less than 40 lbs
Dimensions: 21.2 x 16 x 10.6
(about the size of a carry-on suitcase)
Contents:

- Impact Wrench, Extra Battery, Charger
- iPad and Chargers for Flexibility
- Testing Plates
- Bolts, Clips, Lift Assist Simulator, Stylus

Each Site will Receive a Proctor Case (Spares)

- iPad, bolts, plates, impact gun, stylus, simulator, etc.

Handle and Wheels for Mobility

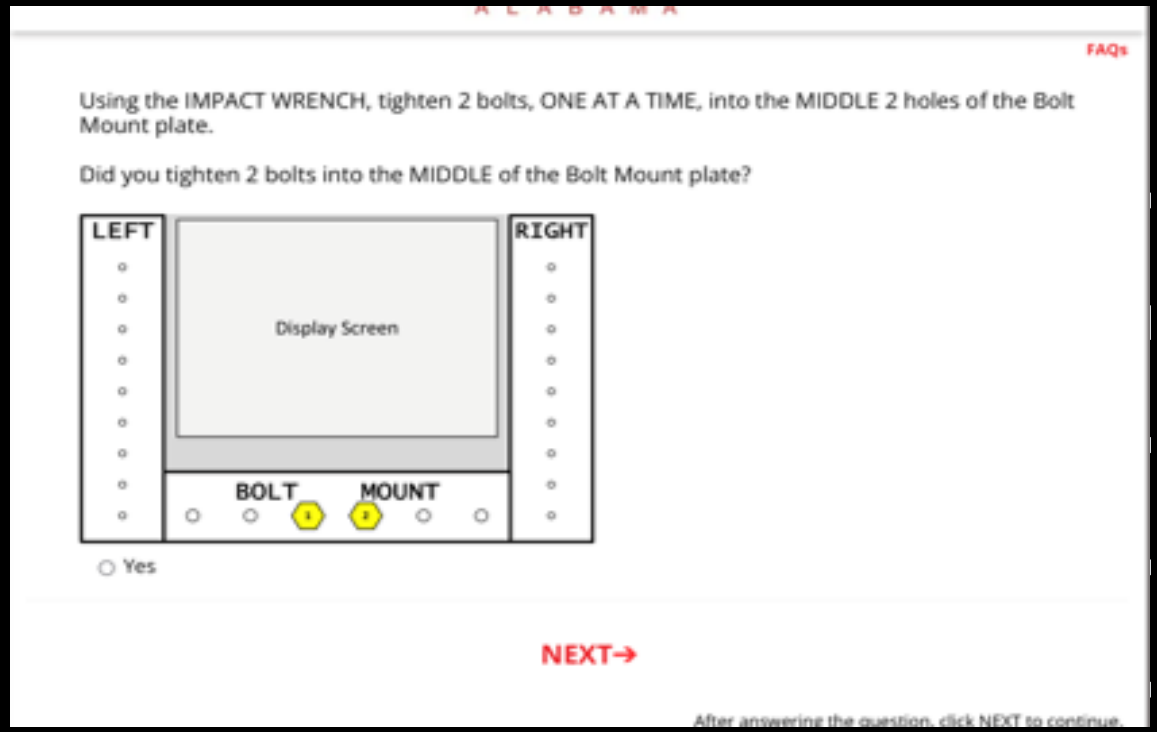
Proctor Role

- Ensure Candidate's complete understanding of the tasks they are being asked to perform
- Ensure the safety of the staff, candidates and equipment
- Monitor the candidate's completion of the assessment as designed to ensure accurate data

Hands-On Simulations

Candidates complete a series of actions:

- **Drive Bolts/Secure Plates to Fixture (Bolt Mount)**
  - Candidates are asked to use a hand tool to insert a group of bolts based on the instructions to assess quality and work pace. (https://psi.wistia.com/medias/9ywryrdbpl)
- **Insert Clips**
  - Candidates are asked to insert a group of clips based on the instructions to assess fine motor skills. (https://psi.wistia.com/medias/2vjpckrmyf)
- **Manipulate Lift Assist**
  - Candidates are asked to manipulate a simulated tool to follow a specific pattern to measure work pace. (https://psi.wistia.com/medias/i5grwwlyew)
- **Two Hand Tighten**
  - Candidates are asked to use two hands at the same time to tighten a group of bolts into place to measure fine motor skills. (https://psi.wistia.com/medias/61ygqjj2jc)



Competency Measurement

Using the data from the individual exercises, we aggregate the data to provide competency measurement that is related to success

- Work Pace
  - Example: Belt simulation, bolt mount, lift assist each provide scores that feed into this competency
- Multi-Tasking
- Quality/Ability to Follow Standardized Work
- Fine Motor Skills/Manual Dexterity
- Two Hand Usage

Criterion-related validation study

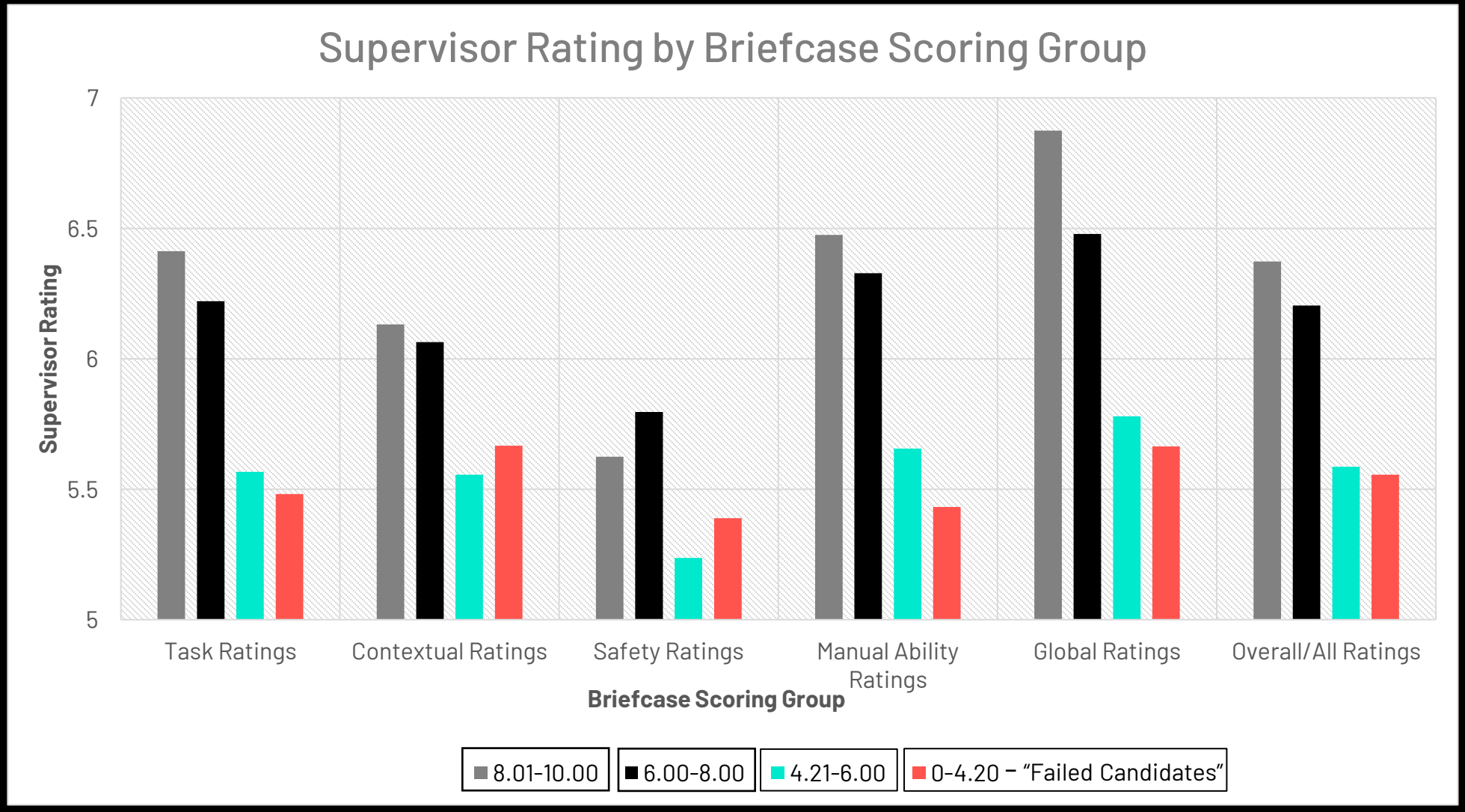
- Concurrent design
- Participants completed both the pre-screen and hands-on modular assessments
- Performance criterion was supervisory ratings
- Final sample included 189 participants

Key findings

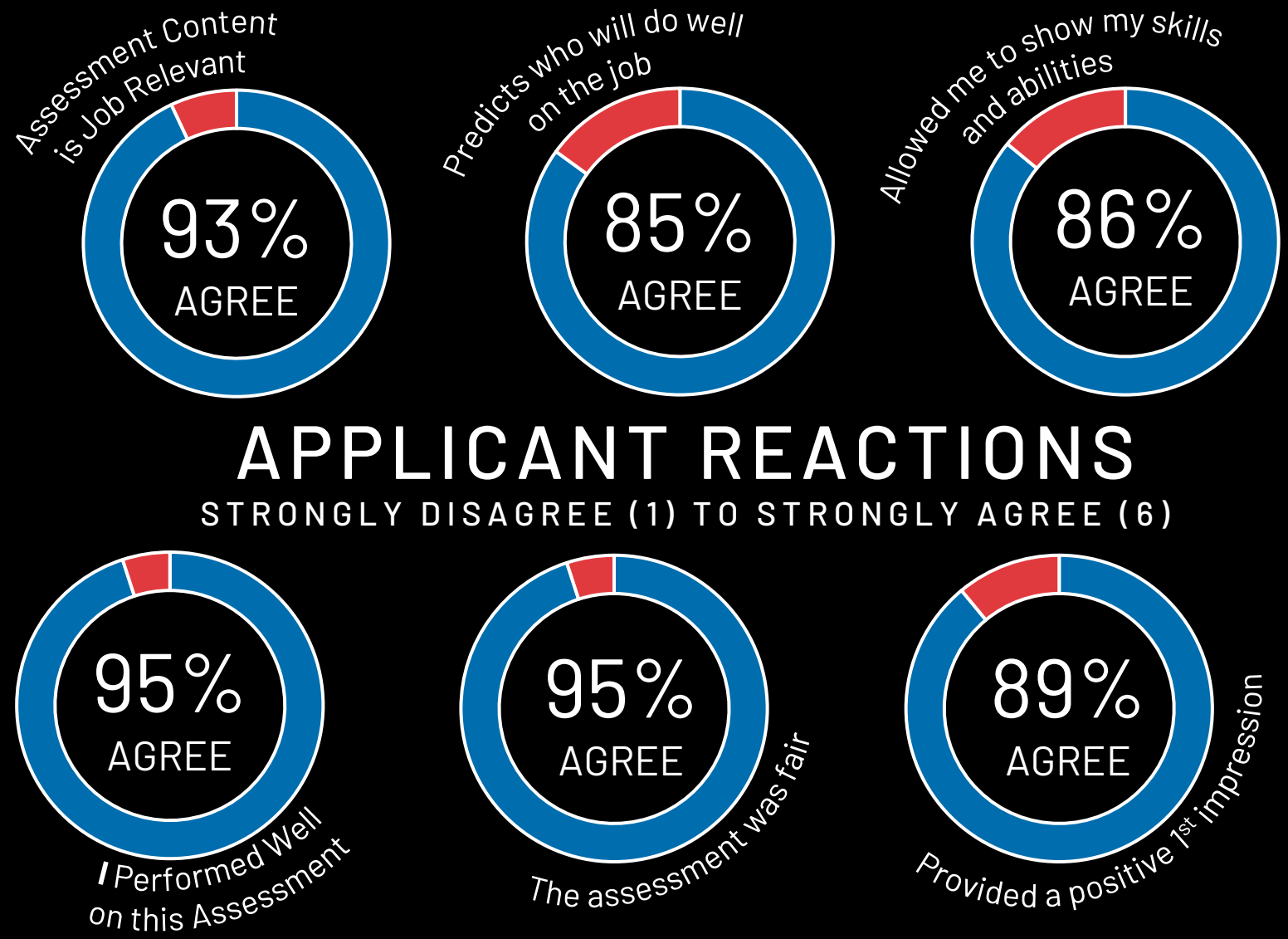
- Pre-screen online
  - Correlations with criterion in .20 to .30 range*
- Hands-on
  - Correlations with criteria in .30 to .40 range*
- Minimal group differences

*Corrected only for range restriction (applicant versus incumbent SD)

Simulation and Performance



Findings – Applicant Reactions



Wrap up & Key Takeaways

- Modularity is a philosophy and technology that allows for the combination of discrete assessment components into a cohesive whole
- It is evolutionary; advantages include improved efficiency and candidate experience
- While originally envisioned for online assessments, the approach has been expanded to hands-on testing
- As demonstrated in our case study, it is possible to maintain strong validity results and positive applicant reactions when applying this approach

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THANKS FOR YOUR TIME

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