



**Work Psychology Group**

Thinking differently

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# Situational Judgement Tests

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5<sup>th</sup> October 2011



# Overview

- What are situational judgement tests (SJTs)?
- FY1 SJT design & validation process
- Results
- Candidate reactions
- Recommendations

# What is a Situational Judgement Test?

- Situational Judgement Tests (SJTs) are a **measurement method** designed to assess judgement in work-relevant situations:
  - Present challenging situations likely to be encountered at work
  - Candidates make judgements about possible responses
  - Scored against a pre-determined key defined by subject matter experts (SMEs)
- Used successfully in high volume selection to test a range of professional attributes (e.g. graduate recruitment, postgraduate medical training, GP etc)

# What do SJTs offer?

- Robust measure of professional attributes in medicine
- Cost-effective to develop, administer & score
- Meta-analyses show good predictive validity & incremental validity over other measures in selection (e.g. McDaniel et al, 2001; 2007; Patterson et al, 2009)
- Generally smaller subgroup differences than cognitive ability tests (e.g. Lievens, et al, 2005)
- Favourable applicant reactions & high face validity
- Response formats constructed to minimise susceptibility to coaching (*ie what should you do?*)

# Example SJT items



**You are reviewing a routine drug chart for a patient with rheumatoid arthritis during an overnight shift. You notice that your consultant has inappropriately prescribed methotrexate 7.5mg daily instead of weekly.**

*Rank in order the following actions in response to this situation  
(1= Most appropriate; 5= Least appropriate)*

- A Ask the nurses if the consultant has made any other drug errors recently*
- B Correct the prescription to 7.5mg weekly*
- C Leave the prescription unchanged until the consultant ward round the following morning*
- D Phone the consultant at home to ask about changing the prescription*
- E Inform the patient of the error*

You review a patient on the surgical ward who has had an appendicectomy done earlier on the day. You write a prescription for strong painkillers. The staff nurse challenges your decision & refuses to give the medication to the patient.

Choose the **THREE most appropriate** actions to take in this situation

- A Instruct the nurse to give the medication to the patient
- B Discuss with the nurse why she disagrees with the prescription
- C Ask a senior colleague for advice
- D Complete a clinical incident form
- E Cancel the prescription on the nurse's advice
- F Arrange to speak to the nurse later to discuss your working relationship
- G Write in the medical notes that the nurse has declined to give the medication
- H Review the case again

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**Answer:  
B C H**

*Ensuring patient safety is key to this scenario. It is important to discuss the nurse's decision with her as there may be something that you have missed when first reviewing the patient. Therefore it would also be important to review the patient again. Also relating to this is the importance of respecting the views of colleagues & maintaining working relationships, even if there is disagreement. As there has been a disagreement regarding patient care, it is important to seek advice from a senior colleague.*

[www.isfp.org.uk](http://www.isfp.org.uk)

# SJT Design & Validation Process

## Job Analysis

- Literature reviews, observations (29 hours), interviews (n=51), validation survey (n=230)

## Item Writing

- Item writing workshops with subject matter experts (N=89)

## Item Reviews & Usability

- Focus groups with students & stakeholders to review item content & scoring keys

## Proof of Concept Pilot

- Suitability of response formats, candidate reactions, psychometric properties (N=455)

## Concordance Stage

- SMEs review items & finalise scoring key

## Main Pilot

- Piloting in 13 Medical Schools to maximise item bank & confirm scoring keys (N=639)

## Quality Assurance

- Psychometric analysis of item quality, group differences, peer reviews

## Validation Studies

- SJT results compared with relevant exam scores (N=93) & other indicators

# FY1 SJT Target Domains

- Patient Focus
- Commitment to Professionalism
- Coping with Pressure
- Effective Communication
- Working Effectively as Part of a Team

*NB. An SJT item will not exclusively measure a single domain*

# Commitment to Professionalism

*Takes responsibility for own actions. Displays honesty, integrity, awareness of confidentiality & ethical issues. Demonstrates motivation & desire for continued learning.*

## Negative:

- Blames others, avoids taking responsibility for poor decisions/ideas
- Dishonest & lacking in integrity
- Unreliable, unlikely to engender trust in others
- Shows little regard for confidentiality & ethics
- Disregards need for continued learning
- Resistant to feedback
- Shows lack of enthusiasm for own development

## Positive:

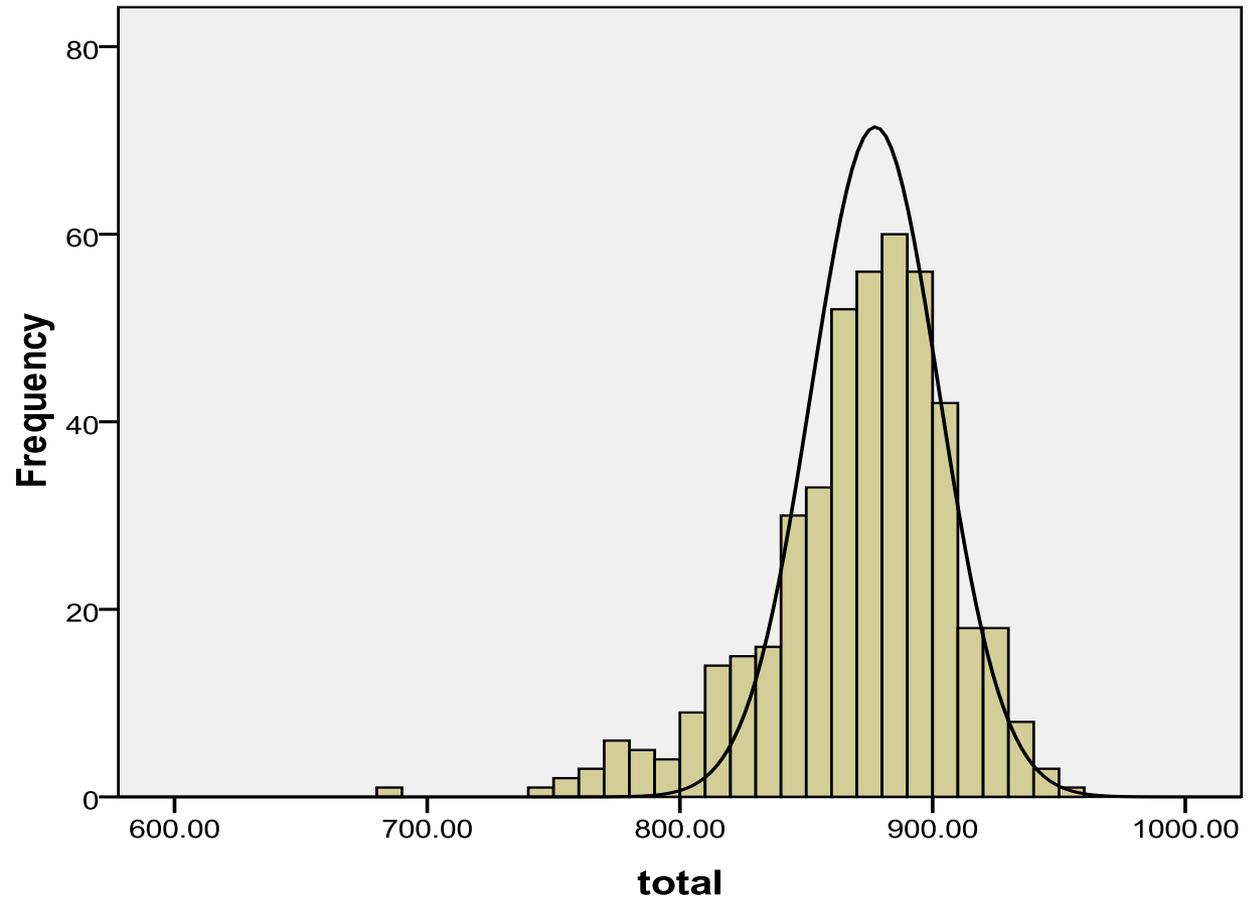
- Takes responsibility for own actions , doesn't blame others
- Displays honesty & integrity
- Is reliable & trustworthy
- Respects confidentiality, adopts ethical approach
- Demonstrates desire for continued learning
- Open to feedback
- Committed to own development

# Analysis & Reporting

- Reliability analyses
- Psychometric analysis at item & test level
- Group differences
- Criterion-related validity
- Peer reviewed

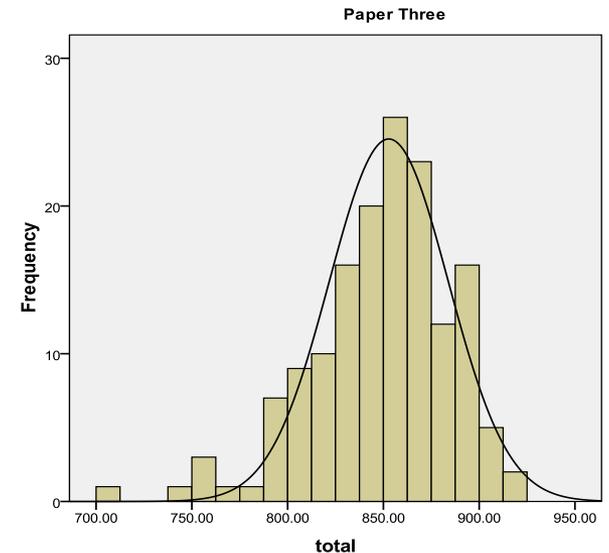
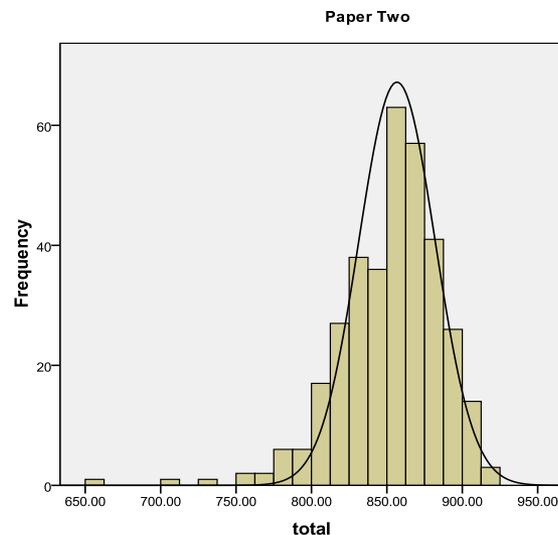
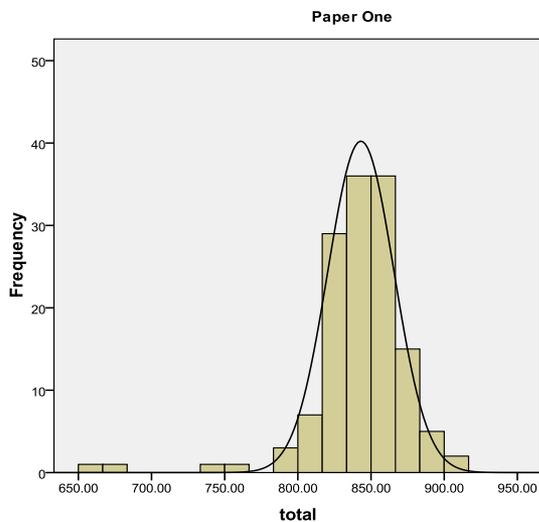
# Initial Pilot Results

- $N = 455$
- $\alpha = .74$
- Mean = 870
- SD = 37.3



# Main Pilot Results (N=639)

- Three pilot papers.
- Psychometric analyses show good reliability. Cronbach's coefficient alpha ranging from  $\alpha=.74$  to  $\alpha=.85$
- Substantial number of items now piloted & quality assured with further reviews in progress.



# Validation study (1)

\*\* p<.01

N=93	Application Form	Quartile	Written Exam Overall	OSCE overall
Application Form	-	-	<b>.33**</b>	<b>.33**</b>
Quartile total	<b>.36**</b>	-	<b>.69**</b>	<b>.59**</b>
SJT total	<b>.40**</b>	<b>.36**</b>	<b>.30**</b>	<b>.49**</b>

# Group Differences

- Females scored slightly better than males, but less than half 1 SD
- Black & Minority Ethnic groups scored lower than Whites ( $p < 0.05$ )
- Caution in interpreting these results due to the small sample size
- Findings of this nature & magnitude are typical with many selection methods & examinations
- A richer understanding of the implications of the observed groups differences in practice is needed



# Candidate Reactions

Extremely Dissatisfied



Dissatisfied



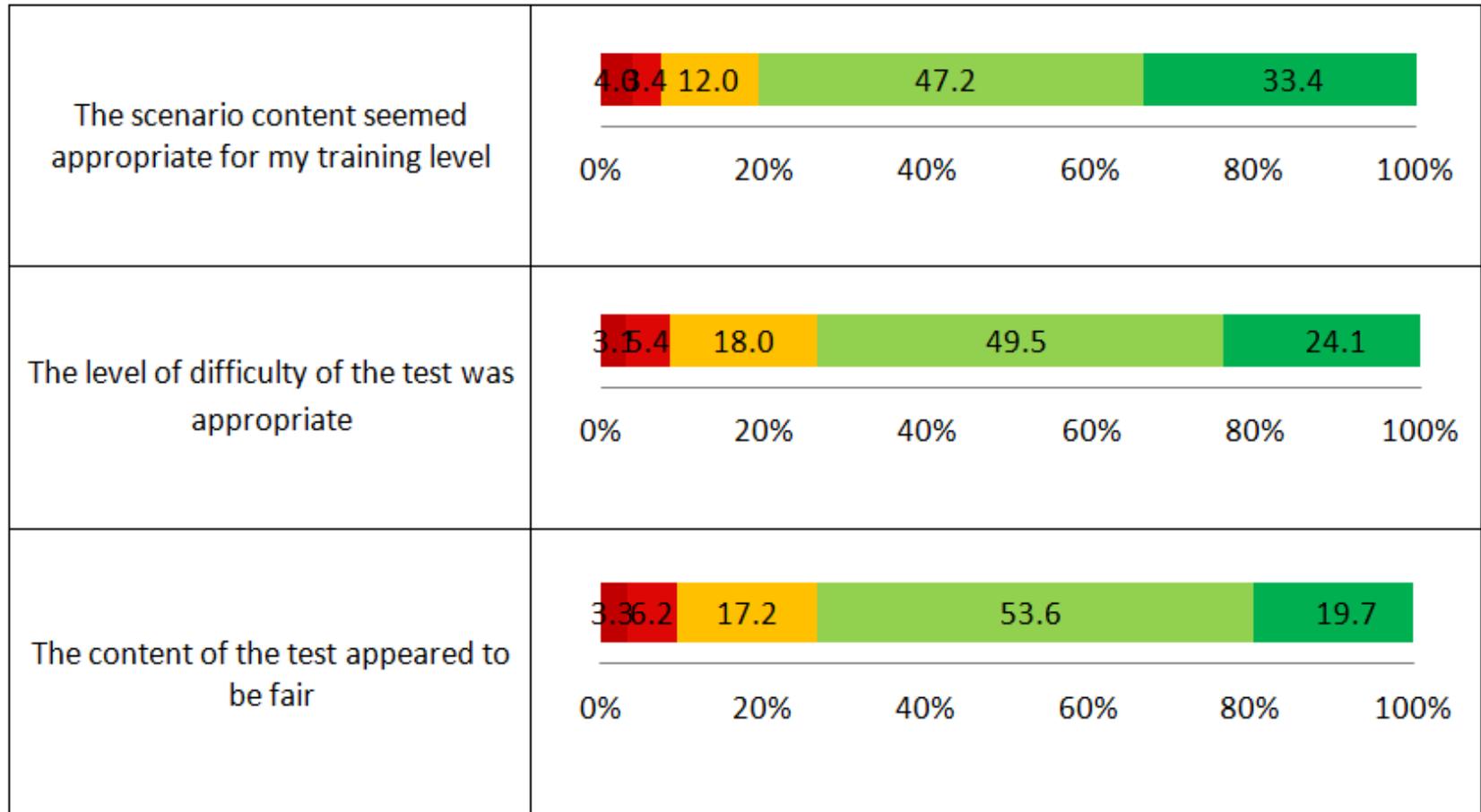
Neither



Satisfied



Extremely Satisfied



# Example candidate comments

- *“I think it’s an excellent idea as it tests the candidate in real life clinical scenarios”*
- *“Offers insight into scenarios they will encounter as an FY1”*
- *“Such a test is a reasonable alternative to the white space questions & would be very fair”*
- *“There’s is a lot to read & it is quite tiring”*
- *“A couple of the questions were ambiguous in content”*
- *“this test is useful as it is done alone with no senior doctor help”*

# Recommendations

- 60 questions in 2hours covering the target domains & to ensure a capacity to differentiate reliably between candidates
- Plus a small number of pilot items each year (2hrs 20minutes in total)
- SJT will use a combination of ranking & multiple response response formats
- Further psychometric analyses, monitoring of group differences
- Analysis of candidate reactions
- Long-term predictive validity studies
- Continued item writing to maximise the item bank for future years

# Thank you

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