A BEHIND-THE-SCENES LOOK AT THE WRITTEN EXAMINATIONS

A DAY IN THE LIFE OF AN EXAMINER, WITH APOLOGIES TO A. SOLZHENITZYN

Dr Sanjay Patel
Chair,
Writtens Subcommittee

Dr Nathan Gibson
Chair
Committee for Examinations

Mr Peter Congdon
Manager, Assessments

Dr Andrew Robinson
TRC Representative
We acknowledge Aboriginal and Torres Strait Islander Peoples as the First Nations and the traditional custodians of the lands and waters now known as Australia, and Māori as tangata whenua in Aotearoa, also known as New Zealand.

We recognise and value the traditional knowledge held by Aboriginal and Torres Strait Islander Peoples and Māori.

We honour and respect the Elders past and present, who weave their wisdom into all realms of life—spiritual, cultural, social, emotional, and physical.
OVERVIEW

• The assessments’ organisational structure
• The purpose of the different examination formats
• Standard setting
• The Minimally Competent Junior Psychiatrist
• Marking
• Post-hoc Analyses
• Questions from the TRC
• Q&A session
ORGANISATIONAL STRUCTURE
WHO MAKE UP THE CFE AND WRITTENS SUBCOMMITTEE?

The Board → Education Committee → Committee for Examinations → Writtens → OSCE → PWC → SP
WHO MAKE UP THE CFE AND WRITTENS SUBCOMMITTEE?

- Chair, Deputy Chair, & Co-chairs of the Subcommittees.
- Nominations from Fellows of Fellows
- To be Subcommittee member, Fellows must have three years post nominals.
- 3-year terms (max of 2).
- Volunteers
WHO ARE THE QUESTION WRITERS AND MARKERS?

- RANZCP Fellows
- Binational representation
- Passionate about training and teaching in psychiatry
- Question Writing Workshop
- Vetting, a continual process
- To be a marker, Fellows are to have two years post nominals
THE WRITTEN EXAMINATIONS
• Computer-based examination (usually)

• Covers foundational knowledge
  – Stage 1 and Stage 2 syllabus
  – Standard for the end of Stage 3

• 140 MCQ and EMQs

• 2 CAP papers.

Figure 2: Miller's pyramid of competence
SP=simulated patients; OSCE=objective structured clinical examination; HCQ=multiple-choice questions.
• Paper-based examination
• Capacity for critical thinking about issues relevant to the practice of psychiatry.
• This is a knowledge application examination.
• Candidates are expected to have broad and deep knowledge around:
  – clinical psychiatry, governance and,
  – the practice of psychiatry in a cultural and political context.
PURPOSE OF THE EXAM FORMATS: MEQ

• Paper-based examination assesses knowledge application.

• A series of vignettes of situations most psychiatrists will face in their day-to-day practice.

• Capacity for critical thinking including sociocultural, models of illness, ethical, and complex service issues.

• Theoretical basis basic sciences, CPGs.

Figure 2: Miller’s pyramid of competence
SP=simulated patients; OSCE=objective structured clinical examination; MCQ=multiple-choice questions.
QUESTION SETTING & VETTING
QUESTION GENERATION & VETTING PROCESS

• A range of sources, most commonly from real-life experiences of Fellows in the workplace, from journal articles/guidelines/peer review.

• All are relevant to psychiatry

• Strong face validity,
  – situations likely to be seen as a trainee or a consultant.

• Syllabus / blueprinting matched

• Repeat reviews
THE LIFECYCLE OF THE MEQ

Performance review Analyses:
• Quantative & qualitative
• Placement in the paper
• Judgement about the quality of the question
• Feedback from markers
• Published or stored for upcycling.

Preparation
Inspiration
Researched
Drafted

Storage
Content vetting
Checking
Blueprinting
Storage

Use
Selected
Reviewed again
Edited
Standard setting

Review
THE LIFECYCLE OF THE CEQ

- Reading
- Banked
- Selection
- WSC 'sits' the exam
- Standard setting
- Review
- Calibration & marking
- Exam
STANDARD SETTING
STANDARD SETTING

• Follows EB-procedures
• Reflects the final outcome of a learning process.
• ‘How good is good enough?”.

• Criterion-referenced

• Norm-referenced processes - NOT USED.

• A cut-score from this is derived and thus will differ for each examination.
THE STANDARD SETTING PROBLEM

Candidate is . . .

<table>
<thead>
<tr>
<th></th>
<th>Competent</th>
<th>Incompetent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fail</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MODIFIED EBEL METHOD

• A recognised process to determine the pass mark.

• Recognises also that all methods of assessment will involve some element of expert judgement.

• There is no universally recognised ‘gold standard’ method.

• Acceptance there is no completely objective, mathematical calculation that will deliver the pass mark.
MODIFIED EBEL METHOD:
TWO STAGES: 1

Importance (Relevance)
Peer determined

- Awareness of - Desirable
- In-depth knowledge - Essential / Critical
- Working knowledge - Very important
MODIFIED EBEL METHOD:
TWO STAGES: 1

Importance (Relevance)
Peer determined

In-depth knowledge
- Essential / Critical

Awareness of - Desirable

Working knowledge - V important

CAP MEQ
MODIFIED EBEL METHOD:
TWO STAGES: 2

Difficulty (peer determined)

- % providing the correct response*

- Marks achieved*

* Minimally competent junior psychiatrist
A junior psychiatrist:

- Some knowledge gaps
- Some difficulty applying knowledge to more complex clinical situations
- Seeks advice more often than a senior colleague
- Can lack sophistication

But…

- A good grasp of basic knowledge
- Able to practice independently or in private practice
- Is “safe” enough to be on an after-hours roster or to cover a colleague’s leave
- “Forgivable errors”
WHY THE “MINIMALLY COMPETENT PSYCHIATRIST”? 

- Represents the point at which a candidate is ‘good enough’ = pass mark

- Can be conceptualized as the ‘point of separation’ between pass and fail categories

- This ‘point of separation’ can be translated into a cut score

- Fairness
MARKING
ESSAY MARKING

• MEQ Marking Teams

• CEQ Markers

• 3rd Marker Criteria

• Volunteers
• Calibration for the MEQ is conducted by each team and usually via discussion with follow up conversations.

• Calibration for the CEQ:
  – Mandatory attendance
  – 6 / 10 randomly selected papers

• Consensus - standardised evidence-based processes.
POST-EXAM RESULTS ANALYSIS

- All results are analysed and validated from the raw data
  - Multiple methods; independent checking
  - This gives us the confidence that the results being used are as accurate as possible.
- Analyses are performed to identify inconsistencies
  - Candidate performance
  - Response options
  - Marker feedback
- Any unexpected result is reviewed and considered for removal from the final score calculation.
- Cohort comparisons
- Within-cohort comparisons (e.g. SIMG & Trainees)
ITEM ANALYSIS

- Analysis of item difficulty
  - P-value (% / factor of 1)

- Analysis of item discrimination
  - Discrimination is good!
  - Item-Total Correlation: Biserial and Point Biserial correlation

- Analysis of item options
  - Review the performance of incorrect options

- Comparative analysis of candidate groups
  - Within-item analysis
  - Cross-group analysis
<table>
<thead>
<tr>
<th>MEQ</th>
<th>Name</th>
<th>Issue / Dx</th>
<th>Blueprinting</th>
<th>Total Mark</th>
<th>Avg. Mark (sd)</th>
<th>Avg. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.79 (1.9)</td>
<td>47.9</td>
</tr>
<tr>
<td>1.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.78 (2.2)</td>
<td>48.17</td>
</tr>
<tr>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.75 (1.3)</td>
<td>79.17</td>
</tr>
<tr>
<td>1.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.93 (1.6)</td>
<td>29.3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18.25 (4.4)</td>
<td>48.0</td>
</tr>
<tr>
<td>MEQ</td>
<td>Name</td>
<td>Issue / Dx</td>
<td>Blue-printing</td>
<td>Total Mark</td>
<td>Avg. Mark (sd)</td>
<td>Avg. (%)</td>
</tr>
<tr>
<td>-----</td>
<td>------</td>
<td>------------</td>
<td>---------------</td>
<td>------------</td>
<td>----------------</td>
<td>----------</td>
</tr>
<tr>
<td>1.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.79 (1.9)</td>
<td>47.9</td>
</tr>
<tr>
<td>1.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.78 (2.2)</td>
<td>48.17</td>
</tr>
<tr>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.75 (1.3)</td>
<td>79.17</td>
</tr>
<tr>
<td>1.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.93 (1.6)</td>
<td>29.3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18.25 (4.4)</td>
<td>48.0</td>
</tr>
</tbody>
</table>
YOUR QUESTIONS ANSWERED
WHY THE COLLEGE HAS NOT RELEASED ANY SAMPLE ANSWERS FOR THE MEQ OR CEQ?

- Being addressed.

- Elements of papers to highlight a particularly relevant competency
  - well-written prose, how ethical principles are woven into an essay.

- The risk:
  - Becomes a focal point for candidates,
  - Formulaic responses.
WHY SO FEW PRACTICE MEQ QUESTIONS ARE RELEASED FOR AN EXAM WITH SUCH LOW PASS RATES?

- Small bank of questions,
- > 12 months’ gestation
- Recycling and upcycling
The ability to consider broadly and deeply how day-to-day practice is impacted upon by historical, contemporary cultural and socio-political factors and, to be able to enunciate that in written form is an essential skill for psychiatrists in a broad range of roles.
WHY IS THE CUT SCORE NOT PUBLISHED?

- There is a risk that candidates will focus on the cut score and work towards that.
- The cut score changes
  - standard setting, which relies on the expertise of Fellows determining the cut score and on the questions set for that exam.
• This is not possible at this particular time.

• Remember, the committees are peopled by volunteer Fellows who are passionate about teaching, training and development.
I. STRATEGIES TO IMPROVE TRAINEE PERFORMANCE IN THE ESE

- This is the responsibility of all stakeholders, including the CFE.

- Compared to MCQ and the OSCEs?
  The MCQ and OSCEs measure different competencies. They are both good examples of evidence-based assessment methods however they are limited in the depth of knowledge which can be assessed.
II STRATEGIES TO IMPROVE TRAINEE PERFORMANCE IN THE ESE.

- We have implemented a number of changes in the ESE, some pre-ACER.

- CEQ: 40 marks (unchanged) but over 50 minutes and, those 50 minutes can be used by a candidate as they choose.

- MEQ: 125 marks in a 150-minute examination
• Reading extensively and broadly

• Podcasts
  – Preparation for the CEQ and MEQ papers.
  – Hosted by current examiners and trainees who have recently sat the exams.