

THE OBJECTIVE STRUCTURED PRACTICAL EXAMINATION DEMYSTIFIED

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IN THE BEGINNING....

- ▶ **Bloom has defined three main domains of learning:**

- cognitive (knowledge),
- psychomotor (**skills**) and
- affective (attitude).

- ▶ **The learning cycle is a triad of:**

- educational objectives,
- instructional methodology, and
- assessment.

- ▶ Amongst these, **assessment** is a critical issue.



ASSESSMENT TOOLS....

- ▶ **Effective assessment** tools for each domain of learning
- ▶ Should judge students' **performance and progress** throughout course
- ▶ In a **fair and objective** manner
- ▶ Other criteria for effective assessment tools include: **validity, reliability, practicability, relevance, promotion of learning, relaxed environment and positive student feedback**



ASSESSMENT OF PRACTICAL SKILLS...

- ▶ **Essential for patient safety and quality of treatment.**
- ▶ **Provides feedback and**
- ▶ **Motivation for continued learning**
- ▶ **Conventional/traditional practical examination has several problems:**
 - outcome,
 - subjectivity
 - reflects general performance but not individual competencies
 - failure to identify underperforming student



IDEALLY A FORMATIVE ASSESSMENT ...

- ▶ **Increases self-awareness**
- ▶ **Encourages self-evaluation and learning**
- ▶ **Highlight students requiring closer supervision**



ASSESSMENT INFLUENCE LEARNING STRATEGIES ...

- ▶ Widely recognised that **student learning** closely linked to **assessment methods experienced** during study
- ▶ Assessment methods should include **feedback to student, providing a learning opportunity**
- ▶ Learning to **assess the quality of a performance** is the central element in developing **reflective thinking**
- ▶ Student's ability to assess the quality of own abilities important in order to **identify possible ways to improve performance**
- ▶ This is the **basis of lifelong learning**



EFFECTIVE ASSESSMENT OF EFFECTIVE LEARNING...

- ▶ The best way to assess whether a student is competent in a manual technique, is to **observe** them carrying out that activity to provide insight into the student's:
 - handling skills,
 - patient positioning
 - communication with the patient



THAT LEADS US TO THE ...

OSPE



WHAT THE....



Objective structured practical examination - OSPE

(Harden and Gleeson 1979)

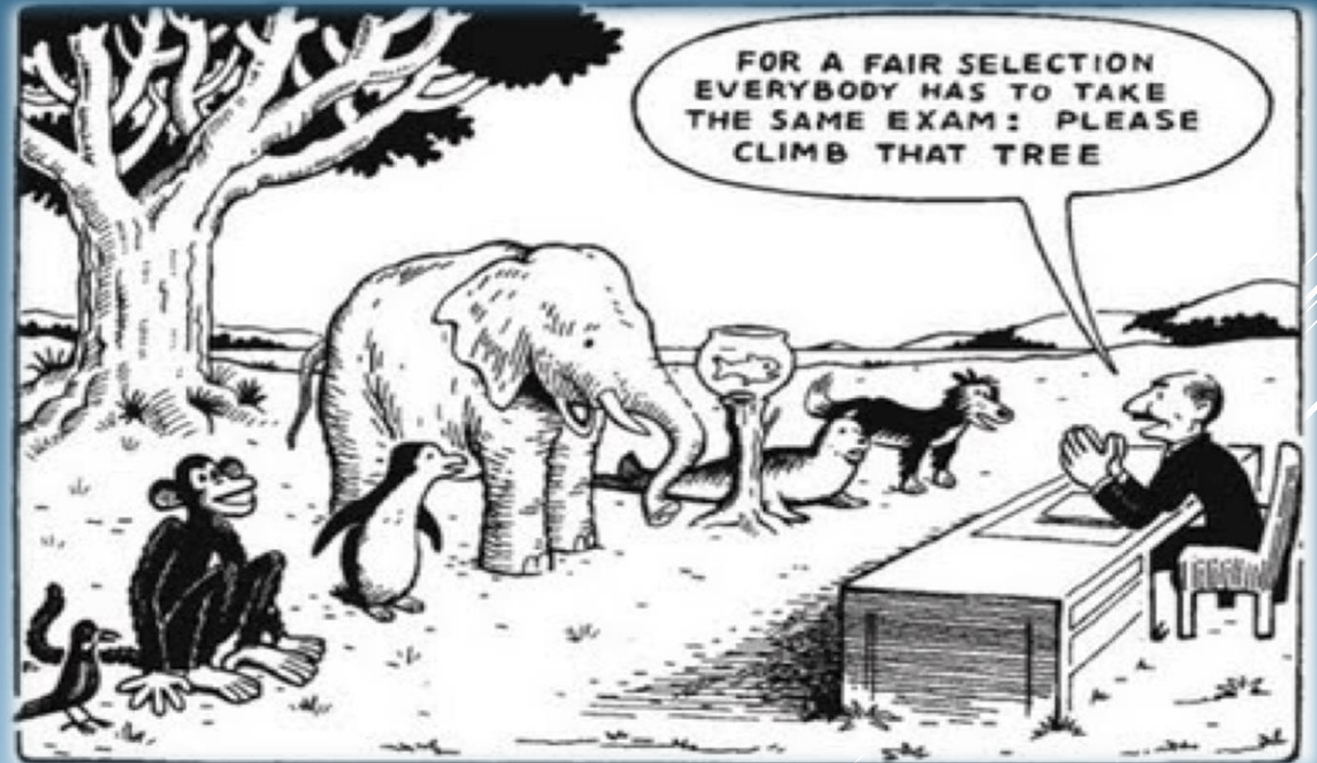
- Circuit of standardised assessment **stations**
- Made up of **tasks** based on clinical situations
- Marksheet consists of list of **competencies/micro-skills**
- Each **skill weighted** at different levels according to importance and difficulty (Scott *et al* 2001)
- These **pre-determined criteria** agreed upon beforehand by examiners (Larsen and Jeppe-Jensen 2008).



WHY IS IT IMPORTANT?

- ▶ **Objectivity** in practical assessment remains a challenge as a result of a variety of factors including consistency of those making judgements

(Scott et al 2001)



UNSTRUCTURED VS OSPE METHOD

- Practical examinations always contain element of subjectivity, but can be limited by OSPE
- **Using OSPE method limits variables of unstructured method:**
 - Control **examiner** – clear instructions, including prompting of students, timekeeping, feedback
 - Control **patient** factor – use healthy co-students as models
 - **Environment** standardised – stations set up similar fashion
 - **Technique** controlled by using structured marksheet to assess competencies, enhancing the quality of feedback to the student



WHAT MAKES IT SUCH A GOOD METHOD?

- ▶ effective, valid, reliable
- ▶ defensible assessment method
- ▶ evidence-based
- ▶ uniformity since all students perform all the tasks
- ▶ very objective
- ▶ large number of students effectively examined in a relatively short time
- ▶ all students are exposed to same standardised questions
- ▶ removal of variability
- ▶ opportunity for formative feedback because criteria are clearly defined
- ▶ provides a unique programmatic evaluation



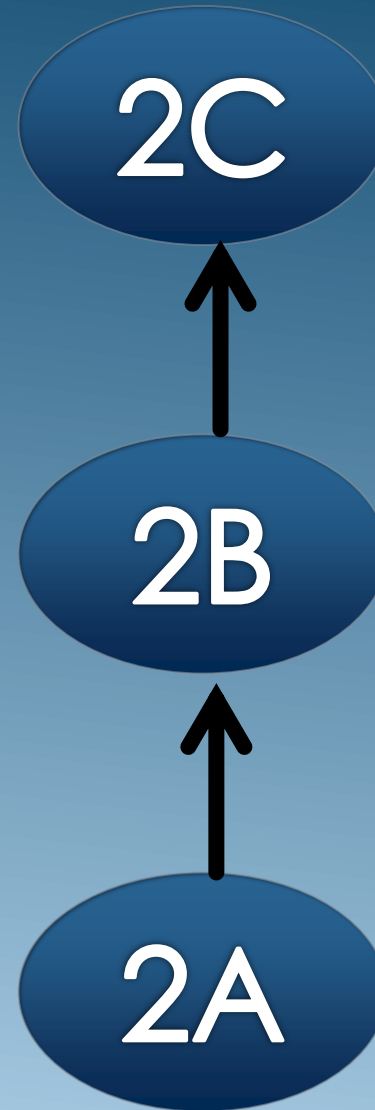
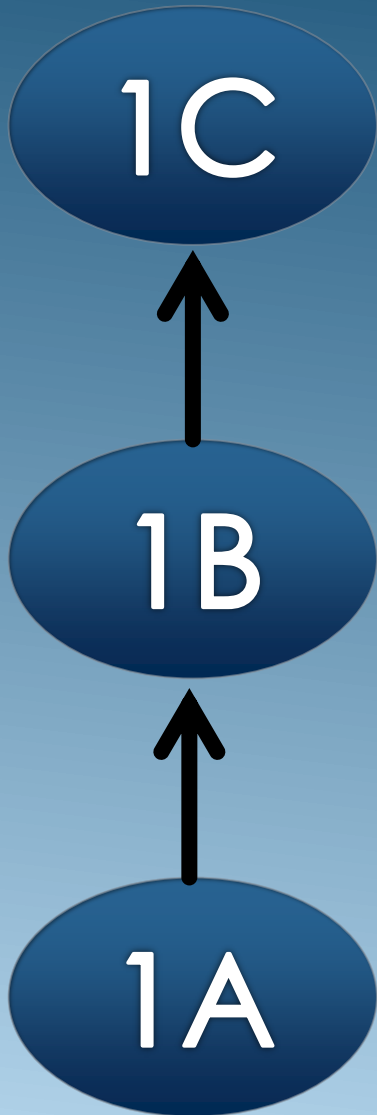
THE WITS EXPERIENCE



UNIVERSITY OF THE
WITWATERSRAND,
JOHANNESBURG



IFOMPT Teachers Meeting, Glasgow – 3 July 2016



- ▶ 3 parallel stations
- ▶ 1 technique at each station
- ▶ 5 min at each station
- ▶ Each student performs 3 techniques



PHYSIOTHERAPY EXAMINATION FORM

NAME: DATE:

QUESTION/PROBLEM:.....

	Possible marks	Marks awarded
1. General 1.1 Professional appearance & conduct 1.2 Preparation of patient & equipment (including positioning) 1.3 Interaction with patient (explanation, motivation, physical handling, respect & use of voice.	5	
COMMENTS		
2. Technique 2.1 Correct choice 2.2 Demonstration 2.3 Application of technique (appropriate hand position, ROM, use of body weight, depth, sequence etc) 2.4 Effectiveness of technique	40	
COMMENTS		
3. Background knowledge and recording	5	
TOTAL	50	

PERCENTAGE:

SIGNATURE:

Name: _____ Date: _____

Question/problem: Demonstrate use of the contract relax technique to improve his knee flexion range of movement

1. General					/5
Professional appearance & conduct	0	1			
Preparation of area & equipment	0	1	2		
Interaction with patient (explanation, motivation, physical handling, respect & use of voice)	0	1	2		
Comments					
2. Technique					/40
Screening for contra-indications	0	2	4		
Positioning of patient – high sitting or prone	0	1	2		
Student places segment at the end point of limitation within the movement pattern	0	2	4	6	
Resistance is then given either to the restricted agonist (direct contraction) or to the antagonist (reciprocal relaxation)	0	2	4	6	
Allow a few degrees of motion to ensure that all the muscles in that group have been recruited	0	2	4	6	
Duration and intensity of contraction should be sufficient to generate a strong contraction (approx 5 sec)	0	2	4		
Ask pt. to completely relax after which segment is passively/actively taken into new available ROM	0	2	4		
Repeat procedure	0	1	2		

Explanation of findings to patient	0	2	4	
General impression	0	1	2	
Comments:				

3. Background knowledge and recording

Difference between the Contract Relax and Hold Relax Techniques?	0	2.5	5
The contract relax method uses an isotonic contraction while the hold relax uses an isometric contraction			
Comments			

/5

TOTAL /50

PERCENTAGE

Name of examiner: _____ Signature: _____



The implementation of the Objective Structured Practical Examination (OSPE) method: Students' and examiners' experiences

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Background. Traditionally, physiotherapy practical skills have been assessed by a method that relies on the subjective interpretation of competency by the examiner and lacks the formative benefits of assessment.

Objective. To describe and compare student performance and satisfaction and examiner satisfaction with regard to the Objective Structured Practical Examination (OSPE) and traditional mark sheets during the practical skills assessment.

Method. Students and examiners taking part in the second-year physiotherapy practical skills test were invited to participate by completing a series of questionnaires. Performance of techniques was marked using both the OSPE and traditional mark sheets.

Results. Sixty-seven students and nine examiners participated in the study. Students scored an average of 4.6% (SD \pm 16.4) better when using the traditional mark sheet. Nonetheless, students and examiners expressed a preference for the OSPE mark sheet.

Conclusion. The OSPE mark sheet allows for increased objectivity, as the specific micro-skills are clearly listed and appropriately weighted. This resulted in increased satisfaction, but a decrease in marks obtained. By assessing the effect of implementation of the OSPE method on performance and satisfaction, change in the current situation can be monitored.

INTER-EXAMINER RELIABILITY WHEN USING THE OBJECTIVE STRUCTURED PRACTICAL EXAMINATION (OSPE) MARK SHEET FOR PHYSIOTHERAPY PRACTICAL EXAMINATIONS

ABSTRACT: Background: *The Objective Structured Practical Examination (OSPE) format is used during practical examinations as part of the physiotherapy undergraduate curriculum at the University of the Witwatersrand. Various factors influence inter-examiner reliability and investigating the inter-examiner reliability when using the OSPE can lead to improvement of the examination process. The aim of this study was to establish inter-examiner reliability when using the OSPE mark sheet.*

Methods: *Twelve examiners participated in this study. Thirty three second year PT students were examined at six stations and by two examiners at each station. The Spearman's correlation*

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TERMS AND CONDITIONS

- ▶ Models: real patients vs student peers
- ▶ Training of examiners
- ▶ Behaviour of examiners
- ▶ Micro-skills: number of ratings
- ▶ Clear description of micro-skills
- ▶ Time allocated per technique



AND IN CONCLUSION...

- ▶ The OSPE method is a valid and reliable practical skills assessment method
- ▶ For increased user satisfaction, be aware of the terms and conditions



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