



BLDE (Deemed to be University)
Shri B. M. Patil Medical College Hospital
and Research Centre Vijayapura
Medical Education Unit

**'Being a Competent
Medical Teacher'**

EDITOR

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12 OBJECTIVE STRUCTURED PRACTICAL EXAMINATION (OSPE)/ OBJECTIVE STRUCTURED CLINICAL EXAMINATION(OSCE)

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Specific Learning Objectives

- Introduction
- Organization
- Examples of OSPE stations
- Advantages & Limitations

Specific Learning Objectives:

- Define OSPE/OSCE
- Identify ways in which OSPE/OSCE differs from conventional practical /Clinical examination
- Realise the circumstances that necessitated introduction of OSPE/OSCE as an evaluation tool.(NEED)
- Define the qualities of good measuring instrument and state the extent to which OSPE/OSCE confirms to these qualities.
- Plan & organise the conduction of an OSPE/OSCE
- Identify the advantages & disadvantages of OSPE /OSCE from a practical point of view.

Introduction:

What is OSPE/OSCE?

It is an assessment tool in which various competencies of student are evaluated by using agreed checklist & rotating student through number of stations some of which have observer with checklists. History of OSPE/OSCE

An earlier innovation in this regard is the objective structured clinical examination (OSCE) later extended to the practical examination (OSPE). Described in 1975 .Greater detail in 1979 by Harden and his group from Dundee . The method was the subject of an international conference at Ottawa in 1985 when the worldwide experiences with OSCE and OSPE were exchanged

Why it is done?

Conventional practical/clinical examination is affected by

Variability in experiments selected

Variability in examiners

Subjectivity

Attitudes are not tested

Student's ability is not tested

Marks awarded reflect overall performance-Benedicts test

Therefore, adoption of a valid method for practical /clinical examination is needed for the evaluation as in OSPE /OSCE the process as well as the product is tested giving importance to individual competencies of students with Reliability *and thus overcome the above problems*

Organization of OSPE/OSCE

When & how it is done? For general experiments:

1. Identification of equipments/accessories
2. Procedure of experiment
3. Handling of equipments
4. Making observations/results
5. Interpretation of results

For clinical experiments

Historytaking

Physical examination,

Simple procedures,

Interpretation of lab results,

Patient management problems,

Communication,

Attitude, etc

Useful for the formative assessment

To improve the clinical competence

To derive an objective score for internal assessment **Useful for the slow learners as a teaching learning tool. Preparation of stations:**

What do you mean by the term STATION?

- In OSCE/OSPE the term STATION refers to each task assigned to the student.
- Based on the task assigned these stations can be classified as:
 - a. **Procedure Station:** The student is expected to perform a decided task in front of an observer who observes the student while doing the task and gives marks as per the provided checklist
 - b. **Response Station:** The student is expected to respond to certain questions, either based on the previous procedure station or chosen separately to evaluate areas of knowledge, interpretation, problem solving etc.
 - c. **Questions station:** are a type of Response stations, meant to test the knowledge part of the skills tested in prior stations.
 - d. **Rest Station:** These stations are meant to give a break to the students.
 - e. **Critical Station:** These stations are the must pass stations as they are meant to judge the most important and critical component of curriculum

Ideal OSPE/OSCE stations

- Ideally 15-20 stations
- Time for each station should not be less than 4 min
- All stations should be completed in the same period of time. Students are rotated through all stations.
- Types of stations
- Number of different type of stations need not be same

Examples of OSPE/OSCE stations:

Eg of procedure station-OSPE

- Task: Urine examination to detect urine sugar in the given sample.
- Time 5 minutes Marks -05

SL. No	Task	Marks
1.	Measure & take 5ml of benedict's reagent in a test tube	01
2.	Holding the test-tube with the holder, heat it over a spirit lamp till the Benedict's Solution boils without overflowing.-critical point	1.5
3.	Adds exactly 8 drops of urine	01
4.	Heat the test tube till boiling	01
5.	Records the findings correctly with grades	0.5

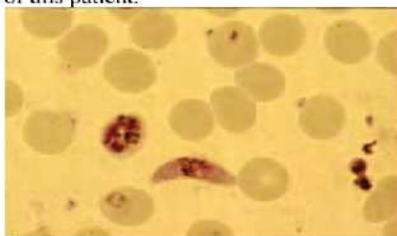
Eg of procedure station-OSCE

- Task: Examine the patient for clubbing
- Time 5 minutes Marks -05

SL. No	Task	Marks
1.	Does he see the nail profile?	01
2.	Does he palpate for fluctuation?-critical point	1.5
3.	Does he compare both hands?	01
4.	Does he examine the toes?	01
5.	Does he interpret correctly?	0.5

Eg of Response station.

14. A 17 year old boy has presented with a febrile illness which recurs every third day. The fever is high grade and accompanied by chills and rigors. This is the peripheral blood smear of this patient.



- What abnormality is seen in this blood smear?
- Name 2 drugs used in its treatment.
- Name one important complication.

TOPIC SPECIFICATION: INFECTIOUS DISEASES

Plan of location of stations & direction of movements

- **Preparation of checklists**
- **List of students with Reg. No & answer sheets**
- **Brief the evaluator & students**
- **Supplementation of questions with chart, figures, photographs, specimen, tables etc**

Advantages of OSPE/OSCE:

1. All components assessed
2. Uniform level of assessment
3. Large number of skills can be assessed objectively
4. Wider sampling-most topics can be covered
4. Reliable method of testing
5. Tailor made assessment of skills as per importance
6. Minimum subjectivity
7. Recall bias minimized
8. Thus the whole process is well defined, planned, objective, and structured with good amount of control over the variables like the quality of student, the type of patient, and the mood of the examiner.

Disadvantages of OSPE/OSCE

1. Risk of observer fatigue
2. Requires proper planning
3. Preparation of procedure & response station in appropriate ratio
4. Preparation of ideal check list is difficult.(Critical Point/station should be kept in mind)
5. Requires proper briefing to student & team work
6. Breaking skills into individual components

Take a home message:

OSCE/OSPE is an assessment tool in which all possible components of clinical /practical competence. can be tested using agreed upon check lists.

This is the most effective way of reducing the influence of examiners subjectivity and allows for evaluation in the most ideal manner.

This method provides opportunity to provide feedback to the students which goes a long way in improving learning by the students.

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