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Evaluating the Clinical Student With Reliability and Validity

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I have nothing to disclose.



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Objectives

1. Define the terms formative and summative assessment.
2. Define the terms norm referenced and criterion referenced evaluation.
3. Define the terms reliability and validity with reference to the evaluation of student performance in the clinical setting.
4. Describe strategies to enhance the reliability and validity of your evaluation of the student.
5. Write effective and constructive narrative comments on student evaluation forms that reflect efforts to make those evaluation comments both reliable and valid and supportive of numerical ratings.

Objective 1

Define the terms formative and summative assessment.

Formative Assessment vs Summative Assessment

- **Formative (to help learner "form")**
 - Feedback during a clerkship to help student with improvement during the progress of the clerkship.
- **Summative**
 - An assessment/evaluation (ratings and comments) at the end of a clerkship.

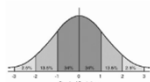
Objective 2

Define the terms: norm referenced and criterion referenced evaluation.

Norm Referenced Evaluation VS Criterion Referenced Evaluation

• Norm Referenced

- Comparing students to each other
- Supports a rank ordering mentality



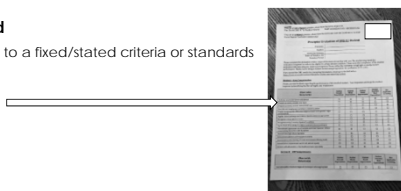
• Criterion Referenced

- Comparing students to a fixed/stated criteria (items on the eval form)

Norm Referenced VS Criterion Referenced

• Criterion Referenced

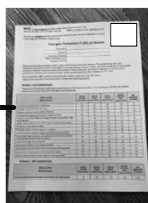
- Comparing students to a fixed/stated criteria or standards



Example 1: Oral Presentations

- Presents a concise, accurate oral report
 - Student Exceeds Expectations
 - Student Meets Expectations
 - Student Needs Improvement
 - Student Does Not Meet Expectations

Criteria



Example 2: Oral Presentations

- ❑ **Exceptional:** Tailors presentation to situation; emphasis and selection of facts includes key information
- ❑ **Advanced:** Fluent report; good eye contact; interpretation implied
- ❑ **Meets Expectations:** Maintains format; includes all basic information
- ❑ **Below Expectations:** Includes irrelevant facts; disorganized
- ❑ **Unacceptable:** Consistently Ill Prepared; reports inaccurate information

Objective 3

Define the terms reliability and validity with reference to the evaluation of student performance in the clinical setting.

Reliability and Validity

- **Reliability**
 - ❖ Is about consistency of measurement to determine a rating
- **Validity**
 - ❖ Is about accuracy of measurement to determine a rating

Objective 4

Describe strategies to enhance reliability and validity of your evaluation of the student.

Factors that can reduce reliability and validity of your evaluation of the student

- 1. Not understanding or mis-understanding items on the evaluation form.
 - A. Demonstrates appropriate use of available electronic resources without compromising interaction with the patient
 - B. Demonstrates understanding of social determinants affecting health
- 2. Not directly observing
- 3. Having a bias toward the trainee
 - Personal relationship with student
 - Providing medical care to student
- 4. Dismissing certain items on the eval form as non-important.

Factors that can reduce reliability and validity?

- 5. Thinking norm referenced when you should be thinking criterion referenced; which occurs when you start comparing students with each other to impact on your evaluation of them.
- 6. Lack of written comments to support ratings.



- 7. Not using all your sources (next slide) for determining ratings and writing comments

7 Sources for Determining Ratings & Generating Comments on Evaluation Forms

- 1. Clerkship Objectives
- 2. Evaluation Form
- 3. Observation of Student**
- 4. Interaction with Student**
- 5. Staff Input
- 6. Notes you make
- 7. Patient Feedback

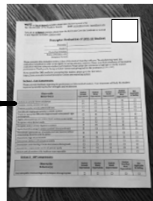
Objective 5:

Write effective and constructive narrative comments on student evaluation forms that reflect efforts to make those comments reliable and valid and supportive of numerical ratings.

- 1. Reliability & Validity are enhanced by writing comments to justify ratings, especially if those comments are based on direct observation.
- 2. Match narrative comments to items on the evaluation form.

Example 1: Oral Presentations

- Criteria
 - Presents a concise, accurate oral report
 - Student Exceeds Expectations
 - Student Meets Expectations
 - Student Needs Improvement
 - Student Does Not Meet Expectations





Criteria

Presents a concise, accurate oral report

- Example of comments based on observation and interaction with student.
- John's presentations of patients are always accurate and concise. His S and Q components are always well organized, and free of extraneous information. His assessments (A) are advanced for a student only on his fourth clerkship. His assessments are an indication that John is good about preparing to see patients by reading their charts well ahead of time, which I have observed him doing. He also becomes familiar with the literature on their diseases and conditions. His H and P skills, which I have directly observed on several occasions, are very good and he doesn't take shortcuts. His suggested plans (P) are logical and evidence based as he is well read and knows how to use electronic resources efficiently in support of those plans.

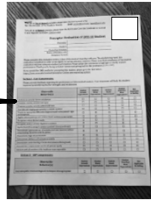
Rating?: Exceeds Expectations, Meets Expectations, Needs Improvement, Doesn't Meet Expectations



Example 1: Oral Presentations

Criteria

- Presents a concise, accurate oral report
- ⇒ Student Exceeds Expectations
- Student Meets Expectations
- Student Needs Improvement
- Student Does Not Meet Expectations





Comments to Support Needed Improvements for Bill who comes up short on problem list and differentials.

- I believe Bill needs to expand his problem list and differentials. This is best done by listening to the patient to obtain a complete problem list and then to think carefully about the associated anatomy and physiology relative to the chief complaint and to never eliminate something unless it has been actually eliminated.

Medical Student Performance Evaluation (MSPE/Dean's Letter)

• Residency Directors Want the Following:

1. Team player
2. Strong Work ethic
3. Patient Centered Skills (e.g. Communicates effectively with patient)
4. Service orientation
5. "Foundational" knowledge and skills
6. Self Awareness and Dedication to Improvement
7. Trustworthy
8. Positive Attitude
9. Knows how to prioritize
10. Leads by example

Use Narrative to Tell A Short Story



John displays patient centered skills more than any student I have taught. On numerous occasions I have seen him talk with patients about choices they can make to enhance their health. He never seems to be judgmental about patient decisions which I admit to not doing so well myself. John's body language and eye contact when talking to patients about sensitive topics is excellent and somehow his ability to just listen to the patient's story is something I can learn from him. Recently, I observed him with an elderly patient who had some bad health habits and needed to get some tests done. When I had worked with the same patient in the past, I was unable to convince him the tests were important and necessary. Instead of trying to "convince the patient" John just listened to him and affirmed his feelings and fears. Instead of pushing the patient he just sort of nudged him. The patient decided to get the tests that were indicated, and I am happy to report the patient is now moving forward to better health and he and I both feel better, thanks to John.

Thank you for attending this session.

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