

# UNT

# HEALTH<sup>TM</sup> SCIENCE CENTER



## Novel methods of assessment and feedback during experiential rotations

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# Session Learning Objectives: Pharmacists

- Evaluate students using informal assessment methods and use these methods to provide targeted, timely feedback.
- Compare feedback methods for students of various skill levels.
- Develop a comprehensive plan to link student self-assessment to formative and summative feedback.
- Design an experiential rotation calendar incorporating at least three novel assessment and feedback strategies.

# Session Learning Objectives: Technicians

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- Evaluate learners through use of self-assessment strategies.
- Compare formative versus summative feedback strategies.
- Utilize learner self-assessment tools to relay timely feedback.



# USING EFFECTIVE ASSESSMENT TOOLS

# “Assessment”

Measuring performance



Giving feedback

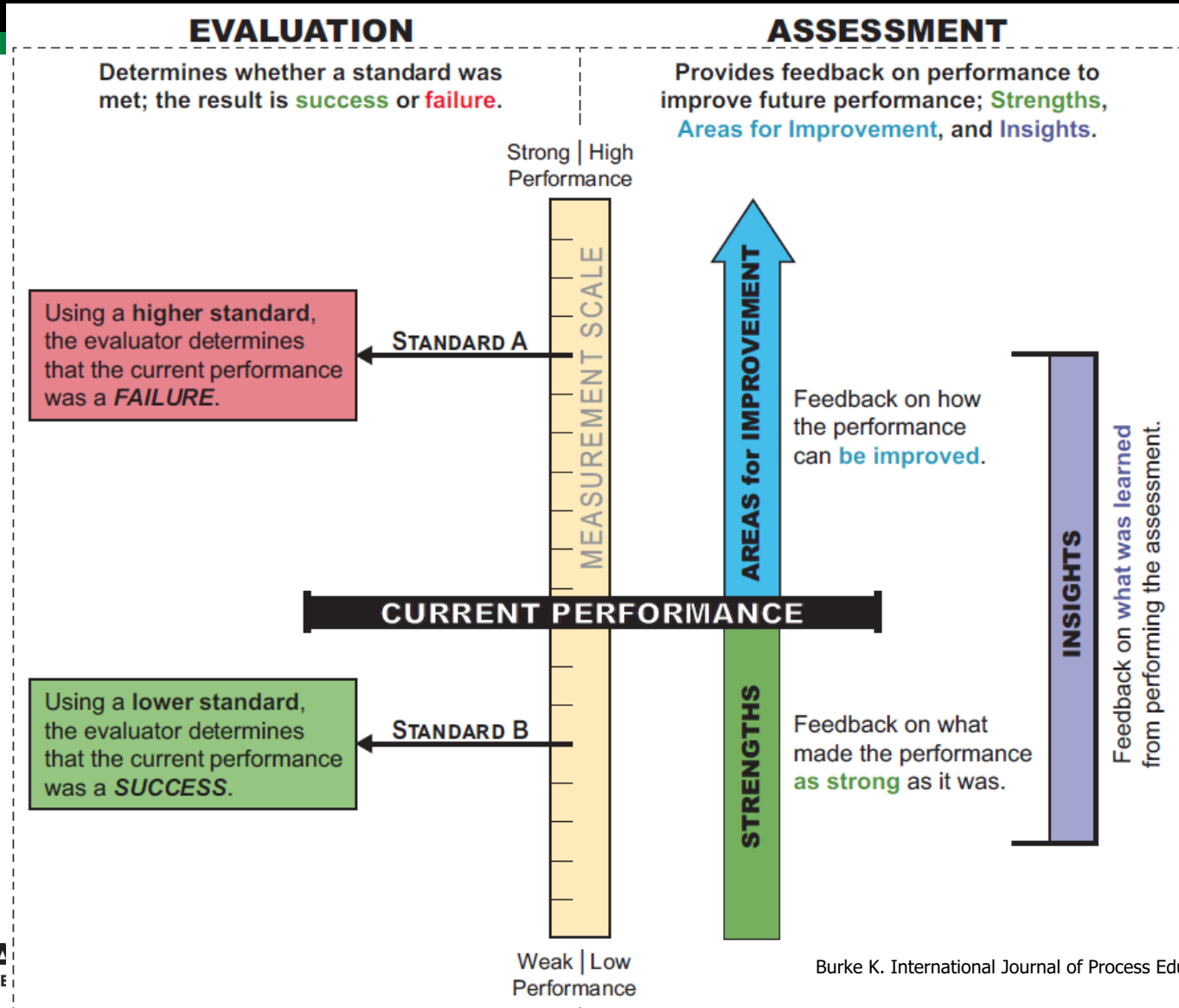


Document growth

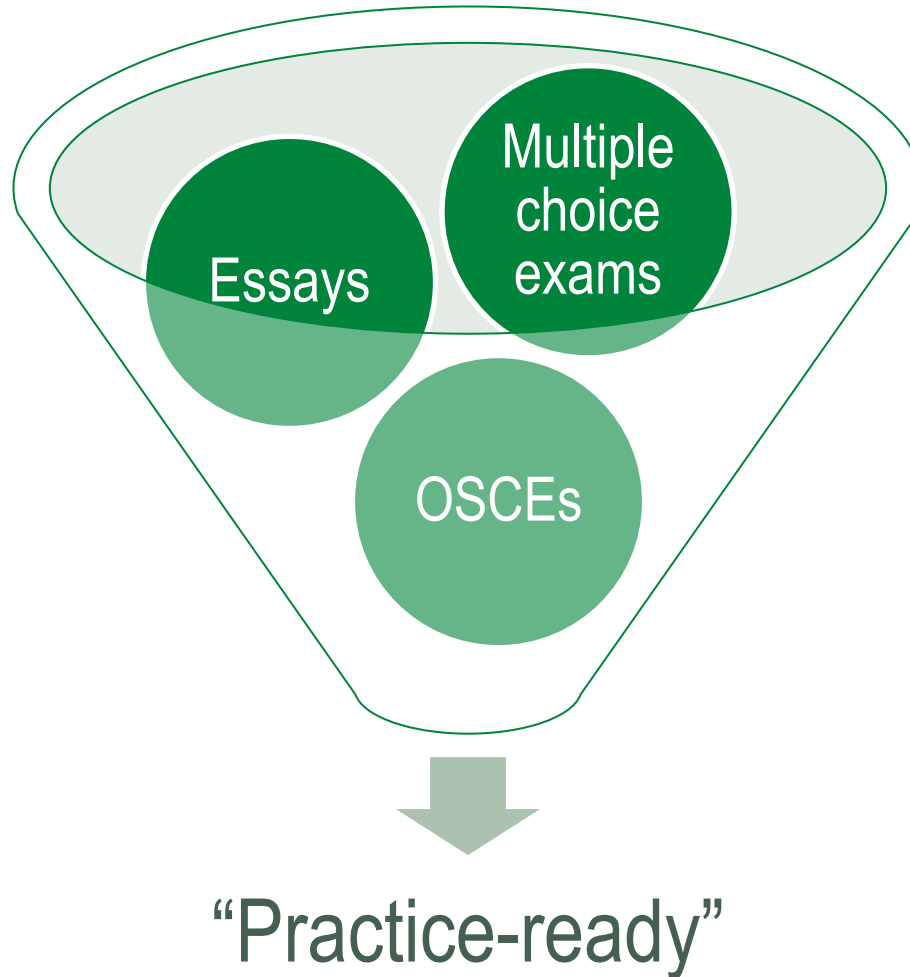


Recommendations for improvement

# Evaluation vs Assessment



# PharmD Curriculum Assessments



# Outcomes Assessments

Institute of Medicine Core Competencies	CAPE Educational Outcomes	Rotation-specific outcomes
<ul style="list-style-type: none"><li>• Provided patient-centered care</li><li>• Work in interdisciplinary teams</li><li>• Employ evidence-based practice</li><li>• Apply quality improvement</li><li>• Utilize informatics</li></ul>	<ul style="list-style-type: none"><li>• Foundational knowledge</li><li>• Essentials for practice and care</li><li>• Approach to practice and care</li><li>• Personal and professional development</li></ul>	<ul style="list-style-type: none"><li>• Apply the Pharmacists' Patient Care Process</li><li>• Medication counseling</li><li>• Drug information responses</li></ul>

CAPE: Center for the Advancement of Pharmacy Education

Greiner AC, et al. Health professions education: a bridge to quality. Washington (DC): National Academies Press (US); 2003.  
Medina MS, et al. Am J Pharm Educ 2013; 77(8):Article 162.



# Experiential Rotations Assessments

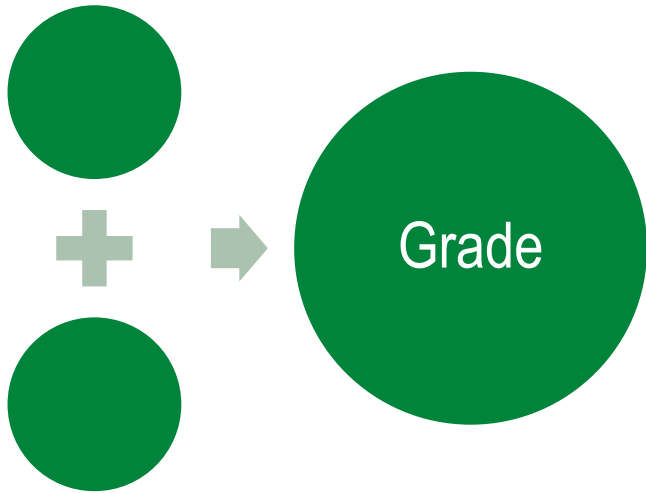
## Principles of good practice

- Begins with educational values
- Multidimensional, integrated, revealed over time
- Clear, explicitly stated purposes
- Outcomes AND experiences
- Ongoing, not episodic
- Representatives from across the educational community
- Begins with issues of use, illuminates questions that people care about
- Can promote change
- Educators meet responsibilities to students and the public

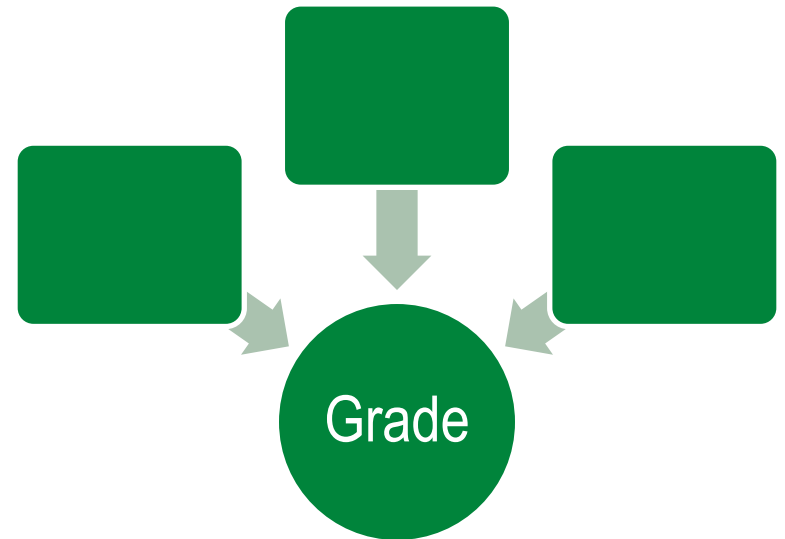
## Assessment activities

- Preceptor evaluation of the student
- Assignment rubrics
- Student self-evaluation
- Written examinations

# Grades vs. Competencies



OR



# Assessing Competencies

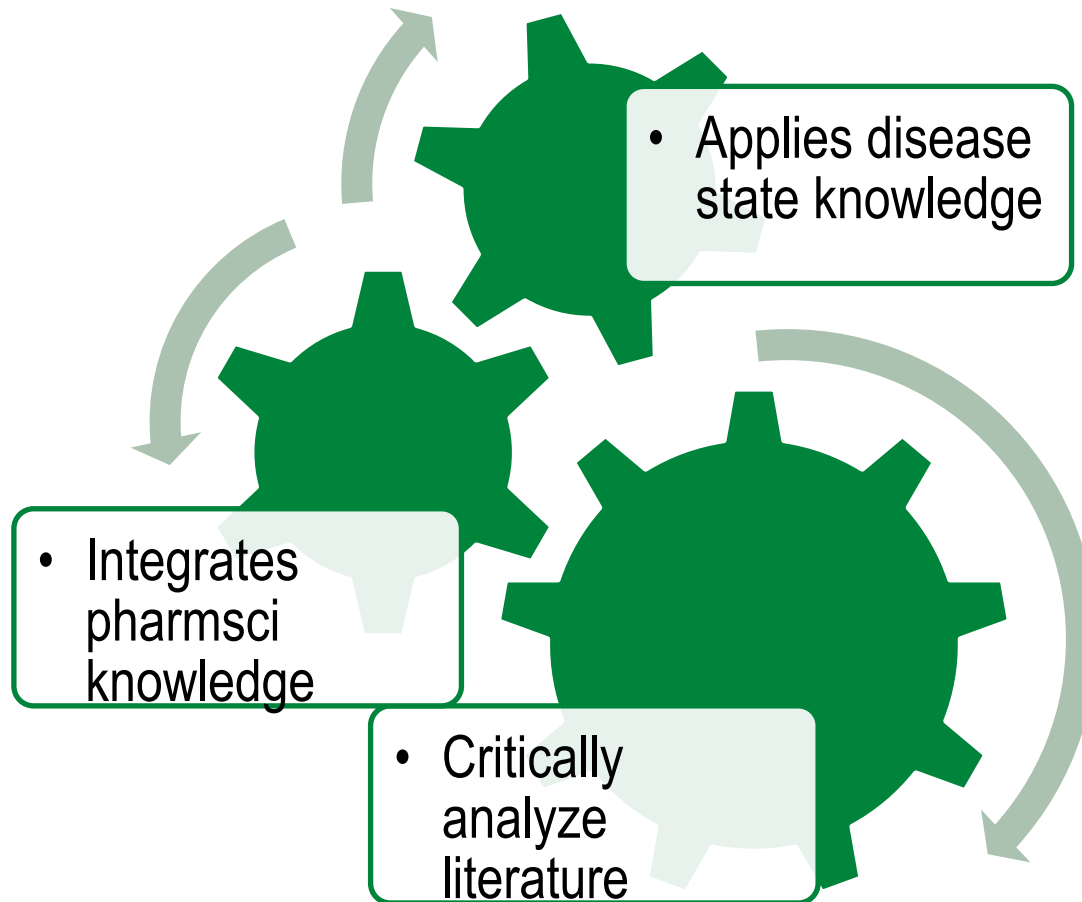
Review the  
evaluation

Map activities  
to outcomes

Assess the  
activities

# Assessing Competencies

## Foundational Knowledge



# Knowledge vs. Skill

- Pre- and post-rotation quiz
  - Sets baseline for student/cohort
  - Allows you to assess retention through rotation
  - Identifies difficult content areas
- Particularly useful for rotations with a knowledge-based evaluation at the end of the course

# Activity Assessments: Rubrics

- Rubrics
  - Texas Consortium on Experiential Programs (TCEP)
    - Case presentation
    - Drug information
    - Medication reconciliation
    - Patient counseling
    - Patient encounter (SOAP note)
  - Custom
    - Analytic vs holistic
    - Parts
      - Criteria/dimensions
      - Descriptors
      - Levels of mastery/scales
    - Validity and reliability

## TEXAS CONSORTIUM ON EXPERIENTIAL PROGRAMS CASE PRESENTATION EVALUATION FORM

STUDENT NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

### SCORING

5 = Excellent	4.5 = Very Good	4 = Good	3.5 = Minimal Competency	3 = Needs Improvement	2 = Significant Deficits Exist	0 = Unacceptable
Student has excelled in performing competency.	Student performed competency very well. (Is acceptable $\geq$ 90% of time)	Student performed the competency well. (Is acceptable $\geq$ 80% of time)	Student performed the competency at an acceptable level. (Is acceptable $\geq$ 70% of time)	Student knows how to achieve competency, but has not consistently demonstrated it at an acceptable level (Is acceptable $<$ 70% of time).	Student knows how to achieve competency, but rarely demonstrates it (Is acceptable $<$ 50% of time).	Student does not know how to achieve competency.
Student has exceeded expectations and can function independently at all times.	Student has met expectations and requires minimal to no guidance from preceptor (can perform independently $\geq$ 90% of time).	Student has met expectations and can complete task in a supervised situation with limited guidance from preceptor (can perform independently $\geq$ 80% of time).	Student has met expectations but requires occasional guidance from preceptor (can perform independently $\geq$ 70% of time).	Student requires significant guidance from preceptor (can perform independently $<$ 70% of time).	Student requires significant guidance from preceptor, and preceptor must often complete it for student (can perform independently $<$ 50% of time).	Student does not function independently and requires direct supervision by preceptor at all times.

Style	SCORE	COMMENTS
<b>Handout</b> (Appropriate length; arrangement; references listed in appropriate format; clarity; accuracy)		
<b>Audiovisuals</b> (Clarity; arrangement; appropriateness; appeal)		
<b>Delivery/Language</b> (appropriate rate/volume; eye contact; absence of distracting mannerisms; clarity of speech; preparedness; professional in appearance; avoided reading presentation; grammatically correct)		
<b>Organization</b> (Clear arrangement of ideas; good transitions)		
Content	SCORE	COMMENTS
<b>Research &amp; Knowledge</b> (Depth of research; analysis of material; appropriateness of references)		
<b>Discussion of Topic</b> (Appropriate recommendations; rationale of conclusions; summarized material; essential elements presented)		
<b>Questions &amp; Answers</b> (ability to defend responses to questions; understanding of questions asked; ability to handle difficult questions)		
<b>Overall Comments</b>		

TOTAL SCORE: \_\_\_\_/\_\_\_\_

FINAL: \_\_\_\_%

EVALUATOR NAME: \_\_\_\_\_

# Activity Assessments: Rubrics

- Transparency - tie assessments (or rubrics) to learning activity prior to any effort by student
  - If lengthy, consider an “orientation” session
  - “Every preceptor does it slightly differently”
  - Set expectations beyond the rubric (e.g. timeliness, communication, drafts)



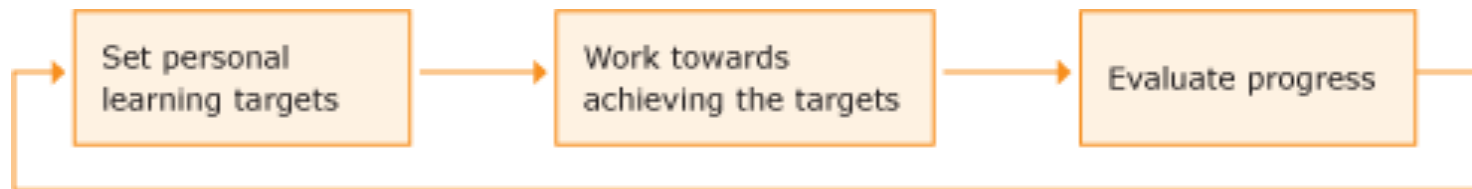
# Activity Assessments: Rubrics

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- Repository creation
  - How do you know when something is good?
  - Successful examples → assessment tool use
  - Google Drive, Dropbox, OneDrive

# Activity Assessments

- “Mini”-everything
  - Rubrics → checklists
  - Rotation goals → daily/weekly goals
  - Formal evaluation → quicker and more frequent assessments



- Document, document, document
  - Progress journal
  - Rotation calendar notes

# Self-Assessments

- Continuously done, rarely communicated
- Essential to formative assessment

“...when people are incompetent in the strategies they adopt to achieve success and satisfaction, they suffer a dual burden: Not only do they reach erroneous conclusions and make unfortunate choices, but their incompetence robs them of any ability to realize it. Instead... they are left with the mistaken impression they are doing just fine.”

# Self-Assessments

- Biased?

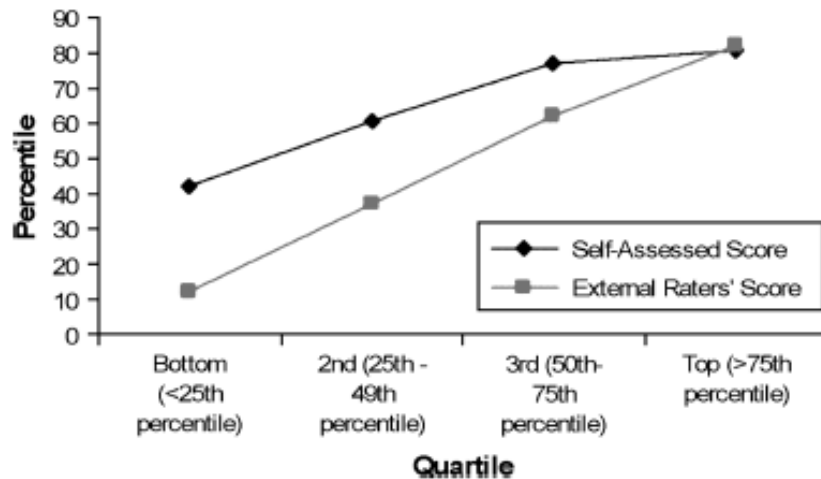


Figure 1. Self-assessed scores of clinical knowledge as a function of external raters' scores.

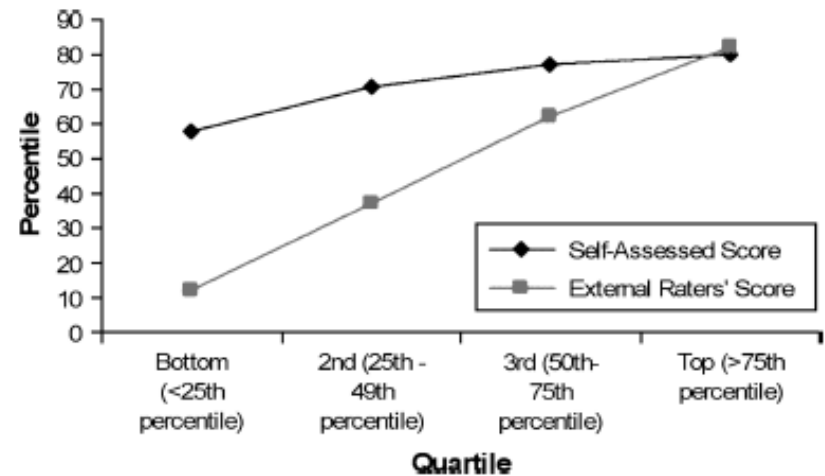


Figure 2. Self-assessed scores of communication skills as a function of external raters' scores.

# Self-Assessments

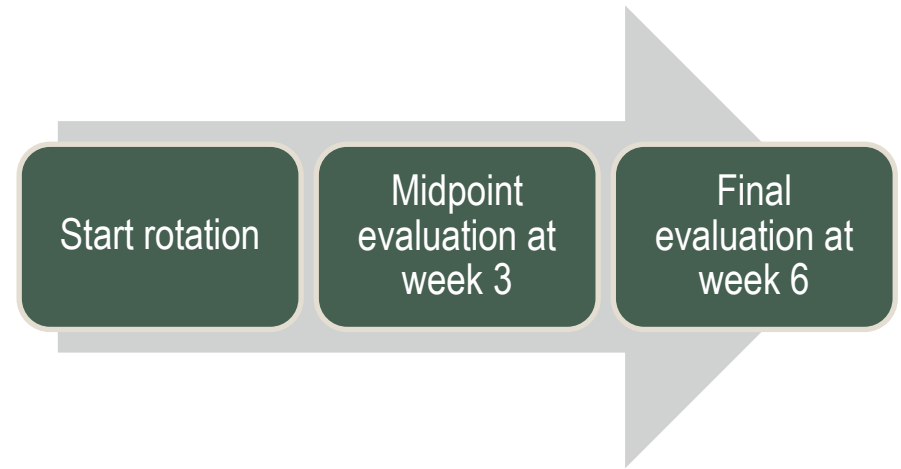
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- Ways to improving student self-assessments

## **1. Improve communication**

# PRIME Evaluation

- Critical Care APPE
  - 35-item evaluation
  - Students must complete these prior to meeting
  - Minimal comments actually written



# PRIME

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- Professionalism
- Reporter
- Interpreter
- Manager
- Educator
- Used in medical education to organize evaluation of achievement and skills
- A new vocabulary aimed at better documenting the competencies that all faculty can recognize, observe and write about.

# PRIME

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- Evaluations may take much longer than expected
  - Lack of student self-reflection
  - Preceptor unprepared for student's perceptions
    - Preceptor
    - Student's abilities
    - Areas for growth



### Professionalism

Did the learner demonstrate Professionalism?

Reliability, Responsibility, Teamwork

Respect for patient's values

Punctuality

Respect for staff and peers

Appropriate attire for clinical care

Demeanor and Comportment

### Reporter

Is the learner a reliable and honest reporter?

Interviewing skills

Physical Examination skills

Written Documentation

Oral case presentations

### Interpreter

When given data, can the learner interpret them?

Problem Prioritization

Interpreting clinical data (Hx,PE,Labs)

Differential Diagnosis formation

### Manager

Can the learner manage patients (or manage a team)?

Management of individual patients

Management of a medical team

Formulate Diagnostic Plans

Formulate Therapeutic Plans

Demonstrate Risk/Benefit Decision making

Be proficient at Basic Procedures (IVs, etc.)

Be proficient at Advanced Procedures

Incorporates Patient Values into Medical Plan

### Educator

Does the learner demonstrate educator qualities?

Self-directed Learning Skills

Good response to Feedback

Critical Reading Skills

Teaching Skills with peers and subordinates

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# PRIME

	Self-rating (1-5)	Short anecdotes/examples of activities	Self-rating (1-5)	Short anecdotes/examples of activities
<b>Professionalism</b> <small>(reliability, responsibility, teamwork, respect)</small>				
<b>Reporter</b> <small>(interviewing skills, oral and written communication, identifying problems and patient care issues, presents information in organized and succinct manner)</small>	2	not confident when presented patient cases not able to present patient cases in organized manner	3.5	able to present patient cases in the Subjective and Objective sections there is room improvement for assessment and plan
<b>Interpreter</b> <small>(problem prioritization, interpreting clinical data and clinical studies)</small>	3	problem prioritization less than 50% of the time	3.5	able to identify main problems use data such as procalcitonin level, cultures, etc to predict daily progression
<b>Manager</b> <small>(management of individual patients, risk/benefit decision making, manages time and tasks well)</small>				
<b>Educator</b> <small>(self-directed learning skills, good response to feedback, critical reading skills, teaching skills)</small>				

# PRIME

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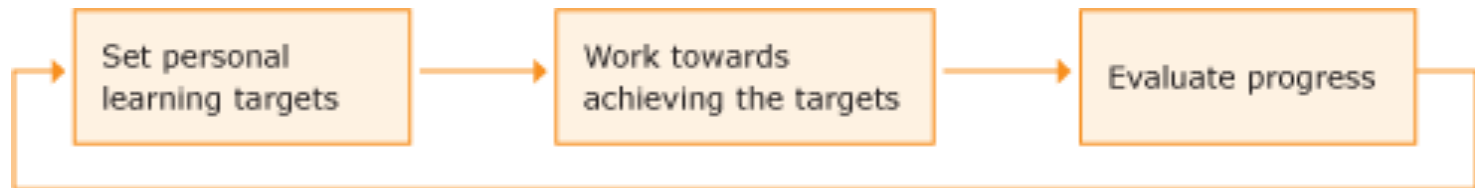
I am still in the learning process to become a better communicator and improving at communication. I had difficulty answering the questions in unfamiliar topics. For instance, presented journal club on cardiac surgery but my weakest module was cardio, as the results I could not answer questions.

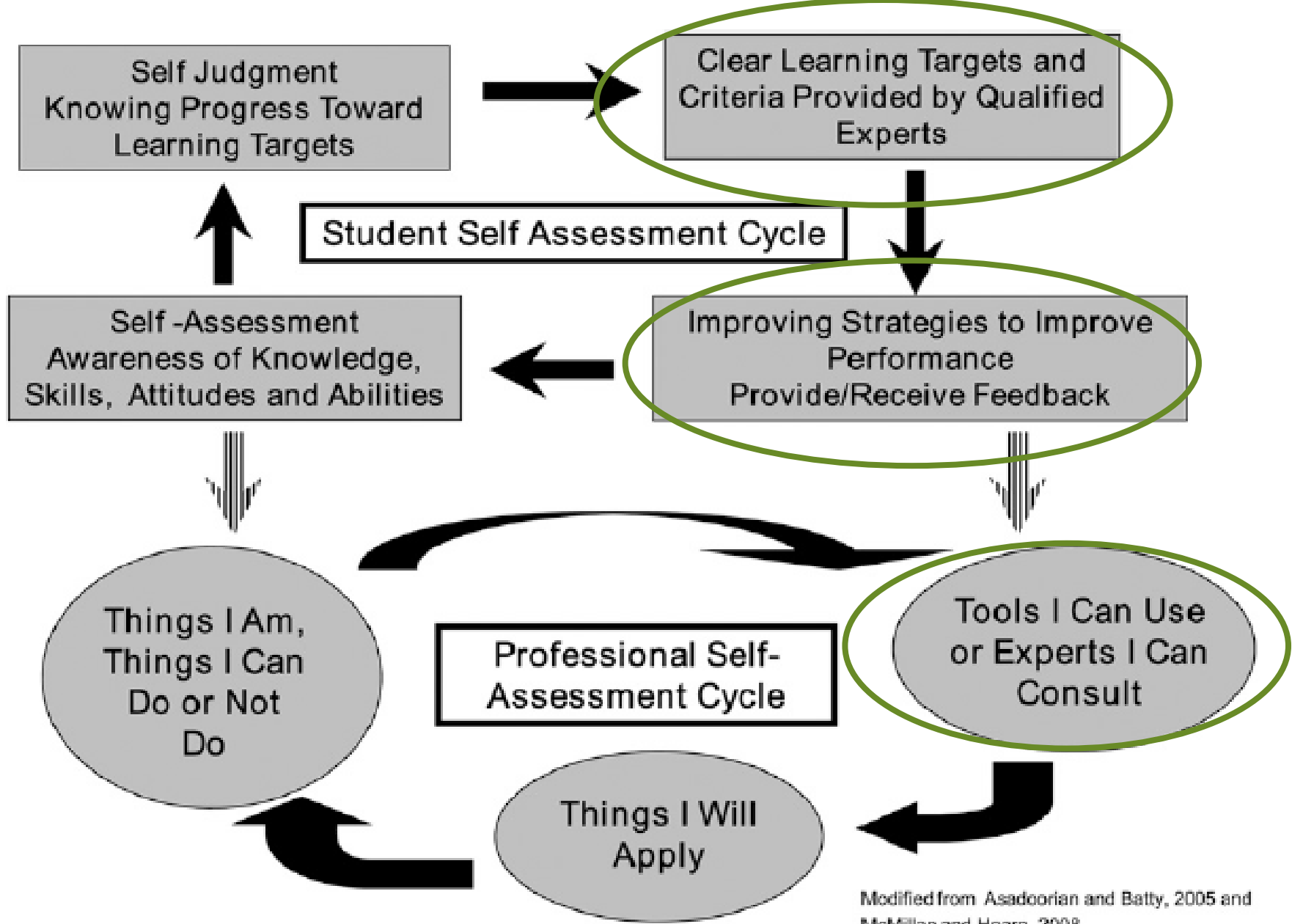
# Self-assessments

- Ways to improving student self-assessments

**1. Improve communication**

**2. Criteria-referenced self-assessment**





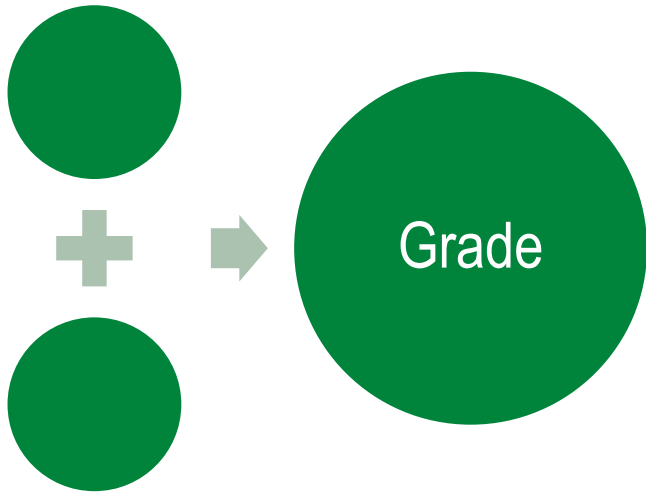
Modified from Asadoorian and Batty, 2005 and McMillan and Hearn, 2008.

# Self-assessments

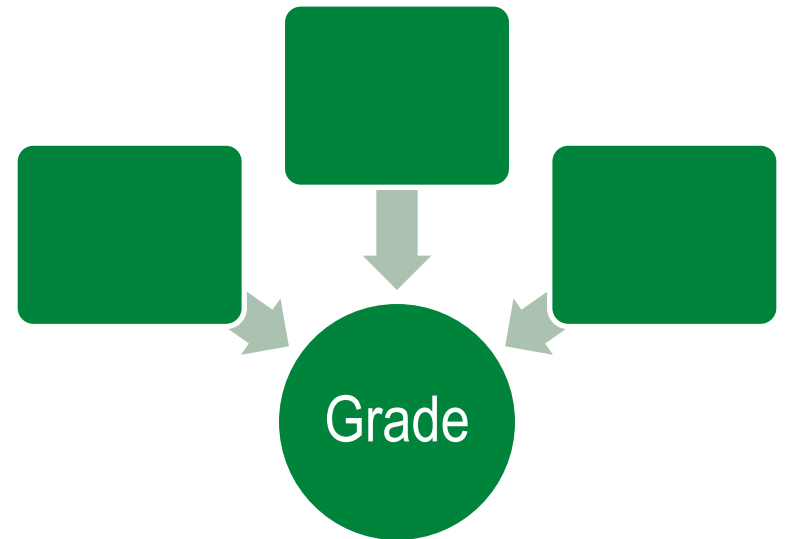
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- Ways to improving student self-assessments
  - 1. Improve communication**
  - 2. Criteria-referenced self-assessment**
  - 3. Model attitudes and habits**

# Grades vs Competencies



OR





# Tying Assessment to Feedback

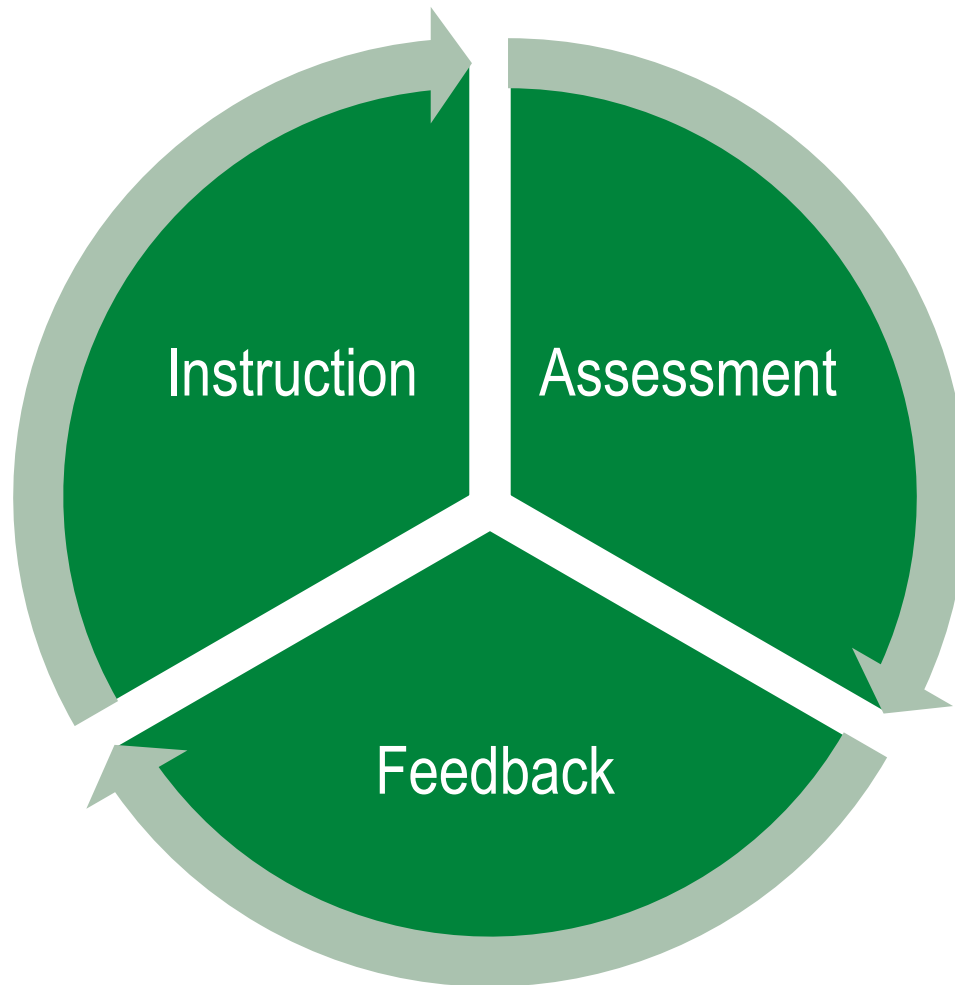
- Have an assessment plan
  - Know the who, what, when, where, why
- Keep assessments simple but multidimensional
- Ask for student feedback multiple ways
- Document early and often
  
- How to relay your assessments?



# PROVIDING EFFECTIVE FEEDBACK

# Feedback Loop

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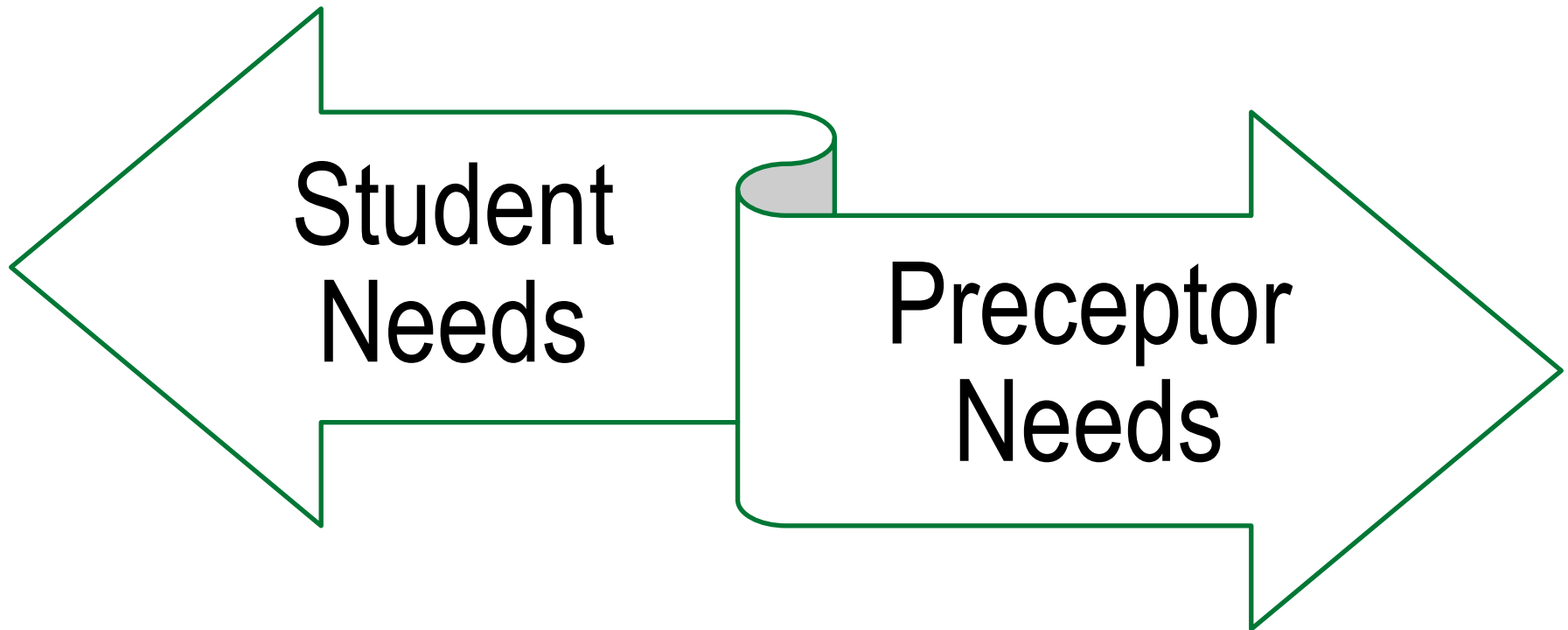
“Negative feedback isn’t always bad and positive feedback isn’t always good. Too often, they say, we forget the purpose of feedback. It’s not to make people feel better, it’s to help them do better.”

-Alina Tugend, *New York Times*

# Importance of Feedback

- High quality feedback is associated with high quality teaching
- Pharmacy students agree feedback is important part of their degree programs but less than 1/3 agree that they are satisfied with feedback received
  - Quantity
  - Quality
  - Timeliness

# Bridging the Feedback Gap



# FAST Feedback

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**Frequent**

**Accurate**

**Specific**

**Timely**

# Feedback Methods

## Just-in-time Feedback

- Self-evaluation and feedback
- On the spot
- Peer-to-peer

## Intermittent Feedback

- Feedback Fridays
- Assignment feedback
- Formal feedback



# On the Spot Feedback

- “One-minute preceptor” technique

Elicit  
recommendation

Probe for  
evidence

Teach general  
rules

Reinforce what  
went well

Recommend  
improvements

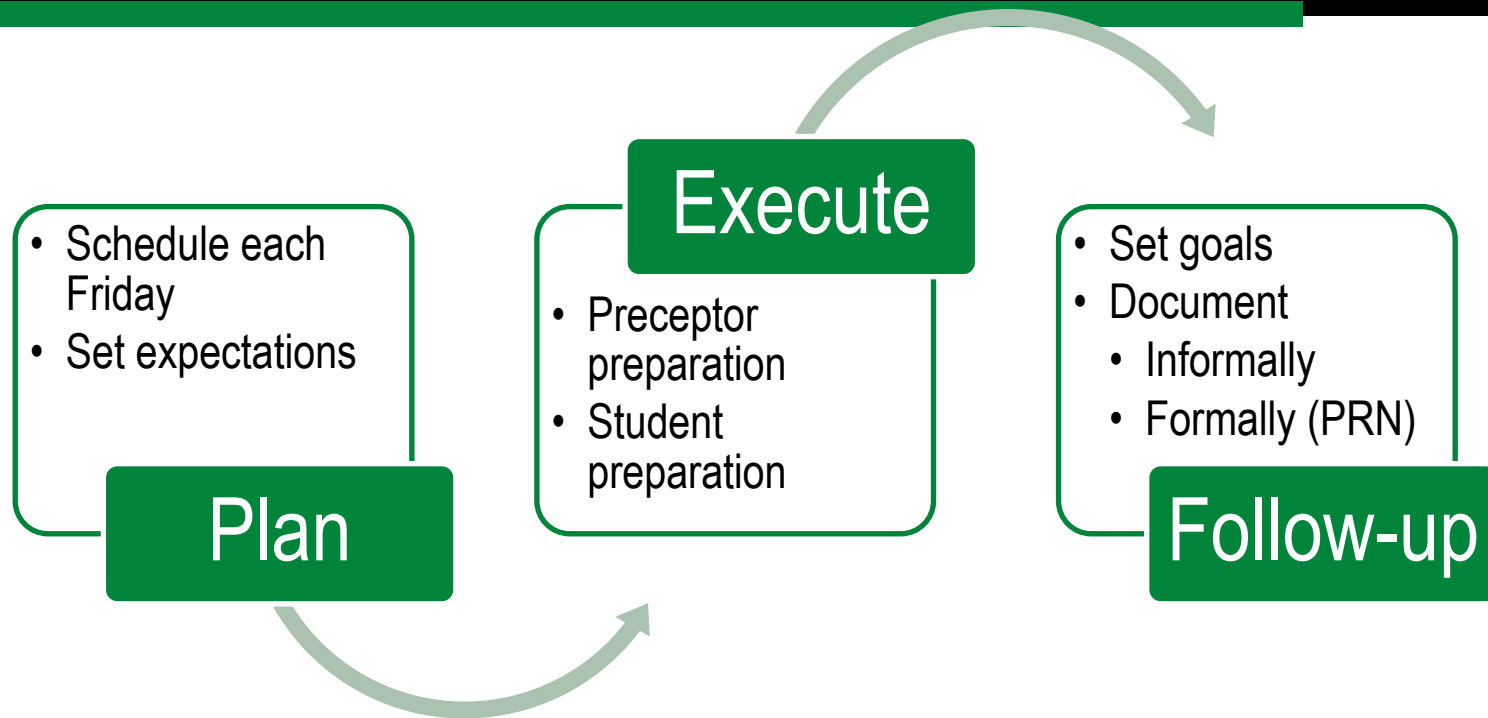
# Peer-to-Peer Feedback

- Unique learning tool for other students

“What did they do well, what could they have done better?”

- Opportunities to implement
  - After first time or repeat activities
  - Patient education, SOAP note presentation, etc.

# Feedback Fridays



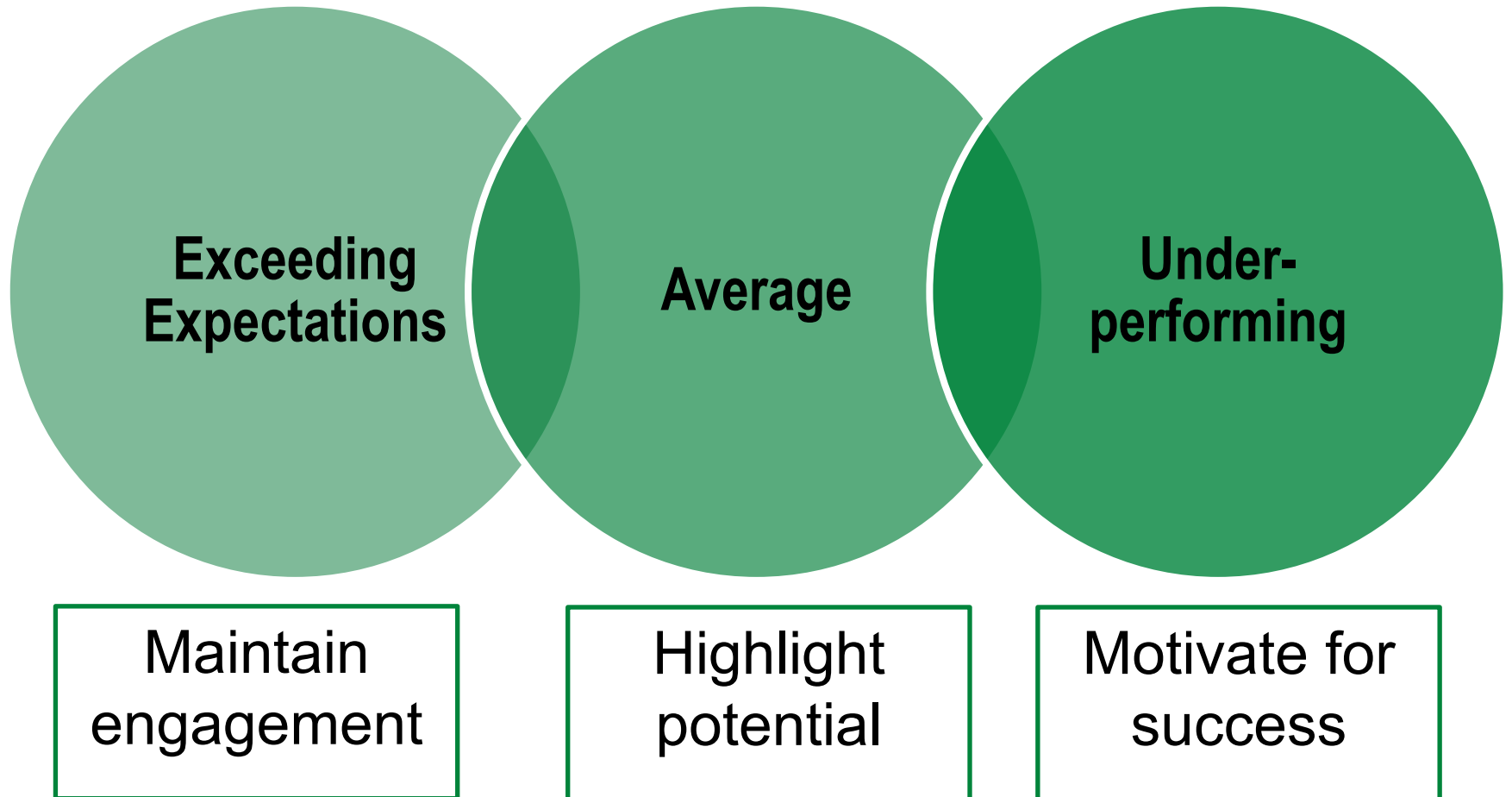
- Reflection and goal setting for upcoming week
- Calibrate preceptor and student expectations and evaluations

# Formal Feedback

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- Midpoint and final evaluations
- General concepts
  - Sandwiching
  - Goal setting
  - Providing difficult feedback

# Tailoring Formal Feedback



# Feedback for Average and Exceeding Expectations

## Exceeding Expectations

- Utilize goal setting
- Identify ways to continue to engage
  - Increased autonomy
  - Increased clinical load
  - Expectations

## Average

- Highlight what “exceeding expectations” looks like
- Motivate based on interests
- Engage student in self-assessment and goal setting

# Feedback for Challenging Students

- “Early and often”
- Early identification of deficiencies or challenges
  - Contact with experiential office
  - Utilizing on the spot and feedback Fridays
  - Transparency with student
- Documentation
  - Informal
  - Midpoint evaluation

# Providing Difficult Feedback

- As rotation progresses should not be a surprise
- Feedback sandwiching
  - Leading with good
  - Culminate with overall impression
- Consider having someone else with you
  - Experiential resources
  - Other preceptor



# Feedback Pearls

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- Never compare students to peers
- Document as appropriate
- Engage with experiential office early and often when needed
- Always ask what you can do to help the student be successful

# Tying Everything Together

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- Use feedback sessions to set goals for new week, rotation half, or next rotation
- Align feedback goals to activities and assessment
- Keeping it focused on 2-3 areas for underperforming students
- Refocus on weaker areas

# Incorporating into Your Practice

- Consider what your typical rotation calendar looks like
- Where are opportunities to schedule in unique aspects of assessment and feedback?

Take 3-4 minutes to work along or with a partner in incorporating novel methods into your rotation

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