



Effective Teaching in Practice


Brenessa Lindeman, MD, MEHP
Assistant Professor of Surgery and Medical Education
Associate Program Director, General Surgery
Associate DIO for the Clinical Learning Environment
University of Alabama at Birmingham

Disclosures

- No financial disclosures



Topics

- **Principles of Adult Learning**
 - **Teaching Rapidly**
 - **Operative Teaching Strategies**
 - **Documenting your Efforts**
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Principles of Learning

Learning is more likely to stick when it is...



Principles of Learning



Orient the
learners

Set expectations and
negotiate goals

Hello! I'm
going to rise to your
expectations

Experience
Oriented

Supportive
Environment

Their goals

Your goals

Principles of Learning

Practical Tips:



Tell real stories



Put the learner in
your shoes



Be QUIET

Problem-
Centered

Active,
not
Passive



Think out loud

Principles of Learning

Based on this segment, what are things that you will:

START DOING

STOP DOING

CONTINUE DOING

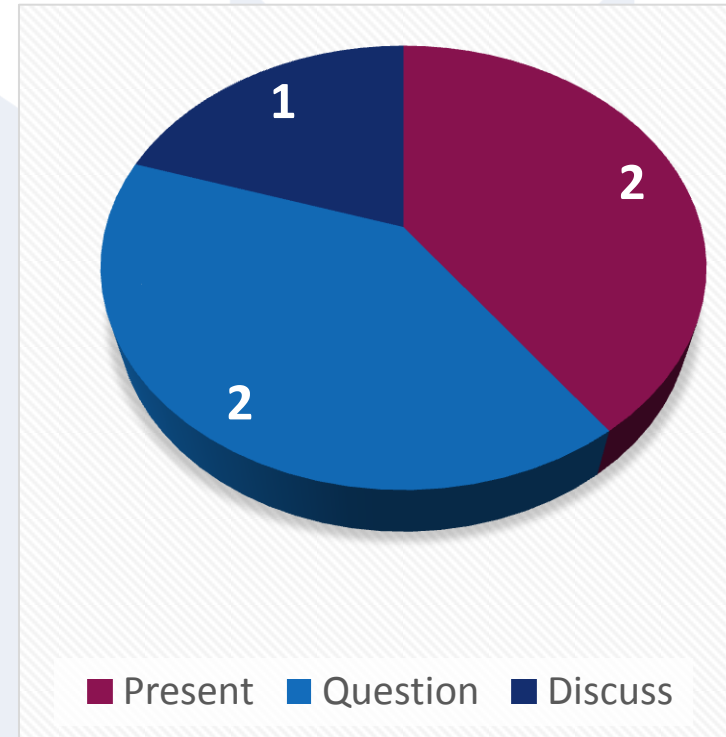


Teaching Rapidly...

...aka “Five Micro-Skills for Teaching”

- Identify the learner's needs
- Teach rapidly
- Provide feedback

Can it be done in 5 minutes?



Five Micro-Skills of Teaching

1.

Get a
commitment

What do you
think is going
on with this
patient?

What
investigations
do you want?

2.

Probe for
evidence

What led you
to that
conclusion?

What else
did you
consider?

3.

Teach
general
rule

All adrenal
nodules >4cm
in size are
referred for
surgery,
although you
must rule out a
functional
tumor first

4.

Reinforce
positives

It's great that you
considered
pheochromocytoma

Getting an
adrenal protocol
CT was the best
next step

5.

Correct
errors

Biopsy of an
adrenal mass is
almost never
indicated

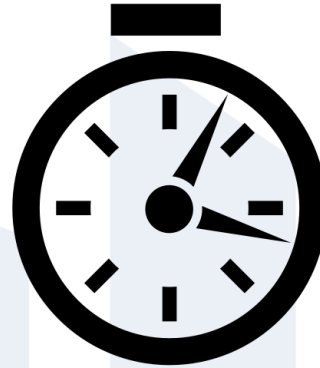
The most
sensitive test for
pheo is plasma
metanephrines

Operative Teaching Strategies

Operative Teaching Strategies

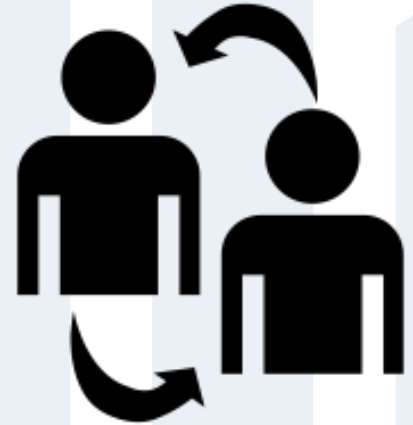
This case
needs to
be quick

How much
can I trust
the resident?



“Set a Timer”

Pre-Briefing



De-Briefing

Operative Entrustment Framework



Asking questions

- Open-ended
- Extend knowledge

Operative plan

- Ask steps and integrate suggestions
- Follow resident's plan when ready

Instruction

- Decrease step-by-step instructions
- Whole case → Struggling → None

Problem-solving

- Problem solve with the resident
- Follow their lead

Leadership

- Allow resident to lead the case
- Non-critical → Critical → All

Documenting Your Efforts

Documenting Your Effort

On your CV

- Teaching in Courses
- Formal Teaching
- Clinical Supervisory/ Training Responsibilities

Overview of your activities

- Include description, location, time

Omits educational impact

Report of Local Teaching and Training

Teaching of Students in Courses

2009	Gross anatomy 1 st year medical students	Vanderbilt University 8 hours per week for 8 weeks
2012-2014	Surgical instrument review 2-4 th year medical students	Johns Hopkins University 4 hours per clerkship quarter
2013-2014	Transition to Residency course 4 th year medical students	Johns Hopkins University 8 hours each year
2013-2015	Physician Assistant Residency orientation Surgical and Critical Care PA residents	Johns Hopkins Hospital 2 hours each year
2018-	Students as Teachers 4 th year medical students	University of Alabama at Birmingham 2 hours each year

Formal Teaching of Residents, Clinical Fellows and Research Fellows (post-docs)

2011-2015	Intern Pearls for Orientation Incoming 1 st year residents	Johns Hopkins University 1 hour annually
2012-2013	OSATS Exam 1 st year residents	Johns Hopkins University 4 hours annually
2016-2017	Endocrine Surgery Topics	Brigham and Women's Hospital 4 hours annually
2017-	Endocrine Surgery Topics	UAB Hospital 8 hours annually
2017-	Endocrine Surgery Conference	UAB Hospital 2 hours weekly
2018-	General Surgery Intern Conference	UAB Hospital 4 hours annually

Clinical Supervisory and Training Responsibilities

2009-2016	Supervision of medical students and residents on surgical rotations at Johns Hopkins Hospital	Daily teaching efforts on rounds Weekly small group teaching conference
2016-2017	Supervision of medical students and residents on the endocrine surgery rotation at Brigham and Women's Hospital	Daily teaching efforts on rounds Weekly small group teaching conference
2017-2018	Supervision of medical students and residents on the endocrine surgery rotation at UAB Hospital	Weekly teaching efforts in the operating room and on rounds

Documenting Your Effort

Teaching Portfolio

- Education Philosophy
 - 2-3 paragraphs
- Educator Effectiveness Evidence
 - Teaching Activities
 - Include learner comments
 - Educational Scholarship
 - Educational Leadership
 - Curriculum Development
 - Program Development

More descriptive, includes evidence of impact

Teaching Activities

Learner/Period	Faculty	Residency	Medical Student	College Student
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Medical Student Surgery Clerkship Evaluation Comments

At the Johns Hopkins University School of Medicine, medical students are asked to

Educational Scholarship Agenda

Cogniti
Develop

Can I Have a Minute of Your Time?

Resident Skills for Teaching in Time-Limited Settings

Table 1. Resident Skills for Teaching in Time-Limited Settings Course Structure

Curriculum Element	Time Allotted (minutes)
Introduction, Summary of Course Goals/Objectives	5
Teaching Challenges Discussion	10
Teaching Characteristics Worksheet/Discussion	20
One Minute Preceptor Model	20
Negotiating Learning Agendas	15
Principles of Effective Feedback	15
Role-Play Exercises	60
Wrap-Up, Course Evaluation	5
Total	150

Key Points

- **Learning is more likely to stick when it is:**
 - **Problem-centered**
 - **In a supportive environment**
 - **Experience-oriented**
 - **Active, not passive**
- **5 Micro-Skills for Teaching:**
 - **Commit → Probe → Teach General Rule → Reinforce → Correct**
- **Operative Teaching Strategies:**
 - **Aim for next-level entrustment**
 - **Pre-brief, de-brief, and set a timer**

Thank You!

Questions?