



CASE-BASED CLINICAL TEACHING ACTIVITIES

Applying the BDA Framework

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INSTRUCTIONS FOR TRAINERS

Residents as Educators Session

Description of Case-based Clinical Teaching Activities

This activity is:

- **Designed as** a flipped classroom activity for residents as educators.
 - A “Flipped classroom” means the learners review materials describing the key concepts before they attend the face-to-face session.
 - Learners apply these key concepts in the live session.
 - Typically, some assessment is conducted at the beginning of the session to ensure participants understand the key concepts.
 - The purpose is to give learners an opportunity to apply concepts in an interactive fashion during the live session.
- **Interactive and case-based.**
- **Intended to be used by** residency program directors or others who run residents as educators training
- **Consists of 8** case-based scenarios for clinical teaching.

How Trainers can use this activity

- Multiple scenarios may be used in a single session
 - in tandem, or
 - by assigning different scenarios to each small group or pair of residents.

BEFORE the Session

- **Before** conducting the interactive case-based activity, residents and trainers should review the guides describing both the BDA and RIME frameworks for clinical teaching. →
- **Each guide** provides brief description of the framework and how it can be used in clinical teaching situations.
- You might also want to review Pangaro's article describing the RIME framework or about the theory behind the concept of BDA in Vacca's Content Area Literacy.

Flipped Resources

Guides

- [BDA Guide](#)
- [RIME Guide](#)
- [Integrating BDA & RIME \(Guide\)](#)

Additional Scholarly References

- **RIME:** Pangaro LN. A New Vocabulary and Other Innovations for Improving Descriptive In-Training Evaluations. *Academic Medicine* 74:11 (Nov); 1999.
- **BDA:**
 - Vacca, Richard T. *Content Area Reading: Literacy and Learning Across the Curriculum.* , 2014.
 - Vacca RT. From Efficient Decoders to Strategic Readers. *Reading and Writing in the Content Areas*, 60(3):6-11; [2002](#).

Instructions for Assessment

- Assessment is always connected to the learning objectives for each part of the activity.
- The Flipped Classroom activity prior to the session has its own objectives – to learn key concepts the residents will apply in the session.
- At the beginning of the activity OR before residents arrive at the session, assess whether the residents achieved the learning objectives set for the pre-session (flipped classroom) assignment.
- By the end of the flipped classroom activity, residents should know or be able to do the following:
 1. Demonstrate knowledge of the components of BDA framework
 2. Describe the four roles of the RIME framework
- Your assessment of #1 & #2 could be done in a variety of ways. See, resources at page 5, above.
- Assessment can be informal (not graded) or formal (graded).

Tools & Resources for Assessment

Tools for assessment

- Poll Everywhere (free, AHSC license, contact kse@medadmin.arizona.edu)
- Qualtrics ([free, UA license](#))
- Collaborative learning spaces (e.g., blogs such as, [WordPress](#))
- Paper & pen format
- Q&A in discussion
- One minute paper

Resources for Assessment

- Angelo TA & Cross KP. Classroom Assessment Techniques: A Handbook for College Teachers ([eBook at UA Library](#)); 1993.
- *For assistance in designing assessment, please contact Karen Spear Ellinwood, Director, Residents as Educators Program, or Susan Ellis, MA, EdS, Manager for Curriculum & Assessment*

Instructions for Activity: What residents will do

For each scenario, the residents apply the:

- **BDA framework** to structure the teaching in the clinical situation
 - ASK: What will the student do before, during and after the clinical encounter?
- **RIME framework** to determine the role the students should play.

To design the learning experience, the resident should:

- **Articulate** at least one learning objective
- **Describe** how they could assess whether the student achieved that objective
- **Identify** the role(s) the student would perform (RIME) BEFORE, DURING and AFTER the encounter.
- **Describe** the specific skills, behaviors or procedures or knowledge the learner will demonstrate to achieve the objective.
- **Describe** how the resident will assess the achievement of that objective.

Case Scenarios Instructions to Residents

- Each group will address a different scenario.
- *Read* the scenario.
- *Discuss and apply the B-D-A framework*
- After discussion, each group will *share* their BDA suggestions for their teaching scenario.

- How could you apply the BDA framework to support student learning?
- What RIME role(s) would the student perform?
- What is/are the learning objective(s)?
- How will you assess it/them?
- **Bonus:** How could you demonstrate professionalism or guide the student in demonstrating professionalism in the encounter?

Think about...

- What might you want the student to learn from this experience?
- What role or tasks could the student perform in the care of this patient?
- What might be appropriate for their level of experience, knowledge, etc.? How would you determine this?

Instructions for Assessment

- **After the activity**, assess whether the residents achieved the objectives you established for learning key concepts.
- **Assessment** is connected to the learning objectives for this session.
- **By the end of this activity, residents should know or be able to do the following:**
 1. Demonstrate knowledge of the components of BDA framework
 2. Describe the four roles of the RIME framework
 3. Design a learning experience based upon the case scenario (did the student articulate an objective, describe assessment, identify learner roles and specific skills etc. to be demonstrated in the encounter.
 4. Articulate at least one learning objective
- **#1 & #2** were assessed before or at the beginning of the session. You could administer post-session assessment for pre- and post comparison.
- **Assessment of #3 and #4** could consist of residents' verbal or written reports of their BDA scenarios, which should demonstrate the knowledge and skill described in the objectives. If you are doing formal (graded) assessment, then it is recommended you document assessment.
- **Consult the resources at page 5, above.**

CASE SCENARIOS

Author: Karen Spear Ellinwood, PhD, JD (Case Nos. 1-7)

Author: T. Gail Pritchard, PhD (Case No. 8)

1) ED Teaching Scenario



- You're an intern in the ED working alongside a fourth year medical student.
- The supervising resident is busy with another patient and asks you to help the student as needed while they're consulting with Psychiatry.
- The student is just completing her/his Emergency Medicine selective.
- The nurse at the main desk advises you that a patient with "possible sepsis" is about to arrive.

2) OB/GYN Teaching Scenario



- You are an intern in Obstetrics and Gynecology.
- Patient has gestational diabetes. At the last visit her A1C was 7.2. She is now 26 weeks.
- You had advised her to follow an appropriate diet and take oral medication.
- The record indicates the patient's blood sugar (finger stick) when she arrived for today's visit is 156 (about 2 hours after breakfast).
- You have been asked to work with a third year medical student who is the second week of her first clerkship. You assign her to see this patient.

3) Surgery Teaching Scenario



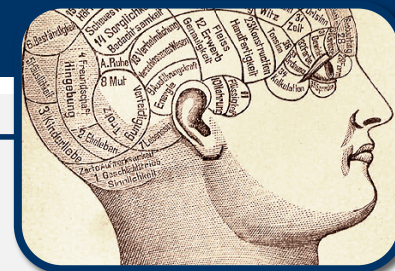
- You are in Trauma Surgery today. You could be an **anesthesiology, surgery** or **medical imaging** intern.
- It's 7:30 am. A 52 year old professor was hit by a car while cycling to the UA. The ambulance will arrive in 3 minutes.
- The patient had no pulse when the EMTs arrived at the scene but they revived him. They report labored breathing and a rapid pulse. Records indicate two heart attacks in the past 18 months; history of asthma and food allergies (soy and peanuts).
- At a minimum, surgery clerkship students can observe, take notes of vitals, assist with removing clothing, or conducting FAST exams.



- You are a pediatric intern working at a local family clinic.
- Later today, you have a 14 yo male patient coming in following an injury he got while playing AYSO soccer this past weekend.
- His mother reported some swelling around her son's left knee and said he had difficulty walking. She kept him home from school yesterday and, when the knee did not improve, she decided to bring him in.
- A third year medical student will be working with you and you want her to see this patient.
- You anticipate a knee exam will need to be done.

- You're an intern in Psychiatry in a rotation at the VA and you are about to do an emergency department consult with a patient, an Iraq veteran with a diagnosis of PTSD.
- Patient usually sees the attending on an outpatient basis. Tonight, his wife called police after patient returned home from a walk with the family dog and said he was hearing disturbing and persistent sounds and feeling microwaves pulsing through his veins while walking the dog.
- Patient has no history of physical violence but records indicate he has displayed volatile mood swings during outpatient visits, vacillating between anger, tears, withdrawal and belligerence or lack of cooperation.
- A third year medical student in their third clerkship is working with you today; she is about midway through this clerkship.

6) Neurology Teaching Scenario



- You are a neurology intern.
- A third year student is working with you as he starts his fourth clerkship.
- You will be pre-rounding with the attending and then rounding with patients with your team (including an attending, a nurse, pharmacist, and medical student).
- Last night a 28 yo female patient was admitted for gran mal seizures.
- Patient is a local lawyer with no history of seizures. She had been in the third day of a 2-week murder trial on the date of admission.
- The nurse reports patient is agitated and wants to leave the hospital to get back to work.

7) Family & Community Medicine Teaching Scenario



- A third year medical student is working with you today. This is her second clerkship. You have never met her before.
- You are expecting to see a new patient with a history of asthma. They have not had health care insurance for most of their adult life. They made this appointment as soon as their insurance became effective. The patient's first language is Spanish but they said they understand English pretty well.
- The patient is waiting to see you, and told the nurse that she just wants “to get some inhalers to help me breathe better”.
- Electronic records show this patient has been to the emergency room at your affiliated hospital several times in the past 2 years for asthma attacks. The most recent visit was 2 months ago, just prior to her insurance effective date.

8) Medicine Teaching Scenario



- You are an Internal Medicine resident at the ambulatory care clinic. There is a 3rd year medical student assigned to you today. He has completed 8 weeks of inpatient medicine and this is his first week of 4 weeks of ambulatory medicine.
- You and the medical student are about to see a 28 year-old white male with complaints of watery, bloody, diarrhea for the past 2 weeks, increasing from an initial 5-7 Xs/day to 15-20.
- Here's what you know about the patient so far:
 - Temperature: 38.3 (101F)
 - Blood pressure: 90/60
 - Pulse: 80
 - Respiration: 15
 - Ht/Wt: 189 cm (6'2'')/66 kg (145 pounds) (down from an average of 72 kg/158 pounds)