Teaching Tips for Dermatology Residents

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RESIDENT **PEARLS**

- Emphasizing specific learning objectives, prioritizing safety in the learning environment, utilizing clinical teaching techniques, and using multimedia to present messages all contribute to effective dermatology teaching by residents.

Dermatology residents are both learners and educators to fellow trainees. Although formal training on teaching is limited in medical education, residents must act as educators every day in both clinical and academic settings. There are several techniques that residents can apply to their practice to cultivate ideal learning environments and outcomes for trainees.

Dermatology residents interact with trainees of various levels throughout the workday—from undergraduate or even high school students to postgraduate fellows. Depending on the institution's training program, residents may have responsibilities to teach through lecture series such as Grand Rounds and didactics. Therefore, it is an integral part of resident training to become educators in addition to being learners; however, formal pedagogy education is rare in dermatology programs.[1,2] Herein, I discuss several techniques that residents can apply to their practice to cultivate ideal learning environments and outcomes for trainees.

Creating Effective Teaching and Learning Experiences

Planning to teach can be as important as teaching itself. Developing learning objectives can help to create effective teaching and learning experiences. Learning objectives should be specific, time bound, attainable, and learner centered (Table 1). It is recommended that residents aim for no more than 4 objectives per hour of learning.[3] By creating clear learning objectives, residents can make connections between the content and any assessments. Bloom's taxonomy of cognitive learning objectives gives guidance on action verbs to use in writing learning objectives depending on the cognitive process being tested (Table 2).[4]

Creating a Safe Educational Environment

Psychological safety is the belief that a learning environment is a safe place in which to take risks.[5] A clinical learning environment that is psychologically safe can support trainee well-being and learning. Cultivating a safe educational environment may include addressing microaggressions and bias in the clinical workplace. Table 3 provides examples of statements using the 6 Ds, which can be used to mitigate these issues.[6] The first 4—direct, distract,

TABLE 1. Essential Elements of a Learning Objective[3]

S	Specific to recognizing or measuring achievement
T	Time-bound expectation
A	Attainable for the audience
R	Relevant to learners' needs

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delegate, and defer—represent ways to respond to racism, microaggressions, and bias, and the last 2—display discomfort and debrief—are responses that may be utilized in any problematic incident. Residents can play an important supportive role in scenarios where learners are faced with an incident that may not be regarded as psychologically safe. This is especially true if the learner is at a lower training level than the dermatology resident. We all play a role in creating a safe workplace for our teams.

TABLE 2. Examples of Action Verbs in Learning Objectives Based on Cognitive Processes[4]

Cognitive Process	Action Verbs
Remember	Cite, match, outline, define, identify, specify
Understand	Classify, compare/contrast, explain, describe, summarize
Apply	Apply, demonstrate, illustrate, use, modify, perform
Analyze	Analyze, compare (statistically), differentiate, distinguish, infer, examine
Evaluate	Assess, criticize, defend, evaluate, justify, judge
Create	Construct, create, formulate, generate, organize, plan

TABLE 3. The 6 Ds of Mitigating Racism, Discrimination, and Microaggressions in the Clinical Workplace[6]

Response strategy	Example statement
Direct	"What you just said is not ok."
Distract	"Can I ask a question about (something else)?"
Delegate	"The attending physician will be in to speak with you."
Defer	"I'm sorry I didn't say anything in the moment, but I wanted to check in with you."
Display discomfort	"That made me feel uncomfortable," or use body language such as furrowing your brow, frowning, shaking your head
Debrief	"Can we talk about what just happened?"

Teaching in the Clinic and Hospital

There are multiple challenges to teaching in both inpatient and outpatient environments, including limited space and time; thus, more informal teaching methods are common. For example, in an outpatient dermatology clinic, the patient schedule can become a "table of contents" of potential teaching and learning opportunities. This technique is called the focused half day.[3,7] By reviewing the clinic schedule, students can focus on a specific area of interest or theme throughout the course of the day.[3]

Priming and framing are other focused techniques that work well in both outpatient and inpatient settings.[3,8,9] Priming means alerting the trainee to upcoming learning objective(s) and focusing their attention on what to observe or do during a shared visit with a patient. Framing—instructing learners to collect information that is relevant to the diagnosis and treatment—allows trainees to help move patient care forward while the resident attends to other patients.[3]

Modeling involves describing a thought process out loud for a learner[3,10]; for example, prior to starting a patient encounter, a dermatology resident may clearly state the goal of a patient conversation to the learner, describe their thought process about the topic, summarize the important points, and ask the learner if they have any questions about what was just said. Using this technique, learners may have a better understanding of why and how to go about conducting a patient encounter after the resident models one for them.

Effectively Integrating Visual Media and Presentations

Research supported by the cognitive load theory and cognitive theory of multimedia learning has led to the assertion-evidence approach for creating presentation slides that are built around messages, not topics, and messages are supported with visuals, not bullets.[3,11,12] For example, slides should be constructed with 1- to 2-line assertion statements as titles and relevant illustrations or figures as supporting evidence to enhance visual memory.[3]

Written text on presentation slides often is redundant with spoken narration and also decreases learning because of cognitive load. Busy background colors and/or designs consume working memory and also can be detrimental to learning. Limiting these common distractors in a presentation makes for more effective delivery and retention of knowledge.[3]

Final Thoughts

There are multiple avenues for teaching as a resident and not all techniques may be applicable depending on

the clinical or academic scenario. This column provides a starting point for residents to augment their pedagogical skills, particularly because formal teaching on pedagogy is lacking in medical education.

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