

Diagnosing Thought

Do they really know what they are talking about?

A message from Erica, Liam, Meg, and Yash:

As LAs we have encountered various types of students with varying learning styles. In creating the “Diagnosing Thought” guideline, our goal is to have students reach a better, more holistic understanding of concepts discussed in class. To have students achieve a deeper understanding of concepts, LAs must be able to investigate, diagnose, and resolve a student’s level of understanding after observation. After working as LAs and attending the Pedagogy course taught by Professor Sikorski, we noticed that new LAs need a guide to help them understand how to explain and work with students efficiently. While this guide is not “one size fits all”, it can serve as an outline to better serve students. We believe that this guide will give all LAs a better idea of how to interact with their students. This guideline contains a list of definitions to serve as a reference as well as a “Do They Know” flowchart outlining how to assess various learning situations and respond with effective questioning techniques.

***Noting that flexibility is needed in academia, the flow chart is a general reference to be utilized across all disciplines.**

Terminology of The Flow Chart

Knowledge of Subject Matter

The body of information that teachers teach and that students are expected to learn in a given subject or content area.

Ex. The Central Dogma and Replication

Procedural Understanding

Being able to list, define, and recall surface-level content in the given subject or content area, using proper vocabulary.

Ex. Have students explain how cell replication works.

Conceptual Understanding

Being able to connect procedural understanding and course work to topics and ideas outside of the lecture. Being able to predict outcomes due to various conditions.

Ex. Have students explain how a malfunction in the cell process affects replication.

Student Confidence

A student is attentive, fixating eyes on group members or LA. The student is able to speak on the subject with fluidity, while still using proper vocabulary when needed. The student does not over complicate nor oversimplify their understanding.

Ex. The student is explaining the concept if they were having a fluid conversation with a peer.

Peer to Peer Teaching

When a student has shown an apt procedural and deeper understanding of subject matter, being able to help other students understand material will help the student to show, solidify, and master knowledge.

Ex. A peer within the student's group is having a hard time grasping the concept thus allowing this style of teaching to happen helps make the learning process more personal and efficient.

Proper, Salient Vocabulary

These words are pertinent to the subject or content area, they are used when needed. A student should be able to show a procedural understanding of said words they use.

Ex. Words are used when needed, a student is clear and can also define terms.

Funneling Questions

This technique involves starting with general questions and then drilling down to a more specific point in each.

Ex. Ask about the broad ideas of replication, then ask specific follow up questions.

Focusing Questions

This technique involves starting with the students' responses, using their taught process to help them address issues, build a good knowledge of the material that is both procedural and deep.

Ex. Take the student's ideas and follow/create a path to the correct answers by asking follow up questions that follow their own logic.

DO THEY KNOW



