

A dramatic landscape painting featuring rolling hills in shades of green and brown. In the distance, a prominent mountain peak with a snow-capped summit rises above a layer of white clouds. The sky is filled with heavy, dark clouds, creating a moody atmosphere. The text "QUESTIONING TECHNIQUES TO SUPPORT CRITICAL THINKING" is overlaid in the center in a bold, black, sans-serif font.

QUESTIONING TECHNIQUES TO SUPPORT CRITICAL THINKING

What role do questions play?

- Questioning is the second most popular teaching method (after lecturing)
- Teachers spend 35% to 50% of the time on questions.
- Students whom teachers perceive as slow or poor learners are asked fewer higher cognitive questions than students perceived as more capable learners.
- Teachers develop questioning patterns over time (number and types)

--Marzano, 2003





Why do questions matter?

- The types of questions teachers ask make a difference in student achievement
- Lessons that incorporate questions are more effective in raising achievement than lessons which do not
- Asking good questions fosters interaction between teacher and students

Finding a balance

- Using a combination of higher and lower order questions is effective, but the balance between the two types of questions depends on the specific needs of students.

□ Gall 1984; Wilen, 1991; Arends, 1994



Student generated questions

- Students attain higher levels of thinking when they are encouraged to generate critical and creative questions and when they use these with their peers.
- Students ask very few content-related questions.



Student accountability

- Teachers frequently call on a small group of volunteers to answer questions
- Teachers often accept incorrect answers without probing; teachers frequently answer their own questions
- Students who regularly ask and answer questions do better on achievement tests.

--Walsh and Sattes, 2005

How do we categorize questions?

Some examples



- Before, during, after
- Thick and thin
- Bloom's Taxonomy
- Factual, Interpretive, Evaluative (Junior Great Books)

Wait time



- Wait time 1: Time elapsed after teacher poses a question and before a student speaks
- Wait time 2: Amount of time elapsed after a student speaks before teacher (or another student) speaks



Research on Wait time

- Studies beginning in the early 1970s and continuing through the 1980s show that if teachers pause between three and seven seconds after asking higher-level questions, students respond with more thoughtful answers (Students are typically given 1 second to respond to questions.)