

Misconception/Preconception Check (Assesses Prior Knowledge, Recall, & Understanding)

Estimated level of time/energy required to prepare is MEDIUM

WHEN USING TECHNOLOGY: Estimated level to respond (students) and to analyze is LOW

Description: This assessment's focus is prior knowledge or beliefs that may be obstacles to learning.

Purpose: It is difficult to "unlearn" misinformation. This assessment facilitates early intervention regarding the misconceptions or preconceptions.

Procedure:

- 1) Identify some of the most troublesome common misconceptions or preconceptions related to your topics.
- 2) Select the ideas and beliefs that are most likely to hinder learning in your class.
- 3) Create a simple questionnaire about these.
- 4) Consult with a colleague about the tone of your questions. The questions should not seem condescending, intimidating, or obvious.
- 5) Prepare the questionnaire to be display-ready by writing it on the board, a transparency, or digitally projected. It could also be written on a half-sheet of paper and distributed to the students. It is important the prompts are presented in writing. Do not only read the question(s).
- 6) Hand out index cards or half-sheets of paper. It is best if students do not write their names, unless there is a very good reason to know who wrote which comments.

Examples:

Course: The Americas Before Columbus; History

1. About how many people lived in North America in 1491?
2. About how long had they been on this continent by 1491?
3. What significant achievements had they made in that time?

Course: Introduction to the Structure of the Universe; Astronomy

1. What makes the seasons change on Earth?

The astronomy instructor told the students that any answer was acceptable, except for "I don't know."

Adaptations/Extensions:

- 1) Students prepare "reasonable" explanations for the misconceptions.

Suggestions: Responding to students' feedback may take longer than planning because questions lead to other questions. Set clear time limits. To temper expectations and disappointment, let students know you will not comment on everything. Follow-up is **critical** because students who have misconceptions or preconceptions are likely to be resistant to changing those ideas and beliefs.

References and Resources:

Angelo, T.A, and Cross, K.P. (1993). *Classroom assessment techniques: A handbook for college teachers* (2nd ed.). San Francisco: Jossey-Bass.