



LANGUAGE AND CULTURE

Information and Tips from the Office of Multilingual and Multicultural Programs

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POSING QUESTIONS TO PROMOTE CRITICAL THINKING

English Language Learners require a great deal of language input in order to skillfully use content knowledge. Although texts usually provide a series of questions for discussion at the end of chapters and units, they do not usually provide a balanced or systematic approach to questioning that enables learners to think about content in a variety of demanding ways.

For young learners or learners without enough exposure to oral and written interaction, a developmental approach to question-posing should be implemented, i.e., the nature and sequencing of questions should be from the cognitively less demanding to the cognitively more demanding. For learners who already have first language literacy, a more eclectic approach to question-posing can be implemented, i.e., mixing the cognitive "load" of the question types, even though these learners may or may not have sufficient language to express their responses. The fact that they can already think critically in the first language means they can acquire English more quickly than illiterate learners.

This *Bulletin* examines ways in which questions can be linguistically structured to elicit increasingly complex responses that reflect different degrees of critical thinking. The basis for this discussion is Bloom's *Taxonomy of Cognitive Domains*, as this framework provides a useful guide for increasing cognitive demand through question-posing.

Knowledge. Recalling oral or written information that is explicit, i.e., stated or given, is the basis of this cognitive domain. Common question words which elicit this kind of information are:

Who. . . ?

What. . . ?

Where. . . ?

Comprehension. Recalling basic meaning from text presented orally or in written form is the basis of this cognitive domain. A common question type in this category is:

In your own words. . .

Explain. . .

Tell about. . . etc.

Application. This cognitive domain deals with the process of using information in new situations. Examples of questions at this level of understanding are:

What is the main idea. . . ?

Give a title for. . .

Analysis. Analysis is making connections from information that assists in creating further insights and understanding. A simple question type in this cognitive domain is:

Why. . . ?

Synthesis. Synthesis is the process of creating something new on the basis of what is already known. An example of a question in this cognitive domain is:

Suppose. . .
What if.
Imagine that. . .etc.

Evaluation. Finally, judging the adequacy of ideas or information for a given purpose is the cognitive domain of evaluation. An example of questions at this level are:

What is your opinion of. . . ?
In your view. . . ? etc.

The following is a passage with question types varied according to cognitive demand:

Rice grows in lands that are warm and wet. Rice is an unusual grain because it grows best under water. Early farmers learned how to build a paddy, a field that could be flooded with water.

They started each crop by stooping to plant the grains of rice in wet, muddy soil. When the seedlings reached the right height, the farmers stooped to transplant them into paddies. As the paddies filled with thick, green plants, the farmers stooped to pull out weeds. When the green plants turned yellow and heavy with grains of rice, farmers drained the water from the fields. Then they stooped as they cut each dry stalk with a sharp knife.

Questions:

Where does rice grow? (knowledge)
In your own words, describe how to grow rice.
(comprehension)

Give a title to the above passage.
(application)

Why is it necessary to grow rice in water?
(analysis)

Suppose you had land. How would you grow rice? (synthesis)

In your opinion, what are the ideal conditions for growing rice? (evaluation)

The following are some activities which can help learners practice critical thinking:

1. *Scrambled Questions*

To help analyze how language works and to reinforce grammar through writing and oral practice at different levels of cognitive domain,

a) Dictate words and phrases for students to make questions from; b) Students write these words and phrases on slips of paper, rearrange them, and copy the questions for writing practice; c) Students compare their work and make corrections, then read the question aloud for the teacher or other students to answer.

Teacher dictates: *this weekend/are you going/ where?*

Student rearranges, writes, compares with other students: *Where are you going this weekend?*

Teacher (or student): *I'm going to the movies.*

2. *Question Prompts*

a) Assign a story for students to read, or read it to them. It may be necessary to read the story more than once. b) Using word prompts from the different cognitive domains (see above), have groups of students make up questions for each domain. Teacher may need to assist students in creating questions. c) Have students pair off, one from each group pairing with someone from another group. They take turns asking and answering questions from the story.

3. *Question Response.*

a) The teacher makes a list of questions from each of the cognitive domain levels based on a written or oral story. Make enough copies of the questions for each pair of students to have one; b) Give each pair of students the questions. Their job is to read or listen to the story and answer the questions.

SOURCES:

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