



Critical Thinking for Teachers

An audio program of the Inter-American Teacher Education Network

Episode 1: Why Critical Thinking?

Charles makes a tough choice on summer jobs; Ms. Dominguez and Ms. Brown spar over teaching priorities

Learning objectives

- Participants will:
- determine their background knowledge and understanding of critical thinking skills
 - define, and explain the importance of, critical thinking in their own words

Key questions and exercises

1. Create a KWL chart as in the diagram.

In column 1, write what you already **k**now about critical thinking. In column 2, write what you **w**ant to know about critical thinking. Save column 3 for later; you will write what you **l**earn in this course.

K	W	L
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2. Listen to two definitions of critical thinking and write down key words you hear within these definitions.
3. Consider and write down what critical thinking is NOT.
4. What differences did you notice between the questions of Ms. Brown and Ms. Dominguez?
5. Write one factual or memorization question. This question should have only one correct answer. It will most likely begin with “Who”, “What”, or “Where”. If you are in a group, please share your question with a partner.
6. Write one critical thinking question that evokes depth of thought and possibilities of different responses. It will likely begin with “Why” or “How”.
7. You have practiced writing questions that do not require critical thinking and others that do. Do you ask both kinds of questions in your class? If so, how? Share your response with a colleague.

After the program

Share with a colleague one thing you learned about critical thinking from this program.
 Add it to the ‘L’ column on your KWL chart.

Become an ITEN Teacher! Join our virtual community at www.itenamericas.net and share ideas with over two thousand teachers in OAS member countries.





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Episode 2:

Objectives & Objections

Ms. Brown is skeptical of Ms. Dominguez' learning objectives; Charles thinks through a poem

Learning objectives Participants will:

- Create and analyze learning objectives for teaching critical thinking in a reading / social studies activity
- Create and analyze questions requiring different levels of thinking in Bloom's taxonomy

Key questions and exercises

1. In your own words, what IS critical thinking?
2. Please write or share one thing you know or one question you have about **learning objectives**.
3. Think about a lesson to be taught in your class. Write one learning objective --one performance you expect your students to be able to do at the end of the lesson. Remember, begin with "Students will . . ." followed by a measurable verb. Be clear and specific.
4. Review your learning objective. Is it SMART (Specific, Measurable, Attainable, Relevant, and Timebound?)
5. In Ms. Dominguez' learning objective, we heard that students will identify causes for immigration, analyze experiences of immigrants, and demonstrate appreciation for people from a different country or culture. With this objective in mind, list the steps of an activity you can use to teach to those performances. As you write your steps, be sure to include questions you will use to get students to think.
6. We heard Ms. Dominguez explore a poem with Charles. How did this exercise encourage Charles to use his critical thinking skills?
7. Please write or state the first three levels of Bloom's taxonomy.
8. Please write one question about the poem "Language Barrier" that requires either understanding or applying.

After the program

Write two additional learning objectives and two additional questions you can use to promote thinking during a lesson you will teach soon. If you can, use your objectives and questions in class.

If you wish, add to the 'L' column on your KWL chart.

Do you want to pursue undergraduate, masters', or doctorate studies? Learn about OAS scholarships at <http://www.oas.org/en/scholarships/>.





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Episode 3: A Higher Order

Ms. Brown looks in as Ms. Dominguez' students take on the interview

Learning objectives Participants will:

- Write questions that require analysis, synthesis, and evaluation, levels four through six of Bloom's taxonomy
- Generate ideas on how to make sure both boys and girls are involved in learning

Key questions and exercises

1. As a review, write the first three levels of Bloom's Taxonomy, learned in lesson two.
2. How have you helped--or how could you help--your students to think more deeply than just memorizing information?
3. Think of a topic that you will teach in your class soon. What two to three questions will you ask your students to elicit their own knowledge and ideas about the topic? Remember to list questions that require students to think deeply. If you are in a group, share your questions with a colleague.
4. Ms. Dominguez mentioned levels four, five, and six of Bloom's taxonomy. Write them down now.
5. Think about a learning objective you have for your class. Then write down one activity you could use to help your students achieve that learning objective and explain why you chose that activity for your learning objective. If you are in a group, share your activity with a colleague.
6. Think about your own teaching. What steps do you take, or could you take, to make sure that both boys and girls are involved in learning?
7. What steps do you take, or could you take, to ensure that all students have the time and opportunity to think through the questions you ask?
8. Write two additional recall questions. For each question write another, more challenging, question requiring the use of analyzing, evaluating, or creating, as promoted by Bloom's taxonomy.

After the program

Write two additional recall questions. For each question write another, more challenging, question requiring the use of analyzing, evaluating, or creating, as promoted in Bloom's taxonomy.

If you wish, add to the 'L' column on your KWL chart.

The Inter-American Teacher Education Network offers webinars on a range of topics in teaching—free of charge!

Visit <http://www.oas.org/en/iten/webinars.asp>.





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Episode 4:

**We
recommend ...**

*The students dig into
their interview data to
help shape the future of a
community center*

Learning objectives

 Participants will:

- Identify strategies to incorporate critical thinking in the teaching of mathematics
- Plan activities to help their students achieve named learning objectives

Key questions and exercises

1. Write the words remembering, understanding, applying, analyzing, evaluating, creating. Now put a check mark beside the two levels that indicate low levels of thinking. Then draw an asterisk beside the ones that indicate high levels of thinking.
2. When asked about the challenges they face, 19 immigrant families reported challenges with housing, 9 noted the language barrier, 8 named adjusting to a new environment, and 63 cited the inability to locate suitable employment. Imagine you want your students to make an evaluation based on this information and **write two questions** that allow for evaluating information based on this scenario. You may want to use verbs such as “compare”, “assess” or “justify”.
3. Write down or share three ideas you learned about the Socratic seminar based on the conversation between Ms. Brown and Ms. Dominguez.
4. Think of a learning objective from your class and write it. You may want to start with, “Students will . . .”.
5. What shared piece of content, such as a text or a data set, will be discussed in your Socratic seminar to achieve the learning objective that you just wrote?
6. Write down a real-world situation in which your learning objective is needed.
7. Name an activity that will help your students make the connection between your learning objective and the real-world situation you named.

After the program

Choose one of the activities discussed and write down how and why you will use it to help your students learn critical thinking skills. Or, you can think of another activity you know. Remember to base the activity on a learning objective you have created. If you wish, add to the ‘L’ column on your KWL chart.

To learn more about Socratic seminar and many of the ideas in this program, visit <http://www.oas.org/en/iten/toolkit.asp> and explore ITEN’s critical thinking toolkit.





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Episode 5: The Method Rules

Ms. Brown begins a science unit. Will she stick to the facts or delve into deeper thinking with her students?

Learning objectives Participants will:

- Apply the scientific method to their own class, whether they teach science or another subject
- Create an activity that requires students to use the steps of the scientific method to think critically

Key questions and exercises

1. Write down the five steps to the scientific method: 1) identify a problem; 2) hypothesize about the solution; 3) gather data; 4) analyze and interpret the data; 5) form conclusions. Tick the step that may require the use of resources.
2. Choose or write a learning objective for your class. In a lesson to achieve this learning objective, what might your students predict or hypothesize?
3. What kind of information would serve as evidence that students could gather in order to prove or disprove their hypothesis?
4. Write down how students might go about gathering this kind of evidence.
5. What resources will Ms. Brown's students need to conduct their experiment and find out which watering regimen works best?
6. When your students gather evidence, what resources will they need?
7. Name an activity that will help your students make the connection between your learning objective and the real-world situation you named.

After the program

Use the ideas in class that you wrote down today. Have students form a hypothesis in response to a problem or a question you have identified. Then help them gather evidence to test their hypothesis, revise the hypothesis if needed, and draw conclusions. If you wish, add to the 'L' column on your KWL chart.

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Episode 6: Measuring Up

Ms. Brown considers how to assess learning based on critical thinking. She dusts off her old multiple choice test and then . . .

- Learning objectives** Participants will:
- Identify various techniques for assessment and evaluation and explain their importance.
 - Create an assessment rubric for use in their class.

Key questions and exercises

1. List four skills you have learned or improved by participating in this program.
2. Write your own definitions of 1) evaluation and 2) assessment.
3. Write down and explain how you typically evaluate and assess your students.
4. If you test or assess your students more frequently than just at the end of the semester, note how often you do so and how you engage your students at the midterm or other times of assessment.
5. Add to your definitions of assessment and evaluation by naming activities, such as the interview or the Socratic seminar, which you can use at least partly as assessments. Explain how you might do so.
6. Write down one new informal assessment that you would like to implement in your classroom.
7. Write down some benefits to teachers of using a rubric for assessments and/or evaluations; then write down some benefits for students.

Partial sample rubric to assess a science experiment conducted and presented by students:

	Needs improvement	Proficient	Excellent
Design of the experiment	Did not follow 5 steps of scientific method; did not proceed in logical order	Generally followed scientific method; proceeded mostly in logical order	Followed scientific method thoroughly; proceeded in logical order throughout
Clarity and organization of presentation	Presentation was not clear or not well organized	Presentation was mostly clear & well organized; a few details may have been unclear	Presentation was very clear and well organized throughout

After the program

Create a rubric for use in your class: 1) Write a learning objective; 2) Choose an activity to assess; 3) Create a grid like the one above with the items to be evaluated in the left column and performance levels across the top row; 4) fill the grid with descriptions of different performance levels. If you wish, add to the 'L' column on your KWL chart.

Link to more sample rubrics and other assessment tools from the assessment unit of our virtual toolkit at <http://www.oas.org/en/iten/toolkit.asp> .





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Episode 7: Thinking Things Through

Ms. Dominguez and Ms. Brown are given an important task; Henry thinks he has the last laugh

Learning objectives Participants will:

- Develop a lesson plan outline based on the principles learned throughout the series
- Reflect on and evaluate the learning process and outcomes

Key questions and exercises

1. Do you remember the six levels of thinking in Bloom's Taxonomy?
2. Please identify which levels are examples of critical thinking and place check marks beside them. Next, choose one and explain why you consider that level to involve critical thinking.
3. Think of something students need to learn in your class . . . now, if you desire, write a condition, then, "Students will be able to . . ." . . . now finish writing your learning objectives by adding two to three performances that begin with verbs.
4. Write two to three critical thinking questions for your learning objective.
5. Now choose an activity appropriate for your learning objective that will require your students to think critically.
6. How will you check for students' understanding during the lesson?
7. How will students individually demonstrate, in a measurable way, that they have achieved your learning objectives? Write an idea for your lesson evaluation now.
8. Write five things you most remember learning from the seven programs.

After the program

Fill in more detail on the lesson plan outline you created today. For example, you named an activity. After the program, describe that activity step by step so you are well prepared to teach the lesson. Use your completed lesson plan in class.

Review your KWL chart and consider how you will continue to improve your teaching of critical thinking skills. Remember, it takes practice and time. Good luck!

Tell your colleagues in the ITEN virtual community about your experience with "Critical Thinking for Teachers" at www.itenamericas.net. Search the scholarships available at www.oas.org/en/scholarships/.

