

Using Questions to Promote Critical Thinking

Critical thinking can occur whenever one judges, decides, or solves a problem; in general, whenever one must figure out what to believe or what to do, and do so in a reasonable and reflective way.

Critical thinking is important because it enables one to analyze, evaluate, explain, and restructure our thinking, thereby decreasing the risk of adopting, acting on, or thinking with, a false belief.

The key to seeing the significance of critical thinking in the classroom lies in understanding the significance of critical thinking in learning.

There are two phases to the learning of content. The first occurs when learners (for the first time) construct in their minds the basic ideas, principles, and theories that are inherent in content. This is a process of internalization. The second occurs when learners effectively use those ideas, principles, and theories as they become relevant in learners' lives. This is a process of application. Good teachers cultivate critical thinking at every stage of learning, including initial learning.

The work of Dr. William Glasser provides insight into nurturing the critical thinking process through the use of specific types of questions. Dr. Glasser's Quality Schools approach uses the Reality Therapy Questioning Process to encourage students to process information in an analytical way. By preparing a questioning strategy, teachers can present information in a manner that is conducive to promoting intellectually engaged thinking.

Two techniques of applying the Questioning Process are class meetings and individual conferences. Each of these techniques engages Dr. Glasser's Want, Do, Evaluate, Plan model. This model is based on four basic questions: 1) What do I want?; 2) What am I currently doing/thinking to get what I want?; 3) Is what I am doing working?; and 4) How can I improve? The two techniques are described below.

Class Meetings: The class meeting format is suggested in Dr. Glasser's book, *Schools Without Failure* (1969)¹. The meeting's topic, structure and questions are specifically planned for the greatest impact on construction of thoughts and their subsequent application. Three types of questions are used:

1. **Define:** Used to agree upon a common definition of a topic or problem.
2. **Personalize:** Used to relate the topic or problem to the students' lives.

3. **Challenge:** Used to provoke analytical thought and problem solving abilities.

These meetings are also designed to help learners explore the following questions, which relate to Dr. Glasser's Want, Do, Evaluate, Plan model:

1. What do I know/believe about the situation? (Doing/Thinking)
2. Is the way I am processing the information/belief accurate? (Evaluate)
3. How do I want to proceed with my knowledge/belief? (Want)
4. What will I do with this knowledge? (Plan)

For example, the following questions could be used as a classroom meeting on quality of school work:

1. **Define:** What is high quality work?
2. **Personalize:** Think of a time when you did high quality work. What made it high quality?
3. **Challenge:** Is it ever ok to turn in work that is not of high quality?

One definition of a critical thinker is someone who:

- raises vital questions and problems, formulating them clearly and precisely;
- gathers and assesses relevant information, using abstract ideas to interpret it effectively
- comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards; and
- communicates effectively with others in figuring out solutions to complex problems, without being unduly influenced by others' thinking on the topic.²

In order to answer the class meeting questions listed above, students must consider their present knowledge and beliefs; evaluate whether their knowledge is accurate or in alignment with others' beliefs; consider how they might apply this knowledge in the future; and explain their reasoning to others in the group.

It is important to note that the teacher is using this same critical thinking process when designing the class meeting. The example below demonstrates the questions a teacher might ask himself while planning for a class meeting, or for any lesson.

Class Meeting or Lesson Planning:

1. **Define:**
 - What is the objective or standard?

2. Personalize:

- How is this objective or standard relevant to the students?
- What knowledge or skills do the students already have, related to this standard?
- How will this knowledge or skill be helpful to the students?

3. Challenge:

- How will the students apply this knowledge or skill?
- How will the learning be measured?

Individual Conferencing: The second technique for applying the Questioning Process is to conference with individual students. The questions again relate to Dr. Glasser's Want, Do, Evaluate, Plan model. This model is used to help students realize the importance of self-evaluation and reflection in the production of quality work.

In an academic conference the basic questions would be:

- What do you want to accomplish/learn? (Want)
- What are you doing to help you accomplish/learn? (Doing)
- Is what you are doing helping or hurting your learning? (Evaluate)
- What is your plan to be successful and learn? (Plan)

In practice, the questions are not asked in any specific order, or in a specific wording. The teacher will phrase questions in a way that promotes reflection, and follow-up questions will be based on the student's answers. The following is a sample dialogue from a three to five minute academic conference at the end of a quarter. The teacher and student are referring to the student's goal, action plan, and tracking chart, which are part of the student's data folder.

T = Teacher S = Student

T: *What do you think of your learning results?*

S: I did pretty well; I met my goal three times.

T: *Yes, you did. How many weeks did you reach your goal and how many didn't you reach it?*

S: I made it 3 times and didn't make it 5 times.

T: *Are you satisfied with that?*

S: No!

T: *Let's talk about your plan. Have you been following it?*

S: Well, sort of.

T: *Let's go through it step by step. Tell me if you followed each of the steps last week.*

S: I did review each quiz like it says. I made the set of rapid fact cards.

T: *Did you use the cards at home?*

S: No.

T: *Did not practicing with your fact cards help you learn your facts?*

S: No.

T: *Okay, go ahead.*

S: I practiced with the rapid facts cards every day at school!

T: *Good, does that help?*

S: Yes, I'm getting faster with the ones I know.

T: *What does that tell you about practice?*

S: That I learn more when I do the cards.

T: *And?*

S: If I practice my facts at home, I'd probably do better on the quizzes.

T: *How about the Fast Math computer program?*

S: I like that. I do it every day.

T: *And the practice quizzes?*

S: I don't really like them, so I don't do those much.

T: *What don't you like about them?*

S: I don't usually do very well. I miss a lot and then I feel stupid.

T: *What's the purpose of a practice test?*

S: To see what we don't know before the test.

T: *If you take it, does it tell you what facts you know and what facts you need to learn?*

S: Yes, but I don't like to feel stupid.

T: *Does skipping the practice tests help you reach your goal?*

S: No.

T: *What would you have to do to feel smarter?*

S: Well, if I practice my math fact cards that might help.

T: *And the practice tests?*

S: Maybe I could tell myself it's really just practice and then I could have my mom help me with the ones I missed.

T: *How will doing those two things help?*

S: Well, if I practice more I should learn more. Now I only do the practice test, look at what I missed, then go watch TV. If I practiced the ones I missed, maybe it would help.

T: *What do you want to do about your action plan?*

S: Keep it like it is and follow it.

T: *How will you and I know that you're following the plan this week?*

S: I'll put a check mark on my plan every time I do my fact cards at home.

T: *Good idea. Then you can see if the practice helps your learning. Anything else you'd like to do or talk about?*

S: No.

T: *Okay. Thanks for talking to me and for evaluating your progress. Should we see how you're doing next Friday?*

S: Okay.

T: *Thanks.*

In this example, the student obviously wants to do well in school. The questions, however, are relevant to any student. Notice how the teacher *asked* the student to review the plan and to evaluate the results, rather than *telling* the student what he should do. The teacher was using questions with intentionality, requiring the student to critically assess his performance and plan for improvement.

Actively involving students in reflection and evaluation through the Questioning Process, both in group and individual settings, promotes the development of the critical thinking skills necessary for success in life. The simple habit of *asking*, rather than telling, can make a crucial impact.

References:

1. William Glasser, *Schools Without Failure*, Harper and Row, 1969.
2. "Critical Thinking",
http://en.wikipedia.org/wiki/Critical_thinking#Classroom_applications

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