



# Getting Students to Think

## *Using Questions Effectively in the Classroom*

**E**llen G. White's familiar statement, "It is the work of true education. . . to train the youth to be thinkers, and not mere reflectors of other men's thought"<sup>1</sup> takes on new urgency in the 21st century. We are teaching a generation of students who have grown up with computers and the media.<sup>2</sup> For many, thinking means clicking a few buttons, rapidly moving from one subject to another, chatting with five "friends" at once, and downloading term papers from the Internet. Sustained creative or reflective thought is a foreign concept because very few experiences in the daily lives of children and adolescents today provide opportunities for this type of thinking. How can we help students learn to think?

By Larry Burton and Donna J. Habenicht

### **Creating Good Questions**

Teaching students to think begins with creating good questions. Too often, the questions we ask require only repetition of what we said

in class or something the student has read. These types of questions do not require any "higher level" thinking.

But what does "higher level" mean? The most common tool for deciding whether a question is "high level" or "low level" is Bloom's Taxonomy.<sup>3</sup>

“After three days they found him in the temple courts, among the teachers, listening to them and asking them questions. Everyone who heard him was amazed at his understanding and his answers”

(Luke 2:46-47, NIV).

“It is not the best plan for teachers to do all the talking, but they should draw out the class to tell what they know . . . Their ideas should be drawn out and corrected, or approved, as the case may require”

(Ellen G. White, *Counsels on Sabbath School Work*, pp. 15, 16).

### Levels of Questions

Most questions will fit into one of Bloom’s four categories, illustrated in Table 1. Questions from Level 1, *Know*, require mastery of only basic concepts or facts. However, being able to “remember” and “understand” provides a foundation for higher-level thinking.

Questions from Levels 2, 3, and 4 promote higher-level thinking because they require students to take the basic knowledge they developed in Level 1 and do something with it. Level 2, *Apply*, includes “skills,” things we want students to learn *how* to do. For example, finding scriptural references is eas-

ier when children know the books of the Bible in order.

Questions from Level 3, *Examine*, ask students to inspect the different elements or parts of the topic being studied. They can use observations, discussions, and their thinking abilities to look at similarities and differences between ideas and concepts, to reason from specific experiences to general truths, and to set standards to guide them in making decisions or evaluations. “What similarities do you see between the story of the prodigal son and the story of the lost coin?” requires this level of thinking.

Table 1. Four Levels of Questions

Level	Name	Type of learning outcome
1	Know	I understand this or can explain it in my own words.
2	Apply	I can do this.
3	Examine	I can look closely at things and make judgments about them.
4	Create	I can put ideas together and create something new.

## Teaching students to think begins with creating good questions.

Questions or commands at the fourth level, *Create*, ask students to create something new from what they know, can do, and have examined. For example, “What can you create to represent your relationship with Christ?” or “Use your drawing supplies to make a picture that shows what you think the sky will look like when Jesus comes back to Earth.”

In our teaching, we need to ask questions on each of these levels. Our students need to master basic information, concepts, and ideas. We also want them to move beyond mere understanding and repetition of other persons’ ideas to the creation of original thought and reflection on the truths of God’s Word.

### Planning for Good Questioning

Many teachers don’t realize the importance of planning questions in advance. More than 90 percent of the questions teachers ask in class are at the “Know” level. Such questions ask children to recall or recite facts. When teaching a new Bible story, it may be important to ask several “Know” questions. However, students will lose interest if they are asked only basic factual questions about stories they already know well.

While knowing is important, our commission is to move beyond simply teaching information to creating disciples.<sup>4</sup> Teaching is primarily about relationships. God created human beings for communion, and communion requires more than simply knowing about God. We need to ask questions that help students investigate God’s character and actions, the deep meanings of the Bible, and how all of this applies to their lives. But to ask these really important questions, we need to plan ahead. Otherwise, we will fall into the trap of asking “Know” questions. To ask better questions, try one of the fol-

lowing approaches:

Review the planned learning activities. Write three or four questions for the lesson and for each learning activity. Finally, look at each of your questions and decide which level of thinking you are asking students to use. Be sure you are asking questions at all four levels.

Another way is to begin with a Level 1 question and then follow up with a higher-level question on the same topic. The verbs listed in Table 2 can be helpful in creating questions at a variety of levels.

### Creating Questions for Reflection

Level 4 questions that encourage reflection are perhaps the most important and most difficult to create. Many students find them difficult to answer because they have no experience with reflection. The purpose of reflection is to give students an opportunity to make spiritual connections to the activity they just completed. Spiritual learning is incomplete without this connection. Reflection requires thinking about the activity as well as about a *spiritual connection*.

Reflection questions can focus on the topic of study, the process of the activity, the thinking during the activity, the spiritual principles in the activity, or on feelings and emotions. The following generic questions may be used, with a little adaptation, to promote reflection on almost any classroom activity.

### Questions Focused on the Activity

- “Tell me about what just happened. What made it difficult? What made it easy?”
- “What did [the activity] teach you about [the topic]?”
- “What was going through your mind while you were [doing this activity]?”
- “What were you feeling [emotionally] as you experienced this activity?”
- “Have you ever experienced something like [this activity/topic] before?”
- “Tell us about a time something

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like this happened to you or someone you know.”

- “What would you say to [character in the story]? What do you think that would do for [character]?”
- “What did you like best in this story?”<sup>5</sup>
- “I wonder what the most important part of this story is.”<sup>6</sup>

### Questions Focused on a Spiritual Connection

- “What connection do you see between this activity and the main point of our lesson today?”
- “What is God trying to say to us in [this story or activity]?”
- “What guidance has God given to us about [this topic]?”
- “How is [this activity] like [spiritual principle]?”
- “I wonder if you are in this story.”<sup>7</sup>

Adapt these questions to the age of your students. Rewording them more concretely will make them useful for younger children. When you find reflection questions that work well, use them as models to create new reflection questions on other topics.

Let's look in on an upper elementary-level classroom. Mr. Chilson begins his Bible lesson by having the students read Exodus 18. Then he asks, “What are the main points of this story

about Moses?” [Level 1, Know] After the children generate a list, he asks, “What do you think verses 17 through 24 say about Jethro?” [Level 3, Examine] “What kind of relationship do you think Moses had with Jethro?” [Level 4, Create] He finishes discussing the verses by asking, “What do you think it was about Moses that made Jethro want Moses in his family?” [Level 4, Create] He ends by asking, “What did you like best about this story?” [Level 4, Reflection]. Mr. Chilson has used questions to skillfully lead his students into “higher-

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Table 2. Types of Thinking in Each Level of Bloom's Taxonomy

<b>Know</b>	recognize clarify	label illustrate	repeat give examples
<b>Apply</b>	do show	use practice	carry out demonstrate
<b>Examine</b>	differentiate test	outline critique	organize judge
<b>Create</b>	hypothesize produce	design invent	construct compose

level” thinking and reflection. His students have also responded thoughtfully to his questions. How did he achieve that?

### Getting Children to Respond

Getting students to respond is crucial. After all, it’s the discussion of important questions that sparks learning. The traditional question-answer technique used in many schools goes something like this: The teacher asks a question. The students who think they know the answer raise their hands. The teacher calls on a child. The child gives an answer. The teacher tells whether the answer is right or wrong.

What is wrong with this routine? Several things. About 10 percent of the students will answer about 80 percent of the questions, whether it’s first grade or grad school. Students who are not asked to respond sit passively and do not participate in any interaction, while those who “think out loud” are encouraged to respond without thinking through their answers.

Traditional questioning techniques work best for intrapersonal or auditory learners. But what about other students? If a question is important enough to ask in class, then it should be important enough for every student to answer. How can you make questioning into an engaging, active learning experience? Three simple guidelines can help transform your use of questioning.

### Wait Time

First, include *wait time* after asking a question. Don’t be uneasy with silence and pauses. If you ask thoughtful questions, students need time to think before they reply. Without wait time, students will often choose not to respond or simply echo the response of a faster or more verbal peer.

In general, wait at least three seconds after asking a question before calling for a response. For more complex questions, wait even longer. Don’t call on a student to answer until *after* you have asked your question *and* allowed wait time. If you call on a student before asking the question, the others will

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not pay attention, and thus will not learn.

### Share With a Partner First

Second, allow students to answer the question by *first sharing their answer with a partner*. This allows every student to answer the question. When you want the whole class to hear answers to a question, have the students respond first to a classmate. Many students can give appropriate responses to questions but are afraid of looking stupid in front of their peers. If you allow them to present their response to a partner first, they gain confidence in their correct answer or get feedback from their partner about an incorrect response. Here are three ways you can get students to discuss their answers

with a partner:<sup>8</sup>

1. *Pairs*. After the teacher asks a question, students pair up to discuss the topic. They do not share their responses with the class. The purpose is to have them reflect on a specific question.

2. *Think-Pair-Share*. Ask a question and provide “wait time” to allow the students to think of an answer before talking to someone else. Then students

pair up to discuss the question. Finally, use Random Call (see below) to ask individual students to share their answer or their partner’s answer with the class.

3. *RoundRobin*. Pose a question to the class, divide the class into teams, and designate one person in each team to be first. The first person in each team writes a response on a sheet of paper, then passes the paper to the next person on the team. The second person writes a response and passes the paper to the third person, and so on until all have responded. The answer sheet can go around the table more than once, depending on the question. After the students have finished writing, invite teams to share their responses with at least one other team or with the whole class.

### Call on Children Equally

The third guideline that can help you transform the use of questions is to *call on children equally*. Try *random call* techniques when choosing students to answer a question as well as *informal recording* techniques to ensure that everyone has an opportunity to participate. In most classrooms, a few students answer the majority of the questions, regardless of the size of the class.<sup>9</sup> Sometimes, teachers encourage this by calling on the students they know will give a good reply.

You can change that pattern by randomly calling on students in the class. What does that accomplish? If students know that any one of them may be called on to respond, they take the questions more seriously. In many classes, students know that if they don't raise their hands, they won't have to think. But if we change our questioning habits, they have to be thinking and preparing a response.

But what about students who don't know the answer? Won't they be embarrassed if you call on them? Usually not if you follow the second principle discussed above. By regularly asking students to discuss their thoughts and ideas about a question with a partner before they share them with the class, each person has the option of sharing his or her own answer or the partner's answer when called on.

*Random Call.* One of the simplest random-call techniques uses a deck of note cards or small slips of paper. First, write each student's name on a separate card. Place all the cards into a single stack. When you need a response, draw a card from the deck and call on that person. To keep students "on their toes," return each card to the deck after it is used.

*Informal Recording.* To

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ensure that all students are asked to respond, use a simple informal recording technique. When using the deck of cards described above, create a new stack of cards of students who have already responded. As you progress through the cards of students who have not responded, occasionally take a card from the "responded" stack, to keep everyone thinking all the time.

### Reading Between the Lines

Be sure to *read between the lines* when accepting students' answers or comments. A "just right" answer may not mean very much—it may just be parroted. Children may not understand what they are saying or may not have made any application in their lives. They may know much more than they

are willing to say but don't want to seem too "smart" or "goody-goody" to their classmates. You must read between the lines to get real feedback.

Body language gives important feedback. Both children and adults many times act out things they are unwilling to say with words, and a person's face can register an unspoken question. A shy child might feel embarrassed if you say something directly about the unspoken question. Try rephrasing what you have just said, or in some other way try to clarify. For a more outgoing, confident student, you might say, "I think you have a question, Kwame. Would you like to ask it?"

### What to Do With Wrong Answers

When students give incorrect answers to a question or reflection activity, the teacher must handle the situation with great care. Don't embarrass students by saying things such as, "I thought you knew that!" "Why don't you know the answer? Weren't you listening?" "That was such an easy question." Misdirected humor and sarcasm

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are always distressing to students. Next time, they may not try to answer the question. The desire to try has died.

The teacher's response to wrong answers or a student's inability to respond helps set the atmosphere. One way to respond to incorrect answers without embarrassing the student or creating a spirit of competition<sup>10</sup> is to *dignify* the response. Identify what parts of the question were answered correctly. If the student answered a closely related question, identify the question he or she actually answered.

Sometimes, it is necessary to restate the question. This gives the student more time to think about a response. If this doesn't work, *rephrase* the question. The language we use as teachers does not always communicate well with our students. If the question is very complex, break it into several simpler questions.

Another way to support a student who has given an incorrect answer is to provide clues or hints about the answer until he or she can respond. If you have tried everything and the child still cannot think of the answer, provide the answer and ask the child to explain it in his or her own words.

Sometimes, students respond in a way that is distressing or even shocking. Often, a direct "Why do you think that?" will clarify the response. When a little girl said she didn't think there was any God, a soft reply of "Why do you think that?" brought the answer, "There isn't any Santa Claus, so there isn't any God!" This gave the teacher an opportunity to help her understand that there is a God.

Mistaken ideas should be corrected, so far as possible, but always in a kind and gentle spirit.

### Responding to Students' Questions

Not all questions are generated by the teacher. Students ask questions, too. There are two basic ways of responding to students' questions: direct or reflective responses. Direct responses provide a factual answer to the question. For example, if a child asks, "Were Joseph

and Manassah related?" the teacher could reply, "Yes, Joseph was Manassah's father." Direct responses are efficient and satisfying for students, since they require less personal effort. However, they do not encourage higher-level reasoning.

In a reflective response, the teacher attempts to get students to think for themselves by encouraging them to draw their own conclusions or identify a process they can use to find the answer. In reflective responses, the teacher typically responds to a question with a question, as Jesus often did.<sup>11</sup> When the student asks, "Were Joseph and Manassah related?" you could say, "What do you think?" or, "Where would you look in the Bible to find out?" Or she could ask, "Do you know anyone who was related to Joseph? Do you know anyone who was related to Manassah?" Try to balance the use of direct responses with a good number of reflective responses.

In our experience, students at all levels need to be guided toward higher-level thinking skills in all subjects. We believe higher-level thinking is especially important in helping students mature in faith development as this can provide a solid basis for their belief in God and His Word. It also leads to an atmosphere of openness and willingness to discuss students' spiritual concerns. ☞

*This article has been adapted from a forthcoming book by Donna J. Habenicht and Larry Burton, Teaching the Faith: An Essential Guide for Building Faith-Based Kids (Review and Herald, in press) and is printed with the permission of the authors and publisher. Larry Burton is Associate Professor of Curriculum and Instruction at Andrews University in Berrien Springs, Michigan. Donna J. Habenicht is Professor Emerita of Educational and*



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### NOTES AND REFERENCES

1. Ellen G. White, *Education* (Mountain View, Calif.: Pacific Press Publ. Assn., 1903), p. 17.
2. See Alison Armstrong and Charles Case-ment, *The Child and the Machine: How Computers Put Our Children's Education at Risk* (Beltsville, Md.: Robins Lane Press, 2000) and Jane M. Healy, *Failure to Connect: How Computers Affect Our Children's Minds—and What We Can Do About It* (New York: Simon & Schuster, 1998). The research on this topic is in early stages, but the implications of what has been discovered are worth serious consideration by educators and parents.
3. For more information on Bloom's Taxonomy, see Lorin W. Anderson and David R. Krathwohl, eds., *A Taxonomy for Learning, Teaching, and Assessment: A Revision of Bloom's Taxonomy of Educational Objectives*, Abridged Edition (New York: Longman, 2001).
4. The Gospel Commission, Matthew 28:19, 20.
5. These "I wonder. . ." type questions are suggested by Jerome Berryman in *Teaching Godly Play* (Nashville, Tenn.: Abingdon Press, 1995). While *Godly Play* was designed to be used with children 4 to 12 years of age, these questions are very effective for eliciting reflective responses from kindergarten children to graduate students.
6. Ibid.
7. Ibid.
8. For a more complete discussion of cooperative learning structures, see Spencer Kagan's book: *Cooperative Learning*, published by Kagan Cooperative Learning, San Clemente, California, 1997.
9. For smaller classes, one-fifth of the students tend to answer about four-fifths of the questions. In classes of 40 or more, about 10 percent of the children answer about 90 percent of the questions.
10. Robert Marzano and Debra Pickering, with Daisy E. Arredondo, Guy J. Blackburn, Ronald S. Brandt, Cerylle A. Moffett, Diane E. Paynter, Jane E. Pollock, and Jo Sue Whisler, *Dimensions of Learning: Teacher's Manual* (Alexandria, Va.: Association for Supervision and Curriculum Development, 1997).
11. Jesus' questions-in-return were always pointed and thought provoking. Often they were a surprise that cut to the heart of the questioner's motives. Sometimes, they provided a way out of the dilemma His questioners thought they were proposing. See Matthew 12:9-13; 18:1, 2; 21:23-27; and 22:15-22 for starters. See also Bertram L. Melbourne, "Still Teaching After Two Millennia," *Journal of Adventist Education* 65:5 (Summer 2003), pp. 5-9.