



Contents of the kit

Initiating the study	4
I. Building a readiness	5
Activity 1: Food for thought	5
‘What students say about common teaching practices’	6
‘Encouraging “Math Talk” in the Classroom’	12
‘Literature Circles in the Middle School Classroom: Developing reading, responding and responsibility’	17
‘Challenging At-Risk Students: Findings from the HOTS program’	23
II. Discussion	29
Activity 1: Improving discussion	29
‘Leading effective discussions’	30
Activity 2: Discussion techniques	31
Dialogue do’s for improving discussions	32
Activity 3: D is for discussion	33
Note-taking sheet for discussion session	34
Activity 4: Agree/disagree clarification cards	35
What do you think?	37
III. Questioning	40
Activity 1: Effective questioning	40
Personal comments on the art and science of effective questioning	41
Activity 2: Questioning techniques	42
Questions that count	43
Question categories	44
Riegler’s question classification system	47
Activity 3: Using Bloom’s taxonomy to improve questioning techniques	49
Bloom’s cognitive taxonomy as an instructional tool	50
Generic outline for developing a unit on any topic	52
Bloom’s action verbs for classrooms	53
Generic questions using Bloom’s to assess student understanding of information	56
Sample units using Bloom’s	58
Activity mindset self-inventory	61
Activity 4: Bloom’s constructed tests	63
Classroom application	64
Bloom’s construction test format	67
Test	69
IV. Audience participation reports	70
Activity 1: Interactive audience	70
Interactive reports	71
V. In conclusion	72
Reflecting on lessons learned	72
A post-test	73
Resources for school-based professional development	74



Initiating the study

This self-help professional development kit will provide you as a teacher and team member with an assortment of tools and techniques that will improve the quality of your questioning and discussion techniques and thereby improve students' learning. Most classroom instruction time involves dialogue, discussion and questioning activities designed to teach content and provide application of skills. All too often, however, these experiences are so teacher-directed that they do not promote or encourage student interaction, two-way communication or open-ended responses.

The use of activities in this kit will counter the above generalisation. Each activity is made up of three Rs: *Read and react* includes some basic information on the tool or technique; *Action research* includes directions for implementing the activity that will provide practice or application of the tool or technique; *Reflect* includes some way to measure your success in using the activity.

The kit is comprised of the following modules:

1. **Building a readiness:** Four articles that will encourage you to reflect on existing practices, present positive classroom experiences and serve as background reading, all to build a readiness to engage in the activities to follow.
2. **Discussion:** A set of four activities that will provide you with several proven tools and techniques for use in the classroom to stimulate effective discussion.
3. **Questioning:** The four activities in this component will improve the critical thinking of your students through applying the art and science of questioning.
4. **Audience participation reports:** Using the six different types or reports described in this component will ensure audience participation with students taking the lead.
5. **In conclusion:** Through this component you will be able to assess how you perceive the kit's content through reflections on personal experiences with the activities by using prompts given on the form. It also requires you to apply your knowledge of the kit's content using Bloom's taxonomy as a format for responses.

Since the activities in this kit usually call for application in the classroom, completing the kit will require some time. It is essential, therefore, that you maintain a portfolio/journal that contains student work samples, responses to the feedback activities and other artifacts and reactions that will document and demonstrate how effective the tools or techniques were when implemented in your classroom.



Module I

Building a readiness

Activity 1

Read and react:

Food for thought

The article, 'What Students Say About Common Teaching Practices' (pp. 6–11) is an excellent starting point for improving discussion and questioning practice. If the kit is being used by a team, every team member should read and react to this basic article. Each team member should take notes, identify points of agreement and be prepared to share impressions. If working as an individual, you will need to read and react to all the articles on pp. 6–28. If working as a part of a team, different individuals may read different articles and share their findings.

Action research:

More food for thought

Below are three ways of tapping fully the ideas contained in these articles.

1. Read the article carefully and then answer the following questions:
 - What is the author's primary purpose in writing the article?
 - What major points does the author make on the topic?
 - Does the author cite any research in presenting their ideas?
 - Do you generally agree or disagree with the author's position?
2. After skimming the article, go back and compile a list of facts and a list of opinions for the article. Use these as springboards for conducting a discussion on the article.
3. After reading the article thoughtfully, write a series of portfolio or journal entries to ponder the ideas presented in the article. Consider entries such as these:
 - Your reaction to a paragraph or section
 - Your summary of information from a paragraph or section
 - Your reactions to the tables, figures, data and research used
 - What you wish the article would have included that it did not
 - What you felt as you read the information
 - Questions you have after reading the material

Reflect:

Start a portfolio/journal

Decide on a way to maintain a functional record of your study of discussion and questioning practices and their application in your classroom. This combination portfolio/journal will be a resource to return to from time to time as well as the basis for your summary conclusions. A manilla folder and a notebook may suffice or perhaps a pizza box to hold the many materials that will result from classroom applications, feedback activities and your reflections. Whatever works for you or your team is acceptable.



What Students Say About Common Teaching Practices

Margaret A. Theobald

Using a variety of teaching strategies is not just nice, it is necessary for optimizing student learning. Precious few students learn best from an abundance of teacher talk combined with endless blanks to be filled in. Simulations, discussions, problem-solving tasks, and computer-assisted instruction all have a role to play in middle school classrooms. However, has anyone asked, and then listened to, students talk about their views of various instructional strategies? Yes! Read on to see what students think about the learning options to which they are exposed.

For years, an emphasis on different teaching strategies for young adolescents has been advocated (Gilstrap, Bierman, & McKnight, 1992; National Middle School Association, 1982; Scales, 1992; Wood, 1991). Young adolescents require a distinctive kind of education program and an environment that is unlike that of either the elementary or the high school (Faunce & Clute, 1961; George & Alexander, 1993). Teachers can control how teaching is conducted in their classrooms. However, experts (Faunce & Clute, 1961; Gilstrap, Bierman, & McKnight, 1992; Johnston & Markle, 1986; Lounsbury & Clark, 1990; National Middle School Association, 1982; Wood, 1991) have registered concerns about the choices teachers typically make. Now students have their say about the instructional strategies that they encounter daily.

Background

Instructional strategies used at the middle level should be selected with the learning needs of young adolescents in mind. For example, the importance of peer relationships dictates the use of teaching methods that capitalize on peer interaction (National Middle School Association, 1982). The challenge of promoting intellectual growth from simple to complex thought, from concrete to formal operations, requires experiences that stimulate these processes in young adolescents. The physical need for movement dictates the need for activities allowing students to be physically active. Especially important for middle school students is that teachers capitalize on students'

natural desire to talk and work with peers.

The students

A convenience sample of seventh graders was chosen to be surveyed. A small urban school (town population about 30,000) and a medium-sized urban school (city population about 60,000) were the settings. Of the 355 seventh graders in the small urban setting, 2% were minority (most were African American) and almost one-third were on 'free lunch.' This school is the only one in the district that serves seventh graders. A total of 64 students from two teams were surveyed for this study.

The other urban school had a 6-8 configuration to house some 800 total students. Twenty-five percent were minority (most were African American) and almost 23% of the total population was on 'free lunch.' This school was one of two schools in the district serving students in grades 6, 7, 8. At this school a total of 91 students from two seventh grade teams were surveyed. The total sample of 155 seventh graders from the two schools included 79 males and 76 females. Age distribution was as follows: 12-year-olds, 86; 13-year-olds, 62; and 14-year-olds, 7.

Survey summary

Seventh grade students were asked to rate and explain the reasons for their ratings, each of seven basic instructional strategies commonly used by teachers: *Lectures* (teachers talk all or most of the time), *Discussions* (teachers have students talk with the teacher and/or with other classmates on a specific topic some or most of the time), *Questioning* (teachers ask questions in class some or most of the time), *Games & Simulations* (teachers use games and/or competition and sometimes set up almost 'real' situations), *Problem Solving* (teachers set up a situation and let students figure out how to solve a problem), *Skill Practice* (teachers give time in class for students to practice skills taught in class), and *Media and Visual Aids* (teachers use films, film-strips, record players, overhead projectors, videos, blackboards, charts, other equipment).