

M.I.F.F. TECHNIQUES

The following MIFF techniques, when used effectively, will help the teacher in four critical areas: **Management**, **Involvement**, **Feedback** and **Focus**. The goal for the teacher is to become proficient in using these techniques as problem-solving tools to help with management, to increase involvement, to elicit feedback or to provide focus.

POSITIVE REINFORCEMENT of ANSWERS

This refers to attempting to find something praiseworthy about every answer. This is not to imply that all answers are correct or even have equal merit. However, when students give an incorrect answer, it may mean they misinterpreted the question or took a wrong turn in their thinking. Focusing on the good part of the student's thinking makes it more likely the student will be willing to think about the next question that is asked.

For example, when asked, "What is the numeric value of 3×4 ?" a student might respond with the answer "7". It is fairly clear that the student answered the question $3 + 4$. Rather than telling the student he/she is wrong, the teacher could respond that this is the answer to the question $3 + 4$ but the question was 3×4 . This type of response not only has the benefit described above but also may encourage the student to listen more carefully next time. [This example may seem trivial to the college teacher, but I have often seen the same type of mistake in calculus with students taking the derivative when the question asks for the anti derivative.]

POSITIVE REINFORCEMENT of BEHAVIOR

Praising desirable behavior makes it more likely that this behavior will recur. We often focus more on bad behavior, giving the student causing trouble more attention than those who are doing what they are supposed to be doing.

There are many ways a teacher can reward good behavior. Verbal praise ("I like that . . .") is a commonly used form of PR. It is also very effective to ask the class after a good explanation, "How many people liked that explanation?"

DELIBERATE MISTAKES

Teacher mistakes used appropriately can have a positive effect on a class. It is fairly obvious that one wouldn't want to make a mistake during the initial presentation of a topic. However a mistake made after the students are capable of recognizing the mistake checks the students understanding/awareness, makes them feel good that they "caught" the teacher and lets them see how the teacher responds to a mistake. [While many teachers want students to recognize mistakes as an opportunity to learn, few model desired student behavior when making a mistake themselves.] If the students do not catch the mistake, it can provide valuable feedback on something the students do not understand.

MODE OF RESPONSE

The mode of response is the manner in which the teacher expects the students to respond. It may be by raising their hands, shouting out the answer, writing on their papers, showing on their fingers or any other mode of response. The important thing is that the mode of response is included in the question so the students are thinking about the question rather than how, or if, they should answer. [Show me on your fingers the number of different factors of the number 6.]

Different modes of response give different quality of feedback and allow different types of involvement. Asking students to write answers on their papers provides accurate feedback on more students than calling on one person does. Asking them to show an answer on their fingers is quick and allows the uncertain student a safe way to participate. Because each mode of response has different MIFF benefits, it is important to vary the mode of response.

It is convenient to establish an implied M of R. That is, if you normally expect students to raise their hands, it is nice not to have to preface each question with that mode of response. This can be accomplished by asking your questions with your hand raised and then PR'ing the students that raise their hands. After a few times it will not be necessary to raise your hand. It will then only be necessary to specify the mode of response when it is different from the one usually used. [It will always be necessary to use PR at times to keep this behavior once it is learned.]

When a teacher allows the students to call out answers at the whim of the student, the teacher loses the ability to control the time students are allowed to think about the question. This usually results in a few students shouting out the answers while the others, knowing that they will not get it as quickly as the few, will not even engage in thought about the question. The teacher must be able to control the "wait time" if all students are to remain active participants in the learning process.

USE OF FINGER & HAND SIGNALS

Having hand signals for things like disagreement, not understanding a question or having a question that won't wait allows the students to express a thought or desire without disrupting the class. [Waving the arms back and forth in front of your body to indicate "difference of opinion" is particularly useful with students.]

INDIVIDUAL AND CHORAL RESPONSE

Another mode of response, choral responses allow the entire class to respond to a question. This gives the teacher feedback on how many of the students know the answer. It also allows students to let off some energy and is a break from always raising hands. Individual response refers to calling on one person that has volunteered to answer the question. This does not tell the teacher much about the whole class but is certainly an important mode of response in that it tells much about what that student knows, is the only way to get a detailed oral explanation, and maintains some semblance of order in the class.

USE OF SPACE

Teachers traditionally teach from the front of the class, and discipline problems usually occur in the back. Teaching from the back, sides and even the center of the room can change this dramatically. The teacher can stand so that most students are between the student speaking and the teacher. This will involve more students, cause the student responding to speak in a louder voice and avoid the response becoming a private conversation between the teacher and the student.

Moving around the room makes the teacher more aware of what is going on in the room and it enables the teacher to deal with problems in a less confrontational manner. When two students are talking, it is very effective to simply stand between them while continuing to teach. The conversation usually stops. If someone is reading the newspaper, the teacher can call on someone while standing next to the culprit. While

the class is focusing on the person answering the question, the teacher can quietly ask the student to put the paper away.

Some may see this technique as coddling misbehaving students but there are important benefits. The student is still being asked to behave in a manner that is within the rules of the classroom but the request comes in a manner that has much less risk for both the student and the teacher. The student is not embarrassed, or receiving desired attention, in front of his/her peers. The teacher reduces the risk of the student refusing to conform and as a result, creating rebellion with the rest of the class as spectators. This scenario raises the stakes for both parties and makes it less likely that a reasonable solution will be found.

CIRCULATION (rapid & w/ babbling)

Often confused with use of space, this technique is used when checking paper problems. When the teacher has asked the students to do a problem on their papers, it is important that a minimal amount of time is spent checking papers. The goal of a paper problem is for the teacher to get feedback on what the students understand, not to do individual tutoring. If the teacher takes too much time, the students that have finished will usually entertain themselves.

The babbling part of this refers to the banter the teacher keeps up while circulating. This banter can include PR of behavior, hints about what types of approaches seem to be working and can keep the students focused on the problem.

USE OF DISTRACTIONS

It is futile to attempt to teach when something is going on in the room that the class is going to focus on regardless of what the teacher is doing. The teacher can maintain control of the class by asking students to focus on the distraction and then bringing them back. For example, students are not likely to ignore the principal walking into the room. Suppose a question has just been asked; this distraction can be eliminated by having the principal call on someone who has a hand raised. The teacher is telling the students to focus where they will anyway, and the principal is putting the focus back on the person volunteering to answer the question. The teacher then regains the attention of the students.

SPECIFIC QUESTIONS

This technique is rather important to the method of teaching by asking questions. It is not meant to imply that one should ask only short answer questions or questions that do not require serious thought. It is meant to suggest that the student should not have to guess what the teacher means. Asking for the primary cause of the Second World War is not specific. Is the teacher asking for the students opinion, a particular authors opinion or from the perspective of particular country? Including this information in the question will focus student thought on answering the question rather than on what the teacher means or wants.