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## Questions, question asking, and the questioning environment for a novice teacher's classroom use

Timothy Burrell  
*University of Northern Iowa*

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## Questions, question asking, and the questioning environment for a novice teacher's classroom use

### Abstract

The purpose of this paper is to provide a novice teacher with important, valuable and easily usable information regarding effective questioning, and the provision of an environment in which students feel comfortable asking questions. Two primary models of questioning are presented and the questioning environment has been discussed. Question interactions initiated by the teacher and those initiated by the students have then been considered. In the final chapter of this paper I discuss the information I believe will be most useful specifically to me in my first few years of teaching. The application of this information in my teaching will help me to establish a solid foundation with respect to questions, questioning, and the questioning environment.

Questions, Question Asking, and the Questioning Environment  
for a Novice Teacher's Classroom Use

A Research Proposal

Presented to

Dr. Melissa Heston

Department of Educational Psychology & Foundations  
University of Northern Iowa

In Partial Fulfillment of the Requirements

for the Degree of

Master of Arts/Educational Psychology

by

Tim Burrell

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Melissa L. Heston

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Director of Research Paper

Charles V. L. Dedrick

---

Co-Reader of Research Paper

Charles V. L. Dedrick

---

Graduate Faculty Advisor

Barry J. Wilson

---

Head, Department of Educational Psychology & Foundations

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## Abstract

The purpose of this paper is to provide a novice teacher with important, valuable and easily usable information regarding effective questioning, and the provision of an environment in which students feel comfortable asking questions. Two primary models of questioning are presented and the questioning environment has been discussed. Question interactions initiated by the teacher and those initiated by the students have then been considered. In the final chapter of this paper I discuss the information I believe will be most useful specifically to me in my first few years of teaching. The application of this information in my teaching will help me to establish a solid foundation with respect to questions, questioning, and the questioning environment.

## Chapter 1

### Introduction

I believe one of my strengths as a learning individual is in the questions I ask myself and others. I believe people have to ask questions of themselves and of others if they are to learn and grow as individuals. Because of my belief in the importance of questions, question asking, and the questioning environment, I have chosen these areas as valuable to me and to my classroom practice as a novice teacher.

There are other people who seem to believe that questions are important and have significance in facilitating the acquisition of knowledge. The following passage from one of these people expresses in part how I feel about questions and questioning:

"Albert Einstein once said, 'Imagination is more important than knowledge.' He was half right. The essence of his statement is that knowing a lot of facts and rules (the sort of thing generally taught in schools) is less important than an ability to use

creatively the facts and rules you know. . . . What imagination depends on is knowing good questions to ask. . . . Most smart teachers quickly come to realize that it is more important to turn students into intellectually curious question-askers than to stuff them full of facts. Knowing facts does not necessarily lead to being able to put those facts to good use, but if the child's question-asking propensities are well-developed then the child will seek out the relevant facts and rules by him or herself."

( Kass, 1992, p. 304)

This passage indicates to me that asking questions is important for students to do. This passage also reinforces my belief that asking questions is an important factor in good teaching. Thus, if I as a teacher know about questions, how to ask questions, and how to create a question-friendly environment in my classroom, then students should benefit. Students will have a good teacher model of questioning use to learn from and will also be working in an environment conducive to question asking.

An environment conducive to asking questions is very important



when you consider some of Dillon's (1988, 1981) findings. Dillon (1988) found that 95% of students he surveyed didn't ask the questions they had in mind. When Dillon (1981) asked students why they did not ask questions, he found that 10% of responding students said they did not know what to ask, or that the question they had in mind did not seem important enough to ask; 18% of students responding said that the teacher was an inhibiting influence, or that some situation occurred in the classroom that interfered with their asking a question; and finally 72% of the students said they were afraid to ask a question. Hyman (1979) found that out of 43,531 behavior incidents recorded in grade school classrooms, only 728 were student questions, which represented only 1.67% of recorded behavior incidents. I always thought that young children of grade school age were very curious. Thus, I assumed that grade school children ask a lot of questions, yet this is apparently not the case.

Although asking questions is important, students simply are not asking questions. Dillon (1981) reported that external forces were the factors responsible for the fact that the vast majority of student questions go unasked. Perhaps the most disturbing finding

is that almost three-quarters of the students polled by Dillon (1981) were afraid to ask questions. Whatever the source of these student fears may be, the only source I can have any control over is the time students spend with me in the classroom. Thus, I chose to look at questions, questioning and the questioning environment.

### Statement of the Problem

The purpose of this paper is to provide me, as a novice teacher, with the information I consider most important, valuable and easily usable in helping me become an effective user of questions, while providing an environment in which students feel comfortable asking questions. In this paper, I present two primary models of questioning and discuss the questioning environment. I then consider question interactions initiated by the teacher and those initiated by the students. In the final chapter of this paper, I discuss the information I believe will be most useful specifically to me in my first few years of teaching. The application of this information in my teaching will help me to establish a solid foundation with respect to questions, questioning, and the

questioning environment.

## Chapter 2

### Models of Questioning

This chapter has four sections. The first section is from Blosser's (1991) work describing four major question types, and how two of these types can be used effectively in the classroom. In the second section, four question types from Hyman's (1979) work are described. In the third section, a variety of influences on classroom interaction and suggestions for providing a better questioning atmosphere in the classroom are discussed (Dillon, 1988). Finally, this chapter ends with a description and discussion of the concept of Wait-Time.

These models were selected on the basis of their clarity, simplicity, and especially because they seemed to be easy for a novice teacher to understand and use. The first few years of teaching can be so demanding and overwhelming that critical skills such as questioning techniques and use can fall by the wayside. I also chose these models because they allowed me to think about and plan the types of questions I would like to ask, identify the kinds of

questions that would best suit my objectives in a specific teaching situation, and evaluate my classroom interactions with students so I can improve my questioning skills.

### A Questioning Model Extracted From Blosser

Blosser (1991) describes four types of questions: 1) managerial; 2) rhetorical; 3) closed; and 4) open. Managerial questions are used to keep the classroom running smoothly. These are questions that clarify and verify such things as assignments, grades, work turned in or returned, and generally ensure that everyone knows what they are supposed to be doing, including the teacher (Blosser, 1991). Care should be taken when applying managerial questions as part of a classroom management plan. The use of questions as disciplinary and punitive measures should not be confused with managerial questions (Dillon, 1988; Dillon, 1981; Hyman, 1979; Rowe, 1974).

Rhetorical questions are not true questions. Usually when a teacher asks a rhetorical question, a student response is not sought or expected. A rhetorical question is one that a teacher asks and then answers. Rhetorical questions are often used by teachers as a

tool in the review of material just presented. This type of question is also used to emphasize and reinforce a point or piece of information. Rhetorical questions can also be used to clarify information by providing a different context or divergent examples based on information that has been presented or brought out in classroom discussion or lecture (Blosser, 1991).

Closed questions are used by teachers to check on student learning and understanding. A teacher can ask closed questions to get students to focus on specific concepts or points selected by the teacher. The teacher usually has a very specific set of responses in mind that he/she considers acceptable. Closed questions are convergent questions which a teacher uses to guide the class towards a common result or conclusion so that students possess a shared common knowledge base.

Using closed questions is an effective way to check for understanding and to verify lesson clarity. Blosser (1991) suggests identifying students in the classroom who exhibit high ability, average ability, and low ability relative to the material being presented. I do not believe Blosser (1991) is suggesting that

teachers group students homogeneously, or label them, but rather that teachers take advantage of their knowledge of students' abilities. As teachers get to know their students, they can usually tell which students may have more difficulty with a certain subject and which may not. Teachers may also recognize that some students put more emphasis and effort into their reasoning skills, and identify other students who may put more emphasis and effort into their memorization skills. These are some of the skills and traits which may be important to consider when deciding who best represents a high, medium or low ability student in a particular classroom situation. Specific closed questions can then be asked of students in the three groups. If the average ability students and the high ability students are unsuccessful in responding, this could be an indication that the class as a whole has not understood the material. This simple check could very well indicate a need to restructure and reteach part or all of a lesson not clearly understood by students. If students of average ability handle these closed questions well, it is an indication that the class is ready to move on to new material, or

to open questions. If low ability students are having difficulty with some specific material, rhetorical questions can be used to re-present some information, preferably in a different way. Exposing students to the same material but in different ways and contexts provides alternative ways for students to understand information and can help them to learn it more easily. This suggested use of closed or convergent questions and rhetorical questions can lay a foundation for and lead to the fourth type of questions, open questions.

A key aspect of open questions is their divergent nature. The teacher asks open questions in order to prod students to extend their learning and knowledge in different directions. While students started with a convergent or common knowledge base fostered by closed and rhetorical questions, they are now expected to use this knowledge in expanded and divergent ways. Through the use of open questions students are asked to apply and use their experience and abilities to branch out and expand upon their new common knowledge. The teacher may have a range of acceptable responses in mind, but should not limit student responses to these; rather the



teacher should be open and willing to accept or consider any of the many and varied possible responses a student may provide. A teacher should avoid relying solely on this method to check for understanding; open questions should be only one part of a repertoire of methods a teacher selects from and uses depending on the students and the context.

#### A Questioning Model Extracted From Hyman

While Blosser's (1991) model is more teacher-and subject-controlled, Hyman's (1979) model tends to be more student response-oriented in that Hyman's (1979) four question categories are derived from the nature of the student response a teacher desires. Hyman (1979) believes that any categorizing of questions should allow for more comfortable and handy use of questions and questioning. More specifically, Hyman (1979) proposes that questions be classified in terms of the response they will elicit from students. That is, the response to a question should be viewed as asserting some truth from the perspective of the respondent.

Hyman's (1979) first question category is definition questions. These are questions used simply to verify that a fact or knowledge

has been learned. Specific responses are expected by the teacher with the objective being to ensure that all students possess a specific knowledge base and understanding. Just as a dictionary provides a specific definition of a word that is consistent within the language, definition questions require responses with specific common content shared by educators and society at large.

Empirical questions elicit responses which are based on the perceptions students have of a situation or the world. Questions in this category ask students for comparisons and contrasts among facts, explanations, and conclusions derived from facts. Conceptual understanding is verified when a student expresses his/her perception and understanding of the concept rather than by providing a dictionary or encyclopedic answer.

Evaluation questions ask for responses derived from the student's own personal values. These questions and responses deal with the attitudes, feelings, morals, and personal beliefs individual students possess. Students may not be able to explain or justify verbally why they feel or believe as they do, so a response need not include such justification, but need not exclude justification either. Students

may not clearly understand why they feel or believe something. Evaluation questions not only elicit understanding of the concepts taught, but can help students to understand how the concepts fit with their beliefs and feelings, and also help them clarify their beliefs and feelings.

Hyman (1979) suggests that the final category of questions, metaphysical questions, are rarely used in schools. Metaphysical questions involve faith, usually in the form of religious faith, which can be a controversial topic in public education. Metaphysical questions should not be confused with evaluative questions even though student attitudes, feelings, and beliefs may be derived or grounded in religious beliefs. Metaphysical questions have their basis in the external structure and form of a belief system or religion. Hyman's (1979) idea of metaphysical questions can have a place in teaching in both secondary education and higher education. Classes in world religions, philosophy, humanities, or ethics could use such questions. Metaphysical questions have also been described in part as having to do with an abstract understanding of something.

While Hyman (1979) suggests metaphysical questions are seldom used in school, I interpret this as referring to the teaching of religious beliefs in an indoctrinating manner.

### A Questioning Model Extracted From Dillon

While Blosser (1991) and Hyman (1979) discuss questions and responses, Dillon (1988) describes and discusses a variety of influences on classroom interaction, including three constraints on classroom discourse: 1) cycles of interaction; 2) rules of talk; and 3) norms of behavior. In cycles of interaction, the cycle usually starts when the teacher asks a question, then a student provides a response, and then the teacher evaluates the student's response. In this cycle, the teacher is the initiator and remains in control of the interaction. For student-initiated questions, the teacher still tends to remain in control of the interaction that occurs. In a student-initiated interaction, a student must first obtain the attention of the teacher by raising his/her hand, and then gain the floor by asking permission to ask a question. Having completed these preliminaries, the student may finally ask the question. Thus, the teacher is still in control of the interaction and will evaluate the question as well

as respond to the question asked by the student. For students, this student-initiated cycle is difficult and challenging because of the preliminary steps necessary to create an opportunity to ask a question.

Dillon (1988) suggests that the rules for talking are often unwritten and generally carry a set of common characteristics. Foremost, the teacher always has control of the floor, the teacher can interrupt at any time, and student-initiated questions always cycle back to the teacher keeping him/her in control. Student dynamics or actions in these cycles are usually characterized by passivity, reactivity, expectancy, and dependency. Dillon (1988) suggests it would be better for students to become question initiators, more independent, and more energetic, or even aggressive in their interactions as this can lead to higher levels of cognitive reasoning in students. One way Dillon (1988) believes these actions by students could be fostered is for the teacher to share possession and control of the floor with his/her students.

Dillon (1988) does suggest three specific techniques that can provide for and encourage questions from students; 1) making room

during a lesson for student questions; 2) inviting student questions; and 3) encouraging more student-to-student questioning. First, to make room for student questions, the teacher should reduce the number of questions he/she asks. The total number of questions asked would remain relatively the same, but now a larger proportion of the questions would be initiated by the students. Second, to invite questions, the teacher can make it easier for students to ask questions. Purposeful pauses in the presentation of material to the class can signal openings for students to pose questions. After a student-teacher exchange, rather than returning directly to presenting more material, the teacher could pause or ask if any other students have comments or questions. Perhaps the easiest and most direct route for inviting questions is to tell students you want to hear from them, and to listen genuinely to and be accepting of whatever they may ask or have to say. Regardless of right or wrong, students must feel comfortable in offering what they believe to be the desired response. Third, to encourage more student-to-student interaction and questioning, the teacher could step back and allow

students to act on their own in the classroom. The teacher would only step into the interactions to keep discussion focused or to prevent disorder. Unfortunately, the time frames for these student-to-student interactions are small since this is only a brief pause in the presentation of material. Longer interactions would occur in situations where whole class discussions occurs.

### A Model of Wait-Time

When a teacher asks a question he/she usually expects a response. The teacher may call on a specific individual to respond, or he/she may simply expect a student to volunteer; in either case there is a pause between the question and the response. This pause between the question and the response should be intentionally planned for and controlled by the teacher. This pause, which Dillon (1983) calls a deliberate pause, is more commonly termed Wait-Time. Wait-Time provides students with time to think and to form a response to a question asked by the teacher (Dillon, 1983).

There is a structure to Wait-Time which usually starts when a teacher asks a question. The teacher should now give a student or the class an opportunity to think and form a response (Blosser,

1991). At this point, the teacher must consciously wait; he/she must deliberately pause, and this pause is called Wait-Time One (Rowe, 1974). This is a planned pause between the teacher asking a question and a student providing a response. Wait-Time One usually lasts from three to five seconds (Blosser, 1991). Although three to five seconds doesn't look like much on paper it can seem like a very long time to a teacher standing in front of a classroom of silent students. Rowe (1974) found that 2.7 seconds is a minimum threshold Wait-Time, and that waiting less than 2.7 seconds made little difference in student response patterns or the quality of their responses. When teachers waited 2.7 seconds or longer, students tended to respond more and the quality of their responses improved. Thus Rowe (1974) has suggested 2.7 seconds as the basic minimum time for an acceptable Wait-Time One pause. Further, Rowe (1974) found that as the Wait-Time pause increased from 2.7 seconds to 4.5 seconds, there was a concomitant increase in student response patterns and response quality. Rowe (1974) did not exceed 4.5 seconds in her studies so no top end time limit for Wait-Time One was explored or evaluated by her.



Blosser (1991) suggests that after waiting three to five seconds, a teacher should explore the possibility that the class is having difficulty with the material. When students do not respond to a question within a three to five second wait, it could indicate a need to back up with less complex intermediate questions that build up to and ultimately return to the original question (Blosser, 1991). From Rowe (1974) and Blosser (1991) we can consider the Wait-Time One pause as lasting no less than 2.7 seconds and as long as five seconds before teacher intervention is needed. The use of Wait-Time One requires practice, thought, observation and discipline on the part of the teacher as Wait-Time One is controlled by the students since a student response is what the teacher is waiting for (Blosser, 1991). If a student does respond, then the teacher may now move on and apply Wait-Time Two within this interaction (Rowe, 1974).

Wait-Time Two occurs in a teacher-student interaction after a student has provided a response, and is controlled by the teacher (Blosser, 1991) since it occurs after a student has responded but before the teacher reenters the interaction (Blosser, 1991). Wait-Time Two allows students to consider the responses they have given

and to expand on them if they desire (Rowe, 1974). Wait-Time Two also allows other students the opportunity to enter the interaction and to comment on the material relative to a fellow student's response. Both of these Wait-Time Two scenarios are allowed to occur because the teacher has provided another carefully practiced and thought out pause in the interactive environment (Blosser, 1991; Rowe, 1974).

The process in synopsis is Wait-Time One occurs between a teacher's question and a student's response (Blosser, 1991; Rowe, 1974). Wait-Time One lasts at least 2.7 seconds (Rowe, 1974), and may last up to five seconds (Blosser, 1991). Wait-Time One is student controlled as the teacher waits for a student response (Blosser, 1991). After five seconds of Wait-Time One, the teacher may intercede using intermediate questions (Blosser, 1991). If a student responds within the Wait-Time One pause, the classroom interaction then enters Wait-Time Two (Rowe, 1974) which is teacher controlled (Blosser, 1991). Wait-Time Two occurs after the student's response but before the teacher reenters the interaction

(Rowe, 1974). Wait-Time Two allows other students an opportunity to enter the interaction, or the responding student an opportunity to provide additional comment or material to his/her response.

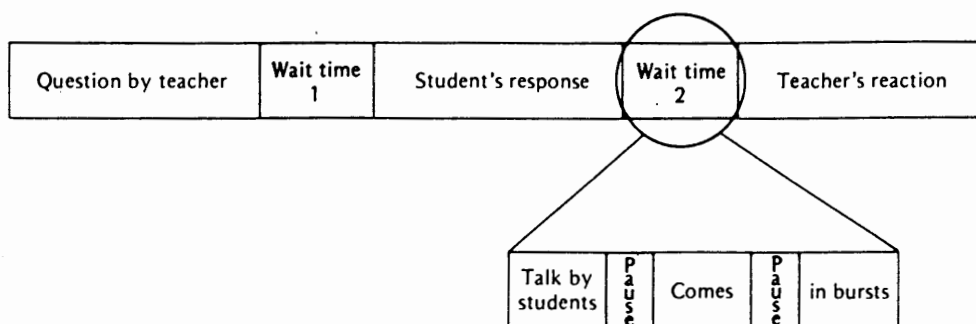


Fig. 2. Wait-time 1 and wait-time 2 are potential pauses which may occur after a question (wait-time 1) and after a response (wait-time 2). When students are involved in explanation their thoughts are frequently expressed in bursts separated by pauses.

From Rowe, 1974, p 265.

Both of these planned pauses can be unnerving for the teacher and for the students. However with practice, patience and self-monitoring on the part of the teacher, everyone in the classroom will become comfortable with the use of Wait-time (Blosser, 1991). Rowe (1974) expressed one caution that she observed in the use of Wait-Time. Rowe (1974) noted that the best five performing

poorest five performing students received shorter Wait-Time pauses, indicating that close self-monitoring by the teacher is essential if a teacher is to effectively and equitably apply Wait-Time in the classroom.

## Chapter 3

### Teacher and Student Initiated Questions

#### Teacher Initiated Questions

A teacher's questions and questioning techniques can have a powerful influence on the way students think, how they interact in the classroom (Wiler, 1987), as well as a powerful effect on student behaviors throughout the semester or year (Dillon, 1981). Teachers create the environment within which students must exist and learn. Thoughtful and practiced use of questions can contribute to a positive classroom environment and to effective student learning.

Teacher questions impose demands on the cognitive abilities of students to provide a response (Blank & White, 1986). When asking questions, a teacher should be sensitive to the level of complexity the question poses to a student (Payne, 1951). A teacher should also be aware of the level of complexity he/she expects from a student response. Students may give the impression that they understand when they use a seemingly large and sophisticated vocabulary. Often, however, this vocabulary precedes the students'

understanding of that vocabulary's meaning. Thus students sometimes give complex verbal responses to teacher questions while in reality they may not really understand what they are saying. Students may have simply memorized certain terms or phrases, and repeating them back in a response creates the illusion of understanding.

A significant problem with questioning by teachers is that they assume too much, taking too much for granted in regard to their expectations of student ability (Poplin, 1988). A teacher may present material to students assuming they have certain fundamental or foundational vocabulary knowledge. A teacher may take for granted that the terms he/she uses are familiar and understood by students when in fact they are not. While we expose students to unfamiliar terms and also to familiar terms used in unfamiliar ways in day to day teaching, it is important to be sensitive to discrepancies in student vocabulary use relative to their actual understanding of that vocabulary (Payne, 1951).

It is essential that teachers ask clear and concise questions. Without clarity in a teacher's questions, a student may expend

energy trying to decipher the teacher's intent or meaning at the expense of energy better spent in forming a response (Blank & White, 1986). Teachers can make assumptions about what students know and understand when they ask students questions, and often teachers assume that students know what the teacher has in mind. This unnecessary expenditure of energy and of cognitive resources on the part of students detracts from the students' answers (Blank & White, 1986). Teachers can ask questions relative to higher levels of assumed student understanding, and also assume that students possess fundamental levels of understanding and question-answering competency that they can draw from in forming a sophisticated or higher level response (Hunkin, 1979). Yet the student response to a higher level question may instead take the form of a response to a lower level version or interpretation of the teacher's question.

Teachers also take too much for granted when they fail to consider frames of reference and perspectives beyond their own when asking questions (Payne, 1951). The purpose of a question may not be clear to a student, and this clarity may not be apparent until a

student responds (Hyman, 1979). If the student's response is not what the teacher expected, then the teacher should consider the possibility that his/her question was phrased such that the question may have been misinterpreted by the responding student. Details a teacher considers common or may not consciously consider important may be of critical importance if the student is to understand the question clearly (Payne, 1951).

Answers come not in the facts as they exist or as facts teachers have in mind, but in the terms of what the student respondents believe the facts ought to be from their own perspectives (Payne, 1951). Usually teachers have a range of acceptable student responses in mind before even posing a question. Rather than dismissing a mismatch between expected responses and an actual student response, it may be better to seek clarification from the responding student regarding his/her response (Blank & White, 1986). Perhaps the student misunderstood the question, and if the teacher understands the roots from which this student response came, it could indicate to the teacher what to do next. Providing



clarification to a question asked by the teacher can help students to provide responses closer to what the teacher desires. An incorrect or unexpected response could indicate a need for reduction in the level of complexity of the question posed by the teacher. By carefully controlling the dialogue, a teacher can lead a student back to the initially-asked question and to a more appropriate response by that student. Intermediate teacher questions can also help a student see how ideas are combined and subordinated in ways that allow the student to return to the initially asked question with success, indicating that learning has indeed occurred. Teachers may have many great questions in mind, but fail to consider how they will be interpreted by students (Blosser, 1991).

Teacher questions can be effective for behavioral control in the classroom. However, this will be at the expense of student classroom interaction and discussion participation. Even the tone of voice a teacher uses in asking a question conveys the interest and value a teacher places on student interaction and the degree of encouragement students feel relative to their participation and responses (Hyman, 1979). The use of questions in a sanctioning

manner by the teacher can disrupt and degrade the interactive environment of the classroom (Rowe, 1974). Teachers can handout sanctions in the form of questions for inappropriate student behavior by asking sanctioning questions directly of the offending individuals (Rowe, 1974). These sanctioning questions could be related to the material being presented and this use would be a form of covert classroom management. More overt use of sanctioning questions could be in the form of the teacher specifically asking students why they are acting inappropriately. Teachers should also avoid using questioning to regain individual attention or to maintain order in the classroom (Hyman, 1979). Teachers' should avoid using questions as sanctions or as disciplinary measures. These uses only send a message to students that if they do not behave they will be attacked with a question by the teacher. Inquiry is something teachers and students should do together, while inquisition is something a teacher does to a student (Blosser, 1991). Although teachers may not be aware of it, they can convey attitudes and feelings to students through overt and covert punitive or sanction question use (Dillon, 1988). Students are very adept at determining

what the teacher's true intentions and feelings are, as students are confronted with how teachers use questions and questioning behavior. It is advantageous for students to feel that the teacher's questions represent a sincere interest on the teacher's part to elicit responses from the students that will be valued and respected by the teacher.

For the teacher to convey to and instill in students feelings of being valued and respected requires a facilitative environment (Dillon, 1988). The establishment of a facilitative environment depends on the teacher's ability to communicate three conditions to students: 1) emphatic understanding; 2) respect for the student; and 3) genuineness (Long et al., 1981). Students need to feel safe and accepted if they are to risk responding to teacher questions (Blosser, 1991). By respecting students, their feelings and their responses to questions, teachers gradually earn the students' respect (Hunkin, 1979). If students feel accepted and valued by the teacher, while also feeling free to interact in the classroom in ways that interest them, they will learn to trust and respect the teacher. If students' feel they have a stake in their learning, they may be

more enthusiastic in their classroom interactions (Hyman, 1979). If students feel trusted, that their ideas and concerns are respected by the teacher (Poplin, 1988), and if students sense that the teacher listens to them with enthusiasm (Hunkin, 1979), teachers have conveyed emphatic understanding and respect for students, and also a sense of genuine interest and concern for them as well.

A simple technique that can be used to facilitate an increase in student responses to questions is simply for the teacher to repeat the responses of students (Dillon, 1981). This presents the impression that the teacher feels a student's response has value, that the student's response is understood by the teacher, and that the teacher feels everyone else should hear and consider what the student has said (Dillon, 1981). It is not necessary to repeat the whole response of the student or to repeat it verbatim, but teachers should use care not to make it sound as though they are altering the student's response. The teacher should try to keep his/her comments and interpretations separate and distinct from the student's response. However, Blosser (1991) cautions that the

repeating of student responses should be monitored by the teacher. Repeating student responses could lead the class to value only those responses that the teacher repeats. Thus, the teacher's repeating of a student's response flags information as being important, leading students to devalue other student responses that are not repeated by the teacher. Teachers should also be careful to avoid pushing or forcing students to repeat their responses or to repeat their response louder so the whole class can hear. Some students speak softly and could be easily embarrassed if they are pushed to repeat a response more loudly. The embarrassment a student feels could give him/her a reason to avoid responding in the future.

For teachers to learn how to ask better questions, they should watch their students. Teachers should observe the quiet workings of student minds trying to unravel the process or meaning involved in learning (Poplin,1988). Teachers should also use students as a source for questions and questioning behaviors (Brady et al, 1988; Wiler, 1987) by deriving instructional questions from student interests and talents as well as from student deficits and curricular material (Poplin,1988). Teachers must value questions, the

questioning context of the learning process, and the student's contribution and place in the questioning environment (Hunkin, 1979). The single best audio-visual teaching aid for students is an alert, attentive, sensitive and sophisticated teacher who understands questioning and the effective use of questions. With sincerity of purpose, practice, and determination, a teacher can become an effective and influential questioner (Hyman, 1979). In addition, Wait-Time is a key aspect of being an effective questioner and can not be overlooked.

The use of Wait-Time in the questioning environment is a concept with significant value and implications. Effective teacher use of Wait-Time allows students to formulate a response and to provide a longer, more detailed response (Dillon, 1983). Wait-Time can also impress on students the teacher's respect and value for their response (Dillon, 1988). Dillon (1983) calls Wait-Time a deliberate silence that, while hard to use, is very effective. There is also a second part to Wait-Time that occurs after a student has responded to a teacher question. By remaining silent after a student responds, a teacher can allow the student to provide additional comment or

substance to his/her response. This second Wait-Time can also open an opportunity for other students to enter the interaction and provide a comment before the teacher asks another question or starts presenting material again. Waiting after the response is given is just as important as waiting for the response (Dillon, 1983).

### Student Initiated Questions

There appears to be a norm, from the student perspective, that states it is better to ask no questions in class (Dillon, 1981). Students may feel more comfortable remaining in a state of confusion, rather than displaying their ignorance for all their peers to see. The level of discomfort and perplexity a student may feel when he/she doesn't know or understand something in class may be much less stressful than to show publicly his/her lack of understanding in front of friends and peers. Negative reactions and put downs from peers further ingrain this norm against asking questions (Blosser, 1991; Dillon, 1981). Peer comments ranging from how stupid a question was to more subtle responses such as a

grin or roll of the eyes have great significance for students. Even unheard whispers between other students can be perceived as a put down by the student asking a question.

Peer reactions are not the only contributor to this norm against asking questions; teachers can also inhibit question asking by students and reinforce this norm (Dillon, 1981; Poplin, 1988). This situation occurs when a student asks a question, and rather than receiving an answer from the teacher, the student is admonished by a negative response from the teacher (Dillon, 1981; Dillon, 1988; Poplin, 1988). A teacher's comment that the question was inappropriate or was covered earlier admonishes the student rather than responds to the student's question. Worse than simply being admonished, the teacher may take a more punitive stance towards the question and the student asking the question (Dillon, 1981). This punitive stance is characterized by open hostility and comments that are degrading and embarrassing to the questioner, causing students to avoid and even fear asking questions. Students' experiences often lead them to fear exposing their ignorance, their self-esteem, and their self-worth to attack from peers and teachers



(Dillon, 1983; Dillon, 1988; Poplin, 1988).

While the attitudes and behaviors of classmates and teachers in the classroom may inhibit question asking, students also often suffer from a lack of practice in actually asking questions (Blank & Covington, 1965). The usual dynamics of student behavior in the classroom reflect passivity, reactivity, expectancy, and dependency (Dillon, 1988). A passive student does not ask questions, does not volunteer answers, and interacts in the classroom only when specifically asked to do so by the teacher. Reactivity in students is characterized by students who take no initiative or action on their own. They wait for direction and instructions, providing only what they perceive is wanted by the teacher. Expectancy and dependency are characteristics of students who wait for the teacher to tell them what they need to know and do, giving them instructions and directions. These characteristics in students lend themselves to a teaching environment that is unidirectional, with both teaching and learning controlled by the teacher, and little interaction initiated by the students. However, as Poplin (1988) has suggested, good teaching and good learning are interactive rather than unidirectional.

Rowe (1974) suggests that as much as 95% of the questions that students have in mind are never asked. Students seem to prefer remaining silent and acting as if they know rather than asking a question and learning (Dillon, 1988). Even before a student asks a question, he/she must gain the teacher's permission to ask the question, by raising his/her hand, being recognized by the teacher, and gaining the attention of his/her peers. For some students, having this much attention can be an overwhelming experience and inhibit them from asking questions (Dillon, 1988).

Often problems arise in simply asking the question. That is, students can be unsure of how to phrase their questions in order to express their perplexity verbally (Dillon, 1981). When students do decide how to phrase their questions, it may be too late relative to the flow of material being provided in class. Their questions may be related to material just covered by the teacher (Dillon, 1988). Students may now feel uncomfortable asking their questions since it is the wrong time and too late relative to current discussion (Dillon, 1981). Students may also feel uncomfortable since they may fear phrasing their questions incorrectly or inarticulately.

Asking a question at the wrong time, and phrasing it inarticulately (Dillon, 1981), compounded with negative peer and teacher responses, (Dillon, 1983; Dillon, 1988; Poplin, 1988) can affect students. As a result of this effect, students may decide a question is not important enough to ask, that their question is irrelevant, trivial and uninteresting, or that the information they desire can be acquired later. If the effect is strong enough, a few students may be willing to do anything to rationalize not asking a question and thus reduce their fear and anxiety (Dillon, 1981).

## Chapter 4

### Personal Implications for a Novice Teacher

In this chapter I have extracted what I personally feel is important and useful in my teaching. As a novice teacher, questions and question-asking strategies must compete with many other demands for my time and attention. However, all of these competing demands are interrelated and dependent upon each other to varying degrees. To consider questions and questioning strategies alone and isolated from other important parts of teaching would be a mistake. Thus, I have begun this section with a discussion not about questions, but about two other important factors that affect questions and the questioning environment: content knowledge and classroom management. Next, I discuss two important periods of a school year or semester, and finally discuss the key points from this paper that I feel are valuable and that I intend to use as a foundation as I practice my questioning behaviors as a new teacher.

Content knowledge is knowledge of the material of the subject one is teaching. An english teacher would be hard pressed to teach

the subject of biology since the english teacher does not possess biology content knowledge. This lack of biology subject matter knowledge would prevent the english teacher from being able to evaluate a student response to a question. Moreover, this english teacher would not be able to ask students intelligent questions regarding what they had just learned about biology. While this may seem logical, consider that without sufficient biology content knowledge the teacher may have the same questions about biology that students will ask him/her and if the teacher doesn't have the answer, then he/she can't give students an answer.

I have had this experience. Once I was asked to teach a lesson on vision and the eye, a biology lesson, although my major content knowledge is in chemistry and physics. I had taken only one biology course, and that did not cover material related to vision or the eye. Thus I had to learn the material I was to teach in a few days. I even had difficulty knowing the best sources to examine for the information on vision and the eye which I needed to learn. Once I became familiar with the specific information I was to teach, I was able to present the material. However the questions I asked and the

responses I gave to student questions did not represent much depth of understanding related to the content I presented. I was not able to guide students in expanding and broadening this new knowledge because I simply did not have the content knowledge and experience with this knowledge to lead students beyond the material presented. This experience has shown me that the greater your content knowledge and understanding, the more effective you can be at teaching a specific subject.

While it is apparent to me that content knowledge is essential, I also believe that a good classroom management plan is important. There are always some situations and some students that create problems which interfere with the learning environment and detract from the time available for learning and teaching. I am not going to spend time on specifics of classroom management or what constitutes a good classroom management plan. What is important is that I believe a good classroom management plan is essential to an effective learning environment including a good questioning environment in which students feel safe, accepted and valued when interacting and responding to teacher questions. Another important

role which I believe a good classroom management plan can play is in the prevention of question misuse. With good classroom management the possibility or need to use questions as controlling or punitive tools is virtually eliminated. This keeps questions and their responses on a user friendly and valued basis.

Just as first impressions can be important so can the first few days of a school year. These first few days can set the tone for interactions between the students and myself for the remainder of the school year. There is also a second time during the school year that can have a significant impact on interactions and the questioning environment. This second time concerns the decline of effective teacher behavior that may occur over the school year relative to poor student behavior ( Brady et al., 1988 ). This second time period may not be easily noticed, nor does its impact have to be particularly significant. This decline can be so gradual as to not be noticed. This second time period usually occurs after the holiday break associated with the new calendar year. Good classroom management and self-awareness through self-monitoring can

remedy this decline in effective teaching behavior. Still, the first few days usually are the most significant in their impact on the questioning environment throughout the rest of the school year. Because of the significance of the first few school days, good preparation and planning are especially important. Students will be watching the interactions within the classroom and how the teacher asks questions and accepts responses from students. I feel the material I present should be carefully prepared, and the questions I use should be planned just as carefully. I would choose my material and questions for the first few classes with an emphasis on providing students an opportunity to be successful and to feel valued and trusted. This initial expenditure of my time on planning and the initial time used in class for this material will influence students' on-task behavior and participation, and probably the quality of learning students will experience for the rest of the year.

In regard to the second important period of the year, the possible decline in effective teacher behavior is another reason that self-monitoring is so important. Well-detailed planning could be a solution to this possible decline in the quality of the learning and



questioning environment. Keeping material and presenting strategies new, varied and lively with a change of pace could also prevent or alleviate this degradation. More important than any single or combined effect is the attitude of the teacher. The teacher is still the controlling influence on the questioning environment, and if I maintain a positive and infectious attitude, then students will hopefully be carried along by this attitude.

As to what I would do in the classroom relative to applying some of what has been presented in this paper about questions and the questioning environment, Blosser's (1991) work represents a significant part of what I have chosen as most valuable to me in my initial teaching. Blosser's (1991) four question types seem easy to use in planning and in actual classroom use. Making a distinction between these four types seems easy for me to handle mentally in the classroom. In the preparation of my lessons, I like the idea of actually listing questions in my lesson plans and Blosser's (1991) question types facilitate this too. I could start the class with managerial questions ( Blosser, 1991) by asking students if they have handed in what is due, if they have recorded their scores on the

work I just returned to them, and if they have had any problems or questions. These questions would not be written out, or really even asked verbally of students. I prefer to have what the students need to do or be aware of written on the board. I have found writing managerial information on the board and telling students they need to note particular information reduces the time I spend on managerial activities, leaving more time for learning.

When using Blosser's (1991) next question type, rhetorical questions, I might actually write out such questions in my lesson plan for use while I was presenting material. I might also highlight parts of my lesson plan and ask rhetorical questions based on the highlighted material. I probably won't use rhetorical questions much, if at all, in presenting material. I see rhetorical questions as having the greatest value for me in the process of reviewing material.

The use of closed questions ( Blosser, 1991) would fit nicely in both my presentation of material and in my review of material. I also see closed questions as very useful when I apply Blosser's ideas of intermediate questions. It is this point where two other

elements of Blosser's work have value for me, specifically, asking intermediate questions, and checking for understanding by asking questions of students with different levels of ability. Once I have a feel for each student's individual abilities, I will be better able to evaluate an individual student's responses to one of my questions. Then I can decide if I need to ask intermediate questions of the responding student. This is based on Blosser's idea of identifying students as being at one of three levels of ability: high, average or low. If a student's response does not match the ability level I feel the student should have responded at, I may decide to ask that student some intermediate questions to check for his/her understanding of the information and to help the student clarify this information in his/her mind. These intermediate questions will probably be closed questions also, and through their use I would hope to lead the student back to the original question which I would probably restate in a different form. The student's response to this second version of the original question should now be at the ability level I believe to be appropriate. I also hope that these intermediate

questions help students to clarify in their minds the material they need to know, and to recognize the material that I expect them to understand. I also see a secondary value to intermediate question use in that other students will be influenced by this interaction between an individual student and myself, and also help these other students clarify the material they have learned. I believe this scenario not only helps one student, but also provides for and clarifies a common or convergent knowledge base for the entire class.

In my use of open questions, I would also make use of Blosser's (1991) intermediate questions after listening to student responses. I believe it is important to listen to and evaluate student responses relative to my feel for the students' abilities. I also believe that open questions would help students to solidify their common or convergent knowledge base by exposing them to the material repeatedly but in divergent ways. More importantly, I hope that the use of open questions will prompt students to apply their experiences to their new knowledge in divergent ways. Knowing my students will help me to ask students open questions that require

them to provide responses that use the knowledge I expect them to have learned, and also encourage my students to express this knowledge in divergent contexts by applying other abilities or experiences I know they possess. By using this approach, I am prompting students to connect two isolated portions of knowledge and experience in meaningful ways. If students have trouble making these connections, I would use intermediate and closed questions (Blosser, 1991) to help them make such a connection and ultimately provide divergent responses. It is especially rewarding when I can see in students' faces the sudden flash of a connection being made.

Planning for open questions is difficult for me to do or to write down as part of a lesson plan. For me these questions are more spontaneous, and depend on the flow of classroom interaction. What students say in their responses will drive the kinds of questions I ask, and the different directions these questions take. Also what I know about student abilities coupled with this interaction flow prevents me from preparing written open questions. I see practice in using open questions as the only way to become effective at their use.

Since I am new to teaching and thus inexperienced, I need to practice and this is done by using Blosser's (1991) work as a guide and foundation which I believe will develop sound fundamental questioning habits and behaviors. Once I have these habits and behaviors established, I can then fine tune and embellish them with new information, not only that which I have presented here, but also from the very extensive body of literature in questioning techniques which is currently available.

Of course, I feel I would be remiss if I did not include Wait-Time as one of my tools to practice and use. Everything I have spoken of so far would lose substantial value in regard to student learning if I did not consistently apply Wait-Time One and Wait-Time Two. I don't write down anything in my planning about Wait-Time; rather I have to monitor myself consciously in order to use and apply Wait-Time effectively. I find I have a tendency to forget Wait-Time as the class period progresses. I can also easily become caught up in some interaction with students, and instead of asking questions and waiting for a reply, I will sometimes begin extended and relatively

pointless explanations. Self-discipline, practice, and self-monitoring are very important to my effective and consistent use of Wait-Time both before and after a response has been given. I don't like to video tape myself because I don't like to see my mistakes, but I do video tape myself because my experience has shown that I learn from watching myself. I know it has an impact on my teaching because I have made fundamental changes in my teaching as a result of comparing my performances on video tape to what I think I am doing and know I should do.

In closing I want to talk about a use of questions I find extremely unacceptable, using questions for social or behavioral control in the classroom ( Blosser, 1991). If a student is doing something unacceptable, such as reading a book or talking to a friend, I will not ask that student a question just to draw him/her into the interaction of the classroom. I prefer to stop, and then ask off-task students to stop what they are doing and join us. As I said earlier, a good classroom management plan allows me to take care of off-task behavior without the use of questions as a behavioral control tool. There are also times when a student's actions or behavior become

annoying. Rather than asking such a student a question in a punitive or disciplinary way ( Hyman, 1979 ), I prefer to practice good classroom management. I prefer to treat students as I would want to be treated. I also try to help students see how what they may be doing affects me or how their behavior makes me feel. I prefer to have students know a behavior is unacceptable to me and to have a reason or explanation from me as to why, and thus I avoid using questions as a behavior management tool.



### References

- Blank, S. S., & Covington, M. (1965). Inducing Children to Ask Questions In Solving Problems. The Journal of Educational Research, 59(1), 21-27.
- Blank, M. & White, S. J. (1986). Questions: A Powerful But Misused Form of Classroom Exchange. Topics In Language Disorders, 6(2), 1-12.
- Blosser, P. E. (1991). How to Ask the Right Questions. Washington, D.C.: National Science Teachers Association.
- Brady, M. P., Swank, P. R., Taylor, R. D. & Freiberg, H. J. (1988). Teacher-Student Interactions in Middle School Mainstreamed Classes: Differences With Special and Regular Education Students. The Journal of Educational Research, 81(6), 332-340.
- Dillon, J. T. (1988). Questioning and Teaching. A Manual of Practice. Columbia University: Teachers College Press.
- Dillon, J. T. (1983). Teaching and the Art of Questioning. Bloomington, Indiana: Phi Delta Kappa Educational Foundation.

- Dillon, J. T. (1981). A Norm Against Student Questions. Clearing House, 55, 136-139.
- Hunkin, F. P. (1979). Involving Students in Questioning. Boston, Massachusetts: Allyn and Bacon.
- Hyman, R. T. (1979). Strategic Questioning. Englewood Cliffs, New Jersey: Prentice-Hall.
- Kass, A. (1992). Question Asking, Artificial Intelligence, and Human Creativity. In T. W. Lauer, E. Peacock & A. C. Graesser (Eds.), Questions and Information Systems (Ch 16). Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Long, L., Paradise, L. V. & Long, J. L. (1981). Questioning Skills for the Helping Process. Monterey, California: Brooks / Cole.
- Payne, S. L. (1951). The Art of Asking Questions. Princeton: Princeton University Press.
- Poplin, M.S. (1988). Holistic/Constructivist Principles of the Teaching/Learning Process: Implications for the Field of Learning Disabilities. Journal of Learning Disabilities, 21(7), 401-416.

Rowe, M. B. (1974). Reflections on Wait-Time: Some Methodological Questions. Journal of Research In Science Teaching, 11(3), 263-279.

Wiler, W. (1987). Questions, Questioning Techniques, and Effective Teaching. Washington, D.C.: National Education Association.