

Systematic Methodologies and Strategies for Monitoring Classroom Interactions with a Focus toward Improved Learning and Teaching

> Fred L. Fifer, Jr., Ph.D. 1998

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Maximizing Opportunities for All Children

It has been well researched that bias exists in classrooms and that, consciously or subconsciously, teachers are participants (1, 2, 4, 5, 6, 9, 14, 15, 18, 27, 34). The way in which students are treated and/or interacted with does affect their classroom performance (6, 7, 9, 10, 12, 16, 17, 25, 30, 31). The observational techniques presented in this material will enable you to examine a classroom and determine if, in fact, you (or your colleague) express biases in the teaching and/or interaction within your classroom. If a database can be established, suggestions are included as to how one might address these findings. The following techniques are based on more than twenty years of classroom observations, and represent over 3,000 hours of data collection. It should be remembered that a single observation constitutes only a formative finding, and any summative comments and/or conclusions must be based on a much larger database, e.g., 5-10 formative observations.

Background

A typical classroom is made up of children of different genders and ethnicities. Each child is not only a unique individual but also one who interacts with the classroom teacher and his/her peers. This interaction, particularly between students and teacher, is our concern in this material. The question is how to observe and document the classroom interactions, and to do so with minimal disruption within the observational period. First, the questions we wish to answer during the observation periods need to be explained.

What do we want to know? How do we document this information? How do we logistically carry out the observation period? What do we do with what we discover? These are all legitimate questions, each deserving serious planning prior to any observations. Let us examine each question separately.

1. What do we want to know?

Certainly we are conscious of whether or not we display biases towards our students. At the early elementary grades, our role (as teachers) is to be nurturers of young minds and egos. We would certainly not wish to do something to place the child in peril. As the child grows, the teaching moves somewhat from this role to being an "imparter" of knowledge, still cognizant of the students' needs, but also aware of our content needs. We want to know if we are doing anything, either consciously or subconsciously, that might be biased toward one student and/or group of students.

- 2. How can we document this information? Using the instrument contained within this material will enable you to collect data from the classroom setting based on a variable set of criteria. With this information in hand, analysis will allow you to format plans designed to improve any deficits identified.
- 3. How do we logistically carry out this observation period? It can be accomplished in either of two ways. One, you may set up a video camera in the classroom and videotape the class period. Two, you need a "buddy" to work with you on a reciprocal basis – "I'll do your room if you'll do mine!" This is probably the most expedient way, for it's sometimes difficult to find the time (and place) to review videos. If the review is put off until after

school, fatigue plays a role in how well we analyze the data. It also does not allow for occurrences that might happen outside the view of the camera lens.

4. What do we do with what we discover? Analyze the data! Look at the data collection as soon as possible. This will allow the freshness to be on both of your minds. Examine the information (sometimes this takes a strong ego), and decide whether or not this is typical or just a figment of that classroom on that particular day. Once findings have been analyzed, you will have a conscious mindset towards the classroom, and change (if needed) will have already begun.

Most of the time, the bias demonstrated by teachers is of the omission type. Most teachers do not deliberately decide to discriminate against some child and thus act upon it. Rather, things that do occur are done subconsciously and without malice or forethought. At holiday time you go to a toy store and the clerk welcomes you, asking if you need help. If you respond in the affirmative, the next question might be "is the toy you need for a boy or a girl?" This is not a deliberate act on the clerk's part to cut off half of the store from your shopping, but it is a gender bias, and one that may have far more consequences accompanying it than previously thought. The old stereotype of boys play with "action-toys" and girls with more sedate ones, is exactly that – a stereotype – one which must be eliminated. Researchers, such as Mary Budd Rowe (13,14,15), spend a large portion of their careers documenting teachers' biases in questioning practices. Questioning and questioning skills may be the most prevalent bias practiced in the classroom. The findings of "wait-time" in good vs. poor students, Anglos vs. African-Americans vs. Hispanics, boys vs. girls, are evidences of biases of omission, actions which are reenacted everyday in America's classrooms. These are actions that we must recognize, and deliberately address. The "wait-time" issue is a monumental bias toward learners, and the learning process; it certainly affects children's perception of their own academic abilities.

Observation Instrument

This instrument is divided into three basic sections containing three separate blocks. Each set of three blocks is for arranging classroom observation into three equal time segments or for up to three definitive activities. In each of these three blocks, the classroom arrangement is to be reconstructed using "+" signs to represent each student who is present that day. Later this "+" sign will be replaced with either a coding for gender or ethnicity, depending on the observation's requirements. Let's examine the first of these three blocks and what data can be collected in it. This block is labeled *Teacher Mobility*.

This is what we will monitor first – where did the teacher move in the classroom relative to the students, and later, in terms of *Behaviors Observed* and/or *Interactions*. The following block has a hypothetical classroom illustrated inside it using the "+" sign to represent the students.

Assume this is a classroom containing 27 students. Also, assume the top of the block is the front of the classroom.

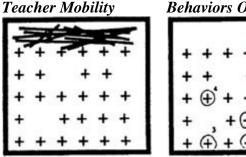
This means that there are (top to bottom) five rows. Row two has two vacant desks, row four, has one vacant desk. Do you see this?

This is the same diagram, except that the letter "S" has been added. This is the starting point for the teacher during this observation. It should be placed wherever the teacher is standing (or sitting) when the observation begins.

These "squiggly" lines represent where this teacher moved during the observation period. As you can see, most of his/her movement was contained near the front of the classroom. When this observation is examined with the teacher, he/she may be able to justify the movement relative to the lesson being taught.

When you are comfortable with this level of the monitoring procedure, you are ready to add yet another element.

The first additional element to add for the observation process is **Behaviors Observed**. This will occupy the block adjacent to the **Teacher Mobility**, not the one beneath it. This element of monitoring involves two facets. One is to draw a circle around the student engaged in a particular behavior. This can be linked to another student should the behavior involve more than one student – link them with a short line. The second facet utilizes some pre-determined codes for recording certain common types of classroom problems, e.g., 1 - Talking while teacher is talking, 2 - Engaged in work other than that of the subject being discussed, 3 - Eating/chewing gum (if this is an issue worth documenting), and, 4 - Other (followed by some indication as to its meaning). Lets' examine two of these blocks together as follows:



Coding used:

- 1. Doing other work
- 2. Talking while the teacher is talking
- 3. Eating/chewing gum
- 4. Other

Behaviors Observed

In the block *Teacher Mobility* you would monitor the teacher's movement just as was done in the first example. In the second block, Behaviors Observed you would circle any students observed in activities (deemed by you) as not appropriate for this class at this time. This will constitute a portion of the debriefing that will occur following the observation period. Try to remember to not only circle the student engaged, but to also code the behavior for later discussion.

Where are the behaviors marked in the block? Where are these behaviors in relation to the teacher's movement? What kinds of conclusions could you draw from this? What kinds (look at the codes) of behaviors were noted? Are these types of behaviors related to our concerns of Maximizing Opportunities for All Students? In monitoring classrooms for over 20 years, I have found that my presence in the classroom offered little deterrent to students' behaviors. I have witnessed students removing screws from the legs of tables, engaging in unacceptable personal behavior, and being hostile. This monitoring does not preclude the recognition of commendable behaviors by students and/or positive comments by teachers.

Practice monitoring two distinct behaviors. When you feel comfortable monitoring both the teacher's movement and the classroom students' behaviors, let's add yet a third element -*Interactions.* This may be one of the most important because it is in the *interaction* portion of classroom scenarios that most biases are exhibited. Either the teacher does not interact with certain students, or makes both verbal and non-verbal statements to certain students (positive and negative), and/or in making certain types of comments reflects a bias toward race, religion, ethnicity, gender, etc., etc. Now you are ready to add the third of these blocks horizontally across the page for a specific time period. You will monitor the *Teacher Mobility* and *Behaviors* Observed just as you did before.

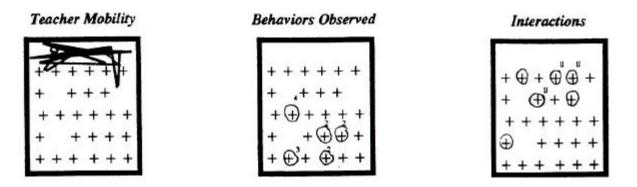
NOTE: If you are not comfortable in adding yet a third element to monitor, simply choose to monitor the Teacher Mobility and the Interactions, forgetting about Observing Behaviors for the time being. You will need to monitor the Teacher Mobility as this is directly related to the Interactions just as it was to Observing Behaviors.

Once again, you will circle the student (the "+" sign) but this time you will monitor the students' questions. After the observation is complete you can respond to the following queries.

- ?? Who did the teacher call on to answer the questions asked? Did he/she call on the same student(s) more than once? Several times?
- ?? Which student(s) did the teacher not call on?
- ?? Can this omission be justified? If so, how?

Lets examine a sample observation. Look at these three blocks on the next page used to monitor a segment of a class period. This is a typical example of data you would collect relative to a short (15-20 minute) segment of an observation period.

In examining this segment of an observation, remember what is monitored in each of the blocks. I think you can now understand why you do not use the same block for all the data collected – too messy and confusing.



In the above blocks, where did the teacher move during the period observed? Where were the behavioral problems? Who interacted with the teacher? Were there any students who did not interact? Where were they sitting during the observation period? What kinds of inferences can you draw from this? How would you determine if these inferences were correct or not? Do you have enough information to make judgments based on these observations or do you need more? [Sort of a moot point, but one worth making.] Prior to drawing any conclusions based on these observations you might need several days of observing the same group (or class period). This type of information would allow for data based changes in teacher behaviors as needed. This does not imply that good feedback may not be gained from a single observation, rather the opposite. Much information can be obtained in a single observational visit. The key is in the de-briefing and determining and/or justifying the findings. If a teacher is making derogatory comments to a student, two-zillion observations are not needed to bring this up and to devise a solution.

Since this set of observational blocks is set up for one-third of a total observational period, we really need more input before we can draw logical inferences and/or conclusions, but you should get the idea. Below is a complete set of three observation segments divided into three blocks. Examine them and then answer the questions.

Teacher Mobility Behaviors Observed Interactions B ⊕⊕+ 0 A Teacher Mobility **Behaviors** Observed Interactions **Behaviors** Observed Interactions Teacher Mobility

Look at the *Teacher Mobility* block. Where was the teacher for the majority of each of the segments?

First Segment

Second Segment

Third Segment

How does this teacher movement relate to the behavior problems observed?

How does the teacher movement relate to the interactions observed?

What types/kinds of inferences could be drawn relative to the teacher's movement and the behavior problems observed?

What types/kinds of inferences could be drawn relative to the teacher's movement and interactions?

What kinds of recommendations could be made relative to these data?

What types of data would you need more of before making any types of recommendations?

When we discuss the classroom and the findings of the observation, certain directions need to be established. Already, we mentioned the top of the blocks indicated the front of the classroom. For sake of discussion, assume the left/right sides of the room as if you were standing in the classroom, at the front, facing the students. This would mean that in the first block of the first section the teacher was standing to the right side of the classroom. In the first block of the second section, he/she started at the left side, and so on.

Teacher Mobility

The first set of questions referred to the movement of the teacher. If you answered in the first block of the first section, he/she spent most of that segment at the front of the room, you are correct. In the first block, second section, he/she ventured into the classroom somewhat on the right side, and all the way to the back of the room on the left side several times. In the first block, third section, again several ventures into the classroom but most of the segment movement occurred at the front of the room.

Behaviors Observed

The next question referred to the "teacher's movement" relative to the location of the *behaviors observed*. Your response (in all three sections) should have addressed the fact that these behaviors occurred away from where the teacher's movement was during the class period. Note in the first section, second block (*Behaviors Observed*), all movement was at the front of the room while all the behaviors recorded occurred primarily on rows four and five – away from the teacher. The same can be said for the other two sections monitored.

Interactions

The third question addressed this teacher movement in relation to the students who took part in the classroom discussion. Once again, relate the students engaged in questioning in terms of the teacher's location. You should have noted that the interactions occurred closest to the teacher's location. This finding has been extensively documented (19,20,21,24,26).

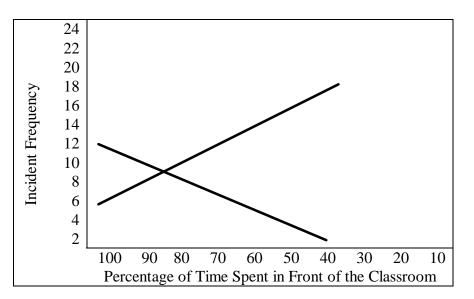
The next set of questions asks about the kinds of inferences you could draw from these data. One recommendation that could be made refers to the teacher's movement (and/or lack thereof) throughout the classroom. What is shown in this hypothetical set of findings is typical of classroom settings. It requires the teacher to consciously practice effective questioning skills such as:

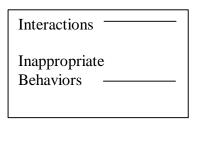
- ?? Moving toward the student who either asks or is asked a question
- ?? Giving good, positive feedback, even if the student's response is incorrect. You can always re-phrase the question, or break it down and ask another, leading the student toward the answer desired.
- ?? Understand that this movement throughout the classroom allows for questions to be asked and answered by simply being closer to the students. This "closeness" is very helpful to shy, reserved students as it makes the room smaller and the responses almost a one-toone type conversation rather than to the entire class.
- ?? As this movement is developed it allows for the teacher to stop certain behaviors without the usual "in front of the entire class" scenario. This movement also increases the student's understanding of the teacher's recognition of them. All students need to be recognized – ignoring and/or acting as if they don't exist for periods of time may be a leading cause of student's inappropriate behavior within the classroom – they need to know that you know they are alive!
- ?? Practice the development of wait time (about 5 seconds) along with the re-phrasing and breaking down of questions into simpler parts.
- ?? Be sure to note if any non-verbal messages are being given to students as they respond to the teacher. Especially the kinds that are negative, e.g., rolling-one's-eyes, deep sighs, etc.

The types of recommendations that should be made in relation to this type of data should include:

- ?? Further monitoring is needed to see if this was a unique or typical day.
- ?? One recommendation is to try to improve movement, especially toward the back two rows of students.
- ?? Plan a strategy to use more directed questioning practices in order to improve class participation. By count, about 15 students did not participate in any of the three sections of the period. When we code these students by gender and/or ethnicity, it will allow us to see if we are discriminating toward gender and/or ethnic groups.

In earlier research, it was documented that movement allowed for a teacher to make simultaneous improvement in both behaviors and interactions. It seems there is an inverse relationship between classroom behaviors and interactions as addressed by teacher mobility. As the teacher movement increases and begins to include the entire room, the student interaction increases, and student inappropriate behavior decreases. See the following graph for comparative understanding. Summary of Behavior and Interaction, High and Low Incidence Relative to Percentage of Time Teacher Spent in Front of the Classroom (21)

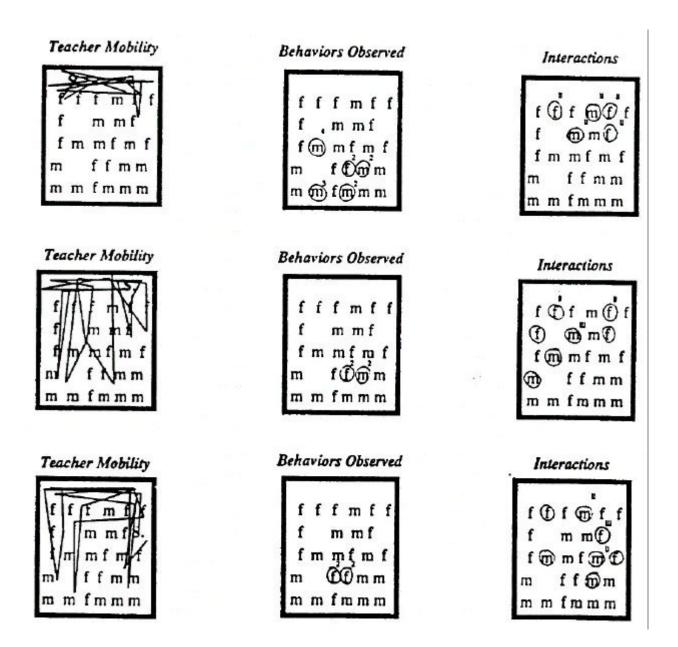




It is probably important to stop here and state that this is not a panacea – a "cure-all"-- for all teachers in all classroom settings. Rather it is a strategy to try. There are many teachers who never move from their desks and/or from the front of a classroom and seemingly have great classroom control as well as, seem to interact with most of his/her student's daily. This person is always respectful of both gender groups and is quite (positively) attentive to all minority groups. But, if you are having trouble, or are a new teacher, practicing these strategies being examined here, will prove to be beneficial.

Monitoring With Gender Coding

Utilizing the same format as in the initial explanation of the use of this instrument, let's now replace the "+" sign with a coding for gender, e.g., "m" and "f." Using the same hypothetical classroom as before, examine the following in terms of the seating arrangement of boys and girls. Look first at this single section of blocks. After examining them, answer the questions following.



How is the classroom divided in terms of gender?

Where are the boys sitting versus the girls?

Are there any "clutches" of boys and/or girls?

In relation to these "clutches," where are the behaviors noted?

Where were the students engaged in the discussion (interaction)?

Who did the teacher interact with? Equally between boys and girls? Why? Why not?

A later practice may be to monitor the level of questioning between student and teacher. At that time, the issue of who answered the informational, higher-order and/or non-topic questions? Who were most of the non-topic questions addressed, etc?

In examining the classroom, you should have noted that, of the five Behaviors Observed and recorded, four involved boys. In the second segment, a boy and girl were seen talking to each other. In the third segment, the girl conversing in the second one continued to talk, but to another girl. In the blocks recording the Interactions, the first segment recorded eleven questions asked/answered, with six, or about half answered by girls. In the second segment, eleven questions, once again were noted, with seven responders being girls. In the third segment, thirteen questions were asked, with five responses to girls. In this case, the Behaviors Observed did not constitute "impeachable crimes," none-the-less the continual talking by the one girl might prove to be contagious, thus growing into a problem. There are several ways to deal with it. The first might involve a simple one-on-one conversation with the student about her role and potential influence in the classroom. Appealing to the students sense of leadership sometimes clears up the issue at hand. A second strategy might involve moving toward this student and calmly asking for cooperation in listening to the lesson, or being quieter as others try to listen. Regardless, the data collected for this one class period would not be enough to cause alarm. Several observations documenting the same problem with the same student would be cause for action.

In examining the *Interactions*, note the locale of those involved relative to their gender and the responses with relation to the teacher's location/movement. Only three girls are located in the rear of the room. In this particular scenario, there is no glaring bias directed toward gender. Obviously several more observations with similar findings would further document this and, if glaring discrepancies were found, lead to intervention tactics in order to improve or alleviate the problems.

Let's take this monitoring to yet another level. Let's include the ethnic makeup of the class. By coding the ethnicity using capital and lower-case letters, you can monitor both the gender and ethnicity at the same time. This is the level of monitoring at which we are aiming. A word worth noting: Determination of ethnicity for data reporting should be determined from the teacher's class records and/or the official records of the school. Do not try to do this based solely on skin color, hair type, or anything other than official documentation.

Monitoring By Using Gender and Ethnic Coding

For sake of this discussion and monitoring exercise the following coding will be used for typical ethnic groups found in the schools. If you have need for different ones, simply apply the capital vs. lower-case to whatever letter you choose to use. We will use the following codes:

- W Anglo male
- w Anglo female
- B African American male
- b African American female
- H Hispanic male
- h Hispanic female
- A Asian male
- a Asian female

Examine the same classroom setting that we have been using but this time, with ethnic labeling for the students and answer the questions following.

Teacher Mobility Behaviors Observed Interactions w w Wwh www.wwh Wb WWb w W WD b B B h H w b B Bh,H,w b B B h H w w w w W B W w w W B BBbWWW BbWWW B Teacher Mobility Behaviors Observed Interactions w w w W wh w@wwW@h WWb b B B h H w BhH w wwwb WWB w BB bW BbWW Behaviors Observed Teacher Mobility Interactions w Wwh W Wb b B B h H w b (B) Q Q W B B bWW BbW

How much more revealing is the monitoring of the classroom now?

What types of data did this examination of the monitoring reveal?

Can you notice any trends in this one observation? If so, what types of recommendation(s) would you make to this teacher?

In examining the classroom with both the ethnicity and gender identified you should first list the class makeup. The following is a suggestion for beginning analysis:

- ?? 16 Anglo students, 7-males, 9 females
- ?? 8 African American students, 5-males, 3-females
- ?? 3 Hispanic students, 1-male, 2-females
- ?? No Asians or other group identified

Who was engaged in the *Behaviors Observed*? One African American student was tardy to class; another was chewing gum/eating during first segment of the period. Three Anglo students were talking, two females, one male. One of the females talked throughout the entire observation period with neighboring students.

Examining the *Interaction* portion of the monitoring shows us in the first segment five of the six students asking/answering were Anglos – three males and two females. A single African American female asked/answered one question. During the second segment, five of the seven students participating were Anglos – three females, two males. One African American male asked/answered a question and the same African American female (who participated in the first segment) participated again. During the third segment of the period being observed, four of the students involved were Anglos – two males, two females. The same African American male and female who responded in the first and/or second segment were also involved in this third segment of the period. One Hispanic male was also involved. This is the data. Now lets analyze this data. The demographics of the classroom being observed in as follows:

- ?? 52% male, 48% female
- ?? 59% Anglo, 30% African American, and 11% Hispanic
- ?? 59% Anglo: 50% male, 50% female
- ?? 30% African American: 62.5% male, 37.5% female
- ?? 11% Hispanic: 33% male, 67% female

Of the 10 first seats in the first two rows, ethnic minorities occupy two; females occupy five. Of the back two rows, seven of the eleven students are Anglos, five of whom are males. With a classroom makeup of approximately 60 percent Anglo, you would expect approximately 60 percent of the **Interactions** to be from Anglos, 30 percent African American, and eleven percent Hispanic. Actually, during the first segment, nine of the eleven (82%) were by Anglos, and one response by an African American (9%). In the second segment, again nine of eleven were Anglo respondees, two African Americans (18%), and in the third segment, six of the eleven were by Anglos, two by African Americans (18%), and one by a Hispanic (9%).

Ethnicity by % of Classroom	Expected % Participation	Actual % Participation
Anglo – 60%	60%	82%
African-American – 30%	30%	18%
Hispanic – 11%	11%	9%

Summary of Participation by Ethnic Makeup in Classroom

If responses were equivalent to ethnic percentages, you would expect the Anglo responses to decrease somewhat, the African American to increase (almost doubling), and the Hispanic to be the same in the first and second segments as in the third. With regard to the gender participation, the classroom makeup is approximately half and half. During the total observation, 33 questions were asked/answered. Overall, 16 of the 33 responses were from females. By segment: first – six of eleven responses came from females; second – six of eleven female; and third – five of the eleven. This is what you would hope for – half and half. Relying on percentages to explain/justify findings can be somewhat misleading and should be approached with this in mind. There should be some participation by the Hispanic females, and subsequent observations might bear this out. If not, it is wise to note this and plan for in future classroom discussions.

Monitoring Questions Using Coding for Question Types

When documenting *Behaviors Observed*, coding questions asked/answered provides additional input for the de-briefing and strategy planning of the teacher/classroom being observed. Using three simple categories will enable you to develop the sophistication that will be useful in the analysis of the data collected. The following categories are easy enough to monitor:

Informational	From Bloom's Taxonomy (7) we see question levels identified by verb type. Questions using verbs such as, <i>define, identify, label, list,</i> etc., constitute lower order questioning and should be tabulated as such. [Use a circle to indicate the student who asked/answered a question, and add a slash mark for all questions above the circled student].
Higher Order	Again from Bloom, by identifying the verb used, we can categorize the question. Questions with verbs such as <i>change</i> , <i>predict</i> , <i>modify</i> , <i>infer</i> , <i>generate</i> , etc., generally indicates a higher order of thinking and/or querying.
Non Topic	[Using the circle, once again, to identify the student, use a dot instead of a slash mark to indicate the question was higher order]. These types of questions are those (regardless of the verb choice) that are off the subject, i.e., "What's for lunch today in the lunchroom?" "What time does the bell ring?" and so forth.

Now is the time to take the instrument example found in the appendix and test your skills at monitoring. Find a good partner, someone with a similar classroom setting/content and/or grade level and take turns watching each other. These exercises should provide plenty of data for assisting you in the improvement of your classroom.

Practical Tips for Addressing Gender and Ethnic Biases in the Classroom

Utilizing this observation instrument, you may now document the teacher's and the student-teacher's classroom behavior. By analyzing these findings to determine if the needs of all students are being met, you can also document other factors in the classroom that may affect student learning.

Sometimes the awareness of these factors, alone, is enough to generate changes in one's behaviors toward the classroom, but further examination of the issues may be required. Let's examine some of the various categories associated with these problems and options to eliminate and/or reduce their occurrences.

1. Physical Arrangements (in the classroom)

These are most apparent for physically challenged students in your class. Are the aisles passable? Are desks available for wheelchairs?

2. Bulletin Board Displays

Are there pictures displayed that depict certain types of careers, vocations, examples, etc. that do not have examples included which reflect the ethnic/gender makeup of your class? Do you have only pictures of Anglos as businessmen, African Americans as athletes, and/or men as scientists?

3. Textbook Pictures/Text Examples/Exclusions

Examine the textbooks for your subject area(s). Are they fair in the display of people in illustrations, pictures, etc? How about the story examples? Are they discriminatory, i.e., "sins of omission," etc.?

4. **Comments** – **Stereotypes**

Does the teacher (as observed) develop/utilize stereotypes through his/her comments? Such seemingly benign statements as "...like a Chinese fire drill," "...just like a bunch of wild Indians," are stereotypical.

5. Language Barriers/Biases

Does the teacher use verbal and/or non-verbal methods to single out students who have difficulties resulting from language barriers? This also includes utilization of masculine terms such as "forefather" and the pronoun "he", as well as "mailman," "firemen," "policeman".

Physical Arrangement

The size and the specific needs of the subject(s) taught in it often dictate physical arrangement of the classroom and its facilities. Hopefully, most classrooms today no longer have the desks "bolted" to the floor, thereby allowing some flexibility. Where possible, arrange the teacher's desk at the back, or at least, to the side of the classroom. This allows the teacher to be more of a "watcher" instead of being the "watched"! It takes the major focus of the room, and the students, off the teacher. Also, where possible, student desks should face away from the teacher's desk and away from the door or windows. Students are easily distracted by activities outside the room (especially rooms on the ground floor-level), and by other students passing by doorways. Where teachers' desks are permanently fixed to a space, try re-arranging the student desks so that they focus away from this area. Analyzing room arrangement and increasing teacher movement eliminate many of the problems associated with classroom management. Many of the biases can often be addressed also through this additional movement. Getting to see (and know) your students from a different perspective enhances better student-teacher relationships.

Bulletin Boards

Many times these media include pictures that represent only a small segment of society. If all the pictures depict scientists as Anglo males, sooner or later, other students begin to get the message that science is an area from which they are excluded. This may sound petty, but it is real. For example, most often when you discuss college with minority children and statements are made "there's lots of money available for you to go, why don't you go," we forget that without experiences in seeking out loan and/or scholarship money, it might as well be a "pot-of-gold" on Mars in terms of accessibility. Examples of and opportunities to meet people of their

own ethnic background in post secondary or work settings are very important in understanding one's potential opportunities. Where textbooks illustrations/pictures, may seem benign, the *omission* may be the greater of stories told!

Textbook Pictures/Text Examples/Exclusions

Take the time to examine your textbooks in terms of illustrations, pictures, and stories, in terms of gender and/or ethnic biases. If they are present, you must find other avenues to display these persons as participants, etc. with which students can make identification. It is important that they see society role model examples in situations that are different and offer a "budding idea" that "this job or profession is within my grasp too!"

Comments-Stereotypes/Language Barriers

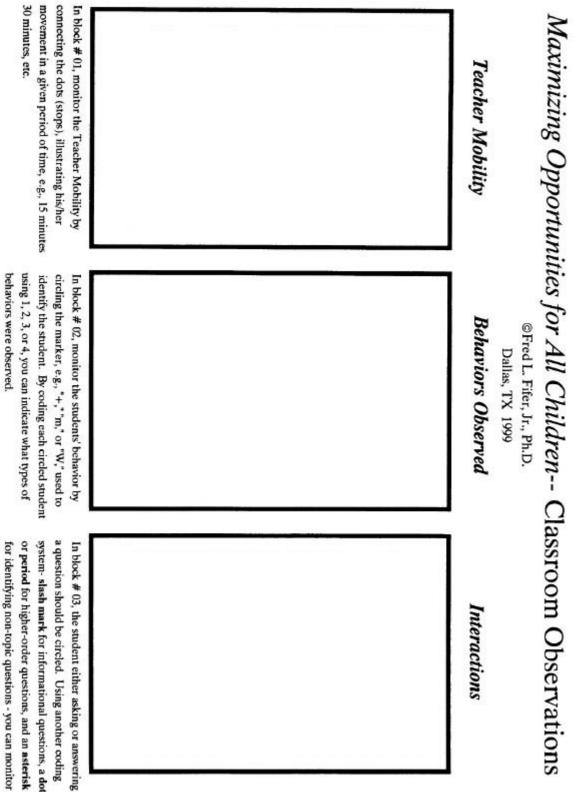
Speaking another or second language does not imply one understands the language. Many current popular singers learn songs in a foreign language and can "mouth" the words but neither understand the meaning nor can translate the word/term. Often a student learning English as a second language, will comment, "You talk so fast!" What they really mean is that they heard and recognized the words you spoke in English, but their thinking and understanding are still in their native tongue – they must translate each word to their language before they really understand. These seemingly confused states are sometimes viewed by the teacher as belligerence, laziness, or refusal to cooperate. We may also view their cultural behaviors (which may be drastically different from ours) as a refusal to cooperate. When this occurs, we send out both verbal and non-verbal signals, which often speak volumes to the students. These actions are often overlooked with the mindset of "I meant nothing by that comment!" or "You'll just have to learn English if you expect to get anywhere in this world!" These types of comments (or even thoughts) are very biased and often carry forward much longer than one would ever anticipate. We must refrain from making comments that stereotype one group in terms of some common behavior. These types of comments came out of both World Wars and focused on deriding the enemy as being a less-capable, less-intelligent human being, and thus incapable of defeating us!! We have learned something about survival and tenacity since 1945, and hopefully have come to grips with living in a multi-lingual, multi-cultural society. You may be totally unaware of these types of comments and/or attitudes (both verbal and non-verbal) toward some students. The observational data collected may prove invaluable in this respect. These items sometimes seem like small and trivial things to be addressing in the "grand" scope of classroom instruction, but these little things are, at times, the catalysts for smoldering issues that erupt without warning. If we really want girls and minorities to participate in mathematics, science, or as the cliche says "the mainstream of American education," then serious consideration must be given to these seemingly small issues. The future of our country depends on each gender group, each ethnic group having the opportunity for maximizing their respective opportunities. The impetus for change begins with you... Are you ready?

Conclusions

Hopefully, these exercises for monitoring teaching behaviors will enable you to become a better teacher in working with the ever-increasing diverse society within the classroom. As I stated in the beginning, I don't think teachers deliberately intend to discriminate against their students, but whether intentional or subconscious, it does exist, and we are the one's who must step forward and welcome these children into the fold of American society. Girls as well as boys

can do math! Boys as well as girls can learn to cook! Etc., etc., etc., Whatever have been the societal mindsets or niches, into which we placed people in the past, must now become potential realities for *all* to explore, and those responsible for their upbringing must encourage them to do so.

Good luck with your monitoring and data collections. I trust this will enable you to become a better, more attentive and caring teacher. Your students will appreciate it.



also their level of involvement. not only the student involved in the interaction but

Appendix B – Observation Form Instructions

For coding on this form, the following format is suggested:

Student monitoring only

?? Use a "+" sign to indicate the location of each student in the classroom. Spaces left between students will be indications of empty desks.

Gender monitoring only

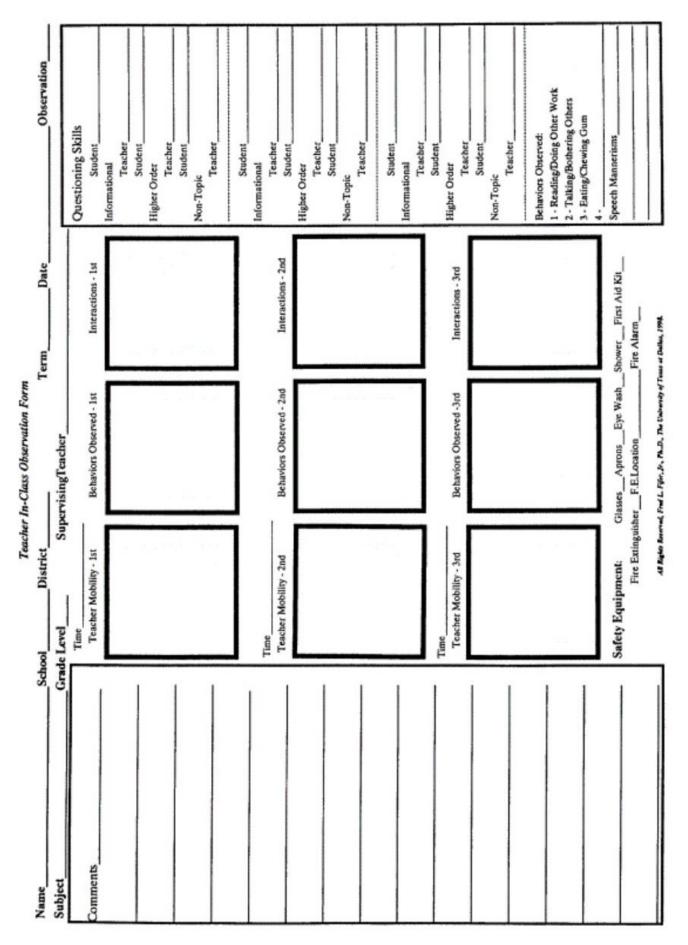
?? Use letters "m" for male and "f" for female to locate the position of each student (by gender) in the classroom. Again, spaces left between letters will indicate empty desks.

Ethnicity monitoring only

- ?? Identify each student's ethnic origin using official records only. Do not try to guess based on skin color, hair type, or other physical characteristic.
- ?? The following are suggested codes for ethic origin:
 - \circ w = Anglo
 - \circ b = African American
 - \circ h = Hispanic
 - \circ a = Asian
- ?? Devise additional codes as needed or determined by official records.

Gender and ethnicity monitoring

- ?? Identify each student's ethnic origin using official records only. Do not try to guess based on skin color, hair type, or other physical characteristic.
- ?? The following are suggested codes for gender and ethic origin:
 - \circ w = Anglo females
 - \circ W = Anglo males
 - \circ b = African American females
 - \circ B = African American males
 - \circ h = Hispanic females
 - \circ H = Hispanic males
 - \circ a = Asian females
 - \circ A = Asian males
- ?? Devise additional codes as needed or determined by official records.



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