

## CLEAR AND UNCLEAR WINDOWS

"Do you suppose," the Walrus said,  
"that they could get it clear?"  
Lewis Carroll

### PURPOSE

Have you ever found yourself walking down the school hallway when a student wearing glasses comes running along and you ask him to stop for a second while you look at his glasses? Chances are they were smudged, dirty, and so on. You say something like, "Could I see your glasses for a second?" You patiently clean them and give them back, saying, "Better?" The student says, "Yes," and runs off on his way somewhere. You say to yourself, "I don't know how he can even see where he's going." The point is that he couldn't, not very well anyway, and you made things clearer. It's a metaphor for what good teachers do all the time; they make things clearer.

Dirty glasses and dirty windows are pretty obvious to us. Our first impulse as adults is to clean them, to make them clear so that people can see out of them. We are not surprised when a student's glasses are not clear, even if they were clear that morning when the student left home. Why should we be surprised when their understanding of something we just taught is not clear? So much of what is taught is not clearly learned. And I think you know by now that one of the fixed ideas, one of the familiar refrains, of this book is that school is not really about teaching; it is about learning.

### PROCEDURE

The Clear and Unclear Windows assessment technique is very simple and straightforward. At the end of an assignment or of a significant chunk of learning that may have taken place over several days, you ask students to draw a vertical line on a sheet of paper and to title one half of the paper Clear and the other half Unclear. On the half titled Clear, a student is asked to list those things he/she understands. On the other half, the student lists those things that are not clear or that are poorly understood.

Of course, this represents self-reporting. The fact that a student says he/she understands something clearly does not guarantee that he/she does. However,

it is a good place to start. And inevitably if someone tells you they don't understand something or that it is unclear to them, this is surely the case.

This particular assessment procedure assumes a great deal of trust between teacher and students. Trust lays the groundwork for effective communication and is essential to its success. No student wants to tell a teacher that something was too difficult if the result is punishment or a sense of being considered lazy or slow to learn. But finally, wouldn't you rather know than not? Nothing is gained by pretending that everyone learned yesterday's lesson, and now we are ready to proceed on to today's if that is not in fact the case. When a student fails to understand a key idea or skill, especially in courses built on sequential knowledge, then that student ends up paying compound interest on the learning deficit when it comes to learning the next idea or skill. Discouragement sets in, and the will to learn diminishes. This is the beginning of disaster for that student's future hopes.

Those students who indicated that they do understand clearly are in a good position to help you with some strategic remediation. The psychologist Jean Piaget once noted that there are times when it is more efficient to have students teach each other because the linguistic compatibility within the peer group makes communication less complex and dense. Remember, you have an adult understanding of the subject matter as well as an adult vocabulary, and some times this can get in the way.

## OUTCOMES

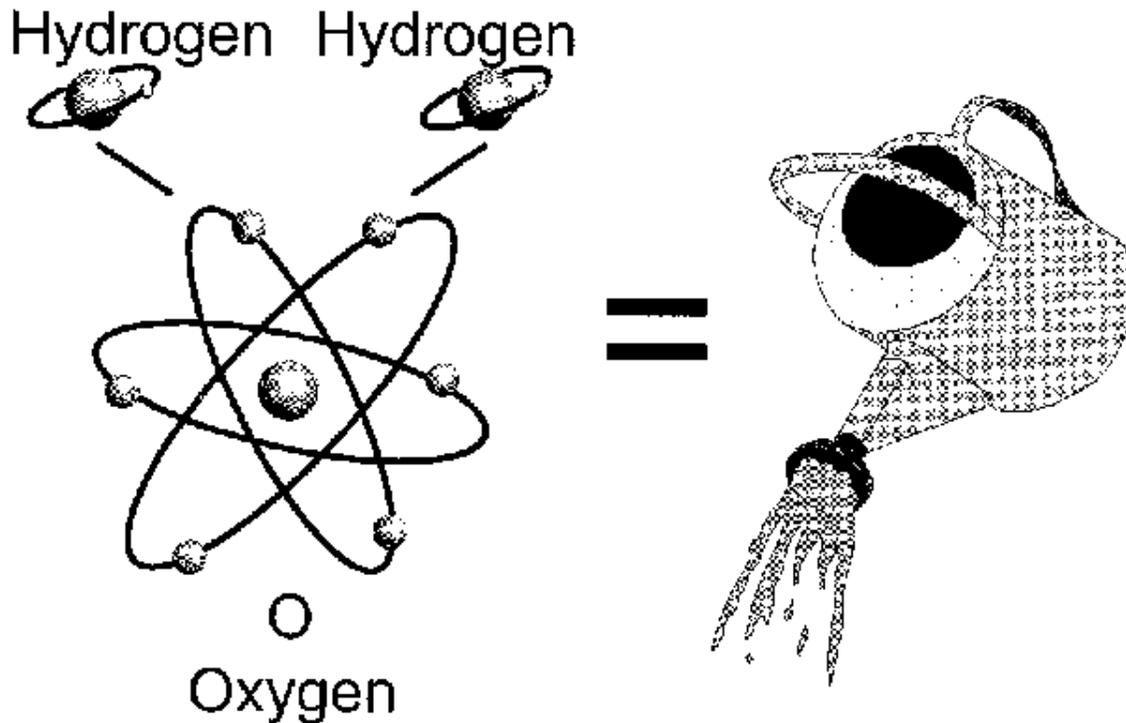
Asking students to list things that are clear to them and things that are not clear to them forces them to think about (1) what they are learning well, and (2) where the problems lie. Self-diagnosis is a valuable skill because it enables the learner as well as those entrusted to help the learner to know where to start. Sometimes just knowing where to start is the key to unlocking deeper learning. For example, consider this statement written by a student in a science class:

It isn't clear to me how hydrogen and oxygen go together to make water. How can two gases be put together to make a liquid? I just don't get it.

This same student had written on the clear side of the sheet of paper:

I know that hydrogen and oxygen combine to make water. I know that two atoms of hydrogen are needed and one atom of oxygen, that's why it is H<sub>2</sub>O.

### HYDROGEN AND OXYGEN COMBINE TO MAKE WATER



In many cases learning is assumed because superficial knowledge is in place. That is exactly the situation this student is in. The student knows the words to describe water as a product of hydrogen and oxygen in combination, but the student has no clue as to how the process actually works. Maybe the teacher "covered" the process in class or maybe not, but at least one student has indicated a lack of scientific understanding that the teacher can no doubt easily clear up in the following class period. It has been noted that even higher achieving students in advanced science classes more often than not give medieval answers to such scientific questions as how the seasons change, how gravity works, and what causes night and day. Clear and Unclear Windows does at least give students the opportunity to let you know about such things.

As students become more adept at writing Clear and Unclear Windows, they will help you take your teaching to deeper levels of knowledge and insight. This process is obviously useful with lower achieving students who are struggling to keep up, but it is equally useful with higher achievers, many of whom will frankly confess they don't understand the subject matter very deeply and are merely good at parroting back superficial information on tests and in discussions.

Because the application of this technique, like that of others mentioned in these pages, is strategic, it is not necessary that you use it every day. In fact, one approach is to allow students to turn Clear and Unclear Windows statements in to you whenever they would like to. However, I do suggest that you conduct this as an activity with the class several times a month in order to ensure adequate opportunity for each one of your students to let you know just what is clear and unclear to them.