Overview of Classroom Data Gathering Strategies

When looking for…	Use the following strategy
• Involvement of students in the lesson • What is happening with a certain group of students • Gender or other bias (which students are called on, how often, in what order)	**Verbal Flow** The observer records who talked to whom (e.g., which students the teacher calls on and how often, which students talk to which other students).
• Individualized instruction • Teacher connection to students throughout a lesson • Teacher proximity to students • Student behavior	**Class Traffic** The observer tracks the movement of the teacher around the classroom and identifies (by numbering the interactions) which students or groups the teacher interacts with.
• Students' level of thinking • Amount of teacher talk • What is happening with a certain group of students • Types of questions the teacher asks	**Selective Verbatim** The observer makes a written record of exactly what is said within a predetermined category in the classroom (e.g., teacher questions, student questions, student responses, teacher responses).
• Complete transcript of what occurred during a lesson or part of a lesson	**Scripting** The observer makes a written record of everything that is said by the teacher and by students during a lesson or part of a lesson.
• Complete record of what occurred during a lesson that can be replayed or reviewed by the teacher	**Audio or Video Recording** The observer or teacher records (audio or video) the lesson, focusing on the aspect of the class in which the teacher is most interested.

Note: From Another set of Eyes: Techniques for Classroom Observation, Trainers Manual, by K. Acheson, 1987, Alexandria, VA: Association for Supervision and Curriculum Development. Copyright 1987 by Keith A. Acheson. Adapted with permission.

![Oregon Department of Education logo]

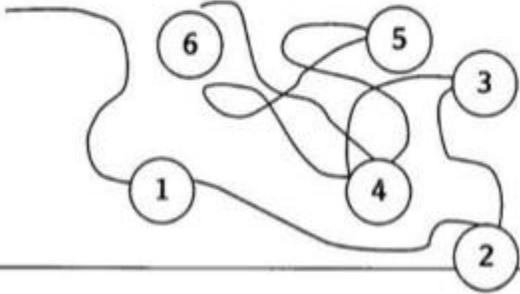**Descriptions of Classroom Data Gathering Strategies**

Classroom Traffic

The *classroom traffic* data gathering strategy is one in which the observer records the physical movements by the teacher and/or students during a lesson. This strategy relies on a map of how the classroom is arranged, including the students' seating pattern.

When using this strategy, an observer sits in a location where she or he can see all the activity in the room. As with all observation strategies, it is important in advance to clarify with the teacher what she or he is most interested in knowing about. Using the map of the classroom as a recording sheet, the observer records the agreed-upon movement patterns throughout the entire lesson. Some of the movement patterns or interactions that teacher typically are interested include:
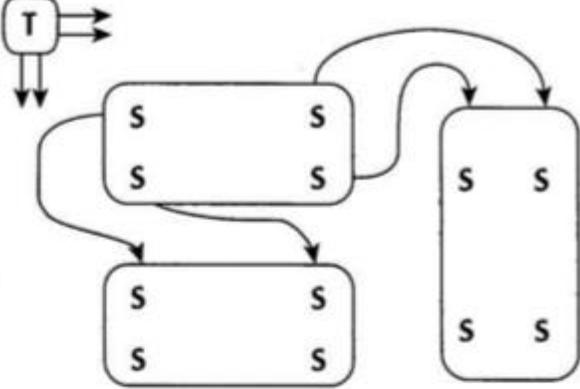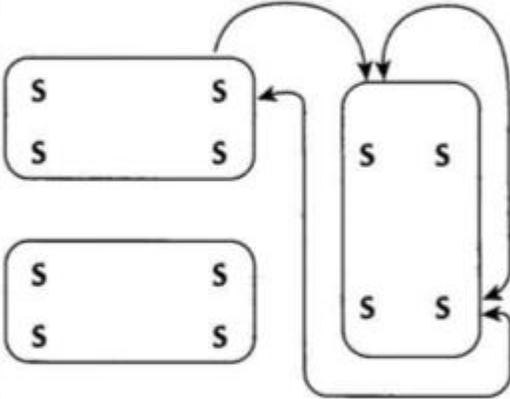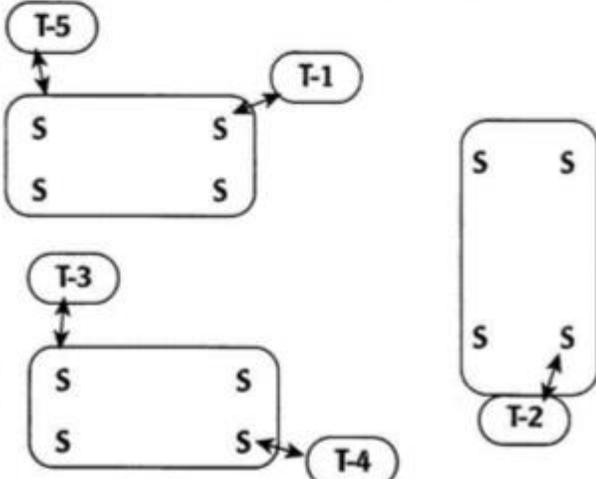
- teacher movement,
- teacher-directed student movement,
- student-directed movement, and
- student/teacher conferencing.

It is also essential to record the *facts*, rather than the judgment or opinion of the observer.

One way to enhance the richness of the data is also to record the times when patterns or interactions with students occur. It is important for mentors and new teachers to agree upon a legend ahead of time so that the data, once gathered, is recognizable to both parties. The following provide some examples:

Type of Movement or Interaction	Sample Legend
Teacher movement	

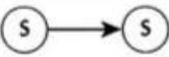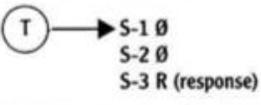| Type of Movement or Interaction	Sample Legend
Teacher-directed student movement	
Student-directed movement	
Student/teacher conferencing	

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Verbal Flow

Verbal flow is a data gathering strategy that provides information about who talks with whom. It requires that the observer be given a seating chart labeled with students' names so the observer can accurately record information about the flow of verbal communication between teacher and students, students and teacher, and students and students.

- the kinds of information about verbal interactions that often interest teachers include
- The ratio of interactions between teacher and female students versus interactions between teacher and male students,
- the frequency of the teacher interaction with students based upon where students are located in the classroom,
- the frequency of student-to-student interactions,
- which students talk with which other students,
- the time during a lesson when unsolicited verbal interactions occur,
- the frequency of the teacher asking a question for which there is little or no student response, and
- the frequency of when a teacher asks a question for which there is significant student response.

The following are examples of legends to track different kinds of verbal interaction:

Teacher to student interaction	T → S
Student to student interaction	S → S
Teacher question for which there is little or no student response	T →▶ S-1 Ø / S-2 Ø / S-3 R (response)
Teacher question for which there is significant student response	T →▶ S-1 R (response) / S-2 R / S-3 R / S-4 R / S-5 R

Sample verbal flow data:
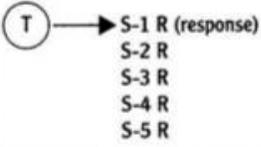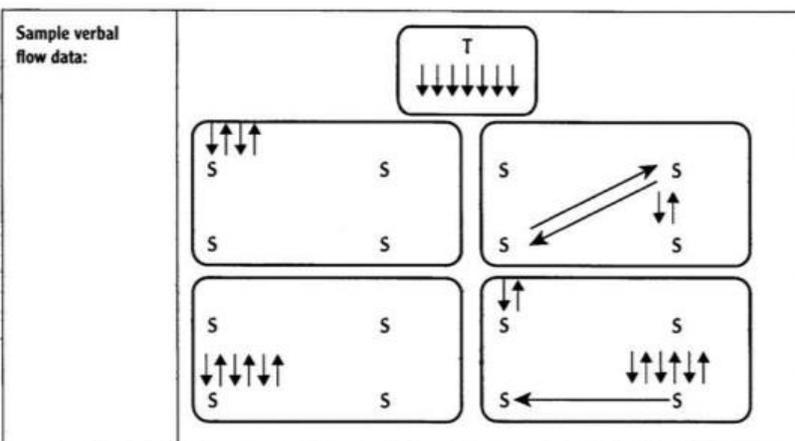
Teacher Selective Verbatim

When the *selective verbatim* technique is used, an observer records what is said within a specific category selected by the teacher. The observer sits in a place in the classroom that is most conducive to gathering the data and records the specific data identified by the new teacher during the planning conversation.

For example, if the new teacher is interested in questioning techniques, the observer will record questions asked by the teacher and/or by students, depending on the interest of the teacher. Teachers are often interested in the quality of the questions they ask: Are they asking questions that require only a yes or no answer? Are they asking rhetorical questions? Or are they asking questions that require students to analyze, synthesize, infer, or predict?

Teacher may also be interested in knowing more about specific student responses during a given lesson. Selective verbatim can be used to record student responses to teacher questions or responses within small-group work or within paired student interactions.

As with any of the data gathering strategies, it is helpful when the observer can also record time codes indicating when particular things were said to who.

Teachers are often interested in knowing about some of the following categories of classroom interactions:

- teacher questions and teacher responses to students;
- questions or statements initiated by students;
- clarity of teacher directions and/or assignments;
- general teacher talk patterns (e.g., repetitive verbal mannerisms such as saying "okay" or "all right");
- repeated use of phrases, self-reference, or teacher rewards, praise, or criticism;
- student responses to teacher questions; and
- general student talk patterns.

Some studies have found that teachers ask at least one question every minute in the average teacher-led discussion. It is not unusual for a teacher to ask 30 to 40 questions, six of which were planned, during the course of a 30-minute discussion. Many teachers have never listened to and systematically analyzed their questions. The selective verbatim technique enables the observer to record all the interrogative statements a teacher makes. The data provide the teacher with the opportunity to compare what was intended versus what the teacher actually asked.

As many as half of teacher questions may not even be meant for students, but tend to be forms of praise, criticism, directions, or lecture.

The following example is a portion of a selective verbatim observation that focused on the teacher's questions. The example illustrates how detailed the data can be from this kind of observation:
Teacher: When you think about what it means to be an effective communicator, what are some of the skills you would expect to see demonstrated?

Isabel: That someone looks at you, in the eye, and is really paying attention to what you are saying and that they don't cut you off.

Teacher: So, knowing that you have someone's undivided attention lets you know that they are being an effective communicator?

Isabel: Yes. Well, at least that they are being an effective listener and not just looking at you politely and nodding their head but they are really, truly listening and hearing.

Teacher: Let's add to what Isabel has shared. What are some other attributes of effective communicators? Jeremiah?

Jeremiah: People need to be able to ask good questions. Not just the kind of question that they already know the answer to but the kind of questions that honestly ask you to provide more information to them.

Teacher: So not all questions are created equal?

Jeremiah: Exactly. Some questions are asked in ways that require you to pick one answer or the other or where the person is really telling you to do something in the form of a question. It's like when your parents say things like, "Do you want to play a video game now or would you rather do your homework first so that you can go out with your friends to the mall later?"

Teacher: Effective communicators stay away from asking leading questions and make sure that their questions are genuine in seeking additional information. We call that latter type of question a "naïve" question.

Mary: It is also important to be patient when communicating with others. Many times people just jump in before people are finished an it is such a turn-off. So, being patient is important.

Teacher: Pausing after a question is asked and even when someone is finished is one of the ways we see patience demonstrated in effective communication. In fact, today we are going to take a look at the power of the pause.

Initially, observers may find the selective verbatim technique somewhat challenging. After first trying it, observers often remark that their heads were down during the entire lesson or they could not keep up with the natural verbal interactions that occurred. It is important to assure observers that once they have had multiple opportunities to practice this strategy, the recording of data will become much easier and more fluid.

Scripting

The purpose of the *scripting* technique is to create a sequential record of all behaviors and verbal interactions within any given lesson. The observer needs to record as much of what is said and done as possible. The following guidelines are intended to assist in recording an adequate script:

1. Prior to the observation, the observer writes down the name of the teacher, date, subject, time, etc.
2. For some observers, it may be helpful to diagram the classroom (primarily the teacher's and students' positions) before the lesson begins. If students' names are now known, they can always be labeled during or after the lesson. The diagram can be helpful in recalling areas in which students were or were not working productively, could not see, were easily distracted, etc.
3. The observer chooses a position from which he or she can see the teacher, the students, and the board/screen (if the teacher uses one) without becoming a distraction to the class. On the other hand, the observer may need to sit wherever an empty chair can be found.
4. Once the lesson begins, the observer records as much as possible of what is said and done so that the teacher will have an accurate script of what occurred during the lesson as they discuss what occurred during the reflecting conversation. *Note: Observers soon develop their own "shorthand" to assist them in recording classroom data using the scripting strategy.*
5. Occasionally observers will find it necessary to observe how students are working, how one particular student is interacting, or just to rest their hand. When they do this, they should indicate with some mark that the lesson continued while they were not recording.
6. The observer may wish to record the time periodically in the left-hand margin for specific information as to how long different sections of the lesson continued.
7. The observer records as accurately as possible what the teacher writes on the chalkboard, whiteboard, or overhead transparency.
8. The observer tries to note nonverbal behavior as well, for example, "Mary or Santiago stared out the window during the middle and ending portions of the lesson." This statement is an example of objective data. Conversely, a statement such as "Mary or Santiago looked bored" is a judgement and therefore does not belong in a script of a lesson, nor is it particularly helpful to the teacher for reflecting on the lesson's impact.
9. The observer does not intervene in the lesson. If students approach the observer with questions, the observer should explain that the students need to seek help elsewhere because the observer's job is to record what is happening during the lesson. *Note: Students should already be aware of the observer's role prior to any observation. Typically, the new teacher informs students of this role.*
10. As soon as the observer has completed the script of the observation, the observer provides the new teacher with a copy. *Note: It is always helpful for the observer to retain a copy of the script – it provides data to reflect on in preparation for the reflecting conversation. However, in some cases, the new teacher may be uncomfortable with the observer retaining a copy of the script. If so, we recommend that the observer give the original set of data to the new teacher and not keep a copy. Through the good faith that the observer will engender by engaging in nonjudgmental reflecting conversations, the new teacher eventually may become comfortable sharing this kind of information with the observer.*

Audio and Video Recordings

It is more accurate to describe the use of *audio and video recording* as a technology rather than a strategy. An audio or video recording provides an actual account of what went on during any given lesson. Such recording can be powerful tools in providing teachers with opportunities to reflect on

what actually occurred in their classrooms, but these recordings can be overwhelming in the context of supporting new teacher learning.

Before using audio or video recordings, it is helpful to consider the readiness of the new teacher to hear and/or see herself or himself. It is also helpful to clarify the intended use of the recordings – specifically, to clarify that the recordings will not be shared with anyone else unless the new teacher decides to do so.

Above all, the quality of the relationship between the mentor and the new teacher will suggest when to utilize this technology. Another indicator of when to use audio or videotape is when the new teacher's perception of some aspect of the observation is often different from that of the observer. In addition, if it seems that the new teacher may be unaware of speech or nonverbal mannerisms, then audio or videotaping may be the most effective way for the new teacher to become aware of these mannerisms.