*Observation Strategies**

At Task

At-task behavior (academic engaged time) is a variable that correlates strongly with student achievement. The intent of at-task observations is to provide data for the teacher that indicate whether or not individual students are engaged in the task or tasks that the teacher indicates are appropriate. Before using this technique, the observer must be acquainted with what the teacher expects the students to be doing during a given classroom period. In those classrooms where students are able to do a variety of tasks, some preparation is necessary before the observer can apply this technique. As with the other SCORE instruments, the at-task technique requires the use of a seating chart.

Technique

After becoming thoroughly familiar with what the teacher expects the students to be doing (what is regarded as "at task"), the observer:

- including facial expressions, not backs of heads
- constructs a chart which resembles the seating pattern of the students in the room that day
- indicates on the chart the sex and some identifying characteristics of each student (the latter is not necessary when the students' names are known, but is particularly important when names are not known and students will be moving about the room during the lesson)
- creates a legend using code letters for behaviors to be observed. A typical legend might be:

> A - At Task (you could use √) D - Distracted/out of seat (or O)
> B - Stalling (or S) E - Talking to neighbors (or T)
> C - Other productive work (or P) F - Non-productive work (or N)

Note: Category C would mean that the student is doing "school work" but not work that is within the limits of what the teacher defined as expected behavior.

Class Activity	Roll call	Set Induct	Discus-sion	Discus-sion	Prac-tice	Prac-tice	Prac-tice	Discus-sion	Closure
Names	**8:32**	**8:37**	**8:42**	**8:47**	**8:52**	**8:57**	**9:02**	**9:07**	**9:12**
Anne									
Bill									
Calvin									
Desiree									
Ellen									
Frank									
Gail									
Ivan									

Exhibit 11b: At Task Summary

	10:40	10:44	10:48	10:51	10:54	10:58	11:02	11:06	11:10	11:14	11:20	
At Task	17	21	21	21	23	23	21	18	19	16	14	(67%) 214
Stalling	5	2	2	1	--	--	--	--	--	--	--	(2.8%) 10
Other work (productive)	2	1	1	--	1	--	--	1	1	1	--	(2.2%) 8
Out of Seat	1	3	3	2	1	5	5	3	4	4	6	(12%) 37
Talking	3	1	1	3	3	--	2	6	3	7	5	(11.5%) 34
Other work (nonproductive)	--	--	--	--	--	--	--	--	1	1	3	(1.5%) 5

	HIGH	LOW	MODE
A	23	14	21
B-F	14	5	7
B	5	0	0
C	2	0	1
D	6	1	3
E	7	0	3
F	3	0	0

Task Analysis

Teacher _____ Date _____ Time _____ Objective _____

	1	2	3	4	5	6	7	8	Total
On Task									
On Task									
On Task									
On Task									
On Task									
On Task									
On Task									

Total number of readings _____

Total on Task _____   Percent _____

Total off Task _____   Percent _____

Teacher Movement

Cabinet

Clamps

Band
Saw

Table Saw

Drill
Press

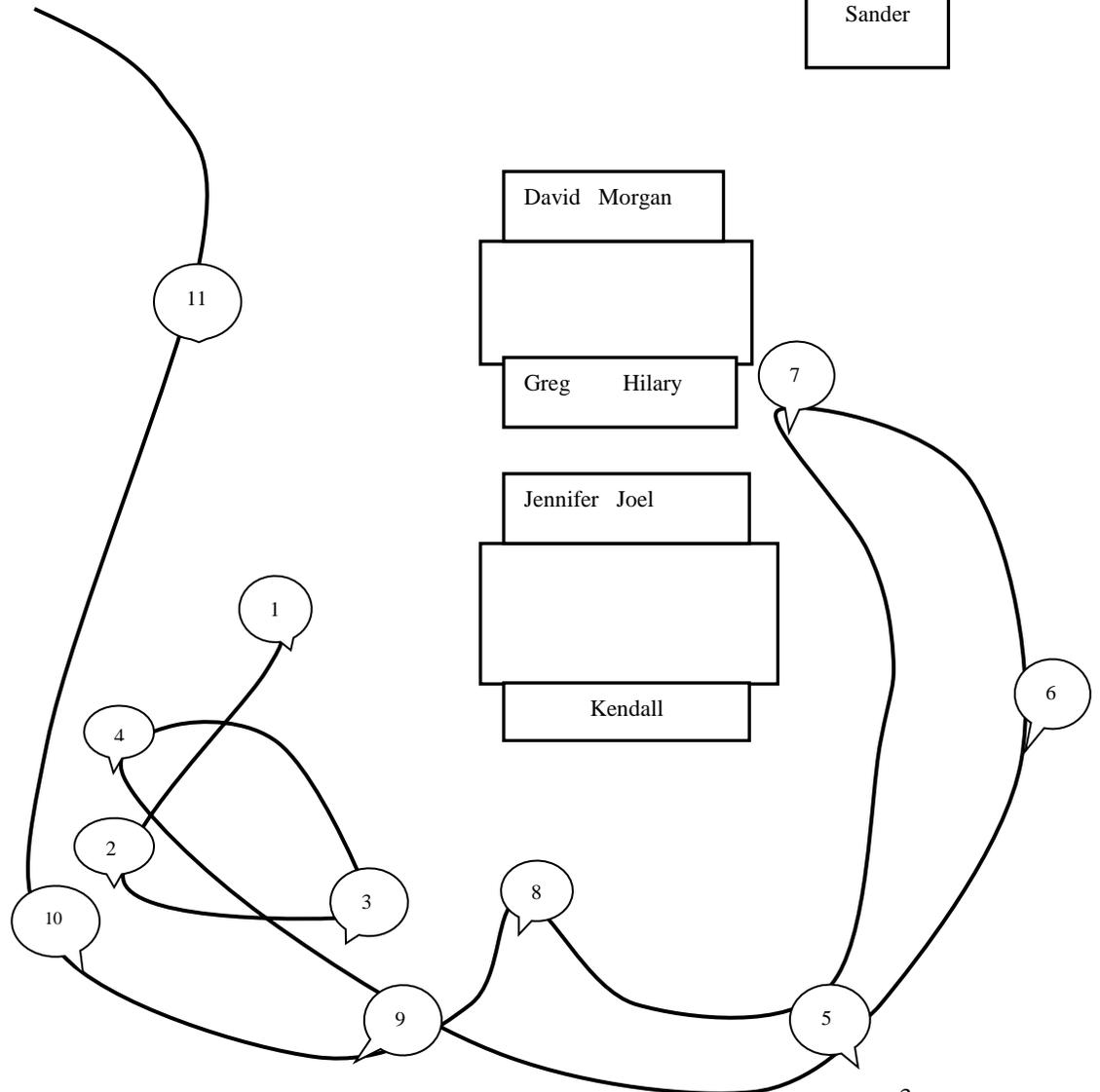Drill
Press

Planer

Belt
Sander

Deke   Peter

Cameron

David   Morgan

Greg   Hilary

11

7

Beth   Andrew

Josh   Jon

Jennifer Joel

Kendall

1

4

6

Chip   James

Chris   Rachel

2

3

8

9

5

10

3

Selective Verbatim

With selective verbatim techniques, an observer records what is said within a specific category of concern selected by a teacher. For example, if the teacher is concerned about questioning techniques, the observer will record questions asked- including surplus words and verbal ties. If the teacher is concerned about classroom control, the observer will record statements the teacher makes in an effort to control student behavior. The observer simply acts as a sorter, recording statements that fit the categories identified by the teacher. (Teachers can choose to analyze themselves by using an audio tape recorder as the observer.)

Selective Verbatim Patterns

The following categories commonly occur in classroom interaction and can be easily identified from a verbatim transcript. This list is far from exhaustive, but represents a cross-section of verbal behaviors commonly found in classrooms.

Teacher Talk Elements in this category include:

1. Teacher questions.
2. Teacher responses to student questions or statements.
3. Teacher directions and assignments.
4. General teacher talk patterns (verbal mannerisms such as "OK" or "all right"; repeated use of phrases or words; self-reference.)
5. Teacher rewards and praise statements.
6. Teacher criticism of pupil behavior.
7. Teacher control of pupil behavior.

Student Talk Elements in this category include:

1. Student responses to teacher questions.
2. Student questions.
3. Student-initiated statements.
4. General student talk patterns.

*Adapted from *Another Set of Eyes,* <u>ASCD</u>.

Teacher Questions

Research indicated that teachers ask at least one question every minute in the "average" teacher-led discussion. It is not unusual for a teacher to ask 30-40 questions, six of which were planned, during the course of a 30-minute discussion. What do the unplanned questions look like? Many teachers have never listened to and systematically analyzed their questions. This technique enables the observer to record all interrogative statements a teacher makes. The data provides the teacher with the opportunity to compare what was wanted with what was asked for.

Interrogative statements are phrases which sound like a question but for which no answer is expected. One research study showed over 50 percent of teacher questions are not meant to be answered. Actually they are praise, criticism, directions, or lecture.

Technique

To conduct selective verbatim, the observer sits anywhere in the classroom and records the questions and interrogative statements that a teacher makes. After a short period of practice, it will be possible for the observer to record all questions in most discussions. Occasionally, the observer will face the "rapid-fire" questioner who asks ten questions in two minutes. In this case, the observer might decide to tape record the questions for audio analysis or arbitrarily decide to record every other, or every third question. With more experience the observer will also be able to record verbal flow, interaction patterns, or other closely related data.

Data Analysis

Lists of teacher questions have shown teachers who ask all their questions the same way, starting with the same phrase; teachers who only ask questions which demand one-word answers; or teachers who ask multiple questions every time. Multiple questions are those in which the teacher asks three or four questions without giving the student an opportunity to respond. In these cases, the first question often relates to the discussion at hand while the last is the question that is answered. Often there is little relationship between the first and the last question in such a series. The teacher probably wonders why the students always get off the subject. Areas the observer might consider when analyzing teacher questions include:

1. How many actually requested a student response?

2. What pattern of questioning was revealed, i.e., repetitious phrases, one-word answer, multiple questions, wordy questions?

3. What thought levels were demanded in the response? (The observer could use the ideas of Sanders, Hunkins, Bloom, Taba, or any of the other recent writers on questioning.)

4. What if the teacher could not use:
   a. the word "what."
   b. questions that start with a verb.
   c. "Do you think..."

5. What is the relationship between teacher's intentions and the questions asked?

6. What is the relationship between lesson content objectives and the questions asked?

7. What is the relationship between vocabulary used and the students' verbal ability?

8. Is there a relationship between questions asked and student participation patterns?

Sample Data

Following are two lists of questions recorded by trained observers. They are included to give an idea of what the data will look like and to provide opportunities for practice in analysis of data. Exhibit 1 comes from an elementary classroom doing a unit on urban development. Exhibit 2 is a high school social studies discussion of penal reform and penal problems.

Exhibit 1: Teacher Questions
1. What do you think would be some of the reasons why cities develop?
2. But would that cause them to settle there? *(unanswered)*
3. What about things like weather conditions?
4. What about- what modes of transportation did they have at this time? (S- when we are talking about?)
5. What would be some of the major cities that developed for some of these reasons? What is a city that developed around water?
6. What other city developed about water?
7. What are possibly some cities that might have developed as trade centers? Think of people moving out west.
8. OK, what happened when people... What would be the importance of cities like Winnipeg?
9. What cities might have developed due to railroads?
10. What would be some of the reasons why the Vancouver area might have developed?
11. What would possibly be some reasons why cities would die?
12. What kind of city would die of crime?
13. In connection with the economy, what is it that would affect the death of a city?
14. What about large towns? What is it about them that makes them grow?
15. Does anyone else have any other reasons for the development of cities?
16. Where did the people concentrate?
17. Where was the land where they lived? Why would the city develop there?
18. What about when they look for enemies?
19. What period did Vancouver have its greatest growth?
20. What could have happened that would have increased it?
21. What about people from Europe?
22. What kept it from developing from the center? How did they spread out? In what way did they develop?
23. How did the development of these cities parallel the development of Vancouver?
24. Look at Victoria. Why would a city develop at this point on the island rather than there? *(pointing at the board.)*

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│  Exhibit 5:  Selective Verbatim: Secondary Classroom Control                 │
│        Activity                         Control Statements                    │
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Activity	Control Statements
Returning Papers	1. 10:19 – Bertha! 2. 10:20 – Linda, please listen. 3. 10:21—Roberta, I don't want to hear anything more out of you. 4. 10:21 – Bill, come back here right now. 5. 10:23 – Bill, I didn't ask for you to answer. 6. 10:24 – Sshh! Just raise your hand. 7. 10:24 – Would you please be quiet (class) 8. 10:26 – Answer by raising your hand. 9. 10:27 – You don't need to ask?? 10. 10:27 – Molly turn around. 11. 10:28 – Molly, wait until you are called on before you talk. 12. 10:29 – Bill, you didn't have permission to say anything. 13. 10:29 – Scott, if you can't join us, you can leave us. 14. 10:30 – Scott, just be quiet.
Doing English Exercise At Seat	15. 10:32 – Doug, sit down—put the dictionary away! 16. 10:32 – Ted, did you have permission to talk? 17. 10:35 – Scott, until you have permission to talk, please be quiet. 18. 10.37 – Pat and Molly! (were not talking) 19. 10:38 – Molly, this time it was you. 20. 10:38 – Randy—what are you doing? 21. 10:38 – Scott, if you want to talk, raise your hand! 22. 10:38 – Bill, you're not excluded from this! 23. 10:39 – Randy—this goes for all of you—I'm going to stand up here and watch. if you want to talk, raise your hand and I'll give you permission.

Student Comments

Most selective verbatim categories "select" teacher verbal behaviors for recording. It is obvious, however, that a substantial portion of classroom "talk" is done by the students – approximately ¼ to 1/3 of the verbal behavior, according to research. Thus, at least one category must relate to student comments.

Technique

Of all the selective verbatim categories, with the exception of teacher lecture or statements, this category is most difficult to observe in a classroom. Most observations of student comments are made from audio recordings. As in other selective verbatim categories, the observer records all comments within the category, noting the pattern of interaction and other relevant information. Lessons in which one word or short phrase answers predominate can be easily done in a classroom by an observer. Also possible are sub-categories –requests for information, "off the subject" comments, indications of feelings—in addition to the predetermined types of student comments.

Data

Many of the questions asked in the data analysis section of the teacher questions material above can be applied to student comments – please refer to those analysis questions at this time. Attention should be directed also to those students who are giving patterned responses where these differences exist. (Does discussion cease after a particular student responds? Is one student

usually "off the subject"?) Exhibit 6 was recorded during a discussion in a fourth grade concerning a flower the teacher had on her desk.

<table>
<tr><th colspan="4">Exhibit 6: Student Comments</th></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>T</td><td>Are you going to take your coat off or keep it on?</td><td>E</td><td>In the orchard</td></tr>
<tr><td>Tammy</td><td>Keep it on</td><td>Daryl</td><td>Plums</td></tr>
<tr><td>Wes</td><td>Milk</td><td>David</td><td>Primrose</td></tr>
<tr><td>T</td><td></td><td>T</td><td></td></tr>
<tr><td>S</td><td>Over at our house</td><td>S</td><td>Small</td></tr>
<tr><td>T</td><td></td><td>T</td><td></td></tr>
<tr><td>S</td><td>Some of them</td><td>S</td><td>Off a bush</td></tr>
<tr><td>T</td><td></td><td>T</td><td></td></tr>
<tr><td>Kendall</td><td>A daffodil</td><td>S</td><td>Cause it has a wooden stem</td></tr>
<tr><td>T</td><td></td><td>T</td><td></td></tr>
<tr><td>Bret</td><td>It's a boy and girl flower</td><td>Dinah</td><td>A dogtooth</td></tr>
<tr><td>T</td><td></td><td>T</td><td></td></tr>
<tr><td>Bret
T</td><td>Because it has two colors</td><td>Dinah
T</td><td>A dogtooth violet</td></tr>
<tr><td>Tammy
T</td><td>No</td><td>Dinah
T</td><td>Yes – aah – No.</td></tr>
<tr><td>Jim
T</td><td>It has a wooden stem</td><td>Richard
T</td><td>Out in the field</td></tr>
<tr><td>Wes
T</td><td>It's a plum blossom</td><td>Kathy
T</td><td>It's a spring beauty</td></tr>
<tr><td>Daryle
T</td><td>For, for – (pause) –for…</td><td></td><td></td></tr>
<tr><td>Jenny
T</td><td>Forsythia</td><td></td><td></td></tr>
<tr><td>Greg</td><td>Ah – ah, a bush</td><td></td><td></td></tr>
</table>

Verbal Flow

Verbal Flow Chart

Since we become who we are partly through the image of ourselves that we see reflected in others, it is imperative that teachers be aware of the way they respond both verbally and physically to the students in their classrooms. A verbal flow chart is one way of determining how classroom procedures inhibit, encourage, or allow students to participate in classroom interactions.
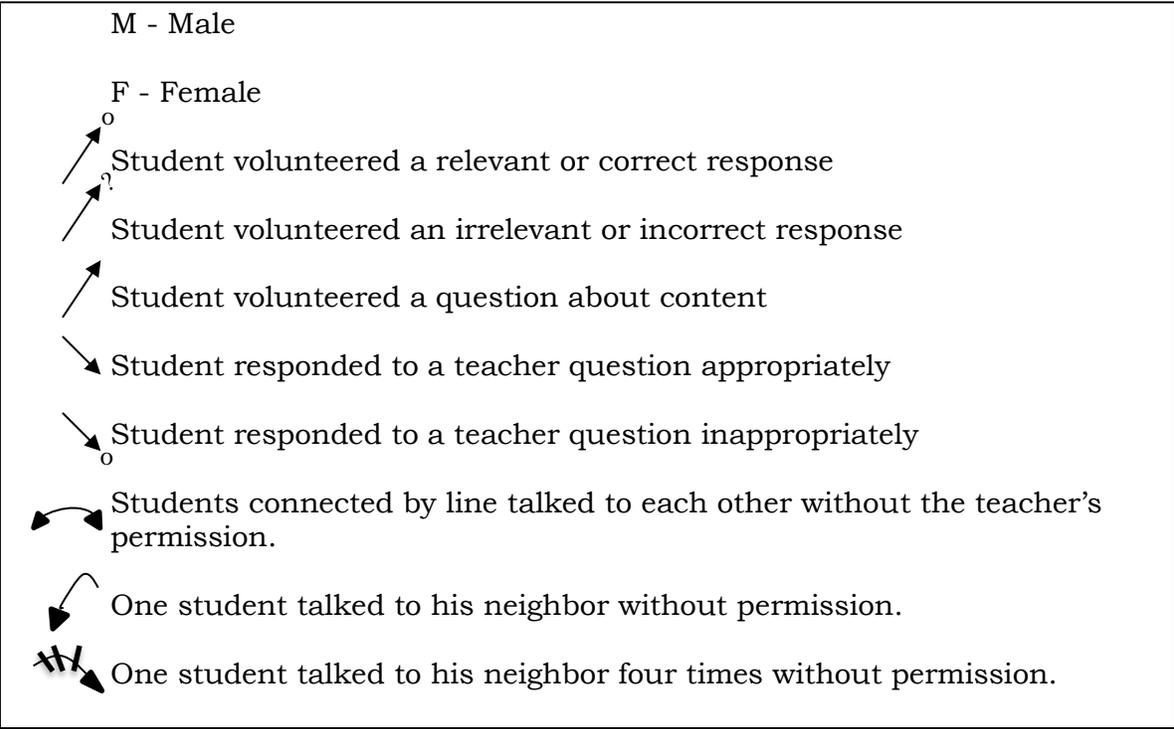
Technique

This chart simply reflects the involvement of students in classroom discussion. The basic form for the chart, as in all SCORE (Seating Chart Observation Recording) instruments, is a representation of the students' seating pattern. Because of the many forms that seating patterns take in classrooms, it is suggested that the observer create the seating chart on a blank pad. On the pad one can record which students are male and female or other characteristics such as a racial difference, socio-economic differences, ethnic or cultural differences-in short, any characteristics that might differentiate one group of students from another within a single classroom. Arrows are used as a basic symbol to indicate the categories of behavior. When students initiate a response, an arrow is drawn from the center of the box representing that student toward the teacher, as shown in the diagram.
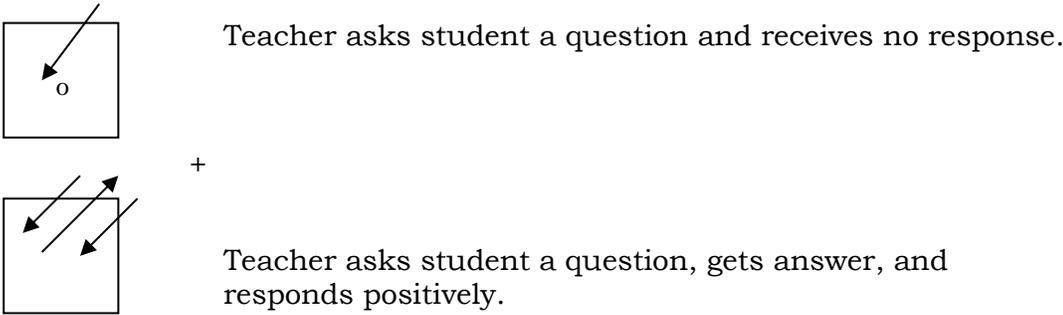
If a student initiates several responses, several arrows can be drawn from that student's box. If the student makes a contribution as the result of a direction from the teacher, or in response to a question specifically directed to him, an arrow representing student-initiated response is pointed toward the teacher but has a question mark at the end of it. If a teacher apparently regards a comment by a student as irrelevant or inaccurate, a zero can be placed at the end of the arrow (regardless of the way it is pointing) to represent that evaluation by the teacher. Social comments made between students not for the benefit of the entire class and not within the context of the ongoing discussion are indicated by a curved tie between the two students. Repetition of those social ties can be indicated by a cross bar for each repetition, or by recording the time during which they took place. To conserve space, more than one head can be put on an arrow, using additional symbols such as question marks, marks for + and – to indicate positive and negative responses. The variety of symbols is limited only by the imagination of the observer.

Additional subscripts and other marks can be used to reflect other categories of responses made by individual students. Symbols and categories may be created in response to an expressed need by the teacher for such additional information. For instance, the observer might keep track of when various students responded. This is done by recording either a time or a sequential number next to the arrow. Such data might show that the teacher relies on different students in an obvious pattern, or at different times during the lesson.

Verbal Flow Chart Sample Legend

M - Male

F - Female

Student volunteered a relevant or correct response

Student volunteered an irrelevant or incorrect response

Student volunteered a question about content

Student responded to a teacher question appropriately

Student responded to a teacher question inappropriately

Students connected by line talked to each other without the teacher's permission.

One student talked to his neighbor without permission.

One student talked to his neighbor four times without permission.

Some alternative ways for recording verbal flow are shown here in Exhibit 10.

Teacher asks student a question and receives no response.

Teacher asks student a question, gets answer, and responds positively.

Space becomes a problem if there are frequent exchanges so space savers can be invented:

T makes negative remark to S
T ask ?, gets response
T makes positive remark to S
T asks ? and gets response
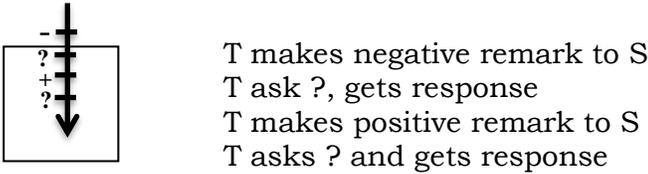
Exhibit 10 – Verbal Flow Chart