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ABSTRACT

The Social Science Observation Record (SSOR) is an interaction analysis-systematic observation scheme enabling users to engage in interaction analysis as a descriptive record. Pilot studies suggest that the knowledge of the system enables pre-service social studies teachers (using microteaching simulation) to modify their own behavior in directions toward which they feel positive. The system also provides a conceptual model linking cognitive, affective, and management dimensions of social studies inquiry. The SSOR contains seventeen categories, four realms, twelve sub-matrices, and six segments of "wait time." Realm I contains five categories stressing verbal behaviors related to learning subject matter. Five other categories of verbal statements (Realm III) stress the meaning of human experience, knowledge, values, thought, and behavior for man. A third set of five categories (Realm II) stresses verbal statements through which social inquiry can be influenced and managed. The sixteenth category provides for "wait time" and the seventeenth records descriptive noise. Together, these two categories comprise Realm IV of the SSOR. (Author/RC)

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THE SOCIAL SCIENCE OBSERVATION RECORD (SSOR)

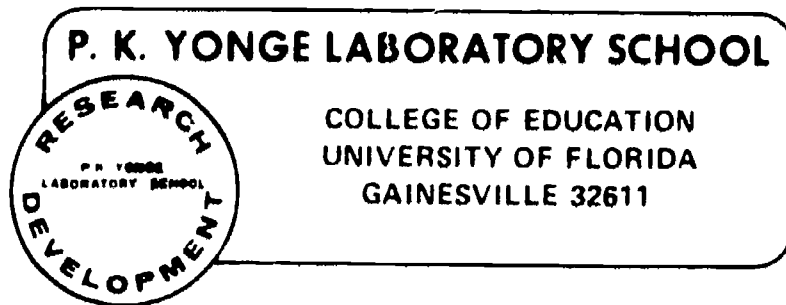
Introductory Packet

(Revised February 21, 1973)

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and

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P.K. Yonge Laboratory School



Resource Monograph Number 7

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TM 004 125

SSOR-The Social Science Observation Record

The Social Science Observation Record (SSOR) is an interaction analysis-systematic observation scheme. The system enables its users to engage in interaction analysis as a descriptive record. Pilot studies suggest that the knowledge of the system enables pre-service social studies teachers (using micro-teaching simulation) to modify their own behavior in directions toward which they feel positive. The system also provides a conceptual model linking cognitive, affective, and management dimensions of social studies inquiry.

The SSOR contains seventeen (17) categories, four (4) realms, twelve (12) sub-matrices and six (6) segments of "wait time". Realm I is comprised of five categories stressing verbal behaviors related to learning subject matter. These subject-centered categories are topical, empirical, interpretive, defining, and clarifying. Five other categories of verbal statements (Realm III) stress the meaning of human experience, knowledge, values, thought, and behavior for man. These man-centered categories are called preferential, consequential, critical, imperative, and emotive. A third set of five categories (Realm II) stresses verbal statements through which social inquiry can be influenced and managed. These teacher-centered categories are called infirmiting, commentary, dissonant, interrogative, and confirming. The sixteenth category provides for "wait time" and the seventeenth records disruptive noise. Together these two categories (Silence and Confusion) comprise the fourth realm (Realm IV) of the SSOR.

The categories included in the system encourage the teacher to think in terms of language configurations. Subject-centered categories yield language configurations symptomatic that knowing and thinking are occurring. Man-centered categories yield language configurations indicating that values are being clarified. In combination these two realms (Subject-Centered and Man-Centered) generate patterns of language suggesting that value clarification is occurring in light of accurate conceptualization, and contrary-wise, that efforts at value clarification are being conceptualized and made available for reflective study. The third set of categories (Realm II) provides alternative patterns for influencing behavior which either the teacher or the students may use to elicit categories and configurations of language functional to social inquiry. The two Non-verbal categories indicate the relationship (s) between the nonverbal and verbal behaviors occurring during classroom interaction.

The SSOR may be applied to teacher and student behaviors in a number of ways. The following are illustrative of some of its uses:

- 1) To become more sensitive to language patterns being employed in the classroom;
- 2) To collect objective, descriptive data relevant to instructional objectives;
- 3) To operationalize instructional theories, strategies, and techniques; and
- 4) To help teachers shape their verbal patterns of behavior to fit their purposes.

The intent of this 'introductory packet' is to initiate you to the concepts and vocabulary employed by the SSOR and to enable you to interpret SSOR data in light of your own instructional objectives.

THE SSOR: AN OVERVIEW OF FUNCTIONS*

REALM	CATEGORY OF STATEMENT	FUNCTION**
I. Subject-Centered	1. Topical 2. Empirical 3. Interpretive 4. Defining 5. Clarifying	identifying the focus stating facts assigning meaning avoiding semantical confusion elaborating ideas
II. Teacher-Centered	6. Infirmiting 7. Commentary 8. Dissonant 9. Interrogative 10. Confirming	critizing consolidating and structuring requesting clarification eliciting responses reinforcing
III. Man-Centered	11. Preferential 12. Consequential 13. Criterial 14. Imperative 15. Emotive	assigning value ratings anticipating effects identifying the basis considering decisions expressing feelings
IV. Non-Verbal	16. Silence 17. Confusion	wait time adjustment time

* The functions as given are meant to be illustrative but not inclusive.
 (Source: J. Doyle Casteel and Robert J. Stahl, c. 1972)

SSOR: SHORT DEFINITIONS*

REMARK		SHORT DEFINITIONS	
CATEGORY OF STATEMENT			
I. SUBJECT-CENTERED	1. Topical	Student statements identifying the theme, unit, concept, issue, or problem on which group discussion is focused.	
	2. Duplicative	Student statements providing verifiable data from memory, observation, reading, or oral presentation.	
	3. Interpretive	Student statements analyzing meaning to data or experience and expressed as notions, opinions, comparisons, relationships, and connections.	
	4. Defining	Student statements as to the meaning of a word or concept by reference to an accepted source, by context, by examples, by operant criteria, or by ideal type.	
	5. Clarifying	Student statements rewording, rephrasing, elaborating on, or expanding on other statements by way of explanation.	
	6. Affirming	Teacher or student statements of rejection, criticism, closure, or dissatisfaction expressed sarcastically, doctrinally, or negatively.	
	7. Commentary	Teacher or student statements reviewing or summarizing the directions of a group; or teacher statements summarizing, consolidating, structuring, providing new information, new directions, or responding to student requests for information.	
	8. Dismissal	Teacher or student statements indicating that what is being said is not understood, is causing confusion, or lacks either internal or external consistency.	
	9. Interrogative	Teacher or student questions expressed during group interaction.	
	10. Confronting	Teacher or student statements expressing acceptance, satisfaction, encouragement, or praise.	
	11. Preferential	Student statements assigning a value rating or classification to an idea, person, group, object, etc.	
	12. Consequential	Student statements identifying the known or anticipated effects of an action, idea, object, feeling, etc.	
	13. Criterial	Student statements identifying the basis for a decision, a judgment, an action, an interpretation, etc.; or, developing a table of specifications for use in decision-making.	
	14. Imperative	Student statements of what should or should not be; of what ought or ought not to be done; or expressing a decision achieved by the group.	
	15. Motivive	Student statements indicating personal feelings; or, efforts to express empathy, regarding the personal feelings of others.	
	16. Silence	Period indicating quiet, absence of verbal interaction, reading, thinking, non-verbal activities, or work.	
	17. Confusion	Verbal or non-verbal interference or commotion causing communication difficulties within the group.	

All teacher-talk must be recorded in one of the control categories
 Student statements may also be recorded in the control realm.

J. Doyle Casteel and Robert J. Stahl. (c. 1973)

SSOR DATA COLLECTION FORM

(Caststeel and Stahl)

<u>16</u>																			
<u>7</u>	<u>3</u>	<u>(16)</u>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>7</u>	<u>11</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>9</u>	<u>11</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>16</u>	<u>15</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>9</u>	<u>3</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>9</u>	<u>3</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>2</u>	<u>9</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>2</u>	<u>9</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>10</u>	<u>6</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>7</u>	<u>7</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>7</u>	<u>7</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>9</u>	<u>7</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>9</u>	<u>9</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>17</u>	<u>9</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>6</u>	<u>2</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>7</u>	<u>3</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>7</u>	<u>6</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>8</u>	<u>11</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>2</u>	<u>3</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>2</u>	<u>2</u>		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>			

OBSERVED Sample for demonstration DATE 1 17 TOPIC _____
 OBSERVOR _____ PLACE _____ TIME _____
 OTHER _____



SSOR SCATTER DIAGRAM

Code No. _____

J. Doyle Casteel and Robert J. Stahl (c. 1972)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
1																		
2		X																
3			X															
4				X														
5					X													
6						X												
7							X											
8								X										
9									X									
10										X								
11											X							
12												X						
13													X					
14														X				
15															X			
16																X		
17																	X	
Total																		

Observed: _____

Date: / / 73

Topic: _____

SOCIAL SCIENCE OBSERVATION RECORD (SSOR) MATRIX

J. Doyle Casteel and Robert J. Stahl (c. 1973)
 College of Education, University of Florida

	1. Topical	2. Empirical	3. Interpretive	4. Defining	5. Clarifying	6. Inframing	7. Commentary	8. Dissonant	9. Interrogative	10. Confirming	11. Preferential	12. Consequential	13. Criterial	14. Imperative	15. Emotive	16. Silence	17. Confusion
1. Topical																	
2. Empirical																	
3. Interpretive																	
4. Defining																	
5. Clarifying																	
6. Inframing																	
7. Commentary																	
8. Dissonant																	
9. Interrogative																	
10. Confirming																	
11. Preferential																	
12. Consequential																	
13. Criterial																	
14. Imperative																	
15. Emotive																	
16. Silence																	
17. Confusion																	

SOCIAL SCIENCE OBSERVATION RECORD (SSOR) MATRIX

J. Doyle Castool and Robert J. Stahl (c. 1973)
College of Education, University of Florida

Code _____

	1. Topical	2. Empirical	3. Interpretive	4. Defining	5. Clarifying	6. Infirming	7. Commentary	8. Dissident	9. Interrogative	10. Confirming	11. Preferential	12. Consequential	13. Criterial	14. Imperative	15. Exhortive	16. Silence	17. Confusion	Total
1. Topical																		
2. Empirical																		
3. Interpretive																		
4. Defining																		
5. Clarifying																		
6. Infirming																		
7. Commentary																		
8. Dissident																		
9. Interrogative																		
10. Confirming																		
11. Preferential																		
12. Consequential																		
13. Criterial																		
14. Imperative																		
15. Exhortive																		
16. Silence																		
17. Confusion																		
Totals (No.)																		
Totals (%)																		

REALM TOTALS/% I _____ / _____ % II _____ / _____ % III _____ / _____ % IV _____ / _____ %

Total Count _____ Cells Reached (289) _____ Categories Used (17) _____
 Extended State Cells (17) _____ Ext. State Cell Freq. _____ 7-9 Count _____

Subm. Use (No.): A _____ B _____ C _____ D _____ E _____ F _____ G _____ H _____ I _____ J _____ K _____ L _____ TOTAL _____
 Sub. Use (%): A _____ B _____ C _____ D _____ E _____ F _____ G _____ H _____ I _____ J _____ K _____ L _____ TOTAL _____
 Sub. Use (Cells): A _____ B _____ C _____ D _____ E _____ F _____ G _____ H _____ I _____ J _____ K _____ L _____ TOTAL _____

Name of Observed _____ Date _____ / _____ / 77 Place _____
 Observer _____ Conditions _____ Topic _____
 Time Observed _____ min. / _____ sec. Total Time _____ min. / _____ sec. Sex: M F Age _____
 Other _____

The Twelve Submatrices of the Social Science Observation Record

J. Doyle Casteel and Robert J. Stahl (c. 1973)
College of Education, University of Florida

	17. Confusion			
	16. Silence			
	15. Emotive			
	14. Imperative			
	13. Criterial			
	12. Consequential			
	11. Preferential			
	10. Confirming			
	9. Interrogative			
	8. Dissonant			
	7. Commentary			
	6. Infirmiting			
	5. Clarifying			
	4. Defining			
	3. Interpretive			
	2. Empirical			
	1. Topical			
1. Topical	A	B	C	
2. Empirical				
3. Interpretive				
4. Defining				
5. Clarifying				
6. Infirmiting	D	E	F	J
7. Commentary				
8. Dissonant				
9. Interrogative				
10. Confirming				
11. Preferential	G	H	I	J
12. Consequential				
13. Criterial				
14. Imperative				
15. Emotive				
16. Silence	K	K	K	L
17. Confusion				

DESCRIPTION OF SSOR SUBMATRICES*

<u>SUBMATRIX</u>	<u>DESCRIPTION</u>
A	twenty five (25) cells showing patterns of student Subject-Centered statements following student Subject-Centered statements.
B	twenty-five (25) cells showing patterns of teacher or student Teacher-Centered statements following student Subject-Centered statements.
C	twenty-five (25) cells showing patterns of student Man-Centered statements following student Subject-Centered statements.
D	twenty-five (25) cells showing patterns of student Subject-Centered statements following teacher or student Teacher-Centered statements
E	twenty-five (25) cells showing patterns of teacher or student Teacher-Centered statements following teacher or student Teacher-Centered statements
F	twenty-five (25) cells showing patterns of student Man-Centered statements following teacher or student Teacher-Centered statements.
G	twenty-five (25) cells showing patterns of student Subject-Centered statements following student Man-Centered statements.
H	twenty-five (25) cells showing patterns of teacher or student Teacher-Centered statements following student Man-Centered statements.
I	twenty-five (25) cells showing patterns of student Man-Centered statements following student Man-Centered statements.
J	thirty (30) cells showing patterns of Non-Verbal behaviors following teacher and student verbal behaviors
K	thirty (30) cells showing patterns of teacher or student verbal statements following Non-Verbal statements.
L	four (4) cells showing patterns of Non-Verbal behaviors following other Non-Verbal behaviors.

*Submatrices enable the teacher or researcher to collect and quantify different aspects of classroom verbal and non-verbal behavior patterns.

J Doyle Casteel and Robert J Stahl, (c. 1973)

SSOR Submatrices

A Diagram of Realm Relationships

		Subject-centered Realm 1. 2. 3. 4. 5.	Teacher-centered Realm 6. 7. 8. 9. 10.	Man-centered Realm 11. 12. 13. 14. 15.	Non-verbal Realm 16. 17.	
1. 2. 3. 4. 5.	Subject-centered Realm	Student Followed by Student A	Student Followed by Teacher B	Student Followed by Student C	Verbal followed by non-verbal behavior J	
6. 7. 8. 9. 10.	Teacher-centered Realm	Teacher Followed by Student D	Teacher Followed by Teacher E	Teacher Followed by Student F		
11. 12. 13. 14. 15.	Man-centered Realm	Student Followed by Student G	Student Followed by Teacher H	Student Followed by Student I		
16. 17.	Non-verbal Realm	Non-verbal followed by verbal behavior K				Non-verbal followed by Non-verbal L

BACKGROUND ; MATRIX ON VIOLENCE AND AMERICAN POLITICS

- Setting: A public junior high school
- Students: Seventh graders in a conventional group of approximately 30 studying humanities.
- Source of Objectives: The student teacher being observed selected and stated his own objectives.
- Objectives:
1. List social and political consequences of the assassination attempt directed at Governor Wallace
 2. Develop some steps Americans might take to reduce violence in American society and politics.

SOCIAL SCIENCE OBSERVATION RECORD (SSOR) MATRIX

J. Doyle Casteel and Robert J. Stahl (c. 1973)
College of Education, University of Florida

Code: Sample

	1. Topical	2. Empirical	3. Interpretive	4. Defining	5. Clarifying	6. Infirming	7. Commentary	8. Dissonant	9. Interrogative	10. Confirming	11. Preferential	12. Consequential	13. Criterial	14. Imperative	15. Emotive	16. Silence	17. Confusion	Total	
1. Topical																		0	
2. Empirical		16	3			3	1			2				1			5	31	
3. Interpretive		3	11				2	1	1	1	1			1				21	
4. Defining																		0	
5. Clarifying																		0	
6. Infirming		2	1			4	3	1	1								1	4	17
7. Commentary		2	4				11	1		1					1		1	4	25
8. Dissonant		5				5	6	2						2	1		2	23	
9. Interrogative			1						1		1							3	
10. Confirming						1	1	2									2	6	
11. Preferential						1									1			2	
12. Consequential																		0	
13. Criterial																		0	
14. Imperative						1								3			3	7	
15. Emotive		2				1												3	
16. Silence		1	1			1	1											4	
17. Confusion								16		2								18	
Totals (No.)	0	31	21	0	0	17	25	23	3	6	2	0	0	7	3	4	18	160	
Totals (%)	0	19	13	0	0	11	16	14	2	4	1	0	0	4	2	2	11	99	

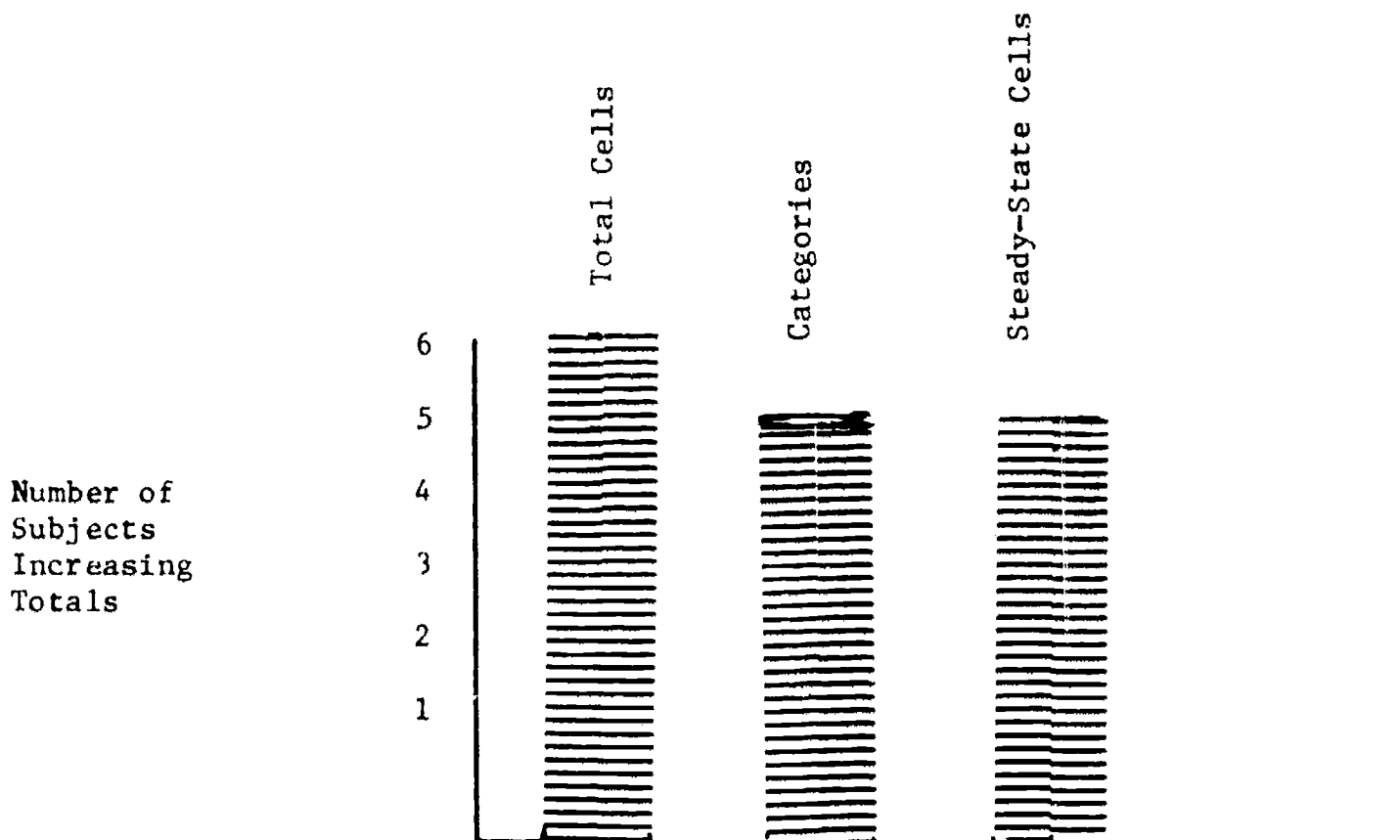
REALM TOTALS/% I 52 / _____ % II 74 / _____ % III 12 / _____ % IV 22 / _____ %

Total Count 160 Cells Reached (289) 58 Categories Used (17) 12
Extended State Cells (17) 7 Ext. State Cell Freq. 48 7-9 Count 0

Subm. Use (No.): A 33 B 11 C 3 D 15 E 40 F 5 G 2 H 3 I 4 J 22 K 22 L 0 TOTAL 160
Sub. Use (%): A _____ B _____ C _____ D _____ E _____ F _____ G _____ H _____ I _____ J _____ K _____ L _____ TOTAL _____
Sub. Use (Cells): A 4 B 7 C 3 D 6 E 14 F 4 G 1 H 3 I 2 J 8 K 6 L 0 TOTAL 58

Pre-Post Behavioral Modification Study Using the SSOR as the Intervention

Report on a study using six interns from February 22 to March 2, 1972 data collected at P. K. Yonge Laboratory School.



Raw Data Reported:*

Total Cells Used

Subj.	1st	2nd	Diff.
A	44	57	+13
B	74	75	+ 1
C	70	77	+ 7
D	59	85	+26
E	36	58	+22
F	58	60	+ 2
MEAN	56.8	68.8	+11.8

Categories Used

Subj.	1st	2nd	Diff.
A	10	12	+ 2
B	13	14	+ 1
C	15	14	- 1
D	13	14	+ 1
E	11	14	+ 3
F	12	13	+ 1
MEAN	12.3	13.5	+ 1.2

Steady-state Cells Used

Subj.	1st	2nd	Diff.
A	7	9	+ 2
B	9	12	+ 3
C	10	9	- 1
D	8	11	+ 2
E	6	9	+ 3
F	9	10	+ 1
MEAN	8.2	10.0	+ 1.8

* At the time of this study, the Social Science Observation Record (SSOR) had only 16 categories and 256 cells.