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Interaction Analysis of St. Elmo Elementary School

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INTERACTION ANALYSIS

OF ST. ELMO ELEMENTARY SCHOOL

(TITLE)

BY

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I HEREBY RECOMMEND THIS PLAN B PAPER BE ACCEPTED AS
FULFILLING THIS PART OF THE DEGREE, M.S. IN ED.

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INTRODUCTION

As I look over the classrooms I see many things. I see boys
and girls that are clean and well-groomed, and I see boys and girls
who have worn the same dresses or pairs of trousers for a week or
two. I see boys with crew-cuts, and boys who have not had a haircut
since school started. I see boys and girls who are healthy as a
result of a good balanced diet, and boys and girls whose stomachs are
bloated from lack of a well balanced diet. I see tall boys and girls
and short boys and girls. I see boys and girls who are orphaned
because of divorce or death who need love and affection badly, and
the school is the only place where they get these two basic needs. I
see boys and girls who thrive on difficult and challenging materials,
and boys and girls who have a blank look or tears in their eyes from
trying to do simple addition. I see boys and girls who make A's
without trying, and boys and girls who couldn't make an A no matter
how hard they tried. I see boys and girls that come from the better
section of town, and boys and girls who come from across the tracks.
I see Catholic and Protestant boys and girls. I see in each face a
unique being, different in some way from any other being in the world.
I see each child as a bundle of possibilities. I see each child with
certain capacities and potential abilities, with problems and needs.
The law say that each of these children will be educated to make the
most of himself and serve society, regardless of race, creed, or back-
ground. All of these different things that I see in the classrooms can
be seen in any classroom over the United States, or the world.

Whose job is it to educate these children who differ in abilities, capabilities, and environment? It is the teacher's job. In going about this seemingly impossible task, the teacher makes use of several methods of teaching. Teaching may be thought of as a series of actions in the classroom over a period of time.

The teacher in the elementary school carries the greatest share of responsibility regarding the learning that goes on in the classroom. Although there are many other factors involved, the teacher is the one who makes decisions; and it is she who gears the timing of the factors that promote as well as impede, learning. It is the proper use of these factors that move students forward at their optimum speed.

The best kind of learning is highly dependent on the establishment of a spirit of wanting to know, and the creation of such a spirit is largely dependent upon the teacher. The teacher has the power to add or detract from optimum learning.

This paper deals with just one of the factors of teaching. This factor is the verbal interaction between teacher and students. It is the communication that goes on between the teacher and students in the classroom situation.

There is no better way to do research on teaching than direct observation. I observed teachers as they were teaching and students as they learned. I tried to observe how the teacher actually teaches and how the student actually learns.

In using the interaction analysis, I have tried to clarify the role of the teacher in the learning situation, the nature of the teacher's activities, and the way the teacher relates to his pupils.

I hope to prove that learning involves the learner and the teacher, each reacting to the behavior of the other. Learning is a two-way process in which the teacher and pupil are engaged.

The purpose of this study is to describe objectively the way teachers carry out their role in the elementary classrooms.

I have used "Flander's Interaction Analysis' system for classifying the verbal interaction that takes place between teacher and student. I have attempted to find out the kinds of teacher-student interaction patterns present in the reading classes of the elementary classrooms. I have also attempted to find what differences in interaction patterns, if any, exist among the five grade levels in reading instruction.

Each grade from one to five is divided into two classrooms. Each grade is divided as evenly as possibly according to academic achievement. There is a total of ten classrooms which are self-contained. The elementary school has a total of 198 students.

With the cooperation of each teacher, I observed each reading class for a period of 30 minutes. I made three observations for each class. This gave me a total of ninety minutes of classroom observation for each reading class. I spent a total of 1,080 minutes in classroom observation.

While observing each class I saw teachers teaching and pupils learning. I saw better teachers and poorer teachers. I saw effective and ineffective methods put to use. I saw the skillful and unskillful use of theory.

The task of the observer was to observe the events that take place in the classroom. I was concerned with only the verbal events

which were recorded in score form. I had to select those aspects of
behavior relevant to the scoring process. I want to make it clear
that I do not intend to use these aspects to point out good teachers
and bad teachers.

THE INTERACTION ANALYSIS PROCESS

The Flanders Interaction Analysis is used in this study for
classifying the verbal interaction that takes place between teacher
and pupil. For this purpose the system employs a ten-category scheme
which falls into three broad divisions: (1) teacher-talk, (2) student-
talk, and (3) silence or confusion. The ten categories were used to
classify the statements of the pupils and the teachers at a rate of
approximately once every three seconds. An observer can categorize
at this rate with sufficient accuracy and the teacher and students
can adjust to the presence of the observer.

The ten categories included seven assigned to teacher-talk, two
to student-talk, and one to silence or confusion.

Teacher-talk: 1. accepting student feelings; 2. giving praise;
3. accepting, clarifying, or making use of a student's ideas; 4. asking
a question; 5. lecturing, giving facts or opinions; 6. giving
directions; or 7. criticizing or justifying student talk; 8. student
response; 9. student initiation; 10. silence or confusion.[1] (See
Fig. 1)

This method of observation can be used to quantify the qualita-
tive aspects of verbal communication within the classroom. It provides

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[1]D. M. Medley and Harold E. Mitzel, "Measuring Classroom Behavior
by Systematic Observation," Handbook of Research on Teaching, A Pro-
ject of the American Educational Research Association, Department of
the N.E.A. (Chicago: Rand McNally and Co., 1963), p. 272.

Figure 1

Categories for Interaction Analysis
Minnesota, 1959*

1. Accepts Feeling: Accepts and clarifies the feeling tone of the students in a nonthreatening manner. Feelings may be positive or negative. Predicting or recalling feelings are included.

INDIRECT

INFLUENCE

2. Praises or Encourages: Praises or encourages student action or behavior. Jokes that release tension, not at the expense of another individual, noding head or saying, "um hm" or "go on" are included.

3. Accepts or Uses Ideas of Student: Clarifying, building, or developing ideas suggested by a student. As teacher brings more of his own ideas into play, shift to Category 5.

TEACHER

4. Asks Questions: Asking a question about content or procedure, with the intent that a student answer.

TALK

5. Lecturing: Giving facts or opinions about content or procedure, expressing his own ideas, asking rhetorical questions.

6. Giving Directions: Directions, commands, or orders to which a student is expected to comply.

DIRECT

INFLUENCE

7. Criticizing or Justifying Authority: Statements intended to change student behavior from nonacceptable to acceptable pattern, bawling someone out, stating why the teacher is doing what he is doing, extreme self-reference.

8. Student Talk—Response: Talk by students in response to teacher. Teacher initiates the contact or solicits student statement.

STUDENT

TALK

9. Student Talk—Initiation: Talk by students which they initiate. If "calling on" student is only to indicate who may talk next, observer must decide whether student wanted to talk. If he did, use this category.

10. Silence or Confusion: Pauses, short periods of silence, and periods of confusion in which communication cannot be understood by the observer.

*Adapted from Flanders (1960, Appendix F, p. 5).

information about only a few of the many aspects of teaching. It is an analysis of spontaneous communication between individuals, and it is of no value if no one is talking, if one person talks all the time, or if one person reads from a book or a report.[2]

Of the total process called "Teaching," interaction analysis applies only to the content-free characteristics of verbal communication. The verbal communication takes place as teacher and pupils react to each others' responses.

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[2]Bruce J. Biddle and William J. Ellena, _Contemporary Research on Teacher Effectiveness_ (New York: Holt, Rinehart, and Winston, 1965), p. 198.

THE RECORDING PROCESS

At the end of each three-second period I decided which of the ten categories best represented the "communication behavior" and wrote down the number of that category which observing the next three-second period. The numbers are written in sequence in a column. At the end of a thirty-minute observation period, I would have approximately 600 numbers tallied. After three observation periods, I had an over-all picture of the reading instruction in that classroom.

After I had tabulated the data from each classroom reading period, I entered the tallies on a 10X10 matrix,[3] each categorization being tallied opposite the number of the one just preceding it and below its own number. In order to ensure that a matrix is symmetrical, a 10 is added at the beginning and the end of each tabulation.

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[3]Medley, op. cit., p. 273.

AREAS OF INFLUENCE

I tallied each thirty-minute observation period on a single
matrix to give an over-all pattern of interaction in the reading
class.

Categories one to four represent indirect influence in varying
degrees--category one allowing the pupil the most freedom, category 4
the least, categories 5 to 7 represent increasing amounts of direct
influence. Categories 8 and 9 represent different levels of teacher
influence as inferred from pupil behavior; category 10 is an escape
category for unclassifiable three-second periods. These areas of
influence are shown on the matrix for each period of each reading class.

By counting the tallies in each category, I found the I/D ratios
for each teacher. The I/D ratios are the number of tallies in
categories 1-3 to the number of tallies in categories 6-7. These are
based on the over-all performance of the teacher and pupils. The I/D
ratios are used in this study to compare one teacher with another.
These ratios are also used to compare behaviors of a teacher in one
type of situation with behaviors of the same teacher in another type
of situation.

The percentage of teacher-talk and student-talk was also found from
the interaction analysis. These are used the same way the I/D ratios
are used.

ANALYSIS OF F-1 READING SESSIONS

While visiting this first grade classroom one could not help being aware of the total learning environment present. It was evident that the teacher had gone to great lengths to create the best learning atmosphere possible.

The lighting was so regulated as to be at the advantage of the student without resulting in glare off the study material. The pupil's desk was not stationary so they could move around where ever they had to work, in groups or individually.

The room was a bright and cheery place to be. The flannel board had phonetics displayed on it to catch the attention of the pupils. The bulletin board had an attractive display to bring the characters of the pupil's reader to life.

All types of learning materials were available for the students to use. A sandbox was in the back of the room so that the pupils could practice printing their letters. This proved quite effective for the slower pupils. Cards were placed around the room for the convenience of the pupils. There would be groups of two or three pupils playing games with these. Filmstrip projectors, filmstrip viewers, tape recorders, opaque projectors, and over-head projectors are used to reinforce learning for these pupils. The outside world is brought into the classroom by these different audio-visual machines.

The first visitation was that of a slow reading group. The teacher spent most of her time asking questions and getting responses

from her pupils. These pupils were aware that they were slow readers, and it appeared that it was pure drudgery just getting anything out of them. The pupils did not comprehend word meaning or the short sentences.

This was a teacher-directed teaching situation as shown in Figure 2. The teacher would ask questions about the pictures in the story and the pupils would respond with an answer. The teacher did little criticizing for wrong answers. She accepted each child's response; if wrong, she corrected it, and if right, she reinforced it. The few instances of criticism were for pupils not paying attention or talking out of turn.

As Figure 2 shows, the teacher is reacting to the pupil's responses. It seemed that the presence of even one student who responds from the stimulus of the teacher sets the stage for further learning. It is carried further by the teacher and maybe by the other students. The teacher made use of everyday events that lead to creative learning.

The teacher sought to arouse the pupil's curiosity, to inform, and to stimulate the pupils. The teacher asked questions that seemed to bring the world or part of it into the classroom.

She encouraged the pupils to bring their hobbies, pets, and toys into the classroom. She brought in the books and magazines she thought the pupils will find stimulating.

It was evident that the teacher had to work very hard to draw out responses from these pupils of slow reading ability.

Figures 3 and 4 show the communication pattern between teacher and pupils of an average and above reading group. One can readily see that more pupil participation is taking place. Possibly one

explanation for this was that no observer was present in this situation.
I used a tape recorder to record these two sessions. The presence of
an observer might have caused the first group of pupils to be more
restrained.

Figures 3 and 4 show very little indirect influence by the teacher.
This is a teacher directed learning situation. The directed situation
was controlled by the teacher asking questions and getting responses
from the pupils. The teacher spent quite a bit of time explaining new
material that the pupils would encounter in their readers.

Although the teacher talked a lot more, so did the pupils.
These pupils had a wider vocabulary than did the slower group, thus
taking up more time in telling experiences and responding to the
teacher.

Even though this was a question and answer situation, it seemed
that student participation was not restricted to any real extent. The
pupils felt accepted by the teacher and responded at will. It did
seem that the pupils were very eager to please the teacher and were
very dependent upon her. The pupils would periodically check their work
with the teacher to make sure they were doing the right thing. They did
a lot of checking with the teacher before going ahead on their own.
Acquiring teacher approval was very important to them.

This teacher was very concerned with creating an environment that
is favorable to learning. She reacted to untrue comments of pupils in
different ways, according to the pupil. She would ask the pupil to
explain his or her point of view, or she would restate the pupil's
comment and ask the pupil if this is what the pupil meant. She would
try to help the pupil refine or correct his or her statement. This

resulted in the pupil's coming out of this experience with a clearer view of his performance.

As shown in Table 2, categories 4 asking questions, 5 - teacher lecturing, and 8 - student response, make up most of the communication pattern within this classroom. This shows that the pupils have made preparation to answer the questions and experience success in this endeavor. Their answers are reinforced or corrected by the teacher or classmates.

The teacher's main way of communicating to pupils is by speaking or other forms of oral expression. There was a continuous feedback of corrections between teacher and pupil. Most of the discussion was on the content and facts of the basal reading text. The pupils were relatively free to express their feelings to the class and teacher.

The ratio of indirect influence to direct influence as shown on Table X is .49. If this teacher used direct influence evenly with indirect influence the I/D ratio would have been 1.00. It is apparent that this teacher is somewhat flexible in her approach; she relies mostly on the direct control of her classroom. Even though she does not control the group by giving directions or criticizing, she controls it by asking questions which in turn controls the pupil's response.

This teacher assumed a variety of roles. One role that varied from active dominative supervision, on the one hand, to reflective, discriminating support on the other hand. The teacher by changing from directive to indirective was able to achieve compliance but also to support and encourage pupil initiative.

Tables Y and Z show that percentage of the tallies that are teacher-talk and student-talk. Again the teacher's directed influence

is shown by the fact that the teacher talked 59 percent of the tallies and the students talked only 36 percent. This proportion shows that the teacher still allowed the pupils to be an active participant in the learning situation. The pupil has to be an active participant in the learning process, and not a mere bystander.

The most outstanding feature noticed while observing was the fact that this teacher accepted each individual as he was. This ability of the teacher to accept her pupils can largely determine the success or failure of a teacher.

Figure 2

Matrix of Areas of Interest,
Slow Readers, F-1

15

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling				2						
2. Teacher Praises	1	D		3	1	2				
3. Teacher Accepts/Uses Ideas				2			1	H		
4. Teacher Asks Questions							1	46		2
5. Teacher Lectures				1				1		
6. Teacher Gives Directions				7	E		1	7	2	
7. Teacher Criticezes/Justifies		1		3		1				
8. Student Responds	1	6	1	27		13	3		1	2
9. Student Initiates			2	F	1			G		
10. Silence/Confusion				3		1				
TOTALS	A. Teacher Talk							B. Student Talk	C	

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Figure 3

Matrix of Areas of Interest,
Average Readers, F-1

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	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling				4					1	
2. Teacher Praises		D		1		1	6	1		1
3. Teacher Accepts/Uses Ideas								H		
4. Teacher Asks Questions		1			2	2	1	52		4
5. Teacher Lectures	1			15	30	4	2	11	5	1
6. Teacher Gives Directions				7	E	11	1	6		4
7. Teacher Criticizes/Justifies				3	3	1	2	3		1
8. Student Responds	1	8		28	22	12	4	50	1	2
9. Student Initiates	1			F 2	1	1	2	G		
10. Silence/Confusion		1		6	1	2	1	2		

| TOTALS | A. Teacher Talk | | | | | | | B. Student Talk | | C |

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Figure 4

Matrix of Areas of Interest,
Average Readers, F-1

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling				3	3				3	
2. Teacher Praises	3	D	1	2	3	4				
3. Teacher Accepts/Uses Ideas				1		1		H	1	
4. Teacher Asks Questions					1	3		71		2
5. Teacher Lectures	3			32	24	7	1	8	7	2
6. Teacher Gives Directions	1			8	E	1	1	6	2	1
7. Teacher Criticizes/Justifies				1	1	1				
8. Student Responds		12	1	25	37	7	1	17	1	1
9. Student Initiates	2	1	1	F	8			G		
10. Silence/Confusion				3	2	1				6

TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

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Table 2

Interaction Analysis Categories for F-1 Class

Category   Number of Tallies

```
            20   40   60   80   100  120  140  160  180  200  220  240
      1   XXXX

      2   XXXXXXX

      3   XX

      4   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

      5   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

      6   XXXXXXXXXXXXXXXXXXXXXXXXX

      7   XXXXXX

      8   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

      9   XXXXXX

     10   XXXXXXX
```

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INTERACTION ANALYSIS OF G-1 READING SESSIONS

The physical surroundings in this classroom are very similar to the other first grade room. The flannel board and bulletin board are in full color to stimulate and motivate the pupils to learn. The same audio-visual devices are present and used by this teacher.

The teacher has accepted her role as a helper of the pupils to learn. She has accepted each child as he is. The teacher made it very evident that she accepted each of her pupils regardless of the pupil's background. Over one-third of this class was made up of children from the lower socio-economic level of the school district.

The teacher took an interest in the child's activities. She asked the pupils questions about the experiences they had had. She made complimentary comments on the way they dressed or upon the good work they did.

Figure 5 shows the matrix from the first observation of a first grade slow reading group. From previous experience I used the tape recorder with this group because I felt that my presence would only cause the pupils to withdraw more.

The matrix in Figure 5 shows the two main areas of influence as the teacher reacting to the responses of the pupils and the pupils responding as the result of stimulations from the teacher's questions. The matrix in Figure 5 indicates no indirect influence on the part of the teacher. The teacher did not accept or clarify the feelings or

responses of the pupils because the pupils did not express any feelings
one way or the other.

Area E which represents the direct influence pairs was also
absent in this reading class. The only directions given were very
simple ones like "open your book" or "close your book".

The teacher could not keep the pupils talking at very long lengths.
Again I think limited vocabulary and limited experience as a result of
environment were the causes of this. This shows up in Area G of
Figure 5.

It was apparent that the teacher tried to do less talking in order
to maintain a discussion among the pupils. This was not always
successful. Even though the pupils did not often express ideas of their
own the teacher praised and encouraged them. It sometimes seemed to
me that the teacher was fighting a losing battle.

This was essentially a question and answer type learning situation.
It was directed by the teacher for the simple reason that the teacher
asked the questions even though it does not show up on the matrix.

Figure 6 is the matrix of the analysis of the verbal communication
in an average reading group. This group makes regular progress in
reading activities with the use of a basal text. More direct influence
by the teacher is evident. Also more student participation is seen.
This is still mainly a question and answer period; but the answers are
more sustained even though they are initiated by the teacher.

The teacher is trying in this class not to ask so many questions
so that she will not get in the way of the pupil's desire to ask his
own questions. The teacher is trying to help the pupils ask questions
on their own. The led to discussion by pupils--pupil discussion and
pupil-teacher discussion. This is the desired two-way communication

that helps pupils become creative people.

The communication pattern of a fast-reading group made up of top readers is shown in the matrix Figure 7. The basic communication pattern showing up in this situation is the question and answer inter-action between the teacher and pupils. Very little indirect influence by the teacher shows up on the matrix. This session covered the discussion period over a story that these pupils had read before. The teacher was concerned more with the facts and content of the story. The pupils were confined more to the content of the story than to relating ideas of their own. This shows in the heavy tallying in areas F and H in the matrix.

In this group of readers the tallying was more dense in area G (Figure 7) than with the other two reading groups. This was because the pupils responded to the teacher's questions with more detailed answers. Also the discussion was among the other pupils after the teacher had asked a question which stimulated the pupils to respond.

After the teacher asked the question she usually called on a certain pupil to answer. She initiated all responses and discussion in this matter. There was no initiation on the part of the pupils to discuss any content of the story.

As shown in area E in the matrix Figure 7 there were more teacher-directed tallies with this fast-reading group than there were in the slow and average reading groups.

This was the result of more activities being done by this group which the teacher felt warranted more clarifying of concepts and giving directions.

Much of what went on in this reading class was little more than lesson hearing, lecturing, or question and answer type activity. Table 3 seems to verify that this class pattern of verbal behavior was mainly directed by the teacher's questions and the pupil's responses. The teacher put a lot of emphasis on facts from the text. The teacher restricted pupil participation in the classroom by asking questions. This restricted the subject for discussion by the pupils.

The indirect to direct ratio shown on Table 10 for this teacher was .75. The teacher's role was not very flexible in the class. Figures 5 and 6 show the verbal pattern to be mainly question and answer communication and Figure 7 to a more teacher-directed situation. The pupils were restricted to answering story facts and content oriented questions.

The teacher did not expand the pupil's freedom of expressing himself in his own direction. They were restricted to answering the teacher's questions. The teacher exerted direct control in order to focus on a particular idea or problem in order to achieve compliance or in order to correct mistaken ideas. In doing this, she talked more (Table Y) and took a more dominant role in the classroom (Table X).

By the teacher's assuming more direct control the pupils were restricted in their verbal behavior also. (Table Z) The students talked 47 percent of one thousand and ten tallies.

The teacher was intent on instructing her pupils in facts and skills, and less intent on developing the total personality of the child. The pupil was given less opportunity to participate in verbal interaction and was restricted in area H when he did speak. Most of the student talk was the answering of the teacher's questions.

Figure 5

Matrix of Areas of Interest, Slow Readers, G-1

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling										
2. Teacher Praises	D	1	14	2	2			3	3	
3. Teacher Accepts/Uses Ideas			4		1			H	4	
4. Teacher Asks Questions	1				1			87	11	4
5. Teacher Lectures			3		1				1	
6. Teacher Gives Directions			11	E				6	3	1
7. Teacher Criticizes/Justifies			1		1					
8. Student Responds	19	5	59	1	12	2				
9. Student Initiates	5	5	F		1			G		
10. Silence/Confusion			1	2	2					
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Figure 6

Matrix of Areas of Interest, Average Readers, G-1

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling				1	1					1
2. Teacher Praises	1	D	1	1						
3. Teacher Accepts/Uses Ideas		1			1			H	2	
4. Teacher Asks Questions			1		2	1		71	2	7
5. Teacher Lectures				15	5	3		3	2	
6. Teacher Gives Directions	1			5	E	2		7		
7. Teacher Criticizes/Justifies				2				2		
8. Student Responds	1	1	1	48	12	10	5	41	1	2
9. Student Initiates		1	1	F	4			G	1	
10. Silence/Confusion				8	1	1				

| TOTALS | A. Teacher Talk | | | | | | | B. Student Talk | | C |

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Figure 7

Matrix of Areas of Interest,
Fast Readers, G-1

25

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling		1		2						1
2. Teacher Praises		D	1	6	4	4				
3. Teacher Accepts/Uses Ideas				1				H		
4. Teacher Asks Questions	1				4	5		61		7
5. Teacher Lectures		1		17	21	6		8		
6. Teacher Gives Directions				1	E	4	1	25		1
7. Teacher Criticizes/Justifies				3		1	1	2		
8. Student Responds	3	12		46	18	13	5	145		
9. Student Initiates				F				G		
10. Silence/Confusion				2	4	2		1		

TOTALS

A. Teacher Talk   B. Student Talk   C

D – Indirect Influence Pairs
E – Direct Influence Pairs
F – Teacher Reaction to Student Talking
G – Sustained Student Communication
H – Teacher Stimulates Student Talk

Table 3

Interaction Analysis Categories for G-1 Class

Category   Number of Tallies

```
          20   40   60   80  100  120  140  160  180  200  220  240
        _____

  1     XX

  2     XXXXXXXXXXX

  3     XXXX

  4     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

  5     XXXXXXXXXXXXXXXXXXXXX

  6     XXXXXXXXXXXXXXXX

  7     XXX

  8     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

  9     XXXXXXX

 10     XXXXXX
        _____
```

INTERACTION ANALYSIS OF SC-2 READING SESSIONS

In this classroom I observed the verbal patterns of behavior within the same reading class only at different learning cycles. This was an average reading group. All of these pupils achieved at their grade level on the Stanford Achievement Test.

The first learning cycle was the introduction and discussion of new learning experiences in a story in the basal text before the pupils had read the story. This first cycle was the preparation for reading the story.

The second learning cycle was concerned with discussing the story after the pupils had silently read the story. The pupils and teacher discussed the new vocabulary words, the characters in the story, and the main ideas in the story. This was more of a discussion of the pupil's comprehension of the story.

The third cycle of learning consisted of the teacher and pupils' relating their own everyday experiences with the story characters' experiences. The teacher also stressed the one vowel--silent final E vowel rule. She used many words as examples of this rule.

The first cycle of learning was a readiness experience for the pupils. The teacher was getting the pupils prepared to read the story.

As shown in Figure 8, areas F and H have the heaviest tallies. Area F shows that the teacher initiated most of the discussion by asking questions. Area H shows the pupils responded by answering the teacher's

questions. Area H also indicates that pupils discussed the teacher's questions between themselves and the teacher tried to be a by-stander while the pupils were discussing among themselves. The tallies in category 9 show that many of the responses by the pupils were not solicited by the teacher. Categories 1, 2 and 3 in area F indicate the teacher's acceptance of the pupil's responses. Category 5 in area F shows the teacher correcting, clarifying, and strenthening the pupil's responses.

Although there aren't many tallies in areas D and E, this session was mainly teacher directed because the questions she asked stimulated the responses from the pupils.

This was a teacher-question and a pupil-response behavior pattern. There was an extended response behavior on the pupil's part.

The Figure 9 matrix shows the interaction between teacher and pupils while discussing the story they have just read. The teacher is interested in facts about the characters in the story and its content. The teacher called the pupil's attention to the new words they found in the story.

Area E in Figure 9 represents the teacher's putting heavy emphasis on facts and the dispensing of subject matter. The teacher sees herself as a dispenser of content. She sees her primary role as a teacher to be a short of oral textbook. The teacher had doubts about her students' being able to master the printed page. She digested the reading material and then regurgitated it back to the students.

The teacher underestimated the power of the student to learn through self-study. The teacher spent a lot of time going over the story content and did not work with each individual that apparently needed help.

Areas F and H in Figure 9 show the question and answer character-
istic of this reading session. The pupil participated in this
discussion by answering the teacher's questions. Most of the answers
were short and not expanded into a general pupil between pupil
discussion.

The entire matrix Figure 9 shows the teacher doing most of the
talking and the pupils only answering the direct questions solicited
from the teacher. There was two-way communication, but only in the
form of a question followed by an answer.

This third cycle of learning consists of pupils responding to
teacher's questions and the teacher responding to the pupils'
answers. Figure 10, area E indicates direct influence by the teacher.
This is maintained through the teacher lecturing and giving directions.

Most of the student talk was in the form of answering questions.
There was very little expanded communication on the part of the pupils.
There seemed to be some confusion on the part of the pupils in
comparing their everyday experience with the experiences of the story
characters.

In presenting the new vowel rule, the teacher put some sample
words on the board and asked the pupils to tell whether the vowel was
long or short, whether the final E was silent or not. This in part
explains the question and answer tallies in Areas F and H, Figure 10.

One can easily see by referring to Table 4 where the major areas
of communication between the teacher and pupil lie. Categories one,
two, and three are all under twenty tallies. This represents very little
accepting feelings, praising, and using the ideas of pupils.

Categories 4, 5 and 6 are the different communication patterns used by the teacher to direct the direction of the pupils. Most of this was the asking of questions which brought category 8 up also.

There was some expanding on the part of the pupils which is shown by category 9. This was due to the fact that the questions asked by the teacher did not require or did not stimulate discussion by the pupils.

When the teacher on occasion, tried to ask questions dealing with more abstract problem solving, the pupils apparently did not comprehend this type of question. As a result, category 10 in Table 4 rose.

Interaction analysis of this reading class shows that this class is teacher directed with an indirect-direct ratio of .58 (Table X). The teacher was directive in order to stress the particular ideas and content that she felt important for the pupils to grasp. In doing this, she assumed a more dominant role in the classroom.

In being directive and talking more, 55 percent of tallies (Table Y) she restricted pupil participation in their learning roles other than answering questions. Out of the entire class communication pattern, the pupils talked 32 percent of the tallies. (Table Z) Most of this was answering the teacher's questions. The pupils seemed more interested in pleasing the teacher with correct answers than doing any creative thinking on their own.

Figure 8

Matrix of Areas of Interest, Average Readers, Introduction of Story, SC-2

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling		1	1	2	1			1	1	
2. Teacher Praises		D		4					1	
3. Teacher Accepts/Uses Ideas				3		2		H	3	
4. Teacher Asks Questions	1		1			5		33	16	8
5. Teacher Lectures				3	1	1			5	
6. Teacher Gives Directions				8	E		2	2	8	
7. Teacher Criticizes/Justifies				6		1		1	2	
8. Student Responds	2	3	5	17	3	5	1		2	
9. Student Initiates	4	1	1	20 F	2	6	3	G	2	1
10. Silence/Confusion			1	1	1	2	4			
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Figure 9

Matrix of Areas of Interest, Average Readers, Discussion of Story, SC-2

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling				2	1					
2. Teacher Praises	1	D								
3. Teacher Accepts/Uses Ideas								H	4	
4. Teacher Asks Questions			1	1	1			59	5	5
5. Teacher Lectures				12	28	2			5	1
6. Teacher Gives Directions				2	E	3				1
7. Teacher Criticizes/Justifies				1						
8. Student Responds	2	1	2	39	12	1		7	1	1
9. Student Initiates				F	3			G	7	
10. Silence/Confusion				4	3		1			10
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

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Figure 10

Matrix of Areas of Interest, Average Readers,
Relating Experiences, SC-2

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	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling			1	4					1	
2. Teacher Praises		D		5	1					1
3. Teacher Accepts/Uses Ideas				2	1			H	2	
4. Teacher Asks Questions		1			2	4	2	65	1	11
5. Teacher Lectures				6	6	7	1			
6. Teacher Gives Directions	1	1		12	E	5		2	1	10
7. Teacher Criticizes/Justifies		1		3		2	1			1
8. Student Responds	3	4	3	39	6	11	1	11		
9. Student Initiates	1		1	F				G	3	
10. Silence/Confusion	1			11	1	6	3		1	46
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Table 4

Interaction Analysis Categories for SC-2 Class

Category	Number of Tallies											
	20	40	60	80	100	120	140	160	180	200	220	240
1	XXXXX											
2	XXXX											
3	XXXXX											
4	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX											
5	XXXXXXXXXXXXXXXXXXXX											
6	XXXXXXXXXXXXXX											
7	XXXXX											
8	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX											
9	XXXXXXXXXXXXXXXXXX											
10	XXXXXXXXXXXXXXXXXXXXXXXXXX											

INTERACTION ANALYSIS OF W-2 READING SESSIONS

The personal qualities of the teacher in this class has to be taken into consideration when one makes an interaction analysis of this class. This teacher has been in the unit for a number of years. She is unmarried and has lived a very sheltered life compared to the rest of the teachers. She did teach the fifth grade, but she could not handle the pupils so she was moved down to the second grade. Even though she knew I was going to observe her class and was aware of my purpose of observing, she was visibly upset by having another person in her room. As a result of this I taped the next two reading sessions.

The first reading session that I observed was an average second grade reading class. The teacher was conducting a readiness discussion prior to reading a short story in their basal text. The teacher was building up their interest in wanting to find out what happens to the characters in the story.

In her verbal behavior within the class, the teacher is a warm and understanding person who would not hurt any of her pupils feelings for anything. She asked questions of those pupils who she thought could answer them so as not to embarrass those pupils who could not respond with the correct answer.

As one can see in Figure 11 this readiness session consisted mainly of a question and answer period. The teacher would ask a question and call on a certain pupil to respond. It seemed that only two or three pupils did most of the responding.

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Area F, Figure 11 is the area of influence which has the most tallies in this session. By asking questions the teacher tried to help the pupils become interested in the characters and their actions in this new story. The teacher helped the pupils decide what they would find out about their own environment by reading this story. The teacher tried to secure the correct response the first try. This is why she called on just selected pupils. As a result she did not spend much time reinforcing the pupils' correct responses; nor did she spend much time correcting any incorrect responses.

The teacher did inform the pupils what was expected of them. These expectations were reasonable and appropriate for this age group. The teacher encouraged the pupils to think on their own; but since it was a question and answer type session, this type of verbal interplay did not evoke much original thought.

The teacher controlled the verbal pattern in this session by asking questions and receiving responses from the pupils. Most of the questions were answered in short one or two word sentences or phrases. There was very little communication between pupils.

The indirect influence tallies shown in area D, Figure 11 is the result of the teacher's accepting responses from direct questions. Some of the responses could have been expanded into more meaningful discussions, but they were carried no further than being accepted by the teacher.

The teacher directed the class by asking many mechanical questions which called for no thought on the pupil's part, but a conditioned response kept the class activities moving along smoothly.

The next two reading sessions are of the same group in this class except I taped these in order not to cause any disturbances that might affect the intercommunication between teacher and pupils. I think the taped session was more successful than my personal observation. There was a freer interplay between teacher and pupils than when I was present in the class room.

These two sessions are the verbal patterns of the discussion of the story after the pupils had read it. These two sessions (Figures 12 and 13) are so much alike that I will discuss them together. They are so much alike they could have been tapes of the same session, but they are not.

A glance at Figures 12 and 13 shows that more communication occurred in these sessions than in the first session. One of the reasons is probably because no observer was present and the teacher and pupils felt more in a normal situation. Also all the pupils have read the story now, thus having a common experience to share with each other. As areas H and G, Figures 12 and 13, show the pupils shared this experience with each other more than with the teacher.

Area F, Figures 12 and 13, indicates the teacher's effort to ask questions and in so doing arrange the situation so the pupils have the maximum opportunity to really live the same experiences the story characters lived. After the pupils had responded, if it was not a correct response, then the teacher assisted the pupils in improving their responses. The teacher discussed with her pupils the possibilities of substituting one response or modifying responses. This verbal pattern is clearly visible in the area E of Figures 12 and 13.

Area E shows the teacher manipulating the pupils to respond and discuss the story with her and among themselves. This was a teacher-

controlled activity. The teacher asked questions which varied from easy to difficult so that all her pupils had an opportunity to respond successfully. She motivated these pupils by praise and encouragement. The type of questions the teacher asked called for rote responses rather than the pupils' original expressions.

The teacher in this situation saw her role as the director of activities within her class. She accomplished this by means of verbal communication. Table 5 gives the reader a view of how she accomplished this task. She gets the learner interested in wanting to know what takes place in a story setting in three main ways. She asks questions (category 4) that require a response by pupils. Most of the responses are short but some can be extended into a verbal interplay among the pupils. Categories 5 and 6 (Table 5) show the role of the teacher as correcting and clarifying the responses of the pupils. This type of verbal behavior requires no response. Most of this communication was the teacher explaining how the characters in the story get in the situation they are in. Also the teacher was explaining the cause and effect relationship within the story.

A composite picture of the verbal interplay within this class can be seen in Table X. The indirect-direct ratio for this class situation is .39. This is clearly a teacher directed classroom. Pupil participation was restricted in the sense that they respond only after the teacher initiates a stimulus, which was usually in the form of a question.

The very fact that the teacher occupied over 53 percent of the tallies by talking, Table Y shows that the students were inhibited in

their participation in the verbal interplay. The percentage of student talk, was 40 percent in Table Z. Most of this talk was in direct response to a specified question. This was the giving back to the teacher the facts that the teacher had given them in the first place. The pupils did not have the opportunity to compare realistic experiences with the experiences from the story.

Figure 11

Matrix of Areas of Interest, Average Readers, W-2

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling		1	1	2						
2. Teacher Praises		D	2			1			2	
3. Teacher Accepts/Uses Ideas	2	1		3				H		
4. Teacher Asks Questions								43	5	5
5. Teacher Lectures				1	1					
6. Teacher Gives Directions				6	E			1	8	
7. Teacher Criticizes/Justifies				3		1				
8. Student Responds	1	2		25	1	10			4	1
9. Student Initiates	1		3	10		2	3	G	2	1
10. Silence/Confusion		1		3		1	1		1	
TOTALS	A. Teacher Talk							B. Student Talk		C

D – Indirect Influence Pairs
E – Direct Influence Pairs
F – Teacher Reaction to Student Talking
G – Sustained Student Communication
H – Teacher Stimulates Student Talk

Figure 12

Matrix of Areas of Interest,
Average Readers, W-2

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling										
2. Teacher Praises		D		2	2	7				
3. Teacher Accepts/Uses Ideas								H	1	
4. Teacher Asks Questions					1			62	3	
5. Teacher Lectures				17	26	7		4	8	1
6. Teacher Gives Directions				5	5E	4		16	5	7
7. Teacher Criticizes/Justifies					3	1		1		1
8. Student Responds		11		31	17	14	3	33	6	3
9. Student Initiates			1	F6	8	2	3	G		4
10. Silence/Confusion				6	1	7		1	1	18
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

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Figure 13

Matrix of Areas of Interest, Average Readers, W-2

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling										
2. Teacher Praises		D		5	1			1	2	
3. Teacher Accepts/Uses Ideas				2				H	1	
4. Teacher Asks Questions								67	7	4
5. Teacher Lectures				13	23	5		5	17	4
6. Teacher Gives Directions				4	E	1		6	12	4
7. Teacher Criticizes/Justifies				1	1	1			1	
8. Student Responds		8	1	35	18	5	4	17	4	5
9. Student Initiates		1	2	F	15	13		G	4	6
10. Silence/Confusion				6	7	4		1	5	3
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Table 5

Interaction Analysis Categories for W-2 Class

Category	Number of Tallies											
	20	40	60	80	100	120	140	160	180	200	220	240
1	X											
2	XXXXXXX											
3	XXX											
4	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX											
5	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX											
6	XXXXXXXXXXXXXXXXXXXXX											
7	XXXX											
8	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX											
9	XXXXXXXXXXXXXXXXXXXXXXXXXX											
10	XXXXXXXXXXXXXXXXX											

INTERACTION ANALYSIS OF V-3 READING SESSIONS

Figure 14 matrix shows the verbal behavior occurring between the teacher and pupils. This is a third grade remedial reading group. There are eight pupils in this class and the average reading achievement is 1.1 according to the Stanford Achievement Test.

The reasons for the small number of tallies are two-fold. One is that the teacher let these pupils do some oral reading, and two is that the pupils had such limited vocabulary that it was hard for the teacher to have any success in stimulating or sustaining any real verbal interaction between herself and the pupils.

The main areas of influence as seen in areas F and H in Figure 14 are the questions asked by the teacher and the answers from the students. By using the question approach the teacher tried to get the pupils to recall previous learnings and apply these to solving their present problems. This was not very successful.

Most of the questions asked were ones that required short answers. The questions did not provoke too much thinking on the part of the pupil. When the pupil responded with an incorrect statement, the teacher corrected it. The teacher used praise when a pupil responded with a correct statement.

The teacher was quick to show enjoyment when a correct response was given. It was apparent that these pupils were so used to failure that when they did have a limited amount of success they were very happy.

The main force for motivation in this class was the use of encouragement and praise by this teacher. The questions asked by the teacher were so simple that members in this group had the opportunity to respond successfully.

The teacher seemed to enliven the class by letting each pupil keep his own personal progress chart in order for him to see his own individual achievement. The teacher's questions seemed to serve the purpose of fostering a desire for these pupils to learn well and remember it.

The teacher controlled the verbal communication by the fact that the questions she asked required a specific response by a pupil whom she called on. There was very little interplay between pupils in this class. All communication was between teacher and pupil.

The matrix shown in Figure 15 is the verbal interplay between teacher and pupils of average reading ability. I personally observed the behavior in the class room.

This session was devoted to the introduction of a reading selection in their basal text. Again the teacher was using the question and answer approach in order to develop a background for understanding the experiences they would encounter within the story.

By using pictures and opening sentences, the teacher asked questions that would help the pupils to become motivated and interested in finding added information from the story. She encouraged the pupils to discover independently and to evaluate what happened in the story.

Area H, Figure 15 points out the role of the teacher in stimulating the pupils in setting their goals and trying for them. The teacher made use of the pupil's curosity and encouraged the use of it to be able to

relate the expected outcomes of the story to the other pupils.

With the aid of the teacher, there was more pupil to pupil communication than there was with the slow reading group. (Area G, Figure 15) The main verbal patterns in this session is the talking back and forth between teacher and pupil. This was brought about by a direct question from the teacher, bringing a response from the pupils which was acknowledged by the teacher.

Category 9 in this matrix shows the verbal interplay among pupils. The teacher initiated the action with a question which brought a response from a pupil; then other pupils initiated other responses. This resulted from more pupil participation in the learning situation. There was more direct influence by the teacher in this session, but also more pupil participation.

The next session I observed was of this same reading group after having read the selection they were preparing for a Figure 15. The role of the teacher in this session was the extending of the pupil's interpretation of the story. The teacher asked questions in order to direct the pupil's discussion of the content of the story.

As shown in Figure 16, category 4, the teacher asked questions to encourage an interaction between pupils and teacher, and pupils between pupils. The questions by the teacher brought responses of ideas and opinions. This expanded verbal pattern in Figure 16, categories G and H, provoked thought and expanded each pupil's understanding of what he had read.

The questions by the teacher and points made by the pupil's response headed up a discussion which emphasized a variety of skills by the pupils.

This session was directed by the teacher who initiated the action by a question which brought forth a response. The response was sometimes called for from a certain pupil and sometimes the pupil initiated the response.

As shown in Table X this teacher was less directive than any other I have observed so far. The indirect-direct ratio for this teacher is 1.25. This teacher initiated a lot of verbal action as Table Y shows 46 percent teacher talk. However the nature of her questions stimulated more pupil talk which was 47 percent in Table Z.

The chief characteristic of the interaction of this class was the reciprocation pattern through out the learning situation. There was alternating verbal action between two speakers, and coordinate responses originating from the entry speaker, who was the teacher.

Figure 14

Matrix of Areas of Interest, Remedial, V-3

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling										
2. Teacher Praises		D		1					2	4
3. Teacher Accepts/Uses Ideas				2				H		
4. Teacher Asks Questions								46	3	1
5. Teacher Lectures				3	3					1
6. Teacher Gives Directions		1		10	E				2	2
7. Teacher Criticizes/Justifies				3					1	
8. Student Responds		6	1	28	2	5	4		1	2
9. Student Initiates			1	F				G		
10. Silence/Confusion				3	2	5				4
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communićation
H - Teacher Stimulates Student Talk

Figure 15

Matrix of Areas of Interest, Average Readers, V-3

	1	2	3	4	5	6	7	8	9	C
1. Teacher Accepts Feeling		1								
2. Teacher Praises	D	1	4							
3. Teacher Accepts/Uses Ideas		1	2	8	9			H		
4. Teacher Asks Questions				2	1			44	1	8
5. Teacher Lectures			2	21	11				9	
6. Teacher Gives Directions				1	E					
7. Teacher Criticizes/Justifies										
8. Student Responds		1	1	17	10	1		5	14	1
9. Student Initiates	1	2	12	F	8			G	10	2
10. Silence/Confusion			2	2	4			1	2	2
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Category	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling										
2. Teacher Praises		D	1	3	1	1			2	1
3. Teacher Accepts/Uses Ideas		1		3				H	2	
4. Teacher Asks Questions					1			44		7
5. Teacher Lectures			1	11	11	2		2	4	1
6. Teacher Gives Directions				2	E	3		11	1	
7. Teacher Criticizes/Justifies						1				
8. Student Responds		6		22	13	11	1	117	3	1
9. Student Initiates		1	3	F	2			G	4	1
10. Silence/Confusion		1	1	5	2	1			1	
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Table 6

Interaction Analysis Categories for V-3 Class

Category	Number of Tallies

	20	40	60	80	100	120	140	160	180	200	220	240

```
Category                          Number of Tallies

            20   40   60   80   100  120  140  160  180  200  220  240

  1    X

  2    XXXXXX

  3    XXXXXXX

  4    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

  5    XXXXXXXXXXXXXXXXXXXXXX

  6    XXXXXXXX

  7    X

  8    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

  9    XXXXXXXXXXXXX

 10    XXXXXXXXXXX
```

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INTERACTION ANALYSIS OF M-3 READING SESSIONS

Figures 17, 18 and 19 are the matrixes of the same reading class observed on three different occasions. This was an average reading class made up of those pupils with average reading ability. These pupils achieved up to grade level on their Stanford Achievement test. All three of these sessions were observed in person. In each session the class was discussing a selection they had read in their basal text.

Figure 17 is the verbal interplay between teacher and pupils in discussing the first selection from the basal text. The role of the teacher in this situation is to help pupils extend their interpretation of the content of the story.

Category 5 in Figure 17 shows the teacher helping the pupils set their goals as to what they expected to derive from reading this story. Category 4 in Figure 17 is the teacher directing the discussion by using questions to provoke extended responses from the pupils. Area F in Figure 17 the teacher accepted and reinforced pupil's response, and helped pupils correct or partially correct mistaken responses.

The teacher spent quite a bit of time helping pupils organize factual material that came out of the story into appropriate learning experiences. As a result of this there was much more teacher talk than pupil talk.

The teacher was assisting the pupils in interpreting what they had read and analizing the information they had derived from the story

into their everyday experiences. This tended to stimulate responses from the pupils (Area H in Figure 17) but did not stimulate pupil to pupil verbal behavior (Area G in Figure 17).

The teacher tried to help the pupils make everyday experiences applicable to the story situation. This was done by a teacher directed approach. (Area E in Figure 17) As shown in Figure 17 most of the teacher talk were questions, lecture and giving directions. Most of the pupil talk were responses from the questions, either called for or voluntarily.

The next reading session was a teacher-directed-learning experience. This was one made up of the teacher's questions and the pupil's responses shown in Figure 18. Even though teacher's talk was high (Categories 4, 5 and 6 in Figure 18) there was more sustained communication among pupils (Areas H and G in Figure 18).

The teacher encouraged and guided the pupils in searching for concrete concepts from the selection they had read. After the pupils had found the concepts, the teacher would give concise and clear meanings of these concepts to the pupils. (Area F in Figure 18)

Upon completion of this verbal action, the teacher gave the pupils a chance to apply these concepts to their own experiences. (Areas H and G in Figure 18) Most of the questions the teacher asked did not vary in levels of difficulty; hence some of the pupils did not take part in the discussion. Also this results in several tallies in Category 10 of Figure 18.

The pupils seemed very intent on pleasing the teacher; as a result, some of the pupils did not have the opportunity to respond successfully.

The pupils varied in their responses from rather fast flexibility to dependent conformity.

In discussing the last selection the teacher utilized the curiosity of the pupils and encouraged its development by putting the pupils in the place of the story characters. She used the existing interest of the pupils and even tried to develop others. In trying to accomplish this act of motivation she spent much time talking to her pupils. (Categories 4, 5 and 6 in Figure 19) In trying to motivate the pupils she restricted pupil participation to some degree. (Areas H and G in Figure 19)

The teacher puts more emphasis on technical accuracy of the story by the very nature of her questions. This leaves little room for originality on the part of the pupil. Categories 8 and 9 in Figure 19 represent the responses of the pupils. The teacher would open the discussion by a question which would evoke one and sometimes two short verbal responses from pupils. This response by a pupil was sometimes followed by one or more verbal exchanges from other pupils as shown in Area G in Figure 19. Then the teacher would close the episode by a verbal action. (Area F)

Table 7 shows the monologue characteristic of the teacher's verbal behavior. Each question from the teacher brought one response from the pupil. The teacher initiated much verbal action that did not call for a response from the pupils.

By directing the reading session in this manner she did most of the talking as Table Y shows 58 percent and inhibited the pupils' talk 34 percent in Table Z. As a result of this approach the indirect-direct ratio for this teacher in Table X was .67.

The teacher became so engrossed in giving facts and opinions of her own that she restricted the pupil's freedom of participation early in the learning situation. She was directive in order to focus the pupils' attention on the teacher's desired outcomes from the content of the story. In doing this she talked more and took a more dominant role in the classroom.

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling		1							1	
2. Teacher Praises		D	2	3	2	1			1	
3. Teacher Accepts/Uses Ideas		4		3	4	1		H	2	
4. Teacher Asks Questions					2	2		37	6	1
5. Teacher Lectures			3	11	2	3			4	
6. Teacher Gives Directions	1			7	E	5	1		4	
7. Teacher Criticizes/Justifies						1			2	
8. Student Responds		3	5	15	8			1	4	2
9. Student Initiates	1	1	3	F	5	4	2	G	6	1
10. Silence/Confusion			1	2		1				

| TOTALS | A. Teacher Talk | | | | | | | B. Student Talk | | C |

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Figure 18

Matrix of Areas of Interest, Average Readers,
Applying Concepts, M-3

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling				1	2				1	
2. Teacher Praises	1	D	1	1	2			1	1	
3. Teacher Accepts/Uses Ideas	1			1	2			H	1	
4. Teacher Asks Questions					1	1	1	49	1	4
5. Teacher Lectures		1		14	9	7		1	3	2
6. Teacher Gives Directions				6	E 2	5	2	2	2	1
7. Teacher Criticizes/Justifies				1						2
8. Student Responds	1	6	3	24	13	3		23	4	1
9. Student Initiates	1		1	F 5	5	1		G	3	
10. Silence/Confusion				4	1	3		2		1
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

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1. Teacher Accepts Feeling										
2. Teacher Praises		D			2	3				
3. Teacher Accepts/Uses Ideas					2	3			H	3	
4. Teacher Asks Questions					1				79	1	17
5. Teacher Lectures					27	27	11			7	2
6. Teacher Gives Directions					12	E	10			2	6
7. Teacher Criticizes/Justifies					1	2					
8. Student Responds			5	4	35	30	3	3	9		1
9. Student Initiates				4	F3	3	3		G	16	1
10. Silence/Confusion					15	4	6		1	1	11
TOTALS	A. Teacher Talk								B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Table 7

Interaction Analysis Categories for M-3 Class

Category	Number of Tallies

	20	40	60	80	100	120	140	160	180	200	220	240

Category	Tallies
1	X
2	XXXXX
3	XXXXXXX
4	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6	XXXXXXXXXXXXXXXXX
7	XX
8	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
9	XXXXXXXXXXXXXXXXX
10	XXXXXXXXXXXX

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INTERACTION ANALYSIS OF G-4 READING SESSIONS

The interaction matrix in Figure 20 represents a taped session of fourth grade readers. These pupils are grouped into the slow group. They have not achieved up to fourth grade level in reading ability. This was a reading session on extending interpretation of the story.

The teacher seemed to go about his discussion in a rather unplanned way. This was a very slipshod teacher-directed activity. The pupils' behavior ranged from apathetic to uncertain responses. You could tell that the pupils were very dependent upon the behavior of the teacher.

As areas F, category 4 in Figure 20 and area H, category 8 in Figure 20 show, this reading session was more of a question and answer period. The teacher was intent on finding out whether the pupils had read the assigned reading selection or not. The teacher was more interested in responses which required nothing more than rote memory than any creative or imaginative thinking. One girl raised her hand to ask a question pertaining to the story, but the teacher said, "We don't have time for pupil's questions this time."

It was quite obvious that very few of the pupils had any questions to ask. They seemed to be conditioned to responding only when the teacher initiated a question of her own which she thought was important for the pupils to know.

The questions the teacher asked were ones that required only short phrases or one-word responses from the pupils. The teacher called on each pupil to answer. If a pupil hesitated to answer one of the other pupils would initiate an answer on his own. There was no discussion between teacher and pupils nor among pupils. (Area G, Figure 20)

The verbal pattern which existed in this reading session indicated that the teacher felt that the ability of the pupils to parrot back to her facts from the story was evidence that real thinking had taken place. Although Areas D and E are lacking in tallies, the verbal pattern indicates that the teacher directed the learning situation by the nature of her questions.

Except the answering of direct questions, the pupils were restricted in their participation in any form of verbal action. Apparently the teacher assumed that communication is a passive act with no need for questioning (except her own), discussion, or any clarification on the part of the pupils.

The subsequent observation I made in this classroom was of a reading session composed of average fourth grade pupils. These pupils were grade level achievers on the Stanford Achievement Test. I observed this session in person.

The teacher spent much of the time setting up the goals that the pupils should have reached in reading a selection on "Amelia Earhart," the woman flyer. This accounts for the large number of tallies in Category 5 of Figure 21.

The teacher's role in this session was to solicit the response from the pupil to facilitate the remembering of facts from the story.

The opening phase initiated by the teacher was a question which would provoke one verbal response from a pupil. After the question, the teacher would call on the pupil whom she wanted to respond. After the called-on pupil would respond with the right answer, the teacher would continue with the next question. As shown in Figure 21, category 4, this was the prominent verbal behavior thoughout this session.

When a pupil did not respond with an answer several seconds would elapse before the teacher called on a second or third pupil before the correct response was given. (Category 10 in Figure 21.) The teacher would clarify and strengthen all correct responses as soon as a pupil would state the answer. This accounted for the monologue verbal behavior in category 5 in Figure 21.

The stimulation was from the teacher's questions which brought out the facts in the story; but left little room for sustained pupil verbal action. (Area G in Figure 21.) The pupils seemed to be conditioned to accepting readily and easily all information without question.

This was a teacher directed class situation which left little room for creativity or originality. These had been sacrificed in order to reproduce the facts from the story. (Area E in Figure 21.)

I came back to this same class a few days later and taped the same readers after they had read another story from their basal text. I wanted to see if there would be any significant change in pupil and teacher verbal behavior if I was not in the class room. I thought maybe my presence in the room had inhibited the pupils' verbal action to some extent. To my discouragement, I found almost the identical verbal pattern in Figure 22 as in Figure 21.

This was still essentially a question and answer period with the teacher dominating the verbal action. (Area F and E in Figure 22.) There were a few more tallies in category 9 of Figure 22. There were fewer tallies in category 10, which was due to pupils responding whether they were sure of their answer or not. As a result of pupils responding whether they were sure of their answers or not, more incorrect responses were given back to the teacher. This caused the teacher to spend more time correcting incorrect responses than asking questions. (Area E in Figure 22.)

The teacher was quite concerned with the pupils' ability to learn facts. She did not make any real effort to aid the learner in evaluating his own responses, but did her own evaluating of the pupil's response. As a result of the teacher's effort in correcting incorrect responses, questioning, and doing her own evaluating of the pupils' responses, teacher talk in this session was high. (Table 8, Category 4 and 5)

The directive-dominent role the teacher assumed in questioning and lecturing to the pupils accounted for 64 percent of the tallies being teacher talk (Table Y) which in turn limited pupil participation to 27 percent pupil talk. (Table Z)

This teacher did not seem to be very flexible in her teaching approach. She continued the same verbal pattern throughout all three sessions. The teacher did not vary from direct to indirect at any time in the sessions. The indirect to direct ratio which is shown in Table X indicates .90 or the dominant role of the teacher. The teacher sustained this restriction of pupil participation throughout the sessions. The pupils were confined to answering the teacher's questions

and had very little opportunity to discuss among themselves or even to
the teacher.

Figure 20

Matrix of Areas of Interest, Slow Readers, G-4

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling			1			1				
2. Teacher Praises		D	2	3					2	
3. Teacher Accepts/Uses Ideas				9	3			H	1	
4. Teacher Asks Questions	1					1		32	9	7
5. Teacher Lectures		1		5		2				
6. Teacher Gives Directions				3	E			3	2	
7. Teacher Criticizes/Justifies								1	1	
8. Student Responds	1	1	7	18	3	3	2			1
9. Student Initiates		5	3	F	1	1		G		
10. Silence/Confusion				7		1				

TOTALS	A. Teacher Talk			B. Student Talk	C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Figure 21

Matrix of Areas of Interest, Average Readers, G-4

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling									1	
2. Teacher Praises		D	1	1	1	2				
3. Teacher Accepts/Uses Ideas				1	1			H	2	
4. Teacher Asks Questions				2	1	1		62	1	33
5. Teacher Lectures				27	46	7		3	3	4
6. Teacher Gives Directions		1		4	E3	4		1		5
7. Teacher Criticizes/Justifies					1					
8. Student Responds	1	4	1	29	28		1	22		2
9. Student Initiates			2	F4	1			G		
10. Silence/Confusion				21	10	4				
TOTALS	A. Teacher Talk							B. Student Talk		C

D – Indirect Influence Pairs
E – Direct Influence Pairs
F – Teacher Reaction to Student Talking
G – Sustained Student Communication
H – Teacher Stimulates Student Talk

Figure 22

Matrix of Areas of Interest, Average Readers, G-4

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling		1		2	1			2		
2. Teacher Praises		D		3	1	1				
3. Teacher Accepts/Uses Ideas				6				H		
4. Teacher Asks Questions	2			8		1		86		22
5. Teacher Lectures				49	111	10				2
6. Teacher Gives Directions	1			3	E 5	4		6		2
7. Teacher Criticizes/Justifies				3		1				
8. Student Responds	3	5	5	32	42	1	4	21	1	1
9. Student Initiates				F 1		1		G	8	
10. Silence/Confusion				12	12	2			1	2
TOTALS	A. Teacher Talk							B. Student Talk		C

D – Indirect Influence Pairs
E – Direct Influence Pairs
F – Teacher Reaction to Student Talking
G – Sustained Student Communication
H – Teacher Stimulates Student Talk

Table 8

Interaction Analysis Categories for G-4 Class

Category	Number of Tallies

	20	40	60	80	100	120	140	160	180	200	220	240

1   XX

2   XXXX

3   XXXXXX

4   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

5   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

6   XXXXXXXXXXX

7   XX

8   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

9   XXXXXXX

10 XXXXXXXXXXXXXXXXXX

INTERACTION ANALYSIS OF H-4 READING SESSIONS

This reading session was concerned with developing readiness for
reading a selection from their basal text. The participants in this
session were pupils who achieved on their grade level in reading
ability. I observed the verbal behavior in the classroom.

The role of the teacher in this readiness session was to build
interests and motivation for the pupils. In presenting the background
for this story, the teacher asked questions about experiences that
might be familiar to some of the pupils in the group and whether
these same experiences might show up in the story.

A teacher question brought a pupil response which resulted in a
talking back and forth between teacher and pupil. (Area H and F,
Figure 23.) Everytime the teacher accepted a pupil's response, she
acknowledged the response and led with another thought provoking
question. The pupils seemed to sense that the teacher enjoyed this
verbal interplay between her and themselves. By accepting the pupils'
responses as a real contribution to the class, the teacher encouraged
further pupil participation. (Categories 1, 2 and 3 in Figure 23.)

The teacher would ask an opening question which would bring one
or more verbal exchanges from the pupils. (Area H in Figure 23.) The
teacher sometimes called on pupils by name, and at other times the
answers were voluntary. After these direct verbal responses by the
pupils to the teacher, there would be a continuing phase by other pupils
who came up with original ideas of their own. (Area G in Figure 23.)

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After the pupils had discussed a certain point, the teacher might clarify what they had been discussing. In this way, the teacher guided the pupils in building up experience backgrounds for the ideas of the story and helped the pupils set up purposes for reading this story.

In developing readiness for this story, the teacher initiated the action; the pupils reacted with responses and the teacher reacted to the pupils' responses. (Area F in Figure 23.)

This teacher was more directive than indirect, but she was flexible in her approach to motivating her pupils. She gave the pupils a chance to take part in setting up purposes for reading this selection.

After the pupils had read the story silently for the purposes established in the above session, they were ready for discussion. (Figure 24.) The teacher's aim in this discussion period was to help the pupils to interpret the story. To accomplish this aim, the teacher asked questions. The teacher asked questions on the factual content of the story (Category 4), which called for a pupil response that involved very little thinking on the part of the pupil. (Area H in Figure 24.) After receiving a correct response, the teacher then lead the pupils to draw conclusions and make generalizations from these story facts. (Areas F and H in Figure 24) As a result of leading the pupils to draw conclusions and make generalizations from these facts, the teacher directed the learning activities in the direction she desired. (Area E in Figure 24.)

The teacher asked thought questions which involved judgment of a character's behavior and a summary of the sequence of events in the story. These questions invited pupil thought and feeling responses

which opened the door to greater pupil participation in the discussion. (Area G in Figure 24.)

The teacher was directive in using factual questioning of the pupils and was indirective after asking a thought question which stimulated pupil to pupil verbal action.

In order to increase competence in the pupil's reading skills, this teacher encouraged the pupils to read books on their own interest level. Most of these pupils have a wide range of interest, but their curiosity is about the same. The role of the teacher in this session was to stimulate and develop whatever interest he might have by encouraging the pupils to read books on their own and tell the class some of the things they learned.

These are the same pupils that were represented in Figures 23 and 24. These pupils are concerned with telling their fellow class-mates some of the concepts, and facts they have learned by reading books that they were interested in outside of their regular reading class. Even though this was the pupils' hour, the teacher helped the pupils ask questions that would lead to more discussion between pupils. (Category 4 in Figure 25.)

The teacher would initiate the action by asking a pupil to tell the class what he learned from reading a certain book. The pupil would respond by telling the class what things of interest he had found out. (Area H in Figure 25.) After this episode the teacher might clear up a few points the pupil left unclear or ask the pupil to restate what he meant. (Area F in Figure 25.) The teacher gave the pupil every opportunity to think his way through a situation without herself entering in the discussion.

At times the teacher asked short questions to arouse the curiosity and to stimulate the other pupils into asking their own questions. (Area G in Figure 25.) The teacher made the pupils feel as if they were holders of knowledge which they were to pass on to the rest of the class.

The main role of the teacher was as a stimulus to pupil discussion. By reinforcing, correcting and confirming the responses of the pupils, the teacher promoted a continuous flow of verbal behavior between the pupils. The teacher gave the pupils freedom of action in accordance with the pupils' own intelligence. Although this was more of a group activity, where the pupils were given a chance to communicate with each other, the teacher directed the activities to a certain degree. (Area E in Figure 25.)

Table 9 indicates that most of the teacher-talk was the asking of questions and lecturing. Most of the questions were to stimulate pupil talk. In turn most of the pupil talk was the answering of the questions and also the extended responses of pupils.

The indirect to direct ratio for this teacher was 1.00 in Table X which indicates direct control in some situations which inhibited pupil participation and expresses indirect control in some situations to expand pupil participation. Table Y shows the percent of teacher talk throughout all three sessions. The expanded pupil participation resulted in this teacher talk being 53 percent in asking factual questions which required only short answers, and thought provoking questions which stimulated extended pupil response which resulted in pupil talk being 42 percent in Table Z. The reason for more pupil talk

than usual was the fact that the teacher's questions involved more extended responses from the pupils and provided for more spontaneous discussion between pupils.

Figure 23

Matrix of Areas of Interest, Average Readers, H-4

	1	2	3	4	5	6	7	8 (A)	9 (B)	10	C
1. Teacher Accepts Feeling				1	1	3			1	3	
2. Teacher Praises			B	2	6	4				2	
3. Teacher Accepts/Uses Ideas	2				7	1			H	5	2
4. Teacher Asks Questions				1	4	2		1	72	16	3
5. Teacher Lectures	3	2	1	11	10				2	6	1
6. Teacher Gives Directions				5	E					3	
7. Teacher Criticizes/Justifies				1					1		
8. Student Responds	4	5	4	42	10	4		1	18	5	
9. Student Initiates	1	7	7	F	6	4			G	8	
10. Silence/Confusion				4						2	
TOTALS	A. Teacher Talk								B. Student Talk		C

D – Indirect Influence Pairs
E – Direct Influence Pairs
F – Teacher Reaction to Student Talking
G – Sustained Student Communication
H – Teacher Stimulates Student Talk

Figure 24

Matrix of Areas of Interest, Average Readers, H-4

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling				1				1	1	
2. Teacher Praises	1	D		2	1	3			1	
3. Teacher Accepts/Uses Ideas		1		1	4	2		H	2	
4. Teacher Asks Questions	1			1			3	85		4
5. Teacher Lectures		1		24	67	8			6	1
6. Teacher Gives Directions				9	E7	11		2	4	1
7. Teacher Criticizes/Justifies				2				2		
8. Student Responds	1	5	4	44	17	9	1	77	8	2
9. Student Initiates		1	6	F5	10	1		G	5	
10. Silence/Confusion				4	1	1		1	1	1
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Figure 25

Matrix of Areas of Interest, Average Readers, H-4

		1	2	3	4	5	6	7	8	9	10
1.	Teacher Accepts Feeling										
2.	Teacher Praises		D				1				
3.	Teacher Accepts/Uses Ideas					3	2		H	1	
4.	Teacher Asks Questions								45	2	9
5.	Teacher Lectures					22	15	4	1	7	2
6.	Teacher Gives Directions				1		E		9	3	3
7.	Teacher Criticizes/Justifies					1					
8.	Student Responds		1	2	31	20	11	1	45	1	1
9.	Student Initiates				3	F 4	6	1	G	4	
10.	Silence/Confusion					5	3	4	3		5
	TOTALS	A. Teacher Talk							B. Student Talk		C

D – Indirect Influence Pairs
E – Direct Influence Pairs
F – Teacher Reaction to Student Talking
G – Sustained Student Communication
H – Teacher Stimulates Student Talk

Table 9

Interaction Analysis Categories for H-4 Class

Category	Number of Tallies											
	20	40	60	80	100	120	140	160	180	200	220	240
1	XXX											
2	XXXXXXX											
3	XXXXXXXX											
4	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX											
5	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX											
6	XXXXXXXXXXXXXXXX											
7	XX											
8	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX											
9	XXXXXXXXXXXXXXXXXXXXXXXX											
10	XXXXXXXX											

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INTERACTION ANALYSIS OF D-5 READING SESSIONS

I taped this reading class because this teacher is a new teacher
and I felt that my being in the classroom might make the situation
unnatural. This room is not grouped according to reading ability.
All children are in the same reading class regardless of their reading
ability. I had to eliminate one matrix from a taped session because
the session was made up of oral reading of the pupils. It was quite
apparent that only the good readers were called on to read.

Figure 26 is the matrix of a discussion over the material found
in a selection of the basal text. This group is made up of all
pupils in the classroom. As one can see from the matrix, this
discussion period consisted of three main areas of influence.

Area E in Figure 26 indicates a large number of tallies were
entered in the area of teacher directed influence. This direct
influence by the teacher came about as the teacher was lecturing on
the goals and purposes they hoped to achieve in discussing the
selection.

Area F in Figure 26 shows how the teacher's verbal behavior
responds as a result of the pupils' verbal responses. If the pupils
gave a correct response the teacher spent time in (Category 5)
reinforcing and strengthening this correct response. If the pupil's
response was incorrect, the teacher would help the pupil correct the
response. In doing this, the teacher restricted the pupils in taking

an active part in the discussion. With the teacher dominating the verbal action, the pupils are restricted to only one area of verbal action. This shows up in Area H. This is the short response to a teacher question.

The line of communication was from the teacher to a called on pupil and back to the teacher. Most of the questions that the teacher asked were concerned with the factual content of the story. After a pupil responded to one of these questions, the action was back in the teacher's hands. There were very few thought provoking questions asked, thus prohibiting the discussion from being class wide. The verbal interplay was just between two people at all times. There was very little reciprocating pattern among the pupils as shown in Area G in Figure 26.

Categories 5 in Areas E and F are the result of the teacher's repeating the answers given to him from the pupils. The teacher had a tendency to repeat every pupil response and expand it in his own terms. The teacher would explain and give concise, clear, meanings of the concepts but did not stimulate the pupils into applying these concepts to their everyday lives. Area F shows the teacher's evaluation of the pupil's own response and limiting the pupil from evaluating his own responses or evaluating other pupils' responses.

Category 9 in Figure 26 shows the pupil initiated verbal action. Most of this verbal action was questions that concerned explanatory type responses from the teacher; such as "why did a character in the story do a certain thing", or "why do they call a certain thing by a given name?" These were definitive type questions which accounted for the large number of tallies in Category 5 in Figure 26.

This reading session was observed in person in order to see if there would be any great difference in the verbal behavior of teacher and pupils from the matrix in Figure 26. Figure 27 shows less teacher directed influence in Area E and more pupil communication in Area G. The teacher has shifted from a more dominant role in Figure 26 to a less dominant role in Figure 27, thus expanding pupil participation.

This was a reading session to increase the reading skills of the pupils. This session included all pupils in the classroom of different reading abilities. As a result of this, some of the pupils did not participate in the verbal interplay at all. Of course, this does not show up on the matrix.

Area E in Figure 27 shows the teacher being directive in order to strengthen the pupil's concepts, rules, and steps in determining the use of prefixes and suffixes. In doing this, the teacher talked more and took a more dominant role in the classroom.

Area H in Figure 27 are direct and short responses from the pupils in answer to factual questions from the teacher. (Category 4.) The teacher would open the phrase with a direct question asking a pupil to state a rule, or step; and the pupil would respond with the known rule or step. There was no thinking involved here, but required rote memory on the part of the pupil.

Area G in Figure 27 shows the reporting type response from the pupils in interpreting what a complex sentence meant. Some of the pupils talked over several three-second-periods, thus causing more tallies in Area G.

Area F in Figure 27 indicates the verbal action of the teacher's developing meaningful generalizations from the examples that the pupils

have stated or used in Area G. The teacher tried to help the pupils make applications to these generalizations. Categories 4, 5 and 6 in Area F show efforts of the teacher to evaluate the pupil's ability to apply their own responses to everyday situations. The pupil's effort to apply these responses also show up in Area G.

As shown on Table 10, the teacher did very little accepting of pupil's ideas or feelings or praising them for correct responses. Instead, the teacher repeated the pupil's response and either corrected or clarified the response.

Category 4 is the direct question that calls for a short answer from the pupils. These questions involved factual content from the selection and did not involve much thinking. The main function this type of question serves is to get a quick answer in order to keep the activities moving along at a rapid rate. The large number of tallies in Category 8 indicates the pupils' responses to the teacher's questions and their verbal action in applying concepts in their every-day experiences. This was not extended pupil communication, but is one pupil doing more talking. There was very little pupil to pupil interaction.

Even though this teacher was somewhat flexible in the pattern of influence, he was more direct than indirect. In Table X the indirect to direct ratio for this teacher was .65. He was more direct in guiding the interpretation of the story. He talked more--51 percent in Table Y in trying to correct and reinforce the responses of pupils and in repeating the pupils' responses. As a result of this, the teacher re-stricted pupil participation 41 percent in Table Z. Most of the pupil talk was the direct response to factual questions and one pupil talking more than a three-second-period.

Figure 26

Matrix of Areas of Interest, Mixed Group, Discussion of Story, D-5

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling				1						
2. Teacher Praises		D		1					2	
3. Teacher Accepts/Uses Ideas				4	2			H	1	
4. Teacher Asks Questions				8	2			85	1	18
5. Teacher Lectures				31	44			3	5	2
6. Teacher Gives Directions					1	E 1				
7. Teacher Criticizes/Justifies				3	1				1	
8. Student Responds		3	6	42	23	1	4	2	3	7
9. Student Initiates				F 6	7			G	1	2
10. Silence/Confusion	1			19	5		1	1	2	2
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Figure 27

Matrix of Areas of Interest, Mixed Group, Increasing Reading Skills, D-5

1. Teacher Accepts Feeling										
2. Teacher Praises		D		1		1				
3. Teacher Accepts/Uses Ideas				1	2			H	1	
4. Teacher Asks Questions				7	1			51		18
5. Teacher Lectures			1	19	19	3			5	
6. Teacher Gives Directions				2	E			17		
7. Teacher Criticizes/Justifies										
8. Student Responds		2	1	31	19	15		104	3	1
9. Student Initiates			2	F 4	3			G		
10. Silence/Confusion				12	4			4		
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H.- Teacher Stimulates Student Talk

Table 10

Interaction Analysis Categories for D-5 Class

Category	Number of Tallies											
	20	40	60	80	100	120	140	160	180	200	220	240
1	X											
2	XX											
3	XXX											
4	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX											
5	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX											
6	XXXXXX											
7	XX											
8	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX											
9	XXXXXXX											
10	XXXXXXXXXXX											

INTERACTION ANALYSIS OF S-5 READING SESSIONS

Since these sessions did not vary in any large degree, I will
analyze all three together. All three of these sessions were taped.
The reading class in this room consists of all pupils of various
reading abilities. Then, the high achievers in reading are grouped
in an enrichment reading group where they work at their own
individual speed. This session that I taped was of all the pupils.
They were discussing the content of three different selections in the
basal text.

Basically, as all three matrixes show, (Area G in Figures 28, 29
and 30) the teacher did not encourage the pupils to respond with their
own original expressions; this fostered less flexibility by the
pupils and led to more dependent conformity. The teacher took so
much time asking factual questions and receiving factual responses
(Areas F and H) that the pupils were not allowed time for their own
creativity to unfold.

Instead of helping and guiding the pupils in setting up the
desired goals and learning outcomes, the teacher did this without too
much help from the pupils. This accounts for the large amount of
teacher talk in Category 5 in Areas E and F in Figures 28, 29 and 30.

The pupils were restricted in their response to answering the
direct questions from the teacher. (Area H in Figures 28, 29, and 30)
Although the teacher did focus the pupils' attention on the desired

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learning outcomes, the pupils took a passive role in the discussion.
Area F in Figures 28, 29 and 30 shows the teacher taking the response
of the pupils and organizing the factual material into the appropriate
learning units. Here again the teacher limited pupil participation.

As shown in Area E, the teacher did very little accepting of the
pupils' feelings and ideas because the pupils did not present any.
They were not given the opportunity to expand their ideas and concepts
because the teacher was mainly concerned with factual answers. The
pupils were restricted in their efforts to evaluate their ability to
apply responses to new situations because the teacher was lecturing.

A typical episode in these sessions would be an opening phrase
by the teacher asking a question. (Category 4) The next phrase would
be the pupil answering the question. (Area H) The closing phrase would
be the teacher correcting or building on the response with the
pupils left to listening. (Area F)

Table 11 shows the verbal pattern in these reading sessions.
Category 3 indicates acceptance by teacher of pupils' ideas, but
then the teacher evaluates, clarifies and strengthens it instead of
fiving the pupils a chance for expanded communication. Category 4 is
the result of the teacher's interest in factual content of the
selections through the asking of questions which called for a short
pupil response.

The flexibility of this teacher was rather restricted in that he
carried on a question and answer type discussion. The indirect-direct
ratio for this teacher is misleading in Table X to be 1.07, because
Category 4 is not included in the computation of the indirect-direct
ratio. The direct influence by the teacher was in the form of lectures

and questions. The questions on Category 4 do not show up on the I/D ratio; but, if they did, the teacher would have a greater direct influence.

This fact is much easier to see in Table Y which shows teacher talk at 65 percent. Of this 65 percent about 50 percent of this teacher talk was lecturing. The rest was the questions the teacher asked. The lecturing prohibited pupil participation to only 30 percent in Table Z. As long as the teacher was lecturing, there was no pupil participation; when the teacher asked questions, there was expanded pupil communication. This pupil verbal action was restricted in a sense that the pupils had to answer certain questions that the teacher thought pertinent.

Figure 28

Matrix of Areas of Interest, Mixed Group, Discussion of Story, S-5

Category	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling				1						
2. Teacher Praises		D		1						
3. Teacher Accepts/Uses Ideas				2	1			H	2	
4. Teacher Asks Questions				2	2	3	1	73	1	13
5. Teacher Lectures				32	51	3		1	1	
6. Teacher Gives Directions				7	E 3	2			1	2
7. Teacher Criticizes/Justifies	1			1						
8. Student Responds		1	5	35	27	5	1	2		1
9. Student Initiates			F 3		1	1		G		
10. Silence/Confusion				11	3	1		1		
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Figure 29

Matrix of Areas of Interest, Mixed Group, Discussion of Story, S-5

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling										
2. Teacher Praises	D¹		1	1		1				
3. Teacher Accepts/Uses Ideas			2	12	3			H	3	1
4. Teacher Asks Questions			2	3				90	2	5
5. Teacher Lectures				33	70	1		2	11	1
6. Teacher Gives Directions				1	E	16		1	1	
7. Teacher Criticizes/Justifies				1						
8. Student Responds	2	7	42	34	5	2		6	2	1
9. Student Initiates	1	10	F 4	5				G	15	
10. Silence/Confusion				5	2			1		
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Figure 30

Matrix of Areas of Interest, Mixed Group, Discussion of Story, S-5

	1	2	3	4	5	6	7	8	9	10
1. Teacher Accepts Feeling										
2. Teacher Praises		D 1	1	1		1				
3. Teacher Accepts/Uses Ideas			2	12	3			H 1	3	1
4. Teacher Asks Questions				2	3			89	2	5
5. Teacher Lectures				33	71	1		2	11	1
6. Teacher Gives Directions				1	E	16		1	1	
7. Teacher Criticizes/Justifies				1					1	
8. Student Responds		2	7	42	34	5	2	6	2	1
9. Student Initiates		1	10	F 4	5			G	14	
10. Silence/Confusion				5	2			1		
TOTALS	A. Teacher Talk							B. Student Talk		C

D - Indirect Influence Pairs
E - Direct Influence Pairs
F - Teacher Reaction to Student Talking
G - Sustained Student Communication
H - Teacher Stimulates Student Talk

Table 11

Interaction Analysis Categories for S-5 Class

Category	Number of Tallies
	20 40 60 80 100 120 140 160 180 200 220 240
1	XX
2	XX
3	XXXXXXXXXXXX
4	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6	XXXXXXXXXXXX
7	XX
8	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
9	XXXXXXXXXXX
10	XXXXXXXXXX

Table X

Indirect-Direct Ratios for Each Class

Class	I/D Ratio - Hundredth

	10	20	30	40	50	60	70	80	90	100	110	120	130

G-1 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

F-1 XXXXXXXXXXXXXXXXXXX

W-2 XXXXXXXXXXXXX

SC-2 XXXXXXXXXXXXXXXXXXXXXXXX

V-3 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

M-3 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

G-4 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

H-4 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

S-5 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

D-5 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
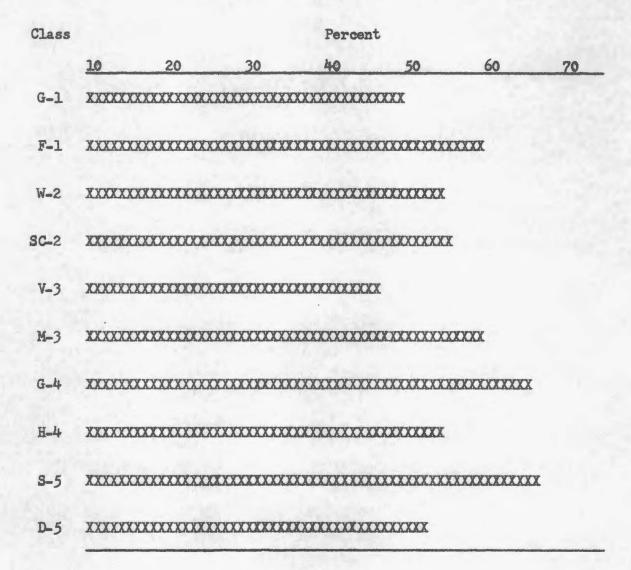
Table Y

Percentage of Teacher Talk for Each Class

Class	Percent						
	10	20	30	40	50	60	70
G-1	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX						
F-1	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX						
W-2	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX						
SC-2	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX						
V-3	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX						
M-3	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX						
G-4	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX						
H-4	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX						
S-5	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX						
D-5	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX						

Table Z

Percentage of Pupil Talk for Each Class

Class		Percent					
	10	20	30	40	50	60	70

G-1   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

F-1   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

W-2   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

SC-2 XXXXXXXXXXXXXXXXXXXX

V-3   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

M-3   XXXXXXXXXXXXXXXXXXXXX

G-4   XXXXXXXXXXXXXX

H-4   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

S-5   XXXXXXXXXXXXXXXX

D-5   XXXXXXXXXXXXXXXXXXXXXXXXXXXXX

CONCLUSIONS

During my tenure as a teacher most of the courses I have had,
most of the journals I have read, and most of the data I have seen
seemed concerned about just the results and consequences of what
happens in the classroom. They did not seem to bother too much about
the causes of these results and consequences. They did not seem to
really look inside the classroom to observe the teacher teaching and
the pupil learning.

One of the men who influenced the writing of this research paper
was Ned Flanders, who did some extensive work in the verbal
behavior between teacher and pupil. He developed the "Flander's
Interaction Analysis".[4] My paper is based on his method of using
ten verbal categories to classify the verbal exchanges of the
teacher and pupil and on the Interaction Analysis Matrix he developed.

Using his ten verbal categories, a good idea as to what to
look for in the classroom regarding teacher-pupil verbal behavior
was obtained. After becoming aware of the verbal patterns between
the teacher and pupil, one can record it with sufficient accuracy.

After observing each classroom and recording the verbal
behavior, it was put in a scorable form. After scoring this verbal

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[4]Ibid., p. 271.

interplay between teacher and pupil A measure of this behavior was made. This was the main function of this paper. It was found that by making an accurate record of the verbal patterns of teacher-pupil behavior; that differences in verbal patterns do exist among teachers, classrooms, groups within a classroom, and even the same teacher in different situations.

"Interaction Analysis" is a measure of teacher influence on the pupil because it makes the assumption that most teacher influence is expressed through verbal statements and that most non-verbal influence is positively correlated with the verbal.[5]

After collecting the observation data, it was found which influence patterns each teacher used; whether the teacher was direct, indirect, or flexible in varying her pattern of influence from direct to indirect and visa-versa, and what verbal action the teacher used to directly influence the pupils, and what verbal statements the teacher used to indirectly influence the pupils.

When one compares the indirect-direct ratios in Table X, one can see that the teachers used more direct influence in the first, second, and third grades. All teachers except V-3 were under the average I/D ratio for the school. Even though the teachers in the first three grades did less lecturing than grades four and five, they gave more directions to their pupils. This was the result of dealing with less mature children. Since Category 4 was not included in computing the I/D ratio, the flexibility of the teachers can be misleading, if you base it on the I/D ratio.

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[5]Biddle, op. cit., p. 178.

As far as the influence areas of D and E are concerned, very little flexibility among any of the teachers was found. The I/D ratios show greater indirect influence used by the fourth and fifth grade teachers. This was the result of more questions asked as well as the type of question the teacher asked. The upper grades tended to ask questions that expanded pupil-to-pupil communication in area G. One teacher-initiated question would bring several student responses. These responses were solicited by the teacher and not many were student initiated.

There was more teacher lecturing in the upper grades because the teacher had more pupil responses to react to. The teachers in grades one to three were flexible only in the types of questions they asked. In most of these sessions, the teacher asked one question which would evoke one pupil response. If the reading group was average or above in achievement, the teacher changed the type of questions to promote more pupil participation in area G.

All teachers talked more than the pupils. Most of this teacher talk was the teacher questioning the pupils. Most of the pupil talk was in direct response to the teacher's questions. The difference in teacher talk and pupil talk was less in grades one through three. The reason for this was the one question to one answer type situation. The fourth and fifth grade teachers did more talking in clarifying and strengthening the pupils' responses and just plain lecturing to the pupils on the desired learning materials.

The outstanding generalization to come out of this research paper was the fact that even though the I/D ratios showed some teachers to be flexible in their use of direct and indirect influence, all of them

were direct in that their questions, in effect, directed the response
of the pupils. All in all, these reading sessions were a question
and answer period and left little room for creativity, originality,
reasoning, and thinking on the part of the pupil. Most of the teachers
asked questions that called for no thought, but memory of facts.

As the teacher used categories 5, 6 and 7, he exerted direct
control over his pupils. The teacher used these categories to focus
the pupils' attention on a particular idea or proglem. In doing this,
the teacher talked more and took a more dominant role in the classroom.

In using categories 1, 2, 3 and 4, the teacher expressed teacher
direction indirectly by supporting selected patterns of pupil behavior.
The teachers did not use categories 1, 2 and 3 nearly as much as
category 4. By the use of category 4, the teacher controlled pupil
participation.

The following are a set of hypotheses about teacher influence
and student attitudes related to learning:

1. Restricting student freedom of participation early in
   the learning cycle of classroom learning activities
   increases dependence and decreases achievement;

2. Restricting student freedom of participation later in
   the cycle of classroom learning activities does not
   increase dependence but does increase achievement;

3. Expanding student freedom of participation early in the
   cycle of classroom learning activities decreases
   dependence and increases achievement.[6]

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[6]H. H. Anderson, "The Measurement of Domination and of Socially
Integrative Behavior in Teachers' Contacts with Children," Child
Development, October, 1939, p. 78.

Since this research was not a controlled classroom situation, these hypotheses could not be definitely proved, but they would be true in this research if all the factors that enter in this situation could be controlled or held constant.

Through observation it was found that the pupils that were under sustained direct influence by the teacher did not initiate much action on their own, either good or bad. The pupils seemed possessed by the urge to please the teacher. They beat a path to the teacher's desk continuously to make sure of what they were doing. His main concern is pleasing the teacher.

This could be backed up with Anderson's findings; dominative and integrative contacts of the teacher sets a pattern of behavior that spreads throughout the classroom; the behavior of the teacher sets the climate of the class. Domination incites further domination and integration stimulates further integration.[7]

In the analysis there was a direct relationship between the type of categories used by the teacher and pupil participation and expanded pupil communication. This can be seen in the matrix of each classroom. This relationship produces a cause and effect relationship between teacher and pupil. Teacher behavior causes pupil behavior; and pupil behavior causes teacher behavior.

Of course one must realize that certain factors enter into the patterns of influence used by the teacher: subject matter taught, age and maturity of pupils, teacher's own style of teaching, and the nature of learning activities.

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[7]Ibid.

From the research, it can be stated that all teachers in the first five grades vary in their use of categories that restrict pupil participation and categories that expand pupil participation. When indirect influence was used, the teacher made greater use of statements made by the pupils. This showed up in area F of the matrix. The teacher integrated the pupils' statements into the general discussion of the classroom. The teacher asked questions that provoked more thought and stimulated more pupil response. The indirect teacher dealt with the ideas of the pupils in greater detail and expanded the discussion into more pupil to pupil verbal action.

The direct influence teacher gave longer and more involved directions and often had to repeat them. The type of questions asked were ones that did not require much thought but a short pupil response. The questions asked by the teacher did not evoke pupil verbal expansion between pupils. The direct teacher spent more time in category 5 lecturing on points she wanted the pupils to get, clarifying, and strengthening the responses from pupils.

The teachers in this research tended to be less flexible in their indirect-direct influence. They did not make any dramatic changes in their pattern of influence. The only change they made was changing the type of question they used. They did not shift from direct to indirect as the learning activities continued. They stayed on the question and answer type line of activity and only varied their line of questioning; all of which did restrict pupil participation.

The teachers did not shift from one role to another as the situation called. It seemed that they were restricted to a limited number of roles which produced a very rigid sequence of actions. There was very little variation from one situation to the next.

Few words carry as many vague and contradictory meanings as the word teach. The confusion seems to arise in the wide variation in what people expect of our teachers. I have examined just one aspect of teaching, and I find that this is unlike most routine types of occupations. Teaching is not merely the teacher imparting facts and information—even though good talking is just one part of teaching. It is not only telling; it is not merely assigning and hearing sessions; it is not mere instruction. Instruction is like being instructed in the operation of a machine. The results of this are measurable. Instruction may do little to change the pupil's attitude or behavior. The pupil may not have become anything different after instruction. The teacher must live and work with the pupil as an individual in such a way as to help him develop as a whole personality.

BIBLIOGRAPHY

Anderson, H. H. "The Measurement of Domination and of Socially Integrative Behavior in Teachers' Contacts with Children," Child Development. New York: McGraw-Hill Book Company, 1939.

Biddle, Brude J. and Ellena, W. J. Contemporary Research on Teacher Effectiveness. New York: Holt, Rinehart and Winston, 1965.

Boles, Robert F. Interaction Process Analysis, A Method for the Study of Small Groups. Cambridge, Mass.: Addison-Wesley Press, Inc., 1951.

Buckley, Donald W. and Sweatman, Charles. "Self-Assessment: A Personal Method for Professional Growth," Illinois Journal of Education, (October, 1965).

Carner, Richard L. "Levels of Questioning," Education. Vol. 83, No. 9 (May, 1963), Indianapolis: Bobbs-Merrill Company, Inc.

Flanders, Ned A. Teaching With Groups. Minneapolis: Burgess Publishing Company, 1954.

Lambert, Hazel M. Elementary Education. The Library of Education. New York: The Center for Applied Research in Education, Inc., 1963.

Medley, D. M. and Mitzel, Harold E. "Measuring Classroom Behavior by Systematic Observation," Handbook of Research on Teaching. (A Project of the American Educational Research Association, Department of the National Education Association, Chicago, 1963).

Melby, Ernest O. The Teacher and Learning. Washington D. C.: The Center for Applied Research in Education, Inc., 1963.

"Teacher-Pupil Interaction Patterns in the Teaching of Reading in the Elementary School," The Reading Teacher. Vol. 18, No. 4 (January, 1965), 283-287.