

DOCUMENT RESUME

ED 062 894

FL 003 238

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TITLE Interaction Analysis Gives Insight into Student-Teacher Exchanges.  
INSTITUTION Georgia State Univ., Atlanta.  
PUB DATE 72  
NOTE 4p.  
JOURNAL CIT Foreign Language Beacon; v7 n3 p10-13 Spr 1972  
EDRS PRICE MF-\$0.65 HC-\$3.29  
DESCRIPTORS \*Classroom Observation Techniques; Group Dynamics; Instructional Improvement; \*Instructional Program Divisions; \*Interaction Process Analysis; \*Language Instruction; \*Modern Languages  
IDENTIFIERS \*Flanders Interaction Analysis

ABSTRACT

A method providing objective analysis of teacher and student interaction is described in this article. Feedback derived from a matrix of the teacher's classroom behavior (prepared by a professional observer) provides objective information in 10 separate categories. The categories, characteristic of any teacher's classroom behavior and teaching habits, relate to 100 matrix cells which include categories of teacher talk, student talk, and miscellaneous activities. It is felt that teachers will be in a better position to analyze and improve their teaching through interaction analysis.  
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# INTERACTION ANALYSIS GIVES INSIGHT INTO STUDENT-TEACHER EXCHANGES

## Verbal Control Improves With Practice

Reaching the goal of students' speaking the second language is more feasible when teachers talk less and pupils talk more in class. Interaction analysis helps in achieving proper balance in communication and the rapport necessary to accompany it.

By Dr. Gertrude Moskowitz  
Temple University

You've been warned to start off the school year being strict and ease up later. In fact, it's been established that teachers shouldn't smile till Christmas. You've been cautioned that students shouldn't call out, but must raise their hands and be recognized. And if students ask a question you can't answer, you've been told to have them look it up. You believe these things because you've always been told they were so, but lately you've been wondering if they are.

The FL teacher across the hall from you seems to break all these practical proverbs handed down for generations by word of mouth. And you've been curious to find out how she gets away with it. Quite honestly, you've been worried about the lines setting on your face from the stern facade you manage to portray till Christmas finally comes. You love foreign languages, but somehow your students don't seem to have the zest for learning them that you always did.

### Changing Values?

You thought that today's students just don't have the same sense of values as your generation did until the new FL teacher came last year. You've noticed that her students greet her and each other in the halls in the target language and that her language classes have good enrollments, produce a newspaper, and participate in all sorts of

interesting things in and out of school.

Wanting to share some of this wealth, you asked to sit in on a few of her classes last week and what you saw really depressed you. Why, even the first-year classes were speaking the language, using whole sentences too. Strange how different your students are. They clam up as though languages were not meant to be spoken—or if they are, at least not in an audible voice.

### Heart-To-Heart Talk

Well, the suspense is too much for you, so you've decided this is it. You've got to find out how this teacher does it. You keep up with all the latest techniques, but she must have some secret ingredient that's worth knowing, judging from the results she gets. So you plan to have a "heart-to-heart" on Tuesday after school.

Tuesday comes and you don't mince words, but tell her your concerns. She sympathizes and says she understands for she had her darker days too. You ask her what evoked the change. With a smile she disappears and returns with something strange. What follows this is even stranger, for she is accompanied by the oddest looking creature.

"Permit me to introduce you to the matrix. You'll find him well worth knowing." You exchange polite amenities and then begin to ask what all those squares (100 in all) are that make up her friend the matrix. "Ask him," she says; "he's quite informed and has



"Is this category our best role?" queries Dr. Gertrude Moskowitz, "Why not—from the students' viewpoint?"

provided me with many answers."

You confess this mystery has real intrigue. Just how could this creature of 100 squares have made such a difference to this teacher? So you ask and so he answers. "I take pictures of what teachers do in class. I show them exactly what behaviors they use when they interact with students. When a teacher studies me, he sees whether or not his behavior in the class matches his intentions. I provide concrete feedback for teachers so they can find out

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what they're actually doing and improve."

This sounds so unbelievable that you prod him on. "But how is this possible?" you ask. "I mean, how do you take these pictures? What are all those squares for? And how can I take some pictures too?"

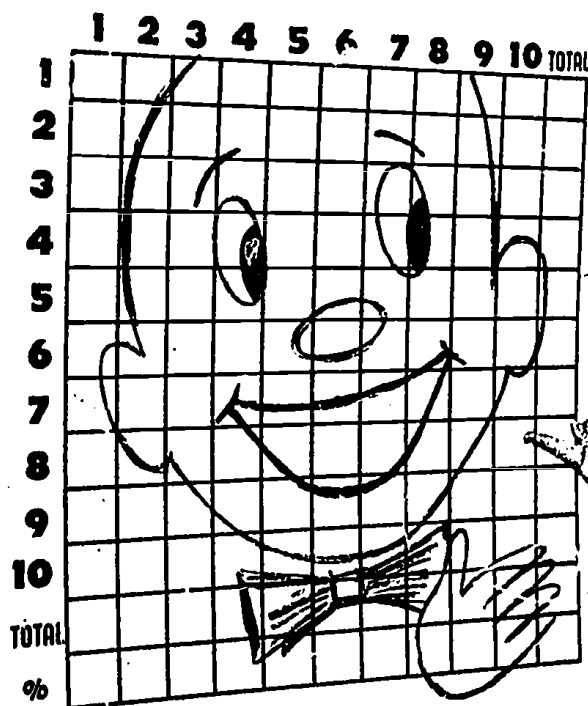
Pleased with your excitement, the matrix continues, "Well, to begin with, I'm made up of ten categories of behavior: seven are teacher talk, two are student talk, and one is a miscellaneous category. These behaviors **do not evaluate** teaching, but **describe it** instead. When teachers interact in the classroom, these ten behaviors are constantly taking place. As they occur, all behaviors are written down and then entered on my squares, and voila—a picture of your lesson."

"Hold on now!" you interject. "You're going much too fast. What are these categories of behavior? How are they written down? And how do you make sense out of all those squares of yours?"

### Direct, Indirect Influences

"Well, let's take your questions one at a time," the matrix calmly states. "The categories that describe teacher talk are divided into two types of influence, indirect and direct. These are the indirect teacher behavior categories: 1) deals with student feelings; 2) praises, encourages, or jokes; 3) uses ideas of students; 4) asks questions. They tend to open up the opportunity of students to participate. And these are the categories of direct teacher influence, which limit the opportunity of students to participate: 5) lectures, orients, or gives information; 6) gives directions; 7) criticizes or justifies authority. Student talk categories are 8) specific, limited responses; 9) open-ended or student-initiated responses. The tenth category is for silence, confusion, or student-to-student interaction.

"When you put all these categories to work and use me, the procedure is called 'interaction analysis,' since you are indeed doing just that: **analyzing** what takes place during classroom **interaction**. You can make a tape recording of a lesson or have a teacher who knows how to write



"Permit me to introduce you to the matrix. You'll find him well worth knowing," says Dr. Gertrude Moskowitz with a smile.

down the category numbers which represent the behaviors visit your class and do this on the spot. All behaviors that occur in the interaction are written as fast as they happen and when the same behavior continues for a period of time, you record the appropriate number every three seconds. So when you finish you have a complete descriptive record of what took place during the lesson."

"But where do you come in?" you ask.

"Oh, that's the best part," the matrix answers. "All the behaviors are entered in pairs into my squares. (Incidentally,

I prefer you call them 'cells.') The reason I have 100 cells is that all ten behaviors can be paired with any of the other behaviors. So ten behaviors times ten behaviors equals 100 possible combinations of behavior."

"Excuse my ignorance, but what can I find out from your squar... I mean, cells?" you blurt out.

"Well," the matrix begins, "would you believe: what percentage of the time the teacher talked; what percentage of the time the students talked; which categories of behavior the teacher used the most and the least;

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Practice makes perfect! Dr. Gertrude Moskowitz records verbal interaction of this future teacher with her "class." Matrix analysis will follow.

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how much time the teacher dealt with the subject matter; how the teacher gets students to participate; what kind of immediate feedback the teacher gives students right after they speak; what kind of student response the teacher gets from students; what pairs of behavior the teacher uses most frequently; what major and minor teaching patterns the teacher uses; whether the teacher uses more indirect or direct behavior during the lesson; which behaviors the teacher uses for longer periods of time. And lots more!"

"All that? Amazing! I never thought teaching could be made so tangible. I know a good teacher when I see one, but I've never been exactly sure what he was doing that made him so good. It sounds like this would tell," you remark with great interest.

### Frame Of Reference

"Right you are," replies the matrix. "Interaction analysis enables teaching to become visible and concrete so that teachers can really see and understand what they are doing as they teach. Instead of abstract notions and personal illusions of what they're doing, teachers now have a frame of reference for studying teaching through categories of behavior. Then when the behaviors from a lesson are entered on me, I summarize the lesson and show the specific ingredients that went into it. In effect, I provide teachers with objective feedback from which they can gain many insights about their style of teaching."

"I help teachers find out whether they're doing what they want to do. And I'm full of surprises. You see, most teachers want to do a good job of teaching, and they have some ideas about the type of teacher they want to be. But they don't realize that actually they may not always be carrying out their goals in the classroom. When they examine the description of their teaching that I exhibit, do you know what happens?" the matrix asks.

"Well, I can guess," you answer. "I suppose if they find they aren't doing the things they **thought** they



Dr. Gertrude Moskowitz agrees as participants from the audience suggest results of greater student-teacher verbal interaction in their classrooms.

were, then they'd want to change and become the kind of teacher they want to be."

"Exactly," the matrix responds. "I can see you're really getting the point. When teachers discover that their behavior doesn't match their intentions, they usually become their own worst critics. Why, teachers have confided in me things about their teaching they'd never admit to anyone. And they accept what I show them without argument. But if someone else were to tell them these same things, the chances are they'd become defensive."

"The beauty of the way I operate is that teachers become **their own agent for change**. Reality must be seen to be believed and changed. Seeing what actually **does happen** in his class, a teacher can intelligently decide what **should happen** in his class. I reveal the gaps that exist between the teacher's goals for a lesson and how he actually carries out these goals. In this way, teachers can become aware of how to carry out future lessons successfully in terms of their own objectives."

### Surprises From Matrix

At this point you decide to ask the FL teacher who introduced you to the matrix just how all this has affected her teaching (you remember her reference to her "darker days" of teaching). She seems quite willing to talk and starts by saying, "When I began to apply interaction analysis to my teaching, I soon found a number of those surprises that the matrix mentioned to you earlier.

"To begin with, I found that I spoke from 70-85% of the time in my classes. And here I had been wondering why my students did so poorly when I gave them oral tests!" she exclaims. "It was clear that I wasn't giving them enough of a chance to speak the language in class. Somehow we just aren't aware of how much we as teachers talk. Time goes by so quickly for us when we do the talking. And yet as FL teachers, it's so important that we consciously control the amount we talk."

"Just what were those 'darker days' like, and how did you ever change them?" you inquire.

### Minimal Praise, Encouragement

"Well, I already mentioned that my students did poorly on oral tests, but they were also weak and hesitant in class in speaking the language," the FL teacher replies. "I thought I'd tried everything to get them to participate, but my matrix revealed that I seldom praised or encouraged students in class. I used these behaviors, that is, Category 2, about 2% of the time."

"Although I realized that I corrected student responses a good deal, I wasn't aware that I tended to do so by communicating criticism at the same time. I discovered, much to my surprise, that about 8-10% of the class time I criticized students, or **four to five times more than I praised them!** This led me to deduce that I was contributing to the insecurity students were feeling, and, in turn, they felt more

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and more hesitant about speaking the language.

"I also learned that I was somewhat insensitive to student feelings as I rarely ever communicated that I understood how students felt," she continues. "My use of Category 1, dealing with student feelings, ranged from 0-0.2%. Using students' ideas, Category 3, was another behavior seldom found in my classes. The behaviors I used most were giving information (Category 5), giving directions (Category 6), and asking questions (Category 4). In fact, there was little variety in my interaction patterns but rather a sameness throughout. This I have since learned is not uncommon in FL classes.

## In A Behavioral Rut

"I'd been blaming the boredom of my students on audio-lingual instruction, but what I decided now was that my interpretation of the approach was monotonous since I tended to repeat the same sequences of behavior over and over and over again. I couldn't believe what a behavioral rut I was in or that my teaching consisted of such constant repetitiveness. Moreover, I found that I had a verbal tic: I continually said *bon* in my French classes and *bueno* in my Spanish classes. And these weren't even praise. They really meant 'so much for that. Let's go on to the next thing now.'

"In addition, I discovered that I was too serious in my dealings with my classes. I hardly ever said anything humorous or joked with them, and laughter was rarely heard in my classroom. I guess I was too concerned with losing control, so I covered up this lighter side of my nature. This should give you an idea of what I learned about myself when I began to analyze my teaching."

"Did you try to increase your use of praise and encouragement and joking as a result?" you ask.

## Decreasing Teacher Talk

"Yes, you're catching on to how this system works," she remarks. "I also wanted to convey understanding of student feelings and cut down on my use of criticism. At the same time, I

planned to decrease the amount I talked so my students would be able to speak more often.

"And I hoped that by reinforcing their responses more frequently with praise and encouragement as well as using their ideas, joking, and showing understanding of their feelings in learning a foreign language, I could improve the climate in my classes. In implementing this plan, I would also be adding more behavioral variety to my lessons, which was an important objective I was aiming for. Mind you, I didn't make all these changes overnight!"

"Just how did you go about trying to change?" you inquire.

"I began to concentrate on one or two areas at a time. As I planned my lessons, I also planned how I could carry them out behaviorally. At the same time, I made tape recordings of my classes and classified the behaviors to see whether I was carrying out my behavioral plans successfully. I found that the more my behavior matched my objectives, the greater was the participation and the enthusiasm of the students. So the whole thing became self-reinforcing; that is, the more I reinforced students and saw their positive, overt reactions to my behavior, the more I was reinforced to continue to improve in these directions.

## Control of Verbal Behavior

"After working with these ten categories a while, I later used systems with additional behaviors to get even more detailed feedback. And so by adding the dimension of classroom interaction to my way of perceiving teaching, I learned the most important lesson of all, that teachers can control their verbal behavior and, as a result, can change and get the outcomes they desire. Never before did I fully understand the vital role teacher behavior plays on attitudes and achievement. And," she concludes, "let me add, my students have greatly improved in their oral tests as well."

You must admit you're quite impressed by Miss FL's success story. And you're anxious now to learn to apply interaction analysis to your own teaching. As though she reads your

mind, Miss FL pulls out some training materials and articles for you on interaction analysis. She then tops off your meeting by offering to help you categorize your interaction until you've learned to do it yourself with a tape recorder.

You notice, when you thank her and take your leave, how pleased your new acquaintance, the matrix, looks. This has been an eye-opening experience, and you're grateful that you made this contact. And as you slowly saunter down the hall to the parking lot, meditating all the while, you are no longer troubled. There is a growing

## Dr. Gertrude Moskowitz

Dr. Gertrude Moskowitz, noted speaker and author in the area of interaction analysis, has traveled extensively throughout the country addressing audiences of educators on pupil-teacher relations in the classroom learning process.

Her programmed text **The Foreign Language Teacher Interacts** is available through the Association for Productive Teaching (5408 Chicago Avenue South, Minneapolis, Minn. 55417). This is accompanied by tapes for French, German, Spanish, Italian, Latin, and English as a Foreign Language; a dozen transparencies dealing with matrix analysis complete the packet.

Dr. Moskowitz presently teaches in the Education Department at Temple University. She received the B.S. degree from Ohio State University, the M.A. and Ed.D. from Temple.

hope and confidence building inside you that seems to cry out that you too can learn to control your verbal interaction, and, as a result, improve the communication and the dynamics in your FL classes. A truly exciting, practical, promising approach.

"This is for me," you decide. Why, you're already thinking about the categories and wondering which ones you use the most, the least, or maybe not at all. Just how does your behavior affect your students? One thing for certain though, having an objective way to see yourself teach is really good. And when you say this, you really do mean good!