Classroom interaction may be described in terms of communication events, i.e., sequences of teacher-pupil communicative behaviors separated from preceding and succeeding sequences of behaviors by natural boundaries. Communication events may be institutional (related to managing the classroom and meeting the expectations of the institution), task (focused on teaching and learning subject matter), personal (centered on the personal needs, goals, and emotions of a pupil, a group of pupils, and/or the teacher), or mixed (containing elements of two or more types). Events may also be identified as individual (interaction between a teacher and one student) or group (interaction between a teacher and several students). These events may be symbolized: I = institutional events; P = personal events; T = task events; M = mixed events. Individual events can then be indicated by placing an "r" after the symbol which appropriately characterizes a particular event. Duration of an incident may be recorded by tallying dots after the symbol at 3-second intervals as long as the event continues. The resultant model (called PIT for "personal," "institutional," and "task") for analyzing classroom communication has been applied to video tapes representing 1,360 minutes of interaction in junior high school classrooms and has yielded some interesting data. It has a number of potential research applications and may be used in combination with other observation systems. (Author/SG)
In recent years, a number of educators and researchers have profitably focused their attention on the behavior of the classroom teacher in an attempt to gain insight into the teaching-learning process. Vast amounts of behavioral data, greatly enriching our knowledge of "the way teaching is," have been contributed through these efforts. In short, the study of teacher behavior has yielded significant data concerning teacher-pupil relationships and classroom interaction.

However, it has probably occurred to every serious student of classroom behavior that most observational systems of behavioral analysis reduce teacher and pupil verbal and nonverbal expressions to their lowest level of meaning. Undoubtedly, many observers using the available systems feel the need for some larger rubric from which specific behaviors will gain a proper perspective in relationship to the totality of the teaching-learning act.

Growing out of this need for a broader perspective have been a number of attempts to place both teaching and teacher behavior in a communication framework. Indeed, Hyman (1968) has concluded: "Teaching is a specific case of a more general abstraction called communication."

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Many of those who have attempted to place teacher behavior in a communication framework have displayed a logical tendency toward grouping behaviors into communication entities. For example, Smith and Meux (1962) and Galloway (1962) have suggested that teacher-pupil interactions can be viewed as "episodes." Lewis, Newell, and Withall (1961) described "communication acts." Bellack (1963) used the concept of "teaching cycles." And Openshaw and Cyphert (1966) have referred to "classroom encounters."

Most conceptualizations of communication entities have been defined in terms of (a) the characteristics of behaviors or activities in progress or (b) arbitrary allotments of time. However, a classroom observer soon becomes aware that teacher-pupil interactions have varying functions. To look at classroom interactions in light of their functions suggests the concept of communication events.

**Communication Events**

A communication event can be defined as a sequence of teacher-pupil communicative behaviors separated from preceding and succeeding sequences of behaviors (events) by naturally occurring boundaries. As defined by Galloway (1962), these boundaries are: (1) a variation or change in the direction of a teacher's communicative behavior; (2) a change in the teacher's behavior toward a new interaction; (3) the occurrence of a significant or potent act which appears influential; and (4) social intervention in which an interruption is instigated by either a pupil or the teacher. As implied, communication events are composed of both verbal and nonverbal behaviors by both teachers and pupils. It is not uncommon to find an entire event composed entirely of nonverbal behaviors.
Observation of elementary and secondary classrooms suggests that what goes on there may be described as communication events which are institutional, task-oriented, personal, or mixed in nature.

**Institutional Events**

Institutional events are those which relate to managing the classroom and meeting the expectations of the institution. Perhaps Jackson (1968) has best delineated this kind of event by posing a series of questions relevant to their recognition in most classrooms. These questions are:

1. "Who may enter and leave the room?"
2. "How much noise is tolerable?"
3. "How to preserve privacy in a crowded setting?"
4. "What to do when work assignments are prematurely finished?"
5. "How far to go in establishing classroom-social etiquette?"

The following are illustrative institutional events:

1. A verbal and/or nonverbal reprimand to a student for chewing gum because this action is against school rules.
2. Teacher handing back quiz papers and explaining grading procedures.
3. Teacher calling roll and pupils responding verbally or nonverbally.
4. Pupils and teacher preparing for the use of a motion picture.
5. Teacher announcement and/or explanation of school events or activities.
6. Teacher calling for, signing, and discussing with pupils absence excuses.
7. Teacher cueing pupils verbally and/or nonverbally in an attempt to maintain silence or order and pupils responding.
8. Teacher directing pupils to begin their homework; pupils feigning industrious activity.
9. Teacher verbal and/or nonverbal direction to pupils in how to leave the classroom for some particular purpose.

**Task Events**

Task events focus on the teaching and learning of subject matter content, whether cognitive, affective, or skill-oriented. Task events are characterized
by stating, asking, showing, acknowledging, and clarifying communicative behaviors on the part of both teachers and pupils, and some key words related to these behaviors are suggestive of the work of Bloom (1956) and Sanders (1966): remembering, understanding, applying, analyzing, synthesizing, evaluating.

Illustrative task events include:

1) A teacher-pupil discussion of the functions of Congress.
2) A teacher demonstration of how to read a weather map.
3) Teacher explanation of the factors influencing the Battle of Gettysburg while pupils take notes.
4) Teacher aiding individual pupils during an independent study period.
5) A student report on inflation.
6) A laboratory exercise in which pupils are using microscopes with the teacher assisting them.

Personal Events

Personal events are those in which personal needs, goals, and emotions of a pupil, a group of pupils and/or the teacher provide the central focus. Davitz (1964) has provided a rather extensive list of emotional expressions relevant to these events. The list includes admiration, affection, amusement, anger, boredom, cheerfulness, despair, disgust, dislike, fear, impatience, joy, satisfaction, and surprise.

Typical personal events are:

1) Pupil expressions of frustration and teacher response to these.
2) Teacher expression of personal interest in or concern for a pupil or his problems.
3) Pupil expression of affection toward the teacher and teacher response, either verbal or nonverbal.

4) Angry dialogue between two pupils concerning actions or the playground.

Mixed Events

Mixed events also occur in classrooms. These contain elements of more than one of the event types previously described. While one might classify mixed events according to the elements which they contain (task-personal events, institutional-personal events, etc.), this would appear to be a somewhat difficult and useless procedure. Interaction and communication become distorted when the focus of an event becomes complex and when participants are no longer aware of the specific nature of the event. Therefore, the descriptive category "mixed events" better describes the function of these behavioral sequences than does any further breakdown of the category.

Coding: Communication Events

Personal, institutional, task, or mixed events can involve the teacher with a single pupil or with a group of pupils. Since any attempt to identify the focus and intent of interaction in the classroom at any given time must include clarification of the number of participants involved, communication events must be classified as individual (interaction between the teacher and one pupil) or group (interaction between the teacher and several pupils).

A simple identification of classroom communication events involves a coding scheme utilizing the symbol I to signify institutional events, P for personal events, T for task events, and M for events which cannot be clearly defined (events mixed in nature). Further, institutional, task, or personal events
involving the teacher with a single student (individual events) are indicated by the symbol i placed after the symbol characterizing the basic nature of the event (e.g., Ti, Pi, Ii).

An important aspect of a communication event is its duration. This facet is captured by tallying the appropriate reference symbol at the initiation of the event and marking continuance of the event with dots tallied at three-second intervals. If this system is used, an observer's coding of a group-task event occupying twenty seconds of classroom time would resemble the following: T . . . . . .

Recent Findings Relevant To Classroom Communication

Although research employing the PIT model (title derived from the first letter of each major communication event type previously described) has, as yet, been limited, application of the model to videotapes representing 1360 minutes of interaction in junior high school classrooms has determined the significance of the model and yielded some interesting data.

The 1360 minutes (twenty-three hours) of interaction analyzed contained a total of 1705 separate communication events. Each forty-minute class period (thirty-four periods in all) contained an average 50.4 events.

Of the total 1705 communication events, 1173 were task-oriented, with 794 of these being group-centered, task events and 379 involving the teacher with only one pupil. Single group, task events averaged 73.9 seconds in duration, while individual, task events occupied approximately 37.6 seconds each. Of the 50.4 events per class period, 34.5 were task-oriented. Task events, either group or individual, accounted for 69.2 percent of all events recorded.
In the junior high school classrooms observed, institutional events numbered 420. Of this total, 249 institutional events involved the teacher with the whole class or a significantly large group of pupils. Individual, institutional events constituted 171 of the institutional event total. Twenty-five percent of all events recorded were institutional events, and an average of 12.6 institutional events occurred per forty-minute class period. Single group-centered, institutional events averaged 30.3 seconds in length, and each individual, institutional event was approximately 11.8 seconds long.

The videotapes made of junior high school English, mathematics, science, and social studies classes yielded a total of 65 personal events, of which 21 could be classified group, personal events, and 44 were individual, personal events. Group, personal events took up 30.5 seconds each, while individual, personal events were allotted 16.1 seconds. Personal events represented only 3.8 percent of all interaction, and an average of only 1.9 such events occurred per forty-minute class period.

The junior high school teachers observed engaged in 47 mixed events, only two of which could be designated individual, mixed events. Approximately 2.6 percent of all events recorded were mixed in nature with a forty-minute class period yielding an average of 1.4 such events. Interestingly, most of these occurred during independent study activities scheduled near the end of the class period.

While none of the above statistics are particularly meaningful without knowledge of the communication goals of the participating teachers and the interaction strategies which they were attempting to implement, the data are indeed interesting. However, further research is needed before it can be known how truly representative these statistics are in describing communication
patterns in junior high school classrooms and what variations exist in elementary and secondary classrooms.

**Suggested Applications of the PIT Model**

It is quite clear that the PIT model provides another perspective for descriptive research in classroom interaction, but it also appears that the model has practical utility for classroom teachers, supervisors, and administrators.

Due to its simplicity of nature and application and the fact that it can be easily learned, the PIT model offers the classroom teacher a means of analyzing his communication, particularly when videotape is available as a means of recording classroom activity.

Given specific teacher goals and intents, supervisors and administrators can employ the model as one means of aiding teachers in improving their instruction and classroom communication. Further, the model may be used to gain insight into communication patterns appropriate and promising to teaching and learning at various grade levels, in various subject areas, and among various types of learners.

Finally, the PIT model may be used in combination with Flanders' Interaction Analysis, French and Galloway's IDER System or several other behavioral analysis systems to provide the observer with a clear picture of both individual teacher and pupil behaviors and broader communication patterns. Much can be gained from knowledge of the behaviors teachers commonly use to open and close particular types of communication events, behavioral patterns typically found in particular event types, etc. Indeed, some research of this kind has already been taken.
BIBLIOGRAPHY


