Educators and COMMUNICATION RESEARCH

This article treats several problem areas in which the interests of educator and of communication researcher coincide.

Let us begin by saying a few words about communication itself.

By communication we mean the process by which information is transmitted from a source to a destination. The word comes from communis, common, and communication implies a degree of commonness or in-tune-ness between the systems which are communicating. The act of communication, from the sender’s point of view, is the construction and delivery of a message which will contain the desired information and (promise to) awaken the desired in-tune-ness in the receiver. From the receiver's point of view, the act of communication is the selection among messages and the disposition of those selected—the attaching of meaning to them, their storage or rejection, and such further response to them (for example, a reply) as may be indicated. Thus the discrete elements of the communication process are, at the least, sender, message, and receiver. But a message always travels in a channel (such as speech or writing, gesture, print, or film), and the whole process is necessarily interwoven into a social context. In this context the group relationships of sender and receiver are particularly important to communication. Therefore, at least five elements enter into the description of even the simplest act of communication.

This is the process with which communication research men are concerned, whether the process goes on between human beings, between machines, or between machines and humans. Educators are, of course, concerned primarily with communication between humans. Human communication is a—perhaps the—fundamental social process. It is the glue that holds society together. It is the homeostatic fluid that flows among the dynamic organs of society, keeping them in balance. It makes it possible for men to live in groups, and for groups to deal with each other. It makes it possible for society to get quick reports from watchers on the horizon, to reach consensus on what to do about these reports, and to transmit funded culture to new members of the society. It is responsible for much of our entertainment and makes possible our commerce. Society has institutionalized its need to know under such large organizational forms as the mass communication media and formal education. Thus, when we ask what importance communication research has for educators, we are really dealing with intra-family relationships.
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The research problems that come under the heading of communication have traditionally been classified under such a grouping as this:

Who
says what
through what channel
to what audience
in what context
with what effect?

The problem of "who" is the problem of source, what motivates and controls the source, and how it operates in encoding the message. "What" is the problem of content, its symbols, themes, and form. "Channel" introduces problems of the differences between the media as carriers of messages. "Audience" research is concerned with the description and enumeration of receivers of messages. "Context" with the worlds of the sender and receiver at the time of sending and receiving, including especially, as we have already suggested, their group relationships. "Effect," of course, implies a study of the responses to messages.

It is fair, I think, to say that sizable bodies of communication research have begun to grow up around all these foci, with the possible exception of channels. The greatest mass of information deals with the audiences of the mass media, which the sociologists have studied most intensively, and the advertising men most extensively. Perhaps the oldest body of research and recorded fact deals with source, for example the structure and operation of the mass media, the pressures and forces on mass communication, the relation of the mass media to law and government, and the development of the mass media. This has been the province of political scientists, sociologists, and historians. Another large group of studies relate to content analysis—the quantitative description of messages, the analysis of propaganda, the study of symbols. This was begun by political scientists, taken up by sociologists, and lately contributed to by linguists and experimental psychologists. The greatest activity in recent years, however, has been in the areas of effects and contextual group relationships. The kinds of problem most often chosen here have had to do with the meaning derived from messages, the formation of opinions and attitudes, the process of persuasion, and the dynamics of communication in groups. This area has come to be chiefly the province of the social psychologist.

The nature of these areas might be illustrated by naming one volume in each. An illustration of audience data would be the Continuing Study of Newspaper Readership, now past its 150th volume. An example of source and control study would be Alex Inkeles' Public Opinion in Soviet Russia, which examines the structure, control, and operation of the mass media in the Soviet Union. An example of content study is Ithiel Pool's little book on The Prestige Papers, which examines the use of political symbols in some of the great newspapers of the world. The area of effects is well illustrated by Carl Hovland, Irving Janis, and Harold Kelley's Communication and Persuasion, a series of closely controlled labo-
ratory studies on the effects of different kinds of communication under different circumstances. And the area of context can be represented by Elihu Katz and Paul Lazarsfeld's *Personal Influence*, which relates interpersonal communication to the flow of mass communication.

Inkeles is a sociologist, as are Katz and Lazarsfeld; Pool is a political scientist; Hovland, Janis, and Kelley are psychologists. This will remind us that communication research is not a discrete discipline, but rather a focus on certain problems which are capable of being illuminated by a number of disciplines, and indeed which often require the combined efforts of several disciplines before they are completely illuminable. Anyone who works broadly in this field is bound to be amused by finding himself acting like a kind of scholarly pack rat, gathering up what he can here, what he can there, borrowing from learning theory, from the history, political science, and sociology of institutions, from group and social action theory, from mathematical information theory, from economic theory, from clinical psychology, from linguistics, and putting them all to use in trying to understand the dynamics of communication. Increasingly, therefore, we have seen the formation of research groups which include representatives of more than one discipline, such as the M.I.T. group around Pool working on international communication, the Yale group around Hovland working on communication effects, the Illinois Institute of Communications Research, the Stanford Institute for Communication Research, et cetera.

Educators who turn to communication research for help with their own problems should be warned, therefore, not only that they will find no discrete discipline, but also that they will find a very young field with a scant structure of discrete theory. Scant, that is, as compared with the amount of theory in physics, or even in economics. They will find a large and useful body of facts about the communication patterns of humans, somewhat less about the structure of the mass communication industry and the content of mass communication, and between 100 and 200 rigorous studies of communication dynamics, including the context. They will find an increasingly good insight into the process of communication. However, here again it is necessary to raise a warning flag. Whereas human communication is an infinitely complex process, most quantitative research studies are necessarily simple. They vary the source, holding other elements constant. They vary the strength of fear appeals, holding other elements constant. They examine the nature of individuals who panicked at Orson Welles' broadcast of an imaginary invasion from Mars. That is, the very limitations of research on human beings make it difficult for us to study the communication process entire. Rather we are compelled to chip away at it, breaking off piece after piece for analysis, and hoping to be able to reconstruct the process once we understand its fragments.

**Communication Problems**

But all this aside, it is likely that what we already know about communication is sufficient to be of help to the educator in a number of areas. Let us
consider a handful of educational problems which are also communication problems.

1. Administrative communications.
Few school administrators need to be told that they have communication problems. Some school executives go through their careers with a vague but pervasive sense of being misunderstood; others awaken suddenly, when they face a crisis in their school system or an angered public, to the realization that communication has broken down. Every executive must endlessly explain, persuade, strive to understand, keep his antenna tuned to faint signals, and repair the circuits. A very large part of his work is communication. Yet when a communication researcher looks at the peculiar problems of a school administrator, he finds them quite familiar. These are the same problems that have been classified and studied in large industry—for example, the need for efficient horizontal and vertical communication within the organization, the relation of communication patterns to morale, the problem of maintaining good public relations. The school executive, in trying to pass a bond issue or meet an attack on “progressive” education, is facing the same kind of problem which has been studied in dozens of informational and social action campaigns. Indeed, any school administrator would benefit from reading such an article as Hyman and Sheatsley’s “Some Reasons Why Information Campaigns Fail.”¹ The school administrator’s problems in persuasion are the classical problems treated in a book like that by Hovland, Janis and Kelley.


His problems of combining personal influence with mass media influence are the same as those treated by Katz and Lazarsfeld. This is not to suggest that there is any single book available to the school administrator which would instantly and easily clarify all his communication problems. But on the other hand we are at the point where such a book might be written in the foreseeable future, and in the meantime there are many research bridges between the needs of the educator and the resources of communication.

2. Communication in the classroom.
When the communication researcher looks at the classroom, he is impressed with the complexity of what looks so simple. The receivers in the classroom vary greatly one from another, hence in theory require different messages. How often, in a group teaching situation, does the teacher achieve the degree of “in-tune-ness” which really good communication requires? We know from experiments in introspective recall that students are often engaged in the most varying and widely ranging mental activities when they are supposed to be listening to and absorbing a lecture. In addition to facing the ordinary problem of communicating with a varied group of receivers, the teacher is trying to combine a dozen or more channels in the average day’s work—the spoken word, the written word, the blackboard, pictures, textbooks, films, “acting it out,” etc. This act of combination is not simple, and is not well understood. To make it harder, the teacher is dealing with messages which carry not only “facts” about subject matter and “demonstrations” of skills, but also “concepts” of life, roles, val-
ues. Furthermore, the teacher is dealing with a functional group or series of groups, so that all communication within the classroom must have reference not only to individual needs and interests, but also to group norms and group dynamics. How differently a group functions when its communication is differently organized is illustrated by Bavelas' experiments in comparing groups in which communication passed around a circle, and groups in which all communication passed through a leader at the center of a star pattern, or Lewin's classic experiment on authoritarian vs. democratic groups. Finally, to make the situation as difficult as possible, all receivers in the class are subject to a very large amount of uncontrolled and uncoordinated communication outside the class, some of which undoubtedly conflicts seriously with the communication they receive in class. We shall talk of this later. Here it is sufficient to say that the communication research man makes no pretense, at the present stage of his research, of being able to unravel all the communication problems of the classroom, but he would urge the teacher to be on the lookout for certain danger signals of inefficient communication. And he sees the classroom as a good and needy laboratory for future communication research.

3. Communication aids to teaching. Most of our "teaching aids" are no more than auxiliary channels of communication to the student. The communication researcher has studied some of these—notably films, broadcasts, and certain printed texts—has tried to make some order out of their characteristics and to estimate which combinations of characteristics make for greater learning, and has gained at least a few useful insights into their construction and use. He has learned enough to know that many aids are poorly made, and many more misused. For an example of what has been done in one field, see the annotated bibliography by Hoban and Van Ormer, Instructional Film Research, 1918-1950. For an examination of another teaching aid field see the little book by Cronbach and others, Text Materials in Modern Education.

4. The test as communication. Lee Cronbach, who is president-elect of the American Psychological Association, gained a fresh and useful insight into test making by thinking of the test as a communication channel from pupil to teacher. And in truth, that is what it is. It communicates baseline information, or "feedback" after a period of instruction. It asks the student to put into the channel what he knows or can do on a given subject or problem. We are really sampling the student's knowledge or skill, just as we sample a population with a public opinion poll, and therefore it is appropriate to ask some of the same questions: have we sampled adequately? have we put the information into a clear channel, uncontaminated by interviewer (teacher) influence or other noise? have we established in-tune-ness so that we can interpret the message correctly when it comes through? Cronbach was able to work out information theory mathematics to apply to test theory, but this need concern us here less than the simple idea of the test as a communication channel, subject to all the difficulties and misfunctions.
which may upset other communication.

5. The world outside and the world within. A few paragraphs back, we pointed out that students were exposed outside the classroom to a great deal of communication over which the school has no control. This is very potent communication. It includes a large share of the primary and peer groups' messages, and two to five hours per day from the mass media. It can safely be said that a child probably derives more of his idea of environment, more of his sense of values and his knowledge of roles, from outside the classroom than from inside it. Furthermore, there are likely to be notable contrasts and conflicts as between the classroom and the world outside—popular art as against classical art, peer group values as against older-generation values, violence in the media as against restraint in the school, etc. To the communication researcher, this seems a fact of major importance. What, he asks, does it mean in terms of curriculum-making and educational policy? For one thing, how can the school make most use of the great wealth of communication the student receives outside? Are there some parts of this outside communication which are so rich as to replace some of the classroom work and free the class for more advanced things? On the other hand, what can the school do to guard the student against possible ill effects of this outside communication, and to make sure that the student selects well from what he has available? Is it not the obligation of the school to teach students to use the mass media critically and well? The people who panicked at Orson Welles' broadcast of the fictitious invasion from Mars were the uncritical listeners. The people who fall for the unscrupulous users of news columns are the uncritical readers. Should the school not be getting its students ready for a time when attempted manipulation by mass media may be even more prevalent than now? The communication researcher can ask these questions better than he can answer them, but when the educators get into these problems they will find that communication research can help them with a great deal of material on what is in the channels of mass communication, what is selected from these channels by children of different ages, and what are the dynamics and effects of the different kinds of groups in which the school child moves.

These are only a few of the problems in which the interests of educator and communication researcher coincide. For example, we have said nothing of the problem of extending the classroom: adult education, extension service, education television and radio. This is a problem in which the communication research can surely be of some aid. But our task here has not been to make an exhaustive list of problems; rather it has been to indicate by example some of the areas in which educator and communication researcher might go forward together.

In the following list are a dozen general books on communication research—not a representative, not even necessarily a "best" list, but a good starting point for someone on the education side who wants to see what the other side is like. Some of the volumes are readers' reprinting of articles, and most suggest further bibliography.
References


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