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ABSTRACT

This paper attempts to assess the influence of development communication theory on the planning and implementation of technical assistance projects in the Third World that utilize mass communication as an agent of change. Like political development theory, communication theory has often been applied in an ethnocentric manner in less developed countries by those who assume that increasing urbanization will lead to literacy, wealth, and increased participation, which can be interpreted as progress. Proponents of this theory encourage a one-way communication approach, whereby locals are given information through the media in order to bring them up to the standards of the assisting nation. More recent research has suggested such populations should not be treated as blank slates but must instead be considered in light of their culture and ethnic values. The Basic Village Education (BVE) project, a United States Agency for International Development (USAID) supported experiment conducted in Guatemala between 1975 and 1978, supports this theory. In this study, researchers selected two rural, agricultural sites in Guatemala, one inhabited by the Ladinos, who are of Hispanic extraction, and the other inhabited by native Indian farmers. Both groups were given instruction by radio in agricultural techniques to improve farming and production, and both had the benefit of local intermediaries who listened to their suggestions concerning how the radio instruction could change to suit their needs and concerns. A control site received no instruction. Although the project was based on some older, ethnocentric assumptions of what progress means, it proved to be more successful because of the room for change that the intermediaries offered. (JC)

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Application of Theory to a Technical Assistance Experiment: Development Communication Theory and the Basic Village Education Project in Guatemala

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Application of Theory to a Technical Assistance Experiment: Development Communication Theory and the Basic Village Education Project in Guatemala

Political development theory has undergone a considerable transformation since its origin in the post World War II period. Richard Higgott provides a thought provoking analysis of the changes the theory has experienced since then and notes a general decline of development theory recently. He states that this decline "is not to be concluded from any perceptible decrease in the volume of literature on development issues, but rather from the lack of any substantive beneficial impact of this literature on the problem area to which it is addressed," that is to say, the developing nations of Africa, Asia and Latin America. (Higgott 1982, p. 1)

He does not suggest that there have been no advances in theory building, but rather that theory has developed in such a way as to "put us further back from our initial starting point." (Higgott, p. 2) He states that the initial theoretical assumptions were not reflective of Third World reality. While we are now better able to understand the political and economic realities of the Third World, "we are prescriptively further back than we were when we started theorizing about development after World War II." (Higgott, p. 2)

While Higgott addressed himself to the theory of political development, a similar state of affairs is evident in the building of a theory of communication as it relates to development. The dominant paradigm of communication theory has been extensively criticized as being based on ethnocentric assumptions about both the functions of communication in society and communication's effects on the audience that do not hold when applied in a cross-cultural setting. As in political development theory,

communication theory at its inception failed to understand the basic reality of conditions in the Third World and therefore failed to construct a theory that proved valid when applied to developing areas. (Beltrán 1976, pp. 107-126)

Though the two areas are closely related, communication theory (a theory of human communication in general) rests on many non-political constructs, and so, development communication (communication used to assist the development process) must be examined as related, but not identical to political development theory.

The principal criticism that Higgott makes of political development theory is that of prescription, that political development theory has had little impact on the development of the world's underdeveloped countries. Applied to a development communication framework the question becomes, does development communication theory make an impact on the various development projects in the Third World that utilize mass communication? Additionally, do recent modifications in theory affect the design and implementation of technical assistance programs involving communication in any significant way? And finally do these projects contribute to the kind of equitable development that is now viewed as essential to close the widening gap between rich and poor?

Purpose

This paper is a preliminary attempt to assess the influence of development communication theory on the planning and implementation of technical assistance projects in the Third World that utilize mass communication as an agent of change. Working from Higgott's notion that theory has not made a significant impact on the development problem, the paper will first

outline the evolution of development communication theory, with particular attention to the numerous criticisms lodged against it in the late 60s and early 70s. It will then present a basic description of the mandate and strategies of the major financial supporter of development communication projects in the world, the United States Agency for International Development (USAID). Finally, the paper will examine a specific USAID supported experiment in the use of radio education in the instruction of modern agricultural practices in two regions of Guatemala in the 70s, the Basic Village Education project (BVE).

While the examination of a single project is in no way sufficient evidence to base any general conclusions upon, it is hoped that such a case study approach can suggest a relationship between theory and practice and hence contribute to the resolution of Higgott's criticism.

To achieve this partial resolution, two propositions are asserted.

1. The theoretical basis of development projects employing mass communication media in developing countries reflects theoretical models rooted in the historical and cultural experience of the donor country rather than the most recent theoretical statements by Third world communication researchers.

2. Development communication theory has little effect on the equity of progress achieved by the use of information supplied by mass communication channels, and hence has limited impact on the problem of underdevelopment.

To examine these propositions, it is first necessary to trace the formation of development communication theory and to examine the criticisms that were being made by Latin American scholars at the time the Basic Village Education project was being planned and implemented. Furthermore, it will be necessary to describe the workings of both the donor organization, USAID, and the project itself, BVE.

Development Communication Theory

In 1964 Wilbur Schramm published Mass Media and National Development. In many ways it summarized the thinking of the time among mass media practitioners (journalists, politicians and civil servants). But since it was also research oriented, the book, together with works by Daniel Lerner (1958) and Lucian Pye (ed., 1963), laid much of the groundwork for future theoretical and applied research. Goran Hedebro asserts that "the research orientation these authors represent has exercised little influence on how the media have come to be used in the developing world." For the most part the practitioners (journalists, politicians and civil servants), rather than the theoreticians, have had the greatest influence on how the media were used in Third World countries in the early 50s. (Hedebro 1982, p. 14)

At that time, mass communication was often thought to be a very powerful and direct force for development. "It was the pressure of communications which brought about the downfall of traditional societies," according to Pye. (1963, p. 3-4) There was some support for such a position from communication research at the time. An early study in the Middle East by Lerner had led communication scholars to expect the mass media to be a "magic multiplier" of sorts. Briefly stated, increased literacy was assumed to lead to increased media exposure which in turn stimulated economic and political participation. Since, according to Lerner, increased urbanization led to increased literacy, it appeared that urbanization coupled with the mass media would lead to increased participation and hence modernization for the country. (Lerner, 1958)

To fully appreciate the basis of such high hopes for the role communication could play in development, a brief outline of the "Dominant Paradigm of Development" as described by Everett Rogers is helpful.

> The concept of development grew out of historical events, such as the industrial revolution in Europe and the US, the colonial experience of most of Africa, Asia and Latin America, the quantitative empiricism of North American social science and capitalist economic/-political philosophy. Implicit in the ruling paradigm were numerous assumptions which were generally thought to be valid, or at least were not widely questioned until the late 60s. (Rogers 1976, p. 213-216)

The basic definition of development at that time was the level of of a country's economic growth, usually quantified as the Gross National Product per capita. Little attention was paid to any notion of the equality of development benefits. Indeed, a "growth-first-and-let-equality-come-later" mentality was often justified by the "trickle-down" theory — the benefits gained by the elite would filter down to the masses by way of an enlarged economy. "In short, the old paradigm implied that poverty was equivalent to underdevelopment. And the obvious way for less developed countries to develop was for them to become more like the developed countries." (Rogers 1976, p. 217)

This dominant paradigm implied that a redominately one-way flow of information from the government development agencies to the people would lead directly to increased participation, and the mass media seemed ideally suited to this role. It could rapidly reach large audiences with information and persuasive messages about the details of development.

The one-way flow notion was in large part also supported by early research in developing countries which seemed to show that mass media exposure was highly correlated with individual modernization variables. (Rogers, 1965, Fry, 1964) Correlational analysis of survey data about mass media and modernization did not exactly prove that the former caused

the latter, but it did demonstrate a certain degree of covariance between the two sets of variables.

However, another form of research, the field experiment, went further in evaluating the role of mass communication in development than the multi-national survey studies could. In this approach, some mass media channel typically would be introduced in a small number of villages and it effects would be evaluated by means of the difference in baseline and post-application surveys. (Neurath, 1962) Significant changes were noted in these experiments also and the one-way, direct effect notion seemed to be borne out.

In 1960 Joseph Klapper published empirical findings that became a milestone in the continuing discussion of media impact. He concluded that the media have little or no direct effect on people, but rather reinforce attitudes and behaviors that people already possess. (Klapper, 1960) This was in stark contrast to the views of Schramm, Lerner and Pye, who claimed that the media had great potential for effecting change. For the most part, however, the flaws in the old paradigm were not widely examined by North American scholars until later in the decade.

The field experiments were designed in keeping with the diffusion of innovations model. In such research, and idea perceived as new by the receiver (and innovation) is traced as it spreads through a system. The model's focus on technology and on its top-down flow of information to the public fitted well within the old paradigm's focus. Most importantly, this model viewed the receiver as an individual, in large part ignoring the social/cultural context into which the innovation was introduced. Other key assumptions of the diffusion model were: One, communication by itself can generate development. Two, increased production and

consumption of goods and services equal development. Three, the heart of increased productivity is technological innovation. (Beltran 1976, p. 111)

A number of criticisms of the assumptions and directions of diffusion research appeared in the early 70s including Grunig (1971), Marceau (1972), Havens (1972), Golding (1974), Beltrán (1974) and Diáz Bordenave (1977). These critiques centered on the pro-innovation bias of such research and on the propensity of projects based on the diffusion model to widen the socioeconomic gaps in rural areas. Many of these communication researchers were persons born in the Third World, educated in North America and were conducting research in their native regions. Since the focus of this paper is a Central American radio education project, particular attention is paid to Latin American researcher's criticisms of the existing theory, though similar criticisms have been voiced by communication researchers in other parts of the Third World.

Challenging the basic assumptions of the diffusion model required a challenge of the dominant paradigm itself and the identification of a new set of constructs. Luis Beltrán proposed that:

1. Overall change of societal structure is the fundamental prerequisite for the attainment of genuinely human and democratic development.

2. Technological improvements in productive sectors do not lead necessarily to achieving such development.

3. Communication, as it exists in the region, not only by its nature is impotent to cause national development by itself, but often works against development in favor of ruling minorities.

4. Communication itself is so subdued to the influence of prevailing organizational arrangements of society that it can hardly be expected to act independently as a main contributor to profound social transformation. (Beltran 1974, p. 12)

The primary consideration then became the importance of understanding the socioeconomic environment within which development was to take place. Communication was no longer seen as a present or absent condition, but as a multivararіable, dynamic interplay of numerous factors, some of them quite intangible. "It became evident that the receiver was not a blank page where we could 'write' messages but a living being whose beliefs, attitudes and values grew out of his own experiences." (Díáz Bordenave 1976, p. 136) No longer could powerful direct effects be assumed. Research conducted by many Latin American scholars found that the social structure was a very powerful determinant of people's access to the mass media. Grunig concluded:

> Previous studies have generally concentrated on communication behavior and a few accompanying social-psychological variables in isolation from the structural situation in which communication takes place. In most peasant situations, however, structural rigidities must be broken before communication can have an effect. Both communication behavior and these social-psychological concomitants are seen as derived from the situation. (Grunig 1968)

Such findings frustrated many of the researchers working in Latin America. They found considerable relief in a new philosophy of communication and social change formulated by Paulo Freire (1970). Basically, Freire proposed the abolition of the direct effects notion and its replacement with a type of communication education that would contain more dialog and would be both more receiver-centered and more conscious of social structure. Essentially, this model has been described as follows:

> The learner is given an opportunity to look at the problem to be studied with his own fresh eyes. He is helped to penetrate the 'ideological mist' imposed by the dominant class which blinds his eyes, and to see the existential situation in which the structure and culture of his society keep him from self-realization and participation. This process is known as 'conscientization.'" (Díáz Bordenave 1976, p. 138)

Looking specifically at how these new concepts fostered by Freire's insights apply to communication development efforts aimed at the agricultural sector will provide an insight to the nature of the Basic Village Education project.

The primary task of the theory building process was to formulate communication systems wherein the audience (peasant farmer in the case of agriculture) is able to actively participate in the formulation of messages and in the overall development plan. The conscientization process maintains that several of the assumptions underlying the dominant paradigm were false and that new assumptions based on Latin American research must be considered in the planning of any communication for development project.

The first assumption that must be restated is that the audience is not composed of individuals that act independently on information from the mass media, but that the socioeconomic structure has considerable effect on farmers adoption behavior. Early research on Latin American agricultural projects seems to bare this out.[1]

Secondly, there is a general lack of socially and technologically adequate innovations in Latin America. Too little attention has been paid to the appropriateness of the innovations introduced, often because agricultural research is biased in favor of large-scale commercial agriculture rather than small-sized subsistence farmers who make up the bulk of the rural population. The adoption of an innovation has always been considered a dependent variable in diffusion studies rather than as an independent variable with effects not only on agriculture, but also on migration, unemployment, income distribution or economic concentration.

Thirdly is the notion that the information contained in the mass media message must be relevant to the needs of the peasant. Because of the "powerful effects" notion, little input from the audience of farmers had been used in the development of mass media messages. The new model calls for an integration of input from the farmers themselves and the technical information available from academic and government sources. The flow of information must be two-way, both bottom-up and top-down, rather than the one-way flow associated with the dominant paradigm. Feedback mechanisms must be incorporated in development communication projects to facilitate such bottom-up communication. Additionally, some method of improving horizontal communication between farmers must be implemented if the innovations are to be generally implemented by all sectors of the farming population.

Overall then, we have seen a number of the assumptions upon which the dominant paradigm rested severely brought into question. The direct effects of mass communications does not seem to hold nor does the one-way, top-down flow seem to be fruitful in a development context. There have been a number of modifications made to the diffusion of innovations model by Latin American researchers, particularly a consideration of the socioeconomic context into which they are introduced.

History of USAID's Education Policy

The education policy of USAID since World War II has gone through considerable evolution. In the 50s and 60s the prevailing assumptions were that literacy and general education were critical components of economic growth and so the agency poured considerable resources into

school construction, teacher training and assistance to institution of higher learning.

However, during the First Development Decade there was growing recognition that a traditionally based school system could not solve the whole problem of education in the Third World. Countries began to approach the limits of their GNPs that could be devoted to education and it became clear that traditional education was not appropriate for reaching adults. By the end of the decade, the education situation in the developing world had been declared in crisis. (Coombs, 1968)

During the 60s the primary education goals of USAID were:

1. Produce high-level professional manpower required by LDCs to manage their growth.
2. Bring about universal literacy and numeracy.
3. Increase educational opportunity at all levels of the traditional school system.
4. Improve equity of access to education. (Hornik 1978, p. 15)

In 1973 the focus of USAID efforts in education were re- riented by Congress in the Foreign Assistance Act of 1973, commonly known as the "New Directions" legislation. The new congressional mandate differed from the previous one in its shift away from emphasis on training at all levels to an emphasis on targeting educational services on the poor majority and tailoring the content of education to their needs. This was to be done in large part by an increase in participation of local education specialists. Education was then seen as not only a good in and of itself, but as a component in a broad strategy for improving the quality of rural life.

USAID had from the early 60s played a major role in introducing communication technology into developing countries, particularly radio and television. With the increased emphasis on expanding the education

system to the rural adult population, radio and television was increasingly employed by education projects. USAID's strategy in fostering the use of radio and television involved four primary activities as follows:

1. Demonstration projects to increase public awareness of the technology's benefits.
2. Sponsorship of field evaluations to assess efficiency of processes involved.
3. Development of institutions and the training of native personnel in project and research skills related to communication.
4. Sponsorship of research and of information resource development. (Hornik 1978, p. 28)

Two or more of these activities were often combined in a particular project. The demonstration and field evaluation activities fell into two distinct types, television primarily for in-class, formal instruction and radio for both formal and nonformal education. Radio gained increased attractiveness for USAID projects as a result of the "New Directions" mandate of focusing more attention on poor countries. Radio, being a far less costly technology than television, was seen as better suited to the economic conditions of these countries. Major projects carried out by USAID in radio education, both on a formal and nonformal basis included Radio Mathematics in Nicaragua, radio advertisements promoting nutrition education in the Philippines, Nicaragua and Ecuador, and the Basic Village Education project in Guatemala.

Nonformal education, as opposed to formal education, is defined by USAID as "every organized educational activity conducted outside of the formal school system." (Hornik 1978, p. 72) While the formal school system have long established budgets, staffs and structure, the nonformal project is faced with determining for each project an appropriate plan of

intervention. Nonformal education projects can be divided into three types for the purposes of examining mass communication use.

1. Teaching of basic skills such as literacy and numeracy or occupational skills such as farming practices or artisan techniques.

2. Sectoral message delivery programs designed to inform people about particular changes in various practices that will improve their living conditions.

3. Education programs for self-development, including programs that encourage people to participate more actively in national development. (Hornik 1978, p. 73)

The Basic Village Education project in Guatemala falls primarily into the first of these three types, the teaching of basic skills in agriculture to poor subsistence farmers in rural areas.

The Guatemalan Setting

Guatemala is a geographically small country (42,042 sq. mi.) of large contrasts. Its terrain ranges from rain forests of the Peten and the rugged mountains of the Highlands to the wet, low-lying South Coast and the dry, hilly Southeast. The agricultural productivity of this land in the 70s was low. Although basic food crops has increased significantly in the 60s, this increase was primarily due to an increase in the total acreage under cultivation rather than per acre crop yield improvements. Production had not kept pace with population growth during that time. (Ray 1975a, p. 1)

About two-thirds of the country's 5.2 million people lived in the rural areas in 1973 and over sixty percent of the country's labor force was engaged in agriculture. Of the rural population, four-fifths earned less than the nation's estimated annual per capita income of $319. As is true of peasant societies throughout the world, relatively few individuals

could read and write and large numbers of rural families had yet to be reached by formal education programs. The people may generally be characterized by two broad groupings of Ladinos (Spanish-speaking and reflective of the European culture) and Indians (speaking a native language and continuing native cultural practices). (Ray 1975a, pp. 1-3)

Politically, Guatemala's history has been marked by a series of revolutions, military coups and junta rule since independence from Spain in 1821. Democratic elections have taken place sporadically during both centuries, often electing military leaders to the presidency, the most powerful position of state. The late 60s and the 70s were a somewhat unusual period in the history of Guatemala. It was a period of uninterrupted democratic control during which four successive elections were held between the military coups of 1966 and 1982. It was the longest period of democratic rule in the country's post war history. (Calvert 1986, pp. 74-88)

The Basic Village Education Project — Origins and Design

The BVE was initially conceived by the Guatemalan USAID mission director in 1970. The mission had been placing a high priority on rural development since the mid-60s and, in the agricultural area, was principally involved in assisting cooperative developments, basic crop production, agricultural and marketing programs. For the first time, substantial portions of mission funds were being directed at the Highlands region where most of the Indian population lived.

Principal assistance to education included school construction, teacher training and curriculum development. Projects concentrated on expansion of the formal education system, but were having only limited

impact. Programs directed at adult literacy had not been very successful. According to an early BVE document,[2]

> radio ... offered the possibility of communicating knowledge to the rural population in a manner that did not rely on literacy and which could achieve broad coverage at a low unit cost. Through radio one could communicate knowledge that was useful and relevant to the rural population, knowledge that they could immediately use to begin improving the quality of life in the countryside. (Feasibility Study 1973)

Combined with this interest in radio, was an interest by the mission in a local priest who was using a battery-powered slide projector to present lectures on health and nutrition to rural audiences. He was reporting a high level of interest in the rural villages. This idea of using a "village monitor" to present visual material was then linked to the educational use of radio. It did not require literacy and the mission reasoned that "this technique, which combined audio with visual material could serve as the functional equivalent of educational television." (Davidson 1978, p. 2)

In 1971 USAID's Latin American Bureau in Washington agreed to utilize $1 million from the bureau's regional education budget to fund a carefully controlled, experimental pilot project to test the relative cost and effectiveness of radio combined with other means of communication as a means of imparting knowledge to the rural population of Guatemala. The Academy for Educational Development (AED) received the contract to conduct a feasibility study between May 1972 and January 1973 which concluded that a pilot project of this type would be feasible and worthwhile. They suggested the project begin in January 1973 and continue for 18 months.

A Program Agreement was signed with the Guatemalan Ministry of Education in the spring of 1973 and the project contract was assigned to AED with Dr. Howard Ray assigned as the field program leader. AED

completed a detailed implementation plan in August and, in cooperation with the Ministry, surveyed and selected sites for the project, developed the experimental design and valuation model to be used and continued to examine the cultural, organizational, demographic and agricultural factors that were shaping the design of the project. Though the Feasibility Study had suggested the project's educational materials should include nutrition, health and agriculture, the Implementation Plan focused entirely on agricultural issues, maintaining that many years were required to detect changes in other areas. (Project Implementation Plan 1973, p. i)

The plan also concluded that more time (three years of programming) and more money ($1.2 million in U.S. grant funds and $320,000 in matching funds from the Guatemalan government) would be needed than originally estimated. Additionally, it was determined that radio stations (two) established specifically for the project would be more suitable than using existing commercial radio stations because the project could then better maintain experimental and control elements and could achieve greater "localization" of programming. (Project Implementation Plan 1973, p. 54)

The project would begin in early 1974 and would be based on the following hypotheses:

1. Present day technology offers a variety of communications systems which, properly utilized, can stimulate the interest of the campesino and increase his capacity to take advantage of programs designed to help him raise his level of living.

2. A communications system using modern technology can multiply the effectiveness of extensionists and teachers who are currently limited largely to person-to-person contact.

3. Educational programs addressed to improvement of the campesino must be closely coordinated to his current needs, and to the facilities and services available to meet those needs. (Project Implementation Plan 1973, p. 1)

BVE was to be comprised of two "equally important parts. 1) a carefully controlled nonformal educational program which initially does not require literacy, and 2) a rigorous evaluation of that program in relation to its objectives and underlying hypotheses." The project was to be located in two different regions of Guatemala, one in the Spanish-speaking Department of Jutiapa (the Ladino region, called the Southeast) and the other a Quiche-speaking region (the Indian region, called the Highlands) to be determined later.[3] For the purposes of the experiment, each area would be divided into four treatment areas as follows:

1. Treatment 1 Radio alone, with personal radios to be made available at low cost to families not having one.
2. Treatment 2 Radio combined with local monitors with limited audiovisual materials.
3. Treatment 3 Radio, local monitors and agricultural technicians with diversified package of audiovisual materials and crop demonstrations.
4. Treatment 4 The control areas, located in culturally and economically similar areas but outside the reach of the radio station's signals. (Project Implementation Plan 1973, p. 5-7)

The evaluation plan was to deal specifically with:

1. An evaluation of the differential effectiveness of a series of communication treatments in producing changes in attitude, knowledge, practice and production.
2. Measurement of such changes in two highly different cultural settings.
3. A cost-benefit analysis following the experimental aspects of development. (Project Implementation Plan 1973, p. 8)

In summary, the major components of the Implementation Plan consisted of; the experimental design; the evaluation plan; a detailed implementation schedule; requirements for personnel, equipment, transportation facilities, supplies and other resources; and projected USAID and Guatemalan Government contributions. (Ray 1978a, p. 6)

BVE — Implementation and Operation

The BVE began broadcasting in March 1974, broadcasting in Spanish in the Southeast, and the experimental broadcasting was completed there in December 1976. Broadcasting in the Highlands did not begin until late September 1975. Dr. Ray explained that:

> the Highlands represented a more difficult cultural environment in which to launch a program such as BVE than did the Southeast. Furthermore, the agricultural infrastructure in that region was less well developed and less was known about its agricultural production and potential. Therefore, the Project Implementation Plan called for starting the BVE educational programming in the Highlands in early 1975, one year later than in the Southeast. (Ray 1978a, p. 7)

During the first half of 1974, a team of anthropologists conducted a series of studies in the Highlands to obtain more information about the local culture and agricultural practices. Dr. Ray continued, "Unfortunately, educational programming could not be initiated on schedule due to a series of delays with budget approvals and staffing, and to technical problems associated with installation of the radio transmitter." (Ray 1978a, p. 8)

Broadcasting in the Highlands finally began in late September 1975, well into the agricultural cycle. Consequently, operations in the region were extended for one year — through 1977 — so the experiment could be completed according to design. Base line surveys of the evaluation component of the experiment were conducted before the beginning of broadcasting for use in assessing change brought about by the experimental inputs. Monthly "time sample" interviews were carried out throughout each growing season and an annual "re-survey" was made at the beginning of each season. The evaluation included measurements of BVE-induced changes in knowledge, attitudes and behavior among farmers in each of the two BVE sites, as well as comparisons between the two regions. (Ray 1978b, p. 42)

A number of minor adjustments had to be made to the BVE design as the experiment progressed. Among these were the division of one of the control areas in the Southwest into standard control (no BVE input) and monitor control (monitor but no radio or agronomist), rescheduling of some interviews and surveys because of local events, organizing a second planting in 1974 because of poor weather conditions and an inclusion of additional feedback methods.

The expansion of the feedback network beyond that set out in the Implementation Plan is perhaps the most significant change in the project. Originally, feedback (labeled "formative evaluation") was to be in the form of the survey and interview materials which were to be used message construction during the project and for the final, formal evaluation. As the project went into operation, the monitors (locals who were being paid small amounts to coordinate village activities with radio-provided information and present the audiovisual material) were increasingly relied upon to provide input into both radio message and audiovisual material creation. This feedback via monitors is mentioned in several of the Interim Reviews and the final evaluation, but was not discussed in the Implementation Plan. The monitors were relied upon by the central staffs for information concerning questions and doubts farmers had about new techniques as well as suggestions from the audience concerning how the radio programming could better meet their needs. (Ray 1978b, p. 23)[4]

Letters from BVE radio listeners were also used as feedback as were informal interviews and contacts by station staff members with farmers, local authorities and private and public sector organizations. In late 1975, BVE established a small unit to strengthen the development of new materials in both regions and found that, in general, more "similarities

than differences were found between farmers in the two regions with respect to comprehension and acceptance of the message and preferences among graphic materials presented." (Ray, 1978b, p. 84)

BVE — Evaluation and Findings

BVE was considered a major success by both the project administration and the evaluation team. In the Final Report, the authors conclude that

> all BVE combinations (treatments) had measurable impact on knowledge about, attitudes toward and/or use of modern agricultural techniques. It appeared from the findings, however, that there is no single most effective media combination for all situations. The potential effectiveness of the various media combinations varies with the level of development, the economic well-being and the present and prior exposure to mass media and technical assistance. (Ray 1978b, p. ii)

The Report suggested that for the relatively advanced areas (like the Southeast), radio alone will be immediately used as a source of new information and that much of it will be translated into "positive" behavior change. More specifically, the evaluators found that radio was the primary source of new agricultural information, though personal sources appeared to reinforce the use of the mass media. These friends and neighbors further diffused the BVE message to those not directly influenced by BVE sources and this process began very early in the project. They found, however, that the official sources (monitor and agronomist) were more important than the local communication network (friends and neighbors) in providing encouragement for early use of the radio, and that trust of the official source came about relatively quickly. (Ray 1978b, pp. 72-74)

In contrast, the Report noted that the full radio-monitor-agronomist combination is required to achieve maximum impact on change in areas of relatively low levels of development (like the Highlands). In the

Highlands, as in the Southeast, the mass media message was reinforced by personal sources and the message was diffused to those outside the influence of BVE sources. But this diffusion process occurred considerably later than in the Southwest, however. The Indians took quite about a year longer to trust the official sources and even longer to trust the radio information when not reinforced by a personal representative. (Ray 1978b, pp. 72-74)

As for individual's background characteristics and their relation to change, the Report was careful to point out that such factors also influence agricultural behavior and may have had an impact on the observed change in agricultural practice. It notes:

> One can expect different results from the various communication media deperding on such factors as differences in degree of integration into the mainstream of the predominant social system; the differences in level of development as measured by relative economic well-being; educational attainment; "modernity" of attitudes and other background characteristics such as prior exposure to mass media, group membership and literacy. (Ray 1978b, pp. 75-76)

The Report found, however, that those farmers generally considered as highly likely to adopt new attitudes and behaviors (high change farmers) did not appear to be "consistently wealthier, more likely to live in better circumstances or to have more 'modern' attitudes than their low change neighbors." Additionally it noted that "the kind of programming implemented by BVE was relatively equally accessible to all farmers, regardless of these (individual) characteristics." (Ray 1978b, p. 84)

The Report concluded the change discussion with an important qualifier:

> The findings presented in this area are necessarily only tentative since the BVE Project was not designed to measure the effects of "group readiness" as opposed to "individual readiness" on acceptance and use of new agricultural information. The findings seem to indicate that such group readiness may be a more important factor than the

> individual's own characteristics in determining his tendency to change toward more modern agricultural behavior. (Ray 1978b, p. 84)

Because of its short duration, no long-range economic benefits could be assessed from the project "with a reasonable degree of certainty." However, the report did state that:

> Through the use of a series of assumptions and several levels of benefit projections, it was possible to make a meaningful economic analysis of the Project. That analysis indicated that most BVE treatments, under most circumstances encountered in the experiment, have the potential to yield substantial economic returns to both the farmer and society as a whole. (Ray 1978b, p. 113)

Elements in the BVE considered most "crucial" to the positive results reported included:

> 1. Systematic, detailed, relevant planning prior to program initiation, including collection of good baseline information.
>
> 2. An integrated educational programming system: message development, materials production, message delivery, feedback — the first and last meriting particular attention.
>
> 3. A programming philosophy focused on the farmer on his farm.
>
> 4. A continuing program of staff development and reinforcement. (Ray 1978b, p. iii)

Discussion and Conclusions

By official accounts, the BVE project seems to have been a rather successful experiment. The evaluation indicated that, unlike so many of the technical assistance projects before, the benefits of new information were shared relatively equally among the population. It is somewhat unique in that it focused on two widely culturally different sub-populations, one Indian and one Ladino, and yet was able to develop a system that provided benefits for both. The technology employed seemed appropriate to the monetary constraints of the country and there was

evidence that the messages delivered were relevant to the farmers' actual situation.

But how much of this success is attributable to development communication theory? Judging from the project's Implementation Plan, the project rested heavily on constructs contained in the older conception of development communication. Examination of the three hypotheses on which the project was based reveals two of the early theory's notions 1) that communication technology can lead to personal and societal development, and 2) that mass communication can "multiply" the effects of extensionists and teachers. We see here both the powerful effects notion and the "magic multiplier" of the diffusion model.

The BVE evaluation, as evaluations of previous technical assistance projects, used the individual as the unit of analysis and concluded that if production had increased, development had occurred. Hence, we see the main constructs of the old theory firmly entrenched at the project's inception — the diffusion of innovations model, technology equaling development, the individual as the focus and increased production passing as development.

The criticisms being made of development theory at the time were seemingly ignored. Although there was an effort to consider the socio-cultural context, evident in the anthropological studies made of the Highlands, there was certainly no plan to carry out any fundamental change in the societal structures. But then one can not realistically assume that USAID or the government of Guatemala would condone, much less support a project that proposed such a radical course. More to the point, throughout the Implementation Plan, the individual farmer was to be the focus of the project, not the society in general or even communities.

Communication was viewed in isolation, not as part of a complex network of personal contacts and culturally bound societal norms.

But if the project was so closely tied to theoretical notions that had failed in the past, why did it succeed? This paper contends that the project was successful, not because it applied the old notions of development communication theory, but precisely because, in the course of the project, adjustments were made to the plan that effectively, though perhaps not purposefully, moved the project away from the old theory and more in line with the suggestions made by contemporary Latin American communication theorists. It would seem that the Implementation Plan's "formative evaluation" scheme was subsumed by an informal, interpersonal communication feedback network that provided a true measure of audience input into message formation. In essence, the monitor and to a lesser extent the agronomist, became the vital link between the message and the audience and in effect created a bottom-up flow of information from the farmers to the specialists who had the information needed. Credit for this occurrence may in part be given the the BVE's third hypothesis: that educational programs must be closely coordinated to the needs of the campesino.

In all the documents associated with the project, there seemed to be a genuine concern about meeting the needs of the farmers the project was to serve. Though both the project administration and the evaluation team were almost exclusively North American, many of the key members of the project were Guatemalans. The broadcasters, the audiovisual staff, the scriptwriters, the monitors and the agronomists were all from the country, many from the regions in which the project was based. Many of

them were no doubt personally familiar with the peasant farmers' situation and seemed to play a significant role in the message formation process.

By the time the Final Project was written, it was the monitor who was viewed as "the key person in the feedback link." (Ray 1978b, p. 90) As the project progressed, the monitors were increasingly influential in the formation of messages by the project and in the coordination of the radio message with the audiovisual messages. The monitors gained the trust of the villagers the way no radio signal could and encouraged their comments and suggestions. They then transmitted this information to the message production staff. Though perhaps not a perfect method, the actions of the monitors contributed to the kind of bottom-up information flow that critics said was required. Additionally, the village meetings in which audiovisual materials were presented and discussion held, developed in the Implementation Plan, were improved by the increased personal presence of the monitor and this forum in part contributed to a horizontal flow of information between farmers. It seems clear that these forums account in large measure for the equity of change noted by the evaluation team.

We see then considerable evidence supporting the first proposition made in this paper, mass media development projects are based on theory rooted in the experience of the donor country. USAID's Implementation plan set up hypotheses that for the most part reflected the theoretical notions of North American scholars working in a developed context.

It is somewhat more difficult to conclude that the evidence supports the second proposition, however. The project seems to have had a positive impact on the development processes of two small regions of Guatemala, but it appears that any positive impact concerning the equity of development was made in spite of the communication theory employed rather than as a

result of such theory. The real strength of the project seems to be the fact that low level members were permitted to partially adapt the project to suit the needs of the audience, not that the theory upon which the project rested was sound and grounded in Latin American reality.

That the BVE project appears to provide some evidence for both propositions says little about the general case. This paper has only looked at one limited experimental project and cannot therefore generalize to all technical assistance projects involving mass communication. It does however lend some support to Higgott's contention that theory has little impact on the problem of development. If it serves any other important contribution, it would seem that it partially demonstrates the validity of the criticisms made of development communication theory by the Third World scholars who have recently begun to formulate an alternative theory.

Notes

1 Diáz Bordenave (1976) mentions U.S. Ph.D. dissertations by Martins Echeverria (1967), Grunig (1968), Diaz Bordenave (1966), Fonseca (1966), Mejia (1970) and Quesada (1970) as illustrative of this point.

2 Neither the Intensive Review Request nor the Feasibility Study is on file at USAID's library, so references from those documents have been taken from Davidson's (1976) Case Study conducted under contract for USAID.

3 Please see Appendix A for a map indicating the locations of the project sites.

4 No one document contains a specific section discussing this informal feedback network, but each of the Interim Reviews (1974, 75, 76, 77) make mention of it and points to its value in improving programming. See especially "Progress Report, Field Operations, 1974/1975."

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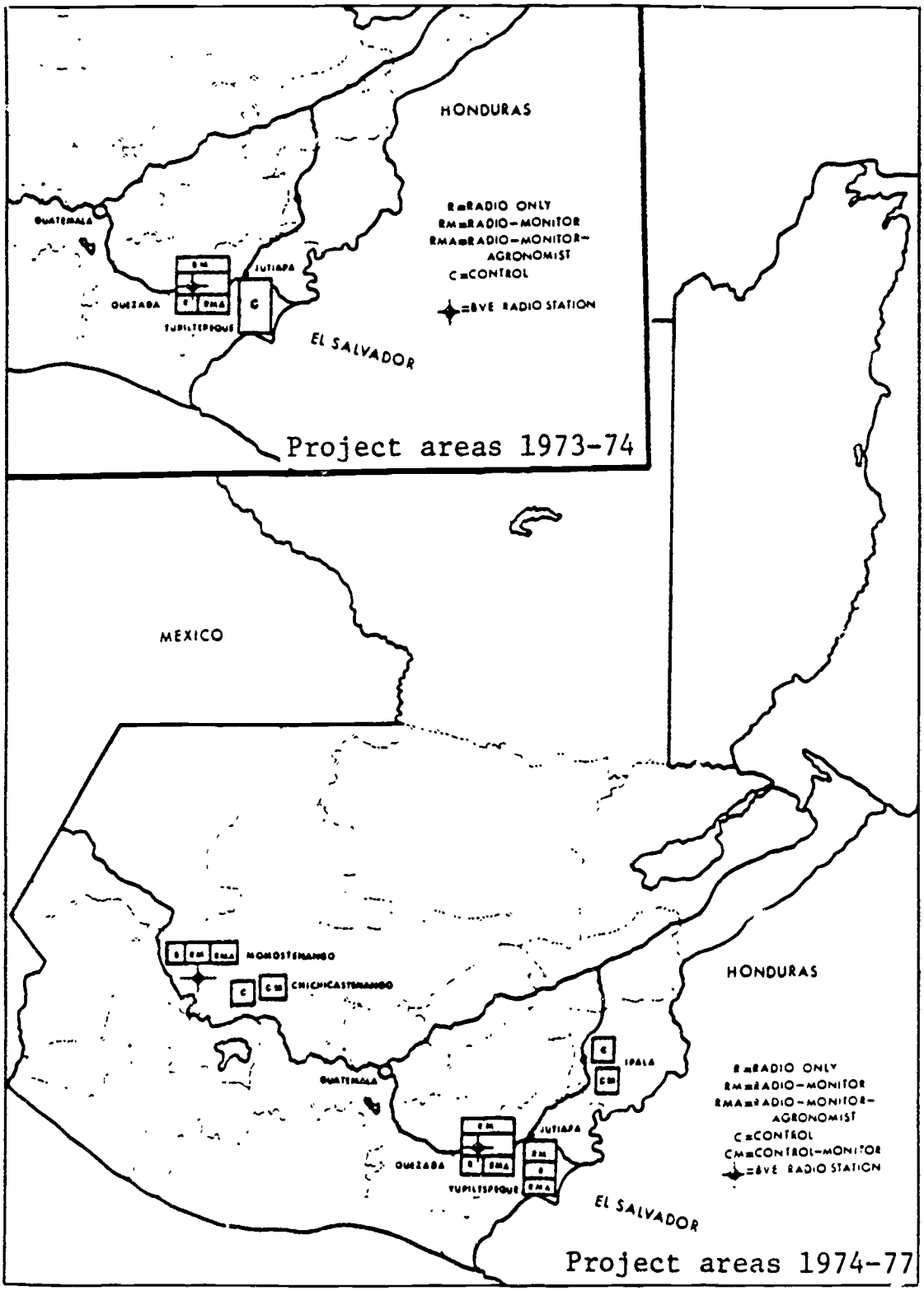
Appendix A.

Basic Village Education project experimental and control areas, 1973-77



Source: The Basic Village Education Project, Dr. Howard Ray, 1978.