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E42AN EVALUATION REPORT OF THE IMPACT STUDY OF
PARTICIPANT TRAINING ON DEVELOPMENT GOALSA.I.D.
Reference Center
Room 1656 NSSUMMARY

The study is an interesting and thought-provoking attempt to develop a research method and operational procedure which could be used to measure the impact of participant training on development goals. Faced with unsolvable problems, the study adopted a deductive methodology which is more apt in legal procedure, in the hope of bypassing the many difficulties and limitations inherent in all impact studies. In particular, it developed an attribution process linking certain achievements in national developments with specific inputs of participant training. This new methodology, however, can only serve to ascertain the existence of impact without providing any measurement of extent or degree. Additionally, it does not provide any bases upon which to improve the training activities. Under these conditions, its application value to AID is at best very questionable and highly limited. It is recommended, therefore, that no follow up on this study be made and that consideration of any future impact assessment should await further development of the state-of-the-art. Evaluation of other areas including follow-up in home country is suggested.

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I. AN OVERVIEW OF THE STUDY

In April 1973, the American Institutes for Research began a two-phase study for the Office of International Training of AID. The study was commissioned to design an instrument for measuring the effectiveness of the participant training in terms of the impact produced by returned participants on the development goals of their countries. The objective of the study, as stated in the scope of work, was "to improve the effectiveness, efficiency, and quality of AID-sponsored training by developing a system for obtaining quality control information on various aspects of the participant training program."

The first phase of the study involved the development of a methodological design to measure the impact of the participant training program; specifically, to find suitable indicators that would reflect the program's contributions to national development aims. Described as a feasibility study, it explored the relationship between the impact of participant training and eventual output of national development gains. This exploration led the research investigators to identify visible improvements or achievements which the participants had effected in their jobs following their return home.

Working "backwards" to the antecedents, the investigators then established a method of attributing these contributions to specified aspects of the participants' training. Basic in this deductive methodology was the identification of what the researchers referred to as a "critical incident" or significant achievement.

These devised indicators and methodology evolved out of a three-step process which was carried out in two countries, Ghana and Thailand. The process relied exclusively on interviews with a sample of returned participants. Step One sought to obtain information on specific improvements in the output of the institution or in its operations which occurred during a six-month period following the participants' return. Step Two sought from the same respondents such evidence as they were able to cite concerning the relationships, if any, of these achievements to "experiences" during participant training. Step Three deducted from these data the types of achievements which could be attributed to participant training as prototype indicators for impact assessment.

The study demonstrated to the researchers that returned participants effected a variety of improvements in the output or operations of their institutions, that these impacts could

be cataloged by interviewing method, and that the kinds of impact that emerged from the collected data occurred with sufficient frequency to be potentially useful indicators for impact assessment. During the course of the second phase of the study, this methodological design was field-tested in three additional countries, Korea, The Philippines, and Brazil. The result of this field test provided additional assurance to the investigators that the methodological design which was developed in the first phase could in fact become operational.

These indicators of impact assessment were then grouped into three categories according to the linkages established between achieved impacts and experiences during participant training. The first category, "Catalog of Participant Achievements," included 20 types of specific contributions. The second category, "Impact-Producing Characteristics," reflected the sequence of events that produced the contributions or achievements; i.e., the specific skills, attitudes, and other sources that the participants brought to the situation to effect the impact reported. The third category, "Attribution to Participant Training," was grouped on the basis of the attribution information contained in the various reports collected from the participants.

These categories of indicators forming the basis of the devised methodology are listed below in general outline. A description and illustrative examples of these factors are detailed in different parts of the study.

1. Category of Participant Achievements

This catalog of 20 separate groupings of achievements represents the end product of participants' input or action. These achievements range from highly dramatic impacts to those that do no more than set the stage for impact. These latter events were included on the premise that impact is a sequence of events and that any adequate assessment procedure must encompass them as a part of the developmental chain.

These 20 achievements are grouped under four subheadings as follows:

IMPACT ON DEVELOPMENT TARGETS

- A. Influenced development strategies or emphases, or a specific investment decision.
- B. Introduced a new agricultural, industrial, or commercial enterprise in the country.
- C. Developed a local capability for an activity formerly dependent on external resources.
- D. Discovered a solution or a more promising approach to a significant development problem.
- E. Stimulated the more widespread adoption of a preferred practice or other desired public response.

IMPACT ON INSTITUTIONAL OUTPUTS

- F. Initiated a new service or program.
- G. Raised standards of products or services provided.
- H. Changed rules or procedures to be more responsive to needs of clients.
- I. Avoided disruption of service by timely action despite difficulties or risk.
- J. Performed task that required special effort or skill.
- K. Improved or expanded dissemination programs, techniques.

IMPACT ON OUTSIDE SUPPORTS

- L. Expanded institution's authority, status, or charter.
- M. Developed more effective working relationships with local agencies or sources of external aid.

IMPACT ON INTERNAL OPERATIONS

- N. Introduced or expanded the use of analytic, data-based management aids.
- O. Introduced cost- or time-saving measures, ideas.
- P. Imposed tighter structure or controls on staff or vendor performance.
- Q. Improved the allocation or organization of responsibilities and functions.
- R. Upgraded the caliber, capabilities, or morale of the staff.
- S. Upgraded physical facilities or equipment.

T. Improved record-keeping or information retrieval systems.

2. Category of Impact-Producing Characteristics

This category consists of 14 elements viewed as enabling factors for the achievement of reported outcomes.

- A. Technical capabilities
- B. Awareness of other possibilities and approaches
- C. Appreciation of nature and magnitude of inputs required
- D. Acceptance of new or expanded objectives
- E. Commitment to principles and convictions
- F. Willingness to take responsibility
- G. Data orientation
- H. Goal orientation
- I. Efficiency orientation
- J. Skill in human relations
- K. Familiarity with equipment
- L. Familiarity with workable operating routines
- M. Access to external sources of information or help.
- N. Credibility or credentials

3. Category of Attributions to Participant Training

This category is based on an analysis of the attribution information contained in the reports collected from returned

participants. They are classified into five groups, presenting decreasing attributability to participant training as follows:

- A. Reasonably clear-cut links to training
 - 1. Specific technique or theory applied
 - 2. Specific practice or model adopted
 - 3. U.S. source or product applied
 - 4. Practical job experience cited
 - 5. Incidental skill learned
 - 6. Credentials applied
 - 7. Before-after changes observed

- B. Probable links to training
 - 1. Technical background cited
 - 2. U.S. work style cited
 - 3. Timing of the event
 - 4. Requirement for technical knowledge
 - 5. Conformity of approach to U.S. standard

- C. Possible links to training
 - 1. Claim of increased self-assurance
 - 2. Claim of attitude change

- D. Doubtful links to training
 - 1. Personal characteristics
 - 2. Clever ideas

- E. No links to training

During the second phase of the study, the methodology which was devised through the above indicators was tried out and resulted in the development of suggested procedures for local evaluators who would use these instruments to conduct impact assessments.

The study suggests that the application of these procedures should be the responsibility of one individual and makes several assumptions about his/her qualifications as follows:

1. Knows the purpose of the evaluation and the intended use of the results.
2. Has some previous training and experience in planning and conducting program evaluations.
3. Has a sufficient technical background in evaluation to understand the methodology.
4. Is able to make on-site modifications in the procedures as may be required by local conditions.
5. Has the capability to train interviewers to collect data.
6. Can work within the partly structured format of the materials to plan and conduct an impact assessment.

As to the practical application of this methodology, the study suggests that it provides a framework within which an evaluator can determine 1) if a real impact has been made, and if so, the nature of the impact; 2) the characteristics that enabled the impact to occur; and 3) whether the impact is attributable to the training activity.

The study also addressed itself at some length to the questions of choosing local interviewers, providing them with adequate training, scheduling and conducting interviews, and recording

collected data from former participants. It further produced a detailed description of the data collection procedure and what it considered to constitute a critical incident to which the interviewer ought to be alerted. For instance, the study describes a critical incident as an activity that "makes a difference," that it must be stated in terms of behavior and must include a statement about the outcome of behavior. The report of this behavior should be complete enough so that the reader can understand what happened without being present during the activities. Finally, the study instructs the interviewer that incidents need not be limited to the outstanding successes; outcomes are produced by complex interactions among people, institutions, and broader situational variables which are beyond the individual's control. Some results may not always match the individual's objectives, but these results may still be counted among the outcomes. Illustrations of what may or may not count as critical incidents are given in abundance.

The study concludes that since the success of any impact assessment is dependent upon the adequacy of the data collected, which in this case is virtually all gathered and recorded by the interviewers, the preparation of the interviewers is

crucial. The study recommends that the following factors be considered in choosing interviewers:

1. Education. A bachelor's degree in the field of psychology or education, or equivalent work experience should be a minimum requirement.
2. Work experience. Prior interviewing experience is very desirable; in the absence of such experience, evidence that the individual is able to think and respond quickly during an interview. Having elicited a statement of impact, an interviewer needs to follow through with appropriate questions to collect complete data on each reported event.
3. Knowledge of substantive content. If the respondents represent a highly specialized field, such as engineering, some terms may arise during the interview that will require clarification by the interviewer. Knowledge of the field would be helpful but is not a necessary requirement in collecting incidents.
4. Personal factors. The local trainer must judge the importance of such factors as age, sex, neatness, etc. In some cultures, female interviewers may be at a disadvantage; in others, they may be preferred.

In order to further aid the interviewer in his task, the study produced an "Interviewer Preparation Unit," "Sample Probe Questions," and a set of "Interviewee Materials." These materials are attached as separate appendices to Volume 5 of the study.

II. GENERAL EVALUATION

The methodological design developed through this study did not follow conventional procedures which are more common in impact studies. Such procedures would have included a comparison between a "treatment or experimental group" and a "control group." Neither did the study identify the pre-training conditions with post-training changes. Instead it centered around a deductive methodology which is more appropriate in legal procedure than in impact assessment. In doing so, the AIR researchers have provided us with an interesting and thought-provoking method of exploring the relationship between national development goals and necessary related skills, knowledge, and input of participant training. The study also produced useful interview and organization techniques which could prove helpful in the future conduct of certain types of follow-up evaluation. The study fails, however, to come to grips with some major questions both in its methodology and purposes.

The study necessarily assumed that an impact assessment could be made without any attempt to compare the effectiveness or work behavior of the participants before and after their

training. For instance, success in a given situation may be more dependent on individual resourcefulness and creativity enjoyed by the participant prior to his training than on specific knowledge or experience which resulted from training. To separate the contribution of the two factors which together led to the reported achievement is a task which is almost impossible to do. In the study, the case for the attribution of certain success to participant training is not clear enough.

The attribution of some achievements to training is not a black and white proposition. How can one be sure that gains achieved are not attributable to a more complex, even coincidental, series of events or changes that would have occurred with or without the participant training? Specifically, the study does not take into consideration unrelated influences which occurred in the post-training period, such as new work environment in the home country and the extent of resistance or responsiveness to new change. One of the shortcomings of this study is that it did not take cognizance of the fact that changes in developmental goals do not exist in isolation; that such a change is part of the large social fabric of the country and that the forces that play upon it are

numerous. For instance, two similar projects which follow identical methods of operations to develop new schools of engineering in countries that are equally advanced in science education may have entirely different results because of intervening variables, factors outside the project that are associated with the sought-for changes. There are innumerable possible intervening variables such as the education policies of the government, rate of industrialization, degree of national identity, and foreign policy of the United States.

It also must be noted that the data collected for this study as the bases for the devised methodology were drawn almost exclusively from interviews with former participants. The study did not attempt to verify this information with either the work supervisors of the participants or with some U.S. technicians at the AID mission who may have had opportunity to observe reported changes. In other words, the findings of the study are mostly dependent on the sole information supplied by the participants themselves with no checks of any kind on the collected information which later was processed for analysis and subsequent findings. Moreover, the study was heavily dependent on many judgmental decisions as the collected data were processed during its various stages.

Another judgmental decision was to base the study on reports collected during a six-month period following the return of the participants to their home country. The selection of this six-month period does not take into consideration factors which might be operating here and which may vary depending on the case of the particular participant. Some minimum time exceeding this six months may be necessary to re-orient oneself before making efforts to use the training received. The participant may have returned home to a new political climate in which he may elect to play it safe for a while and not to "make waves" through the introduction of any new techniques which may or may not fit well in the prevailing climate. But even if he did draw on his new training skills during these six months, some additional time may be necessary before one can form judgment about the success of one's efforts. An illustration of this point can be found in the example of a "breakthrough" discovery which occurs several years after the initiation of one's work following his return from his specified training.

Also, the study does not take stock of whether the trainee had returned to the same job which he held prior to his training, to a new job which was expected, or to an unexpected new job. In each of these cases, there might be a different time

span which serves as a limiting factor on the opportunity to use his training. In other words, the career mobility of the returned participants might have direct effects on the time needed for utilization.

Another principal consideration omitted in the assessment of the various critical incidents is the role of the participant's supervisor in assisting him in reaching these achievements, for the supervisor's attitude and actions concerning utilization are key aspects of the work conditions of the returned participants. The role of the supervisor can prove decisive in the success or failure of his subordinate's attempts to introduce new techniques, institute new procedures, and impart renewed vitality to the performance of his work tasks. In the same vein, the effective functioning of the returned participants may have been influenced to a greater or lesser degree by the extent of contact he may have with the U.S. field mission in the context of collaboration on work projects. This could be accomplished either through his request for assistance of some kind, or by U.S. technicians offering help as part of their follow-up responsibilities.

In general, from the standpoint of achievements during a six-month span, the study cannot provide an inclusive base of

information if it draws only on certain experiences in participant training. More adequate data would require information on the substance of the program, the needed time for re-orientation, the character of the participant, and the support (or lack thereof) of home country environment. These considerations are far more important than a set of satisfying experiences which the participants may have undergone during their training.

III. CONCLUSION

As was stated in the scope of the work, the objective of the study was to improve the effectiveness, efficiency, and quality of AID-sponsored training by developing a system for obtaining quality control information on various aspects of the participant training program. There is no way that the findings of this study can contribute directly or indirectly to that objective. At best, the study can assert in some clear-cut instances the existence of direct linkage between certain developmental achievements and specific experiences in the training program. To measure the degree of impact is far beyond the reach of the proposed methodology and, in all probability, is not possible to measure through any other tool. To improve the training activities, one must turn to other procedures such as the evaluation of program content, relevance to home situation, length and site of training, and other factors which form the total experience derived for the benefit of a specified project. To apply one standardized methodology to the differing levels and objectives of all training activities would not, in our opinion, provide any helpful data as far as the objectives are concerned.

Under these conditions, the application value of this devised

methodology is very questionable and its use by AID is highly limited. It is recommended, therefore, that no follow up on this study be made and that considerations of future impact assessment should await further development of the state-of-the-art.

This is not to suggest, however, that post-training review and evaluation at all levels of the training systems are not essential for gleaning the necessary feedback for the continual improvement of training programs. Increased follow-up with respect to the utilization of participants following U.S. training is necessary to provide data as to whether or not the participants are actually being used in their country's development efforts upon their return home. If participants are not utilized as effectively as possible and in the areas for which they were trained, this would indicate that system changes are needed. More emphasis may need to be directed to home-country follow up so as to support the U.S.-trained participant who may be operating in an organization without the benefit of professional colleagues and support structure of the U.S. system.