DOCUMENT RESUME

ED 230 591 TM 830 372

AUTHOR Gray, Wayne D.; Roberts-Gray, Cynthia
TITLE Implementing Army Training Programs: Translating Model into Action.
PUB DATE Oct 82
NOTE 16p.; Paper presented at the Joint Annual Meeting of Evaluation Research Society and Evaluation Network (Baltimore, MD, October 28-30, 1982).
PUB TYPE Speeches/Conference Papers (150) -- Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Armed Forces; Evaluation Methods; Evaluation Utilization; *Models; *Program Evaluation; *Program Implementation; *Training
IDENTIFIERS *Life Cycles

ABSTRACT

While there is a recognized need for new and better ways to train soldiers to fight, many training programs developed in response to this need are used poorly or not at all. In part, the failure to use these training programs stems from the lack of established procedures for monitoring implementation and evaluating use. Effective monitoring can provide information that improves the implementation process, thereby increasing the use of new training programs. Routine evaluation of use issues can result in guidance for modifying existing programs and developing new programs. In this paper a framework for the Life Cycle evaluation of Army training programs is presented. In the Life Cycle framework it is recognized that evaluation issues change as the program "ages." The paper provides an overview of the Life Cycle framework and then focuses on issues important during the process of implementation. The goal is for the "evaluator as monitor" to take actions and make recommendations that will increase the likelihood that the implementation process is successful and the program is routinely used. (Author)

# Implementing Army Training Programs: Translating Model Into Action

Wayne D. Gray

US Army Research Institute, Presidio of Monterey, California

Cynthia Roberts-Gray

BDM Corporation, Monterey, California



Paper Presented at Evaluation '82
The 1982 Joint Meeting of Evaluation Research Society & Evaluation Network
28-30 October 1982
Baltimore, Maryland





Running head: Army Training Programs

Abstract

While there is a recognized need for new and better ways to train soldiers to fight, many training programs developed in response to this need are used poorly or not at all. In part, the failure to use these training programs stems from the lack of established procedures for monitoring implementation and evaluating use. Effective monitoring can provide information that improves the implementation process, thereby increasing the use of new training programs. Routine evaluation of use issues can result in guidance for modifying existing programs and developing new programs. In this paper a framework for the Life Cycle evaluation of Army training programs is presented. In the Life Cycle framework it is recognized that evaluation issues change as the program "ages." The paper provides an overview of the Life Cycle framework and then focuses on issues important during the process of implementation. The goal is for the "evaluator as monitor" to take actions and make recommendations that will increase the likelihood that the implementation process is successful and the program is routinely used.

IMPLEMENTING ARMY TRAINING PROGRAMS: TRANSLATING MODEL INTO ACTION

Army programs face many of the same problems as do programs in education or industry. Many programs developed in response to real needs fail to be implemented and most of those that are implemented are modified and used quite differently than intended by the program's developer.

We at the Army Research Institute's Monterey Field Unit have recently become interested in the implementation and use of Army training programs. Our approach to these issues has been threefold.

---

(Slide 1)

---

First, initiate a study of the problems which training programs face and must overcome if they are to be successfully implemented and used. Second, provide guidance which Army sponsors can use to plan the implementation of new training programs (T. Gray, C. Roberts-Gray, & W. Gray, in press). Third, develop a framework for the Life Cycle monitoring and evaluation of training programs. Such a framework starts with the process of implementation and continues, ideally, until the program either fails or, if successful, becomes obsolete.

Today I will talk about the third issue, the framework for the Life Cycle evaluation of training programs (W. Gray, 1982). I will

first provide an overview of the Life Cycle concept and then focus my discussion on implementation issues.

Life Cycle Evaluation of Army Training Programs

We see the Life Cycle concept as filling an important gap. The Army has established procedures for evaluating and monitoring the development of training programs but has no procedures for monitoring the implementation or evaluating the use of these programs. The Life Cycle concept addresses these latter two issues; that is, implementation monitoring and use evaluation. We believe that monitoring the implementation process can increase the use of new training programs while evaluation of use provides valuable information for modifying and developing new programs.

A Life Cycle evaluation is a dynamic process. The questions which can and should be asked vary as a function of where the program is in its Life Cycle. Some questions are important only if they can be answered before the program becomes well established, that is, during implementation. Other questions can be answered only after the program has been used for some period of time. The Life Cycle concept provides a framework that guides the evaluator in asking the right questions at the right time.

The use evaluation begins after the program is already established in the user's environment.

---

(Slide 2)

---

The subissues it addresses are fidelity, sufficiency, and effectiveness. Fidelity evaluation (Fullan & Pomfret, 1977) is a comparison of the user's procedures against the developer's ideal. Sufficiency (The area of sufficiency evaluation has been referred to by Leinhardt, 1980, as Domain-of-Instruction.) focuses on those areas where the user's procedures are different from the developer's. The basic concern here is whether the new user-generated procedures fulfill the same training function as the developer's procedures. Lastly, effectiveness evaluation assesses the program's actual effectiveness when used routinely in the user's environment (as opposed to its effectiveness in the prefielding evaluation conducted by the developer).

Implementation monitoring focuses on the process of implementing a new training program. The process of implementation begins before the program is used at all and its goal is to ensure the routine use of the new program. The goal of monitoring this process is to increase its effectiveness. The distinction between the goals of the implementation monitor and the goals of the implementation process is important to keep in mind.

---

(Slide 3)

---

While acting as an implementation monitor, the evaluator is not interested in whether the program is being used; s/he is interested in the necessity of planned actions, whether the execution of planned

actions accomplishes the goal of the plan, and whether the proximal goals of the implementation process are being achieved. The rest of my talk will focus on implementation monitoring in general and these three subissues in particular.

Implementation Monitoring

The next slide depicts the relationship between the three issues monitored during implementation.

---

(Slide 4)

---

An implementation plan can be considered as a set of planned actions. The monitor would like to determine whether the plan contains all actions necessary for implementing the program and any that are unnecessary. When a planned action is executed then an instantiation of that plan exists. The monitor would like to know whether the instantiation achieved the goals planned for it or whether something was lost during the execution. For example, many Army training programs require new equipment and require that the trainer be able to perform some low level maintenance on the equipment. A "planned action" might be the production of a pamphlet for the trainer on how to troubleshoot the equipment. The particular pamphlet that is produced is an instantiation of this planned action. We can then ask whether this pamphlet provides all the information needed to troubleshoot the equipment and whether the reading level and format is appropriate for its intended audience.

The ultimate goal of all the planned actions is to get the new program used routinely. However, evaluation of routine use typically takes place after most implementation activity has ceased. Therefore, if we want to monitor likelihood of routine use we have to assess whether the implementation process is achieving certain intermediate or proximal goals. For example, one proximal goal might be that the first level trainers, the NCOs, possess the knowledge and skills needed to teach the new program. Presumably troubleshooting the equipment is one of the skills the trainer must have to use the program.

To monitor the implementation process the first step is to have a model of that process. We like the model that Roberts-Gray just described (C. Roberts-Gray, T. Gray, & W. Gray, 1982).

---

(Slide 5)

---

The model provides the basis for analyzing the fit between the innovation and user. With this information, the model yields an analysis of changes in organizational arrangements, individual know-how, organization rules, and individual commitment that are required if the innovation is to "fit" the user. These changes become the proximal goals of the implementation process. Finally, for each change the model yields a suggested strategy for accomplishing that change.

In evaluating the necessity of the implementation plans, the

(Slide 4)

monitor determines whether the planned actions incorporate the model-derived startegies and thus seem likely to accomplish the proximal goals of the implementation process. The monitor's role at this point is to recommend modifications, deletions, and additions to the planned actions.

The execution evaluation examines whether the instantiation of a planned action achieved the planned goals. If the evaluator was not involved in implementation planning, then part of the job here may include a post hoc specification of what immediate goals an action was supposed to achieve. For example, in writing training pamphlets, the "nice to know" information is often confused with the "must know" information. In this example, the evaluator may first have to determine what is "must have" and what is "nice to know" information. Then he may have to perform a critical reading of the pamphlet to determine if the "must know" information is adequately presented. For other actions the evaluator may be required to perform a mini-program evaluation. For example, a common vehicle for implementation in the Army is to send a mobile training team to each post to train the trainers. In this case the evaluator would assess whether course graduates can indeed use the program to train others:

The monitor's role in the execution evaluation is to recommend modifications to instantiations which are not achieving their planned goals.

The third issue the monitor considers is whether the changes required for the innovation to fit the user have taken place, that is, whether the implementation process is achieving its proximal goals. The monitor's role here is for recommendations for remedial actions. If, to go back to the slide, the instantiations of actions A1, A2 and A3 have achieved their planned goals but proximal goal P1 is not achieved, then an additional action should be considered.

Conclusions & Perspectives

Our experiences with Army training programs has led us to the belief that attention to the process of implementation is vital if a program is to become a routine part of unit training. ARI at Monterey has developed guidance for implementation planners and a framework for evaluation. The framework, which I have presented, is based upon lessons learned from monitoring implementation efforts. Three sets of evaluation issues are considered: the necessity of planned actions, the execution of those actions, and their proximal effect. The framework is client oriented. It organizes the evaluation issues in terms and categories attuned to the political realities and training issues with which the client is familiar. Use of the framework requires a model of the implementation process; however, it is our intent that while the theoretical concepts from the implementation model are used by the evaluator, they are functionally "invisible" to Army decision makers.

References

Fullan, M. & Pomfret, A. Research on curriculum and instruction implementation. Review of Educational Research, 1977, 47, 335-397.

Gray, T., Roberts-Gray, C., & Gray, W. D. A Guide to Implementation of Training Products. Alexandria, VA: U. S. Army Research Institute for the Behavioral and Social Sciences, in press.

Gray, W. Assessing the effectiveness of tactical training with MILES-TES: A Life Cycle approach. In M. Carpenter-Huffman (chair), Concepts and issues in productivity assessment. Symposium held at the conference of the Society for Applied Learning Technology, Arlington, VA, July 1982.

Leinhardt, G. Modeling and measuring educational treatment in evaluation. Review of Educational Research, 1980, 50, 393-420.

Roberts-Gray, C., Gray, T. & Gray, W. D. Implementing Army training programs: A model to guide planning and evaluation. Paper presented at the joint meeting of Evaluation Network and Evaluation Research Society, Baltimore, MD, October 1982.

- DESCRIPTION OF OBSTACLES TO IMPLEMENTATION

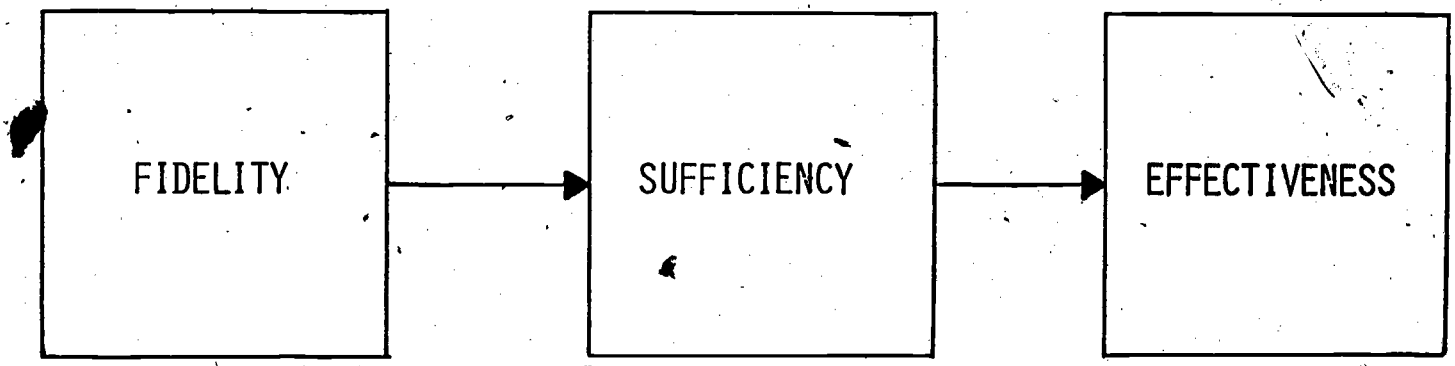
- GUIDANCE FOR PLANNING IMPLEMENTATION

- FRAMEWORK FOR LIFE CYCLE EVALUATION

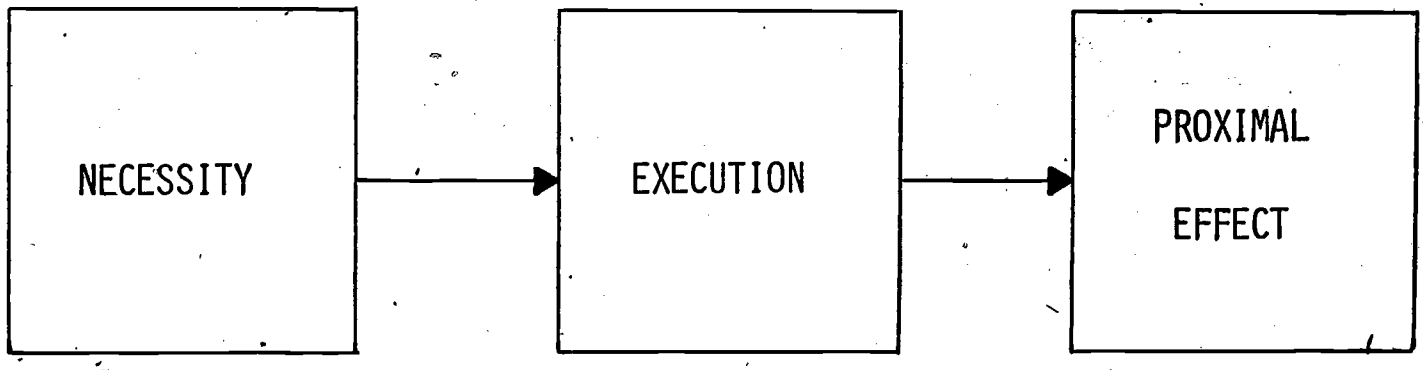


Slide 1

## SUBISSUES IN USE EVALUATION

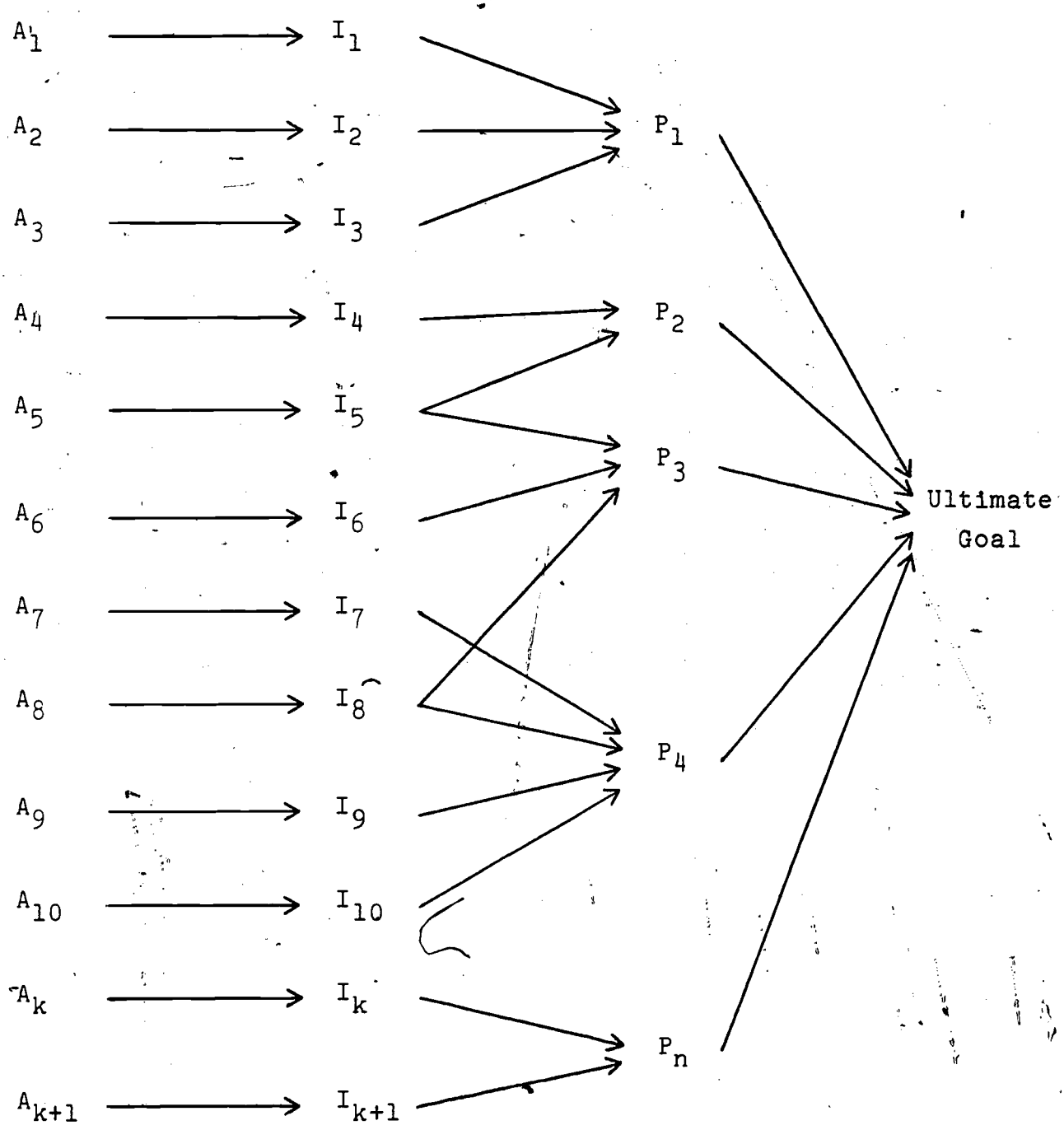


## SUBISSUES IN IMPLEMENTATION MONITORING



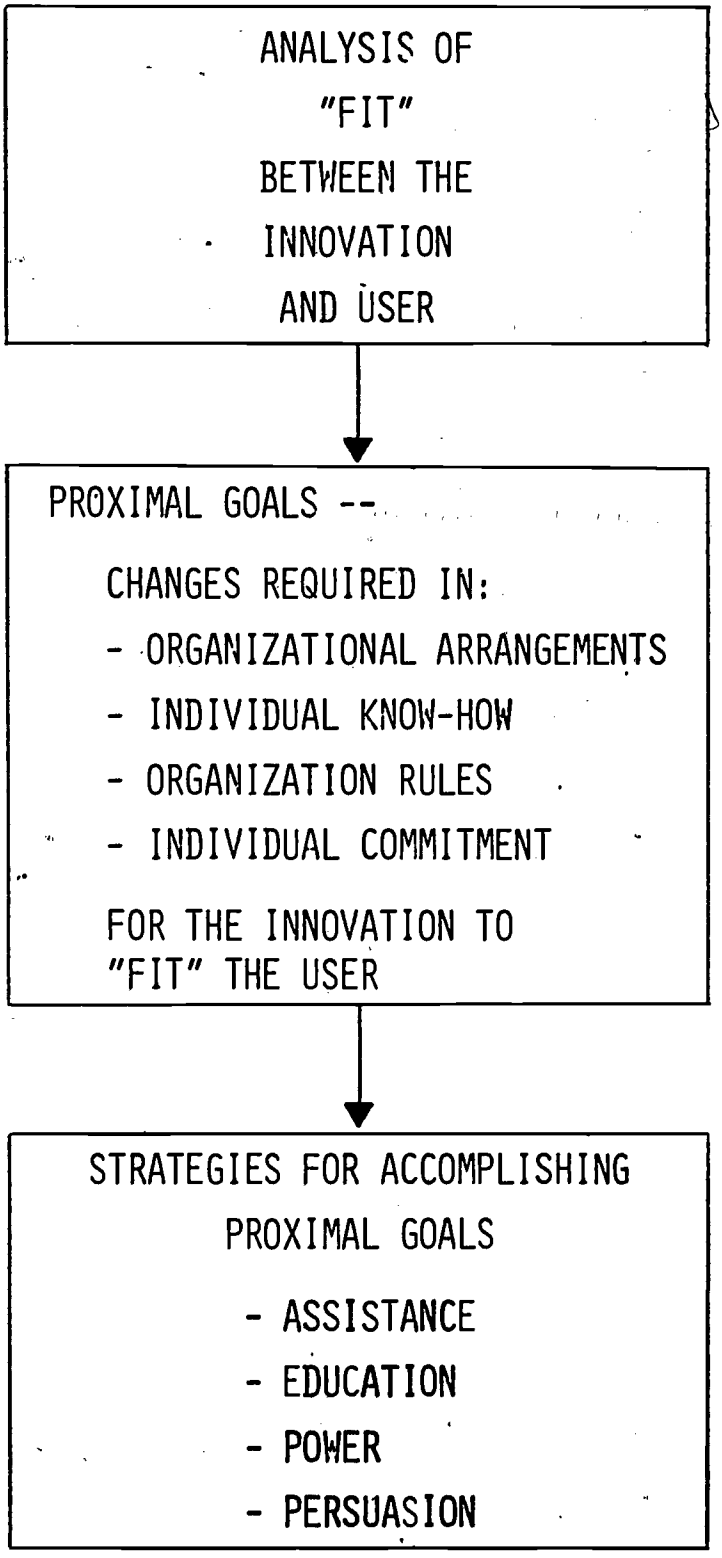

Slide 3

PLANNED ACTIONS INSTANTIATIONS PROXIMAL GOALS




NECESSITY EXECUTION PROXIMAL EFFECT

SUBISSUES IN IMPLEMENTATION MONITORING


ANALYSIS OF
"FIT"
BETWEEN THE
INNOVATION
AND USER
PROXIMAL GOALS --
CHANGES REQUIRED IN:
- ORGANIZATIONAL ARRANGEMENTS
- INDIVIDUAL KNOW-HOW
- ORGANIZATION RULES
- INDIVIDUAL COMMITMENT
FOR THE INNOVATION TO
"FIT" THE USER
STRATEGIES FOR ACCOMPLISHING
PROXIMAL GOALS
- ASSISTANCE
- EDUCATION
- POWER
- PERSUASION



Slide 5