

U S Army Military History Institute

Preliminary Assessment of Three NCO Leadership Preparation Training Systems

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FOREWORD

Research by the Human Resources Research Office in Work Unit NCO has been directed toward assisting the Army in developing potential noncommissioned officers early in their military careers. The research described in this report was the first phase of work under Work Sub-Unit NCO III, Field Evaluation of Leadership Training Programs for Light Weapons Infantry Trainees. This phase involved preliminary development of methods and materials for three alternative leadership training systems, and preliminary assessment of training accomplishments under experimental administrations of the programs.

A formal experiment to evaluate refined derivatives of these leadership systems was conducted subsequently. A Technical Report on that research, "Evaluation of Three Experimental Systems for Noncommissioned Officer Training," is in preparation.

The study was conducted by HumRRO Division No. 3 (Recruit Training) at Fort Ord and the Presidio of Monterey, California. Director of Research during the study was Dr. Howard H. McFann.

Military support for the study was provided by the U.S. Army Training Center Human Research Unit. The Acting Military Chief of the Unit at the time the study was undertaken was CPT Henry L. Klim. The study was completed while LTC Luther B. Sexton was Military Chief of the Unit.

The research was supervised by Dr. Paul D. Hood. Dr. Morris Showel was responsible for development and accomplishment of training. Dr. John E. Taylor was responsible for criterion development and assessment, assisted by Dr. Edward C. Stewart. Military assistants in preparation for and conduct of the study were LTs Gardner, Heineman, and Mucelli; MSG Sidney Springer and SGT Philip A. Matthews; SP 4 Floyd T. Flynn; and PFC Philip K. Berger. Mrs. Jacklyn Boyd compiled data and prepared the summary report.

Publications covering the research performed in Work Sub-Units I and II are cited in the text of this report. Previous NCO III publications are: Automation of a Portion of NCO Leadership Preparation Training, Technical Report 66-21, by Morris Showel, Elaine Taylor, and Paul D. Hood, December 1966, and Implementation and Utilization of the Leader Preparation Program, Technical Report 67-2, by Paul D. Hood, March 1967.

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SUMMARY AND CONCLUSIONS

Military Problem

There has been a continuing need, of concern to the U.S. Continental Army Command, for developing effective methods for selection and preliminary training of potential noncommissioned officers as early as possible in their Army careers.

Research Problem

In earlier phases of Work Unit NCO, extensive exploratory work had been done toward developing methods for identifying and training potential junior NCOs at an early point in their Army service. The objective of Work Sub-Unit NCO III was to develop and field test leadership programs for this purpose. The first phases of this work, described in this report, involved selecting alternative experimental training programs, defining training objectives for each program, developing training materials and methods in support of these objectives, and developing assessment devices to support training or evaluate training accomplishments.

Methods

The research objective was accomplished through the selection, development, and study of three alternative leadership training systems and related assessment devices.

(1) A *Recycle System* selected potential trainee leaders during their first Advanced Individual Training (AIT) cycle and retained them for training in junior leader positions through a subsequent AIT cycle. This system was used with Light Weapons Infantryman trainees in one AIT company, who were selected on the basis of aptitude and of peer and superior ratings on leadership potential.

The method of leadership instruction combined a general approach by lecture-conference and a more detailed, practical, and varied "situational" approach to functional areas of leadership, involving nine principles of leadership which had been developed in previous NCO research. Technical training in this system was accomplished by having the trainee leaders retake some of the AIT courses they had had in their first AIT cycle, by providing previews or reviews of other AIT material, and by adding special technical instruction oriented to squad leaders. Practical experience in technical areas was provided the trainee leaders by assigning them to instructor or assistant instructor jobs as appropriate, and whenever possible.

(2) An *Integrated System* selected and trained Light Weapons Infantryman junior leaders during their first and only AIT cycle. This system was studied in two separate companies during two different AIT cycles. In one company, the experimental trainee leaders were selected on the basis of aptitude and of peer and superior ratings; in the other company, they were selected on the basis of aptitude and peer ratings only.

The same principles of leadership employed in the Recycle System were used in the Integrated System with the emphasized situational approach being used for presentation of leadership human relations training in lectures, group discussions, role playing, and films. In order to create time in which to conduct technical leadership training, some technical classes were compressed for the Integrated System trainee leaders by combining similar or repetitive material, and by separating the trainee leaders from the rest of the company into small groups for accelerated instruction. In the subjects requiring the highest degree of proficiency, the regular AIT training was supplemented; the trainee leaders were also used as much as possible in squad leader functions and as assistant instructors or demonstrators.

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(3) A *Short Course System* presented formal leadership training in a separate, four-week leader preparation course (LPC) between BCT and AIT, the course graduates going on to serve in junior leader positions with on-the-job leadership training in their AIT cycle. Trainee leaders for this system were equally divided between two military occupational specialties (MOSs)—Light Weapons Infantry and Heavy Weapons Infantry—but were assigned by the Department of the Army, precluding use of a selection scheme.

In the LPC, leadership as a formally imparted knowledge was de-emphasized. The small amount of classroom instruction which was devoted to leadership developed the subject as a psychosocial skill calling for interaction of the leader and his men in accomplishing any mission, and specifically in performing designated squad directing and squad maintaining functions. Practical, supervised work providing feedback and critique of performance was emphasized. Although there was MOS-specific training, most field training was conducted on a combined-MOS basis aimed at providing each MOS with some appreciation of the value of both. Directly following the LPC, the leader candidates were assigned to leadership positions in one AIT company, where their leadership training was continued under the direction of the Leadership Noncommissioned Officer (LNCO)—the supervisor of leadership training—with conferences, handout materials, and practical work.

Criterion measures developed in previous research were used as a basis for development of measures for the Recycle System; those measures which then showed promise were further developed and expanded for use in the Integrated System; revisions and composites of some of these devices were used in the Short Course System, along with various materials developed specifically for that portion of the study.

Results

Recycle System

Written and performance tests of leadership and proficiency at the end of the recycle indicated superior performance of the experimental over the control group; however, there were scheduling problems, resistance to the program on the part of some trainer personnel, and the experimental trainee leaders were away from their men for leadership training an excessive amount of time.

Integrated System

In most cases, the experimental groups achieved higher mean scores on tests than did the control groups, but these differences were almost entirely without statistical significance; trainer resistance to the program continued; trainee leaders were away from their men too much of the time; and the demands placed upon the experimental group with regard to absorbing and utilizing leadership and technical training concurrently were extreme.

Short Course System

In only one written test, and in tests of squad leader performance were significant results obtained through analyses of covariance; these results were in favor of one or more of the test groups of experimental trainee leaders. Trainer resistance to an imposed program was precluded by the nature of the LPC, since the major responsibility for administration of the LPC and for presentation of the formal leadership training was assumed by the conventional military organization rather than by the research staff. Trainee leaders were not absented from their men in AIT.

Conclusions

Given an adequate selection scheme and competent supervision of training, the Short Course System showed the most overall value and promise as a leadership training system. The Recycle System, although effective, was so impractical in terms of costs to the Army (especially with regard to flow of personnel through the ATC) that it was ranked least desirable. The Integrated System was intermediate in cost-gain terms.

As determined by levels of achievement, those trainee leaders possessing both a high aptitude and a high peer rating of leadership potential were superior in performance; however, observations indicated that motivation, initiative, and consistency of behavior might be better than paper-and-pencil or technical proficiency tests as indicators of good or bad leaders.

It is considered critical that cadre participants in subsequent studies be thoroughly oriented and indoctrinated as to the nature and purposes of the leadership training program, in order to avoid the resistance to change which can prove detrimental to the achievement of the program objectives.

Supervisors of leadership training must also be selected with great care and thoroughly trained for their responsibilities.

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THE PROBLEM

BACKGROUND OF THE STUDY

The general objective of Work Unit NCO was to improve the caliber of noncommissioned officer performance by conducting research designed to establish curricula and techniques for developing NCOs as early as possible in their Army careers. Toward this end, the research staff undertook a series of studies designed to produce a leader preparation program, capable of meeting both current and mobilization requirements, which would supply the Army with a reservoir of potential leaders.

In background studies (1), the U.S. Army's training system for enlisted personnel and its methods for selecting and training NCOs was extensively examined. A detailed job description of NCO leadership functions was prepared on the basis of a comprehensive review of military and research literature dealing with performance requirements for Combat Arms NCOs. Foundation work was accomplished during this period for a provisional textbook which later evolved into an official Army publication, USCONARC Pamphlet 350-24, Guide for the Potential Noncommissioned Officer (2).

A longitudinal study was conducted (3) to examine feasible methods of assessing performance and leadership potential. Other studies were made of methods for introducing new content or modifying existing content relevant to leadership preparation. Orientation processes and motivation techniques were examined (4) with an eye toward creating interest in preparing for and assuming leadership responsibilities. Possibilities for incorporating junior NCO preparation into the regular training were explored, and a set of technical and interpersonal skills for leadership preparation training appropriate to the Advanced Individual Training (AIT) level was determined.

Work Sub-Unit NCO III was concerned with field evaluation of leadership training programs. The first phase of this Sub-Unit, which is the topic of this report, represented a natural continuation of the previous exploratory studies. Several alternative systems for accomplishing leadership preparation training within or adjoined to the context of AIT were considered; from these, three were selected for examination in NCO III.

OBJECTIVES OF THE STUDY

The specific goals of the developmental phase of NCO III were:

- (1) To develop workable training materials and methods and necessary assessment techniques and devices to support or evaluate each system.
- (2) To obtain general information regarding training and assessment problems and opportunities peculiar to each system.
- (3) To find solutions to operational problems anticipated in the subsequent formal field evaluation of the systems (such as personnel selection; training scheduling, allocation of available time, arrangement of content to mesh with the normal AIT lesson block scheduling; logistic support; quality control of training and assessment).

APPROACH TO THE RESEARCH

ALTERNATIVE TRAINING SYSTEMS

The three systems chosen for field study were designated Recycle System, Integrated System, and Short Course System (see Figure 1).

Three Alternative Leadership Training Systems

Recycle System

Cycle:	BCT	AIT-1	AIT-2
Function:		AIT Training and Selection	Leader Training
Trainee Role:	Follower or Leader	Follower	Leader

Integrated System

Cycle:	BCT	AIT-1
Function:	Selection	AIT Training and Leader Training
Trainee Role:	Follower or Leader	Leader

Short Course System

Cycle:	BCT	LPC	AIT-1
Function:	Selection	Leader Preparation	AIT Training and Leader Training
Trainee Role:	Follower or Leader	Leader Candidate	Leader

Figure 1

The Recycle System proposed to identify promising leadership candidates during AIT and to retain these men to serve as squad leaders, guides, and assistant platoon sergeants during a subsequent AIT cycle. Special leadership training was to be given to the trainee leaders during the second cycle, and the trainee leaders were to be utilized in a variety of situations where they could practice functionally meaningful leadership skills.

The Integrated System proposed to accomplish special leadership preparation training by introducing modifications in the current eight-week AIT program for the Light Weapons Infantryman. Separate training was to be given during some phases of the cycle to trainees who had been assigned as acting leaders in the company in order to provide a more concentrated presentation of material of particular relevance for these leaders. Integrated throughout other phases of the cycle were to be larger quantities of practical leadership work in contexts where the leader would be training with the remainder of the men in his unit.

The Short Course System involved the introduction of a separate, four-week Leader Preparation Course (LPC) immediately prior to AIT. During this course, promising candidates, who were to be selected during BCT, were to be taught

principles and techniques of leadership along with some technical preparation for AIT. All of the work was designed to prepare the man to serve effectively and to take full advantage of his subsequent AIT experience. Upon successful completion of this course, the trainee was to be placed in a leadership position during AIT and further trained in the application of the leadership skills and techniques which he had learned in the four-week LPC. This system represented something of a compromise between the Recycle and Integrated Systems.

All three systems stressed practical application of both technical and interpersonal skills and knowledges which were appropriate for the squad leader level of leadership and which were reasonably applicable to the advanced individual level of training. All three systems assumed that some portion of the training would take place within the context of the normal training program, and that leadership training would be supervised by one or more company cadre specially trained to perform required leadership supervision functions.

The systems differed primarily in the amount of time devoted to achieving the leadership training and in the amount of specific training the candidate would have received prior to assuming a functional leadership role.

POPULATION

The subject population under direct study throughout was the "potential infantry squad leader," identifiable in an Army Training Center and available for leadership preparation training in, or just prior to, AIT. All leadership training candidates were chosen from the Light Weapons Infantryman (LWI) MOS for both the Recycle and the Integrated Systems. For the Short Course System, leadership training candidates from the LWI and the Heavy Weapons Infantryman (HWI) MOSs were included.

SELECTION FACTORS

A study of the kinds of assessment measures available for Army personnel at the AIT level (3, 5) had indicated that three factors (aptitude, superiors' evaluations, and peers' evaluations) were sufficient to account for major sources of variation in the effects of selection of trainees in a leader preparation training program.

Aptitude was defined as the Army Combat Aptitude Area Score for infantry (the "IN" score).¹ Superiors' evaluations were provided by company cadre in rank-ratings of squad leader potential, with scoring accomplished by use of a seven-point Squad Leader Aptitude Rating Scale, derived from the Combat Aptitude Scale developed by the U.S. Army Behavioral Science Research Laboratory. Peers' evaluations were provided by using the same seven-point rating scale to derive an average rating for each man as indicated by raters in his own squad. This rating scale may be found in Appendix A. The means of the ratings are in Appendix Table A-1.

Due to an administrative error, the subjects for the Short Course System were assigned by name by the Department of the Army, which precluded use of these selection factors in that portion of the study.

¹The IN score is a combination of two scores from the Army Classification Battery: the Arithmetic Reasoning (AR) score and the Classification Inventory (CI) score, with the CI doubly weighted. The double weighting was a result of the superior combat (Korea) validity of the CI personality test materials (6). The AR represents one half of the General Technical Aptitude Area score (referred to as GT); previous research had shown a moderately high correlation between IN and GT.

Although selection procedures were originally intended to be uniform over the three systems, the researchers encountered a number of difficulties in attempting to impose these procedures on an operational BCT activity. As will be noted in later sections of the report, several variations from the original selection scheme were unavoidable.

On each of the three selection variables, men considered for selection as trainee leaders were in the "high" category or the "middle" category; no low or marginal personnel were included in the study. In designating the groups, the high category on each selection factor was indicated by a capital letter, and the middle category by a lower case letter. For example, ApS would designate the selection group in which the trainees have high aptitude, a middle peer rating, and a high superiors' rating.

Since in an AIT company there are only 20 squad leader positions to which trainee leaders could be assigned for experimental work, insofar as possible trainees were selected only from selection groups containing two or more high categories. That is, men in the groups which contained two or more middle categories (i.e., Aps, apS, aPs, and aps) were rejected. The selection groups generally considered, therefore, were APS, ApS, APs, and aPS. The range that each category covers on each variable for each system is shown in Appendix Table A-2.

SAMPLING AND TRAINEE LEADER ASSIGNMENT

Recycle System

Twenty-nine LWI trainees were selected for the Recycle System from a U.S. Continental Army Command (USCONARC) allocation which completed AIT training in June 1959. The top 25% of the original AIT company distribution on each selection variable was designated as the high category for this group, and the next 25% as the middle category. These men were recycled into an AIT company at Fort Ord, California.

Rosters were prepared according to selection groups. One man from each of the four leader-type rosters (APs, ApS, aPS, APS) was randomly assigned to lead each of the four squads in each of the five platoons. From the remaining names, one man was randomly selected from each roster (two were assigned from the APS roster) and these men were assigned, one to each platoon, to serve as platoon guide. (The platoon guide was an assistant to the trainee platoon sergeant and was comparable in status to the squad leader but was outside the chain of command, and was used in the event a replacement squad leader or platoon sergeant was needed.) Trainee platoon sergeants were also selected, and, to provide the best men possible, were chosen from the APS roster.

Because of a subsequent company reorganization, the four LWI squads from the fifth selected platoon were randomly assigned to the remaining platoons, creating four LWI platoons of five squads each.

Integrated System

Selection of leader trainees in the Integrated System proved more complicated. Two experimental runs were involved, one in each of two separate AIT companies at Fort Ord, whose training covered the period from October 1959 to January 1960. One of these companies was the typical split-MOS company consisting of four platoons, two each of LWI and HWI; the other company was atypical in that it was composed of five platoons made up entirely of LWI trainees.

For selection of leader candidates in the split-MOS company, superiors' ratings were provided by the BCT cadre and peer ratings were provided on arrival in AIT by men who had been with the ratee during BCT. The high category comprised the top 30% of the distribution and the middle category comprised the next 20%.

To maximize the number of positions available for trainee leaders, the two LWI platoons under study were broken down into two sections of three squads each ($N=16-12$ trainee squad leaders and four trainee section sergeants). There were no trainee platoon sergeants, but one section sergeant in each platoon was designated as "senior" and led when the two sections acted as a platoon. Trainee section sergeants were selected from the APS group and trainee squad leaders from the ApS, APs, and aPS groups.

The all-LWI company was formed into five platoons of four squads each ($N=25-20$ trainee squad leaders and five trainee platoon sergeants). A major proportion of the men in the company came from training centers other than Fort Ord, so it was not possible to obtain superiors' ratings on all of the men without great delay. Consequently, leaders were selected on the basis of aptitude and peer ratings only, into groups of Ap, AP, aP, and ap. The high category comprised the top 20%. To create a greater distribution between the factorial levels, men in the next 10% were omitted, and the next 20% comprised the middle category.

Short Course System

As has been noted, selection of subjects for the Short Course System was precluded because of an administrative error. Of the 40 assigned subjects (20 in each MOS), the majority were from Fort Ord and it was possible to obtain APS rating data for them quite readily. Reference to previous findings (5) indicated that the men were not unrepresentative of the typical infantry cross-section for AIT input. However, comparison of their aptitude and rating scores with those of trainee leaders in the Recycle and Integrated tryouts showed this sample to be significantly inferior on both dimensions.

Because purely random assignment of the 40 men to squads on an MOS basis during the four-week leadership preparation course (LPC) could have introduced gross differences between squads in General Technical (GT) Aptitude Area level, the trainee leaders were first paired into groups of four on GT and then randomly assigned to the four LPC squads.

GT CONTROL PROCEDURE DURING AIT

Because some of the training and assessment devices were dependent upon followers' performances, it seemed desirable to exercise a measure of control over differences in overall level and heterogeneity of AIT squad composition. The GT score had been found to be related to almost every measure of leadership evaluation (5), and was selected for use as the control measure in each of the three training systems.

In the Recycle System, the AIT squads were equated within the platoons by ordering the company roster on GT, stratifying the ordered list into groups equal in number to the number of squads in the company and randomly assigning one man from each GT stratum to each squad.

Some changes from the original plan for stratifying and randomly selecting on the basis of GT were necessary in squad assignment for the Integrated System

because of a "carrier company" concept,¹ which was being utilized by the Army at the time. Men without enlistment commitments were stratified into four groups on the basis of GT and then formed into carrier groups by selecting one man from each of the four strata and adjusting groups for "buddy" choice on a trial basis until a compatibility was indicated. Two carrier groups which were relatively homogeneous on GT were then randomly assigned to each squad.

Followers in the AIT phase of the Short Course System were roughly equated for GT in their assignment to squads, after their assignment to carrier groups.

TREATMENT

The leader training program, which constituted the primary treatment in each system, was based on two premises regarding content: (a) the human relations training must teach the attitudes, knowledges, and skills which contribute to effective interpersonal relations; and (b) technical training must impart knowledges and skills which make a technically competent leader. For the sake of continuity, each of these two general content areas will be dealt with separately for the Recycle and Integrated Systems, followed by the presentation of performance standards and training objectives which then evolved for the Short Course System. Details of time allotment and scheduling adjustments for the Recycle and Integrated Systems are presented in Appendix B. An outline of the Program of Instruction and descriptions of various aspects of the Short Course System are contained in Appendix C.

All leadership training was supervised by a specially selected noncommissioned officer, referred to as the Leadership NCO (LNCO). For the Recycle and Integrated Systems, the LNCO was a man who was familiar with the research project and had been utilized in earlier pilot studies. Two other LNCOs were used during the Short Course System.

Human Relations Training: Recycle and Integrated Systems

The Recycle System used a combination of a general and a situational approach to functional areas of leadership. The general approach involved nine principles of leadership which had been developed during previous Work Unit research (2): Define the Situation, Motivate Your Men, Supervise Your Men, Be Considerate, Handle Disruptive Influence, Act Like a Leader, Get Information, Use and Support Subordinates, Be a Good Subordinate. The situational approach was presented through a staff-developed textbook (the Guide for the Potential Noncommissioned Officer). The combination of these approaches created a 26-hour block of instruction which presented the principles in general by lecture-conference and then provided more detailed, varied, and practical situational treatment in the application of each principle.

These same nine general functional areas of training were also used in the Integrated System; however, the situational approach was emphasized, and all classes were based on material contained in the Guide. Techniques of instruction included lecture, group discussion, role playing, and films. The time available for the block of instruction was somewhat limited and was partly dependent upon success of the "course compression" and accelerated class efforts and the

¹By Army requirement, four-man carrier groups were formed on the basis of enlistment commitments, ability, group integrity, and buddy preferences indicated at the same time the peer rating was made. The carrier groups were usually formed first with the relatively small number of men who had enlistment commitments, an attempt being made to observe "buddy" choices and equal distribution with regard to GT.

availability of time independent of regular AIT training. This block of instruction comprised 28 hours of the split-MOS company schedule and, following revisions judged to be advantageous during that run, 26½ hours of the all-LWI company schedule. All schedules for leadership human relations classes were prepared in coordination with regular training schedules in an attempt to relate specific situational content of the leadership classes to the regular AIT training context (see Appendix B).

Technical Training: Recycle and Integrated Systems

The schedule of technical training for Recycle System experimental subjects was adjusted in order to reach the training objectives by:

- (1) Requiring the trainee leader to retake some AIT courses as a refresher.
- (2) Giving the trainee leader practical experience in technical areas by assigning him the job of instructor or assistant instructor.
- (3) Providing previews or reviews of other AIT material.
- (4) Giving special technical instruction oriented to the squad leader in some technical subjects not covered or covered inadequately in AIT. Overall, the total technical time added to the regular cycle was eight hours.

The Integrated System attempted to compress or otherwise modify certain portions of the conventional AIT training blocks in order to create time in which to conduct leadership training. Throughout the Integrated System the trainee leaders were also used as much as possible in actual squad leader functions and as assistant instructors or demonstrators. Advance sheets,¹ preview-review sessions, and the separation of trainee leaders from the rest of the company into small groups facilitated the acceleration of training. Compression of some courses for the trainee leaders was accomplished by combining similar or repetitive material. Additional instruction was given to the trainee leaders in the subjects requiring the highest degree of proficiency. Overall, totals of 9½ hours in the all-LWI company and 18½ hours in the split-MOS company were added to the regular cycles.²

Performance Standards: Short Course

After review of development and progress during the Recycle System and Integrated System work, the general conclusion was reached that either of the experimental training systems could be more effective than the existing methods of selecting and using trainee leaders in AIT. However, it was also evident that more precise techniques were needed for breaking leadership into separately measurable functions and for comparing alternative input and training methods effects. Following a moderately rigorous Leadership Task Function Analysis, a provisional set of leadership functions was chosen as a standard for use in the Short Course (see Appendix C).

A set of tasks then had to be defined in which a squad leader should be proficient and which would be representative of those tasks he would probably encounter—either in AIT, or subsequently in a TOE unit. Combat and field training requirements were then considered in terms of what would, or should, be required of a potential leader trainee at the termination of AIT. A set of

¹Advance sheets were experimentally prepared "briefings" on the subjects to be studied in subsequent classes.

²This time differential was due to the fact that the all-LWI company did not schedule a nine-hour Automatic Rifle block of instruction.

tasks was then selected as being reasonably representative and adequate for the immediate needs of the Short Course portion of this study (see Appendix C).

To provide an indication of training need, estimates were made for each cross-classification of function by task of the general level and distribution of performance that could be anticipated for the leader candidate after BCT, during the four-week LPC, at the end of the AIT phase of the system, and at the time a trainee leader would be required to assume control of a regular squad. These comprehensive estimates pointed up areas where deficiencies seemed greatest between trainee capability and set standards of performance that might be encountered later, and in terms of the frequency-criticality of the function to successful task performance.

Training Objectives: Short Course

Further comparisons were made between leadership function training needs and training capability; that is, how much training (how long and costly and by what methods) would be required to meet a specific leadership function need? At this point it was possible to state explicitly a set of training objectives for the four-week LPC which, if met, would enable the leader candidate to enter the AIT phase of the system with the self-confidence and objective ability to meet the requirements made of him there.

These training objectives were:

- (1) To provide the leader candidate with an AIT orientation.
 - (a) What does AIT look like?
 - (b) What is the acting squad leader called on to do?
- (2) To familiarize the leader candidate with selected AIT subjects.
 - (a) Weapons
 - (b) Tactics
 - (c) General subjects (including MOI-DD and MOI-PT)
- (3) To provide the leader candidate with simple leadership skills and knowledges through training and practice.
 - (a) Garrison (company support)
 - (b) Field
- (4) To provide the leader candidate with sufficiently high standards of behavior and appearance to meet AIT cadre expectations and provide an acceptable "model" for his followers.
- (5) To develop simple general interpersonal and supervisory skills in the leader candidate.
- (6) To provide the leader candidate with opportunities to "learn how to learn" and how to use the resources available to him in order to learn.

Although all aspects of leader requirements tend to occur simultaneously in the typical task context, the priority and sequence of training efforts were directed first toward the fundamental aspects of the technical proficiency areas in order to provide a basis for more complex instructional and supervisory situations that would be encountered later. Next in sequence came leadership techniques, followed by the complex of human relations training (involving motivational and interpersonal skills). Teaching skills associated with technical materials came last in the order of emphasis.

CRITERION DEVELOPMENT

Training methods in the study and their assessment measures were being developed and examined simultaneously, so that in many instances results were less informative than would be desired. There was always the question whether

the results—or, more often, the lack of significant results—were a function of the training methods, or of the measuring instruments.

The long-range interest was in developing comprehensive leadership performance tests to be used as criteria for measuring the post-training effectiveness of leadership training methods. The short-range interest was in developing small-scale intermediate tests to assess provisional techniques and methods, assess in-training progress, provide feedback, and serve as motivating devices during training.

Measures developed during previous work (7, 8) were used as the basis for development of assessment criteria for the Recycle System study. Those measures which showed promise were further developed and expanded for use in the Integrated System, where particular attention was also given to evaluation of course compression methods to determine whether critical follower knowledges and skills had been slighted in reducing the AIT program to accommodate additional leadership training. Revisions and composites of some of these devices were used in the Short Course System, along with various materials developed specifically for that portion of this study. Throughout the course of the research, some measures reached a satisfactory degree of refinement and were dropped from further experimentation to make room for development of additional devices. An overall view of the devices used in the three systems is presented in Figure 2.

Paper-and-pencil tests were used to gain information regarding technical and leadership knowledge; performance tests were used to gain information regarding technical and leadership skills. Each of the assessment measures was designed to provide information about within-group and between-group training effects. Information about within-group selection effects was also sought, particularly in the Recycle System. Administration of the tests is described in Appendices E and F.

In handling the data, the size of the sample and the estimated magnitude of instrument precision were the prime considerations in determining whether analyses beyond the simple calculation of means would be run. Statistical tests were almost always low in power. Scores are not given in the body of this report because of the developmental nature of the training methods and the criterion devices and the varying circumstances under which the devices were administered. Instead, tables of results are included in Appendices E and F.

COMPARISON OF SYSTEMS

RECYCLE SYSTEM

Administrative Findings

A major source of difficulty in maintaining an ideal leadership training environment was an understandable resistance by the company cadre to organizational changes accompanying the experimental program. The cadre were in a position to limit privileges which had been promised to the experimental trainee leaders. They often would not—or could not—let the trainee leaders lead and assume responsibilities, and sometimes made the trainee leaders feel that they were not respected. Other planned-for rewards were not forthcoming because of operational or administrative difficulties. The trainee leaders complained about the fact that they couldn't carry out threats or promises made to their men. Although the trainee leaders did not mind being recycled, they did not like the repetition of class training, since they felt that this was inconsistent

Criterion Devices Used in the Three Training Systems

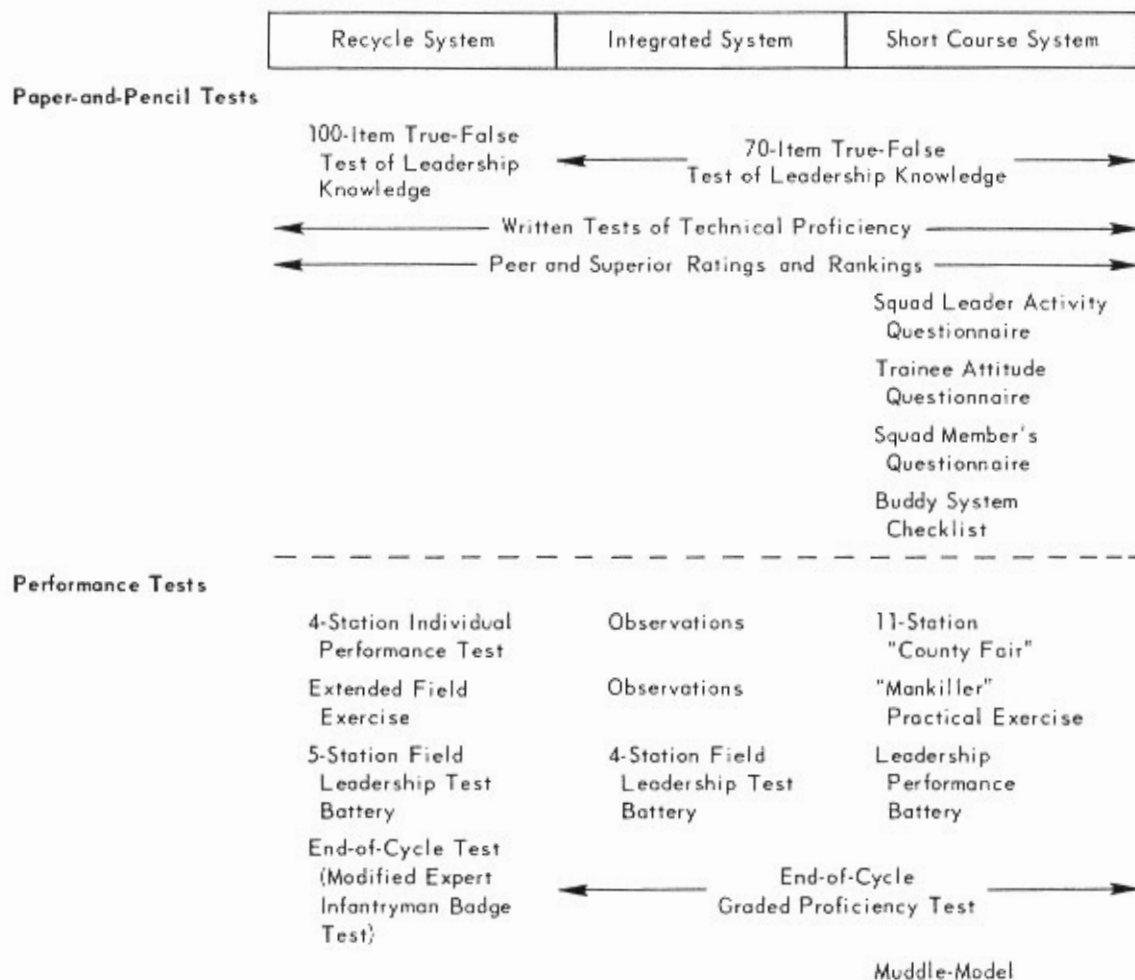


Figure 2

with their status and they feared their inadequacies would be revealed to their followers; some were simply reluctant to do boring or difficult work.

Because of the added leadership human relations instruction and the necessary testing procedures for research purposes, the trainee leaders were away from their men a good deal of the time, leaving the team leaders responsible for the squads. This, of course, was felt to be an undesirable situation, as was the difficulty in maintaining squad integrity in work details and tactical training.

The LNCO supervisor of training in the Recycle System was a specially selected senior NCO who was thoroughly familiar with the intent of the training and with the nature of the role and successfully carried out his functions.

Criterion Data

Peer and superiors' ratings of the trainee leaders were collected at the end of the recycle and were found to be consistent with the original AIT company ratings. A more detailed discussion of selection effects is presented in Appendix A.

As measured by a written test of leadership knowledge at the end of the recycle, the experimental trainee leaders were found to have a significantly greater knowledge of leadership principles than the control leaders (see Appendix E). In written tests of technical proficiency, it was found that performance increments of the experimental over the control group were related to the amount of training supplement provided to the experimental group (see Appendix E).

A set of miniature leadership performance situations was used to measure the performance level of the trainee leaders in the typical squad leader functions of briefing, supervising-instructing, orienting, and counseling. This test (briefly described in Appendix F) was administered after the trainee leaders had had most of their formal leadership instruction and again at the end of the cycle; there was no comparison group on this measure. Group mean differences between administrations were slight and, due to scorer differences, it was felt that this test, as administered, was not sensitive to changes in performance.

Trainee leader performance in a series of tactical problems was measured by a field exercise (see Appendix F) administered at the end of the recycle. The squads on these exercises were composed entirely of experimental trainee leaders who were rotated in leader-follower roles. Although no conclusions were reached regarding training or practice effects, two of the problems were found to effectively separate the scores of recognizably poor leaders from the scores of the rest of the leaders.

An additional battery (see Appendix F) of squad tactical problems—the Field Leadership Test Battery—was administered at the end of the recycle. In this battery, trainee squad leaders led their own squads through five subtests. Squads from another AIT company were used as the control group, and a comparison group, composed of the closest available approximation to experienced, integral squads that might be found in a TOE unit, was employed. Analysis of variance indicated that performance of the Recycle System squads did not differ significantly from the experienced comparison squads, but that both the experimental squads and the comparison squads were significantly superior to the AIT control squads. Three of the subtests differentiated between trained leaders and untrained leaders. Failure of the other two subtests to achieve this differentiation was attributed to the fact that they were more highly structured and did not permit a wide range of freedom of decision and action on the part of the squad leader.

An informal comparison was made between end-of-cycle proficiency test scores achieved by the trainee leaders in relation to the test scores of other groups. Allowances were made for variation in company test preparation practices and minor changes in test format and administrative conditions. The procedure for selecting the Recycle System trainee leaders picked individuals who were only slightly above the Fort Ord average in their initial AIT proficiency test. However, comparison of test means (presented in Appendix F) indicated that their performance was considerably improved after a second time through AIT, and an effect of the Recycle System training was to substantially raise followers' scores above the Fort Ord average.

INTEGRATED SYSTEM

Administrative Findings

Even though an orientation session was held to acquaint the Integrated System company cadre with the nature of the program and their roles in it, cadre attitude toward the trainee leaders was a continuing problem. The cadre in both of the

companies were given some of the responsibility for the leadership training of the experimental trainee leaders—partly to involve them more in the experimental program, and partly to relieve some of the burden which had been placed on the LNCO; this effort proved unsuccessful. As in the Recycle System, fulfillment of promised special privileges was a problem and the trainee leaders were generally not able to carry out either threats or promises made to their men. Some of the trainee leaders were not happy at having been selected for the program, and one asked to be relieved.

It was the feeling of the research staff that the trainee leaders were given entirely too heavy a work load and too much responsibility in the Integrated System, since they had to learn leadership techniques in addition to the required AIT technical subject matter and were also responsible for the supervision of their men. While the trainee leaders had some of the responsibilities of company cadre, they had none of the rewards and had neither comparable experience nor adequate organizational support to back them up in dealing with their followers.

Criterion Data

For experimental trainee leaders in both companies of the Integrated System, post-cycle peer and LNCO ratings were not significantly different from ratings made early in cycle (see Appendix A). The AP group was significantly higher than any of the other leader-type groups on end-of-cycle LNCO ratings. Considering leader-type groups in relation to performance, results of tests of technical performance in both companies repeated the Recycle System findings of high ranking for the groups containing men with both a high aptitude score and a high peer rating. Written measures of technical proficiency ranked the ApS group high and the aPS group low in the split-MOS company, and the ap group low in the all-LWI company. Rankings of the other leader-type groups on these written measures were not consistent.

The post-cycle written test of leadership knowledge indicated that formal leadership training had slightly increased the scores of the experimental trainee leaders over those of the control leaders (see Appendix E).

Post-cycle written tests of technical proficiency were administered to experimental and control leaders in six subject areas. Training for the experimental leaders in five of these subjects had been presented by compressed, accelerated, or special classes. In the one subject in which the experimental trainee leaders had been taught by conventional training methods, they achieved slightly higher mean scores than the control group. Mean comparisons in the other five subjects indicated that the experimental leaders performed significantly better than the control leaders in one subject, slightly better in three subjects, and slightly worse in two subjects (see Appendix E).

Observations of experimental squad leader performance, which were conducted by the research staff, indicated that motivation, initiative, and consistency of behavior might be better indicators of good or bad leaders than were paper-and-pencil or technical proficiency tests. Observations also indicated that some structured situations normally found in Army AIT training (e.g., briefing a squad prior to a patrolling exercise) were promising sources of determining leader-follower interaction patterns (see Appendix F).

A revised version of the Field Leadership Test Battery (see Appendix F) was administered to some of the experimental squads and to some of the control squads early in the Integrated System and again later in the cycle. The remaining experimental and control squads received the test only once at the end of

cycle. Comparisons of mean scores indicated that, on the early-in-cycle administration, the control squads performed better than the experimental squads, but that the same experimental squads then performed better than the same control squads on the end-of-cycle administration. In addition, the experimental squads which took the test once at the end of the cycle also performed better than these control squads had on their second time through the battery. Since all control squads reached approximately the same level of achievement on first exposure to the battery, a definite experimental training effect was indicated. One station dealing with first aid, produced the same effect it had shown in the Recycle System—that of a reasonably reliable measure of discrimination among levels of training.

Because of a change in the type of end-of-cycle proficiency test being administered by the Army Training Center during the Integrated System, no attempt was made to examine end-of-cycle proficiency data for the experimental trainee leaders in the split-MOS company. Instead, a special study was undertaken in the all-LWI company, in which two platoons of the company received an experimental method (developed in Work Unit NCO) of preparation for the end-of-cycle proficiency test, two other platoons in the company received the conventional company preparation for the test, and the remaining platoon did not receive any preparation for the test.

Based on a comparison of subsequent test scores (see Appendix Table F-5), it was found that the experimental preparation was not successful—the trainee leaders were not proficient in methods of instruction, did not have a sufficiently high degree of technical competence, and were unable to properly use and budget the available time and resources for remedial training of their followers. In short, they could not compete with the experience and Army know-how of the company cadre.

SHORT COURSE SYSTEM

Administrative Findings

The Short Course System placed the trainee leaders in two distinct environments. One environment was characterized by the school atmosphere of the four-week Leader Preparation Course and was unique to the Short Course System. By special arrangement, the LPC was conducted at the NCO Academy, with the faculty of the Academy conducting all of the formal classroom instruction. An effort was made to introduce and enforce standards of performance which were conducive to acceptance of the trainee leaders by the AIT company cadre, and the entire environment was designed to condition the trainee leaders for subsequent AIT company leader requirements. Conduct of the LPC in this separate facility precluded reoccurrence of the environmental problems encountered in the Recycle System and the Integrated System; the inherent benefits of achievement and the development of self-assurance and confidence while participating in difficult training were emphasized over other benefits.

Directly following the LPC, the leader candidates were assigned to leadership positions in one AIT company. In this second training environment, the AIT company was responsible for providing real opportunities for leadership development in addition to its basic mission of training men to the Army Training Program requirements. Once again, the company cadre were found to be unable or unwilling to uphold the standards of leadership instruction necessary for the success of innovations or experimental conditions. This situation re-emphasized the necessity for more extensive orientation of future cadre participants to the nature and goals of the leadership training program. In the AIT phase of the Short Course System, no attempt was made to offer special privileges to the

trainee leaders; however, less stimulation was needed since the trainee leaders were involved in practicing leadership techniques rather than in the double task of learning and practicing such techniques in AIT.

The position of LNCO in the Short Course System was filled by assignment from the cadre rather than by the LNCO with NCO Work Unit experience who had served in the Recycle and Integrated Systems. Although the position had been relieved of administrative and logistic responsibilities, this arrangement did not prove to be effective. Since such great reliance was placed upon this one key role in the leadership training systems, it was evident that careful selection and training for that role would be critical.

Criterion Data

Peer ratings were significantly lower at the end of the eighth week of the AIT cycle than they were prior to the fourth week of the LPC; follower ratings also took a significant drop between the fourth and eighth week of AIT, although they were significantly higher than peer or superior ratings at the end of cycle. On an 11-station performance battery administered at the end of the AIT cycle, follower ratings were significantly in favor of the LWI experimental trainee leaders on five of the subtests and significantly in favor of the HWI experimental trainee leaders on six of the subtests (see Appendix A).

A written test administered at the end of the AIT cycle indicated that leadership knowledge of the Short Course System experimental trainee leaders was not as high as that of the control group; however, analysis of covariance (equating for GT) yielded no significant differences (see Appendix E). In written tests of technical proficiency, three of the four GT-MOS classified test groups of experimental trainee leaders performed significantly better than the control group in one of seven subjects covered. No significant differences were detected in analyses of the other six subjects (see Appendix E).

The results of the post-AIT cycle test of individual leadership performance were inconclusive, partly because of the relatively undeveloped state of the subtests at that time, and partly because of what was felt to be ineffective administration of the subtests. The Leadership Performance Battery yielded consistently higher mean scores in all three subtests for the experimental trainee leaders in both MOSs; for the LWIs in the differences between experimentals and controls in two of the three tests were statistically significant. Follower ratings collected in conjunction with the administration of this battery rated the experimental trainee leaders moderately high on the scale; there were no comparison data (see Appendix F).

Analyses of covariance (adjusting for GT) on end-of-cycle Graded Proficiency Test data for experimental and control leaders and their followers yielded several significant results; however, considered over all subtests, neither group appeared to be consistently superior in performance (see Appendix F).

One of the special studies conducted during the Short Course System represented an attempt to increase the trainee leader's ability to evaluate his own performance through feedback provided by a buddy-observer (see Appendix G). This buddy system was used in the LPC and in AIT by the experimental trainee leaders. It proved unsatisfactory, because of inability to assign appropriate buddy pairs and lack of time in which the trainee leaders could complete the job checklists which were provided as a measure for evaluating the buddy system technique.

Another special study, the "Muddling-Modeling" special training effects study conducted during the LPC (see Appendix G), also proved inconclusive as

a measure of the effects on trainee leader performance of two methods of initial exposure to a tactical problem.

Motivation of the trainee leaders was low during the four-week LPC and became lower during AIT. Although they had been briefed at the beginning of the LPC, they had not, apparently, gained from this briefing what was to them vital information—that is, how long they would be in the experimental program, where they would go from there, and what was expected of them. In addition, the subjects had not had any choice in whether or not they would be experimental trainee leaders, and this situation was not enhanced by the fact that the followers in AIT resented the special status of the trainee leaders.

To measure more adequately the attitudes of the Short Course System trainee leaders and their followers, a Trainee Attitude Questionnaire was administered at the end of the AIT cycle. Comparison of experimental and control group means (see Appendix Table G-1) indicated that the experimental trainee leaders had a slightly more favorable attitude towards the Army, but no statistically significant differences were uncovered in either an item or category analysis. A Squad Member's Questionnaire was also administered to determine attitudes toward the squad and the squad leader. Because of the similarity of experimental and control group mean scores on this measure no further analyses were run.

Although several additional questionnaires were developed and used in the Short Course System, no conclusions could be drawn from results obtained by these measures at that time. These instruments are briefly described in Appendix G.

CONCLUSIONS

In viewing the three alternative leader training systems, conclusions regarding their relative merits appear obvious. It is evident, of course, that the use of the selection scheme in the Recycle System and the Integrated System provided leader candidates with higher aptitude and higher leadership potential (as rated by peers and superiors) than did the nonselective assignment of leader candidates in the Short Course System.

On the other hand, a separate leadership preparation course, such as that used in the Short Course System, was clearly preferable to those systems presenting leadership training concurrently with AIT training. The separate LPC precluded major leader environmental difficulties and prepared the leader candidates prior to their assumption of leadership responsibility in AIT, thereby avoiding the undesirable separation of leaders and followers which had been encountered in the Recycle and Integrated Systems. An additional favorable aspect of the separate LPC was that the military organization assumed total administrative responsibility for conducting the course as well as the major portion of the responsibility for presenting the formal leadership training.

Overall, the effects of leadership training were most clearly represented in the Recycle System, where written and performance tests of leadership and technical proficiency indicated superior performance of the experimental over the control group. In most cases, the experimental groups in the Integrated System achieved higher mean scores on tests than did the control groups, but these differences were almost entirely without statistical significance. In the Short Course System, analyses of covariance, which adjusted for GT aptitude, yielded significant results in only one written test of technical proficiency and in squad leader performance tests.

It should be noted that, while the LNCO in the Short Course System had more time to devote to his basic responsibilities of counseling, guiding, and training the experimental trainee leaders, this position was far less adequately filled than it had been previously when the incumbent was experienced in the NCO research. This fact, coupled with the generally inferior caliber of the experimental group (as compared to the selected leaders of the Recycle and Integrated Systems), led to the feeling that test-measured results of the Short Course System training would be compromised if they were strictly compared with results of the other two systems in this study.

Given an adequate selection scheme and competent supervision of training, it was felt that the Short Course System showed the most overall value and promise as a leadership training system. Despite the apparent effectiveness of the Recycle System, it was rated the least desirable of the three alternative systems under study because it was impractical in terms of costs to the Army. The Integrated System ranked between the other two systems because of its relatively low monetary and personnel cost, although it was recognized that the system contained many troublesome factors with regard to fulfillment of leadership and technical training requirements and objectives.

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AND
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Appendix A

RATING PROCEDURES AND RESULTS IN THE THREE TRAINING SYSTEMS

SQUAD LEADER APTITUDE RATING SCALE

For ratings in the systems, each leader, follower, and superior was given a roster of the trainee leaders in his group to rank-order each man from best to worst. The following Squad Leader Aptitude Rating scale of seven leadership potential ratings was then used to assign each man in the order a rating.

INSTRUCTIONS

Instructions to superiors (company cadre): Evaluate these men in terms of their present and potential NCO ability. Specifically, what do you think of the desirability of choosing this man for a trainee leader position (acting squad leader, acting platoon guide, or acting platoon sergeant) in order to prepare him for future NCO responsibilities?

Instructions to peers: Knowing what you now know about the men in your squad, how would you rate them on their ability as squad leaders?

RATING SCALE

-1- THE VERY BEST TYPE OF SQUAD LEADER

I would stake my life on him to know his job and do it right, even under enemy fire.
He would always do the right thing on his own whether in garrison, in the field, or in combat.
He would run the best squad in the company.
Men would be proud to be in his squad.
He would be a man you could depend on at all times.
I would be more than willing to work for him and follow him.
This type of soldier makes a top-notch outfit.

-2- A VERY GOOD TYPE OF SQUAD LEADER

I could count on him to know his job and do it right, even under enemy fire.
He would do the right thing on his own whether in garrison, in the field, or in combat.
He would run a very good squad.
He would be a man you could depend on.
I would be willing to work for him and follow him.
This type of soldier makes a very good outfit.

-3- A GOOD TYPE OF SQUAD LEADER

I would usually count on him to know his job and do it right, even under enemy fire.
He would try to do the right thing in garrison, in the field, or in combat.
He would run a fairly good squad.
Men wouldn't mind being in his squad.
He would be a man you could usually depend on.
I wouldn't mind working for him or following him.
This type of soldier is a real help to his outfit.

"1" - A FAIR TYPE OF SQUAD LEADER

I would normally count on him to know his job and try to do it right; he'd probably do O.K. under enemy fire.
He'd do a passable job in garrison or in the field.
He would run a near average squad.
Men would just as soon not be in his squad.
You might not be able to depend on him all the time, but he'd usually come through.
This type of soldier is some help to his outfit.

"5" - A POOR TYPE OF SQUAD LEADER

I wouldn't usually count on this man to know his job and do it right, especially if he were under enemy fire.
He would do a poor job even in garrison or in the field unless someone were watching him or checking up.
He would run a poor squad.
Most men would not want to be in his squad.
This type of soldier can be some help to his outfit, but he shouldn't be a squad leader.

"6" - A VERY POOR TYPE OF SQUAD LEADER

I would rarely count on this man to know his job.
He probably could not or would not perform well under fire.
He is likely to fail in a pinch.
I doubt that he could do a decent job even in garrison. Somebody would always have to be checking on him or "covering" for him.
He would run a miserable squad.
Any soldier in his right mind would try to get out of his squad.
The Army has to use men like him, but it would be a big mistake to even consider him for a squad leader.

"7" - THE WORST KIND OF SQUAD LEADER

He either would not know his job or he could not or would not perform it under enemy fire.
He'd probably fail in a pinch and endanger the lives of his men.
He'd never even be considered for a squad leader job.
His outfit would be better off without him.

Mean ratings on the Squad Leader Aptitude Rating Scale for all three training systems are presented in Table A-1.

According to the ratings the men in each system received, they were put into either a high or a middle category. The ranges on all three selection variables are presented in Table A-2.

PEER, SUPERIOR, AND FOLLOWER RATINGS AND RANKINGS

Recycle System

In the Recycle System, peer ratings and rankings were collected at the end of the third week of the recycle, and again at the end of the eighth week, just before and just after the 24-hour field exercise. Superiors' ratings and rankings were made by the Leadership Noncommissioned Officer (LNCO) at the end of the third and eighth weeks of the cycle. Follower ratings were made after AIT only.

The ratings of leadership potential given by fellow leaders in the Recycle System group tended to agree with the ratings originally collected from the first AIT company peers of the selected Recycle trainee leaders, in that the group classified for the Recycle System study as ApS was rated and ranked lowest. This tendency held for the superiors' ratings also—the ApS group was

Table A-1

Mean Scores of Trainee Leaders Rated on Squad Leader Aptitude Rating Scale* All Three Training Systems

Rank	Training System		
	Recycle	Integrated	Short Course
BCT Peers	—	2.9	3.4
BCT Superior	—	3.7	3.5
Post-AIT Cadre	2.5	—	3.8
Leadership Noncommissioned Officer (LNCO)	3.2	3.6	—
Post-Training Followers	1.9	2.7	3.0
Post-Training Peers	3.2	3.7	3.6
Post-Short Course	—	—	—
Cadre	—	—	3.5
Peers	—	—	3.6
AIT 2nd Week	—	—	—
Cadre	—	—	3.7
AIT 4th Week	—	—	—
Cadre	—	—	4.1
Peers	—	—	3.2
Followers	—	—	2.7
Control Followers	—	—	2.8

*On this seven-point scale, 1 = Best and 7 = Worst. It should be noted that the rating scale of the U.S. Army Behavioral Science Research Laboratory, which was used in other aspects of NTC work, uses a seven-point scale in the opposite direction, that is, 1 = Worst and 7 = Best.

Table A-2

Ranges of High and Middle Categories for Three Selection Variables: All Three Training Systems

Selection Variable	Range			
	Recycle System	Integrated System	Split-MOS	Short Course System*
Aptitude				
High (A)	107-137	113-135	120-137	[84-117]
Middle (a)	80-105	86-109	110-117	[77-137]
Peer Rating				
High (P)	1.5-3.5	2.6-3.0	1.9-2.9	[1.4-6.7]
Middle (p)	3.5-5.0	3.1-3.8	3.3-3.6	[1.9-6.2]
Rating by Superiors				
High (S)	2.0-5.0	2.5-4.0	1.3-4.0 ^b	[1.8-7.0]
Middle (s)	3.0-4.8	3.0-5.2	4.0-5.3 ^b	[2.0-6.0]

*Trainee leaders in this system were assigned by name. Values listed were determined after assignment and are provided for comparison.
^bSelection in this range was based only on Aptitude and Peer Rating.

ranked lowest by the LNCO. There appeared a fairly consistent positioning of the four subgroups by the peers and by the LNCO. The average score for the ApS group was significantly higher ($p < .05$) than ApS on peer ratings; ApS was significantly higher than either ApS or ApS on follower ratings.

($p < .05$) and on LNCO ratings ($p < .10$). Ratings did not seem to be sensitive to training effects between administrations.

Integrated System

Peer ratings in the Integrated System were collected early in each cycle and again at the end of each cycle. Ratings did not appear to be sensitive to training effects between administrations, and no significant differences were found among the selection patterns on peer ratings for either the split-MOS company or the all-LWI company.

The LNCO rated the trainee leaders of the split-MOS company only slightly higher than the IRT superiors had, but there were no significant differences on the LNCO ratings in this company. In the all-LWI company, AP and AP were significantly higher than ap on the LNCO rating ($p < .05$); AP was also higher than ap on the LNCO rating ($p < .10$).

Followers' ratings were collected in connection with the administrations of the Field Leadership Test Battery (FLTB). Leaders were rated at each station of the test, and the ratings were correlated with the trainee leaders' performance scores. Independently, the data of the two administrations of the FLTBs were inconclusive, and changes in personnel between administrations precluded the accurate comparison of results based on the data at hand. In almost all instances, however, followers tended to rate trainee leaders higher than did either peers or the LNCO.

Short Course System

In the Short Course System ratings from superiors were collected before and after the four-week LPC, during the second and fourth weeks of AIT, and after AIT. Peer ratings were collected before and after the four-week LPC, during the fourth week of AIT, and after AIT. All of these ratings exhibited a downward trend.

Peer ratings declined significantly from pre- to post-LPC ($p < .05$) and from the fourth to the eighth week of AIT ($p < .001$). Follower ratings declined significantly from the fourth to the eighth week of AIT ($p < .01$); however, post-AIT ratings by followers were significantly higher than post-AIT ratings by peers ($p = .02$) or superiors ($p < .01$).

Control follower ratings were collected after AIT only, in conjunction with the post-AIT administration of the 11-station County Fair Test and the Three-Station Leadership Performance Battery. Although there was only slight variation in the mean rating scores of these control followers, analyses of covariance indicated that the follower ratings of leadership performance were significantly in favor of the LWI experimental trainee leaders at the .01 level on the Rebellious Man, Automatic Rifle, and Command Post tests, and at the .05 level on Physical Training and Demolitions. For HWI experimental trainee leaders, follower ratings were significantly favorable at the .01 level on Combat Intelligence, Rebellious Man, Physical Training, Map Reading, and 106 Recoilless Rifle, and at the .05 level on Dismounted Drill.

PERFORMANCE IN RELATION TO SELECTION VARIABLES

Since leader-type group Ns were relatively small in all cases, differences among the groups on written and performance tests were not tested statistically. In order to obtain some information regarding performance trends, however,

the leader-type groups were rank-ordered by mean score on each measure and trends are reported on this basis.

Recycle System

In the five-station FLTB, the written tests of technical proficiency, the post-training administration of the True-False Test of Leadership Knowledge, and the Expert Infantryman Badge (EIB) test, rankings indicated that the groups containing both a high aptitude and a high peer rating were consistently superior; the group with a low peer rating was consistently third, and the low aptitude group was consistently lowest. One variation from a consistent ranking pattern was noted in the performance portion of the Approach March exercise in the Extended Field Exercise, for which the selection groups ranked: APS, APS, APS, APS (although the APS group had ranked last, as had been expected, in the orally executed briefing portion of the exercise). Another variation occurred in the pre-training administration of the True-False Test of Leadership Knowledge—these rankings were APS, APS, APS, and APS.

Integrated System

Data for the four-station FLTB in the Integrated System were incomplete for the all-LWI company; however, in the split-MOS company, pre- and post-training scores for the same trainee squad leaders ranked the selection groups, APS, APS, and APS (there were no APS trainee squad leaders in this company). On the written tests of technical knowledge, results were not quite so definitive. In the split-MOS company, the APS group ranked first or second and the APS group ranked third or fourth with consistency. Rankings of the APS and APS groups were not consistent. In the all-LWI company, there was little consistency to the group rankings aside from the low ranking of the ap group. Graded Proficiency Test scores for the all-LWI company ranked the selection groups: AP, ap, ap, and Ap, paralleling the rank-order findings in the Recycle System.

REVISIONS IN REGULAR TRAINING SCHEDULES FOR THE RECYCLE AND INTEGRATED SYSTEMS

Recycle System

1. Classes from which the experimental trainee leaders were absented entirely: History and Traditions; Organization of Battle Group; Pistol; Weapons Demonstration; First Aid; Brigade Commander's Orientation; Character Guidance; Preparation for Overseas Replacement; Graduation; Processing.
2. Classes which were added to the schedule: Fire Order; Survival, Escape, and Evasion (CDEC); Grenades; Human Relations.
3. Classes in which the experimental trainee leaders received the entire regular training: Quartermaster; Inspections; Weapon Squad Tactics; Personal Affairs Lecture.
4. Classes in which the experimental trainee leaders received only part of the regular training: Flame Warfare Familiarization Review; Mines and Booby Traps; Field Fortification; Bayonet; Troop Information; Commander's Time; Rocket Launcher Familiarization.
5. Classes in which the experimental trainee leaders received the entire regular training plus additional training in the subject: Map Reading; Signal Communication; Squad Patrolling; Squad Tactics; Survival, Escape and Evasion; Expert Infantryman's Badge Test Review.
6. Classes in which the experimental trainee leaders received part of the regular training plus leadership training: Dismounted Drill; Physical Training; Automatic Rifle; Machine Gun.

Integrated System

1. Added technical subjects: Dismounted Drill Methods of Instruction; Physical Training Methods of Instruction; Map Reading; Automatic Rifle; Machine Gun, Squad Patrolling; Squad Tactics.
 2. Accelerated classes: First Aid, Automatic Rifle; Field Fortifications; Machine Gun; Flame Warfare Familiarization.
 3. Compressed classes: Machine Gun; Rocket Launcher Familiarization.
- In addition, trainee leaders fired in first order and then reported for leadership classes; trainee leaders served as Assistant Instructors or demonstrators; more or less practical work was assigned as necessary; trainee leaders assumed a more active leadership function in the field exercises.

A total of 89 hours was saved by course compression in the Integrated System as finally conducted:

Subject	Hours Saved
Machine Gun	29
Automatic Rifle	33
Flame Warfare	1 1/2
Pistol	3 1/2
Rocket Launcher	2
Total	69

Appendix B

COURSE CONTENT FOR RECYCLE AND INTEGRATED TRAINING SYSTEMS

ALLOCATION OF HOURS FOR LEADERSHIP TRAINING IN RECYCLE SYSTEM

Subject	No. Hours
Orientation to Duties	1
Nine Principles of Leadership	7 1/2
Summary of Principles	3
Know Your Men	1
Getting Information	2
Taking Notes and Repeat Back	1 1/2
Briefing	2
Methods of Instruction for Teaching	6
Films	2
Total	26

ALLOCATION OF HOURS FOR LEADERSHIP TRAINING IN INTEGRATED SYSTEM

Subject	Split MOS Company Hours	ADJMI Company Hours
Orientation to Leader Program	1	1 1/2
Guide I (Orientation to Guide)	1	1
Know Your Men	1	1
Observing-Consulting	1	1
Note Taking-Repeating Back	1 1/2	1
Planning	2	1 1/2
Briefing	2	2
Supervising	2	2
Critiquing	2	2
Handling Problems and Complaints	2	2
Informal Instruction	3 1/2	4
Rewarding	1	-
Taking Corrective Action	1	-
Leadership Problem #1 (Film)	1	2
Leadership Problem #2 (Film)	1	1
Leadership Problem #3 (Discussion)	1	1
Leadership Problem #4 (Discussion)	1	3
Guide II (Review of Human Relations)	1	2
Pep Talk	2	-
Human Relations Quizzes	-	2
Orientation to Daily Inspections	-	1/2
Total	28	26 1/2

LEADER PREPARATION COURSE

All formal leadership instruction was accomplished in eight hours of classwork during the first week of the Course. After orientation to the Course and introduction to procedures, the areas which were considered most problematic for the AIT trainee leader in handling his squad were covered; that is, dealing with rumors, motivating, morale, and the various ways in which followers react to problems. The leader candidates were not expected, however, to be able to handle any complex emotional problems. Films, examples, and short practical exercises were employed to summarize the squad leader's directing functions and maintenance functions in garrison situations. The final hour of formal leadership instruction was given following the first weekly inspection and reviewed the week's instruction, supplied feedback regarding performance of the leader's garrison functions during the week, and previewed the instruction in the leader's field functions which was scheduled for the next week.

All weapons training as a separate subject was also accomplished during the first week of the Course. The weapons were available so that the leader candidates were able to thoroughly explore and manipulate the weapons in conjunction with the verbal information on identification, capability, operation, and so forth. Training of the leader candidates in weapons specific to their MOSs was designed to prepare them to deal with technical problems of supervising weapons care and cleaning details which would be encountered in AIT, and to provide them with advance information and skill which would put them a jump ahead of their AIT followers.

The formal in-ranks and equipment display inspections which were held each week provided a scheduled, important end-of-week activity calling for the exercise of many of a leader's garrison functions. A written examination covering that portion of each week's instruction which was amenable to paper-and-pencil testing was held on Saturday morning. The examinations were scored immediately and the results given to the men. Those who fell below the given standard remained in the company area for supervised study and review.

Following the first week's fundamental and preparatory instruction, subsequent training was primarily devoted to field problems, beginning to integrate and apply prior training by methods in which the employment of leadership, communications, weapons, and other skills and knowledge interacted. This training followed the functional context approach, stressing everyday aspects of a job and presenting theories and concepts only when clearly applicable to the task at hand. Closely related to this approach was the immediate confrontation of the trainee leader with his ability, or lack of it, in dealing with a situation. This was accomplished by means of a problem-instruction-application sequence in which the trainee leader was first put through an exercise without instruction, giving him a chance to discover his capability, and then instructed in the areas covered by the problem. After instruction, the problem was re-run and the trainee leader had an opportunity to apply his instruction. Trainee leaders were thus able to compare their pre- and post-training performances. This sequence was used in all field leadership problems, although Field Leadership Problems 5 and 6 used practical exercises in addition to the instruction and the problem and application phases were not strictly identical.

The third week of the LPC put the leader candidates into the field for almost all of their training, which was conducted in day and night tactical

Appendix C

LEADER PREPARATION COURSE CONTENT AND FIELD LEADERSHIP PROBLEMS FOR SHORT COURSE TRAINING SYSTEM

OUTLINE OF PROGRAM OF INSTRUCTION, LEADER PREPARATION COURSE

Subject	Hours	Total
LEADERSHIP		128
Functions (Garrison)	8	
Field Leadership	72	
Field Tactical Exercise	48	
WEAPONS¹		14
General Orientation	2	
Field Operation of AR, LMG	4	
MOS Familiarization	8	
GENERAL SUBJECTS¹		16
Signal Communications	1	
Land Navigation and Map Use	8	
First Aid	3	
Inspections	4	
METHOD OF INSTRUCTION		8
Drill and Command	4	
Physical Training	4	
ADMINISTRATIVE		11
Orientation	1	
Processing	2	
AIT Preview and Visit	3	
Care and Cleaning	4	
Graduation	1	
TESTING AND ASSESSMENT		20
Examinations	4	
Leader's Performance Test	4	
Assessment	12	
Total		197

¹Mos technical subjects training (e.g., tactics, intelligence reporting) is integrated in the Field Leadership and Field Tactical Exercise lesson blocks.

contexts. The exercises became longer in duration and more complex beginning to blend successive exercises together in tactical sequences. There was less concern with maintaining the routines of a normal training day and the trainees carried rations with them, eating or resting if and when the tactical situation permitted.

All of the major elements of the technical, leadership, and tactical field training were brought together in the continuous 48-hour "Mankiller" practical exercise during the fourth week of the Course. The scenario of the exercise closely resembled the "Operation Mankiller" exercise then in use by the NCO Academy at Fort Ord and was conducted as a platoon operation against aggressors; however, the experimental exercise differed in that relatively greater emphasis was placed on leadership rather than technical requirements, and more frequent critiques of the operations were made.

PROVISIONAL SET OF LEADERSHIP FUNCTIONS

A. Maintains capability of squad to perform properly

1. Technical competence
 - a. Teaches and instructs
 - b. Learns: self-improvement, knows his men, etc.
2. Resources preparedness: personnel, equipment, time
 - a. Checks adequacy
 - b. Takes steps to secure

3. Morale

- a. Sustains
 - (1) Handles problems and complaints
 - (2) Meets individual's needs, physical or social
- b. Behaves like a "model" leader: maintains personal appearance, gear, sets the example
- c. Inspires his men

B. Directs performance on tasks

1. Preparation
 - a. Determines requirement
 - (1) Acquires information, receives orders
 - (2) Filters
 - (3) Checks
 - (4) Retains
 - b. Plans
 - (1) Anticipates
 - (2) Studies
 - c. Coordinates
 - d. Organizes men and material
 - (1) Determines jobs
 - (2) Establishes structure
 - (3) Allocates resources
2. Execution
 - a. Initiates action
 - (1) Transmits information and orders
 - (2) Checks to see that information is transmitted accurately, etc.
 - b. Supervises—checks performance
 - (1) Observes

- (2) Evaluates
- (3) Reacts
 - (a) To meet changes in situation (men perform properly)
 - (b) To correct performance (situation not changed)

3. Motivation

- a. Motivation before and during a task
 - (1) Sets standards, goals
 - (2) Gives reason "why"
 - (3) Encourages (e.g., provides specific example, inspires, displays "follow me" behavior)
 - (4) Promises rewards, threatens punishment
- b. Motivation after a task
 - (1) Rewards
 - (2) Punishes

SET OF SQUAD LEADER TASKS

Squad Leader Tasks Representative of Garrison Jobs: "company support" tasks involving housekeeping and administrative work in the garrison areas

- (1) Learning and establishing role relations.
- (2) Organizing the squad.
- (3) Preparing for "fallout" formation.
- (4) Managing simple housekeeping and work details.
- (5) Getting men up.
- (6) Picking men for details.
- (7) Cleaning squad and platoon areas.
- (8) Preparing for inspections.
- (9) Handling special garrison tasks.
- (10) Reacting to performance.

Squad Leader Tasks Representative of Field Training: for training and combat effectiveness

- (11) Making tactical movements.
- (12) Performing offensive actions.
- (13) Performing defensive actions.
- (14) Making retrograde movements.
- (15) Performing patrolling actions.
- (16) Conducting and instructing in Dismounted Drill and Physical Training.
- (17) Making non-tactical movements.
- (18) Living in bivouac (field housekeeping).

DESCRIPTION OF FIELD LEADERSHIP PROBLEMS

The problems started with relatively simple exercises and progressed through successively more complex exercises, each building upon what went before. Approximately two hours each were allotted to the problem and application phases and four hours to the instruction phase.

Field Leadership 1 (PL 1) was used to conduct the "muddling-modeling" methods study to determine if two different methods of presenting the problem phase of the exercise would produce differences in proficiency during the application phase. Trainees were briefed on the problem, leaders were chosen, and squads moved into tactical positions to conduct the exercise. Squads were

critiqued on the spot following their performance. Instruction stressed basic concepts of defense at platoon and squad levels, troop leading steps of the squad leader, conduct of defense from the point of view of the squad leader, and special characteristics of the delaying action. Following instruction, the trainees were briefed for a new defense and delay exercise. New leaders were chosen to conduct the exercise, the exercise was critiqued, and the entire day's instruction was reviewed.

FL 2 and all subsequent FL problems which followed the problem-instruction-application sequence used the muddling approach to the problem phase. This exercise moved the trainees along the complexity continuum, requiring the leaders to cope with the additional problems of navigating to an objective and controlling moving men. The instruction covered basic concepts of attack at platoon and squad levels, planning for the attack, conduct of the attack, and consolidation and reorganization.

FL 3 and FL 4 were repeats of FL 1 and FL 2 only in phasing and conduct of the problems. FL 3 highlighted the problems of control, supervision, fire discipline, and other differences between day and night defensive actions; FL 4 similarly highlighted the differences between day and night attacks.

The Recon Patrol problem of FL 5 lasted approximately three to three and a half hours. This was followed by verbal instruction on daylight patrols and by a tactical walk of two and a half hours, beginning near dusk and continuing until after dark. In this way a normal sequence of change from day to night was used to instruct in night techniques and the differences between night and day operations. The instructor acted as patrol leader, explaining procedures and actions as he prepared and conducted the patrol. The application phase was conducted in complete darkness and consisted of a three-hour night combat patrol controlled by the trainee leaders.

FL 6 provided instruction and practical work in technical and leadership skills in raids, ambushes, security operations, and unit movements. The problem was conducted through a day-dusk-night period and provided the trainee leader with experience in functioning as a leader in basic field tasks: securing information, planning, anticipating problems, supervising, and so forth.

Training to this point had been designed to prepare the trainee leaders for a day-night field problem of more complex figurations and longer time durations which would integrate previously learned elements into a logically related sequence. This problem also put the trainee leaders under pressures generated by interaction of fatigue, hunger, and dirt.

During the course of these FL problems, available and related time was devoted to training in intelligence and counterintelligence, evasion and escape, and raids.

In the continuous 48-hour Mankiller exercise, the trainee leaders were rotated through the various leader positions at the end of each tactical phase. Occasional administrative breaks were made when progress of the exercise indicated a need for subphase critique. The sequence of phases for preparation and execution was preparation of platoon defense; tactical defense; withdrawal; patrol raid; attack and counterattack. The exercise ended with a night attack. Aggressors were equipped with weapons, blank ammunition, simulators, and flares. When in defense positions the platoon was harassed, infiltrated, and attacked; in withdrawal the platoon was closely pressed and prisoners were taken from those who fell behind; patrol actions and raids were conducted against objectives occupied by aggressors; and attacks and counterattacks were conducted against realistically prepared aggressor positions.

Appendix D

TRAINEE LEADER ENVIRONMENT

ORGANIZATION OF THE TRAINEE LEADER ENVIRONMENT

One of the essential requirements for the success of any of the alternative systems under study lay in creating an environment which would be conducive to leadership preparation training—a stabilized environment which could be maintained effectively (8). This goal had to be achieved through the methods by which the leadership training was conducted and supervised. To cope with the problems involved in variations from regular Army attitudes, policies, and routines, an agreement was reached with the companies in which the experimental trainee leaders were assigned, and within the NCO Academy in the case of the Short Course System. This agreement is outlined below.

AGREEMENT WITH AIT TRAINING COMPANIES

Troop Movements

Acting leaders will occasionally be excused from accompanying their men in movements to training areas to free them for leadership training.

Special Classes

The time saved by not attending regular AIT classes will be used to give special instruction to the acting leaders.

Schedule Changes

Company officers will keep the leadership NCO informed about any training schedule changes, so that the leadership NCO can make changes in the schedule for leader training. Company officers will also keep the leadership NCO informed as to whether Commander's Time can be used for leader training.

The leadership NCO will, in turn, provide the company officers with the leadership training schedule and will inform them concerning any changes in the schedule.

Chain of Command

Company officers and NCOs will observe the chain of command in all relations with the acting leaders and trainees. They will work through the acting leaders (platoon sergeant, platoon guide, and squad leaders) in giving information, making corrections, giving rewards, and so forth. The acting platoon sergeant and acting platoon guide will, in turn, observe the chain of command by working through the squad leader.

Separate Tables

Tables separate from those used by the trainees and the cadre will be provided in the mess hall for all acting leaders.

Excuse From Details

All acting leaders will be excused from such details as KP and will be used in a supervisory capacity in all other details.

Passes

All acting leaders will have the freedom of the post or the freedom to leave the post in the evening or on the weekend when there are no specific duties required of them.

Scarves

All acting leaders will wear blue scarves to distinguish them from trainees.

Arm Bands

In the Recycle System acting platoon sergeants will wear an armband of the rank of MSG, acting squad leaders will wear the armband of the rank of SFC, and platoon guides will wear no armbands. In the Integrated System acting platoon sergeants will wear an armband of the rank of SFC, acting squad leaders and guides will wear the armband of sergeant's rank.

Other Privileges

All acting leaders will be treated as cadre insofar as possible.

Relief From Duty

Acting leaders will not be relieved from their positions without consultation with the leadership NCO.

Selection of Best Squad

Company officers and cadre will assist the leadership NCO in selecting the best squad in each platoon at the end of each week.

Weekly Tests

From time to time acting leaders and their men will be tested by research personnel. These test results will help in deciding which is the best squad of the week.

Best Squad Relieved From Server Duty

All of the men in the best squad will be excused from mess hall server duty for the following week.

Best Squad First in Mess Line

All of the men in the best squad will be permitted to be the first squad in their platoon to come into the mess hall for the following week.

Best Squad Relieved From Work Details

As much as possible, all of the men in the best squad will be excused from special work details during normal free time for the following week.

Best Squad Given Passes

All of the men in the best squad will have first call on such passes as are available for the following week.

Cadre Instruction

One or two cadre personnel will be available from time to time to give special instruction to the acting leaders. Lesson plans will be furnished to these cadre, and they will be alerted early enough so that they can make any preparations that are necessary.

Unit Integrity

As much as possible, unit integrity will be maintained when picking men for work details. That is, whole fire teams or whole squads will be used in preference to a few men from a number of fire teams or a number of squads. KP is an exception.

Class Rooms

A room in the barracks will be made available for use by the leadership NCO as a class room. This room should be adequate to seat 30 acting leaders.

Leadership NCO Room

A small room will be provided in the barracks for the use of the leadership NCO. He will use this room for his personal effects and for consulting with the acting leaders. The leadership NCO will also be permitted to mess with the company.

Charge of Quarters

Each acting leader will serve as charge of quarters twice during the AIT cycle. The first time, a cadreman will be assigned to accompany the acting leader during his CQ tour. The second time, the acting leader will serve as CQ by himself, but there will be a cadreman in the company area to assist if the need arises.

Commander of the Relief

Acting leaders will serve as commanders of the relief when guard duty is scheduled.

Assistant Instructors (AIs)

In the Recycle System one half of the acting leaders at a time will serve as AIs to the rest of the company, alternating with the other half. In the Integrated System trainee leaders will be employed in an AI capacity whenever this seems feasible and desirable. Where committees prefer to limit the number of AIs, an effort to alternate leaders in the role of AI will be attempted.

Dismounted Drill and Physical Training

Acting leaders will instruct and conduct DD and PT whenever possible. No special demands are required for individual squad and platoon DD. PT, however, should be conducted on a separate platoon, rather than a company basis so as to give more acting leaders experience in the job.

Team Leaders

Squad leaders, in cooperation with the platoon guide and platoon sergeant, will select their team leaders. Team leaders will have no special privileges.

Handling of MOS 111 Personnel

All leaders will be treated the same in terms of the leader training environment, but selection, specific technical, and human relations training and assessment in the Recycle and Integrated experimental companies will be confined to the LWJ group.

Responsibilities of the Leadership NCO

The LNCOs job is to consult, advise, guide, and give special instruction to the acting leaders. He will work in close cooperation with the company officers and cadre. He will not be in the chain of command and will have no command functions.

Responsibilities of the Research Organization

The leadership program is experimental in nature, and the research organization assumes responsibility for any failures which can be attributed to the leadership training program.

Responsibility of the Company Officers and Cadre

Except for the agreements noted above, company officers and cadre remain in full control of the company.

Supply Room and Orderly Room. (Recycle System Only)

Two acting leaders at a time will be permitted to work in the supply room and in the orderly room for a period of about two hours. The supply sergeant or his assistant and the first sergeant or his assistant will give the acting leaders an orientation as to the working of the supply room and the orderly room. The acting leaders can be worked while they are in this capacity, but the work should be appropriate to a leadership status.

Appendix E

PAPER-AND-PENCIL TESTS

TRUE-FALSE TEST OF LEADERSHIP KNOWLEDGE

Recycle System

As originally devised for the Recycle System, this measure covered five of the nine leadership principles with 100 true-false items such as: "It is usually better not to tell your men everything about a job or mission because as everyone knows, they will forget a lot of it"; "Always keep your men busy, even if you have to make unnecessary work for them"; and "A really good leader is a busy one, and therefore doesn't have time to teach slow learners how to do a job."

The test was administered twice to the 29 trainee leaders. It was given once at the end of the second week of the Recycle (after approximately ten hours of formal classroom instruction providing a general coverage of each of the principles). The second time it was given was at the end of the cycle (after completion of formal, applicatory, and practical leadership instruction). Control trainee leaders from two companies at Fort Ord were given the test following their AIT cycle; these men had had no formal leadership instruction.

An analysis of covariance was run on experimental and control group data employing the G² score as the covariable. As measured by this test, the formal instruction in leadership principles significantly increased leadership knowledge of the Recycle System group over that of the control groups ($p < .01$). Test means are reported in Table E-1.

Table E-1
Mean Scores on True-False Test^a
of Leadership Knowledge: Recycle System

Leaders	N	Mean	SD	F _{adj.}
Experimental	29	82.5	7.6	83.8
Control 1	29	78.6	6.6	76.0
Control 2	22	71.1	6.3	73.1

^aThis version was composed of 100 items.

Integrated System

The 100-item form of the test was reworked into two 70-item forms containing similar questions on leadership principles. In the Integrated System, the two forms of the test were administered twice to the 41 trainee leaders; once prior to any leadership training and once after they had received all of their leadership training. Order of presentation of the forms on the two administrations was balanced.

The group of control subjects was composed of leaders from two Fort Ord companies which were not involved in the leadership training program. Five team leaders from the two experimental companies also served as controls; these leaders had received no leadership training, but were exposed to its effects through their trainee leaders, who were the experimental subjects. As indicated by slight mean differences (Table E-2), formal leadership training somewhat increased leadership knowledge of the experimental group over that of the control group, but no statistical analysis was run on the test.

Short Course System

Alternate forms of the 70-item test were also administered to the Short Course experimental trainee leaders (N=38), before the four-week LPC, immediately after the four-week LPC, and after AIT. The control group of trainee leaders in other companies (N=64), took the test after AIT only. Test means are presented in Table E-3. Analyses of covariance yielded no significant differences.

Table E-2

Mean Scores on True-False Tests
of Leadership Knowledge: Integrated System

Leaders	N	Pre-AIT		Post-AIT	
		Mean	SD	Mean	SD
Experimental	41	76.2	8.0	81.9	6.7
Control	35	73.5	7.3	76.0	6.8

*This version consisted of two forms of 70 items each.

Table E-3

Mean Scores on True-False Tests
of Leadership Knowledge: Short Course System

Leaders	N	Pre-LPC		Post-LPC		Post-AIT	
		Mean	SD	Mean	SD	Mean	SD
LRI 1 ^a	8	46.6	6.6	46.6	12.7	40.1	7.1
HRI 1 ^a	8	51.3	3.2	55.2	4.2	53.1	4.7
LRI 2 ^b	6	46.7	7.8	46.5	6.8	50.8	7.1
HRI 2 ^b	11	50.5	6.5	54.0	3.7	52.6	4.6
Control	64	-	-	-	-	53.2	6.2

^aThis version consisted of two forms of 70 items each.
^bFor testing purposes the LRI and HRI trainees were paired on GT and assigned randomly to either Group 1 or 2.

WRITTEN TEST OF TECHNICAL PROFICIENCY

Recycle System

Post-training written tests of technical knowledge were given to the Recycle System trainees in three subjects only: Map Reading, Machine Gun Range Card, and Night Operations. Conventional training of the experimental group had been supplemented by handouts and by extensive additional training in Map Reading,

slight additional training in MG Range Card, and no additional training in Night Operations. The control group consisted of trainee leaders from an AIT company which had received the conventional training in each subject.

Because of apparent differences between group means on the Map Reading and MG Range Card tests, analyses of covariance were run on these data. Adjusted means were: with extensive additional training, 8.2 experimental, 4.1 control; with slight additional training, 14.5 experimental, 11.4 control; with no additional training, 10.7 experimental, 11.0 control. On the basis of these adjusted means, it would appear that performance increments of the experimental over the control group were directly related to presence of training supplement or lack of supplement.

Integrated System

Six technical subjects were covered before and after Integrated System training, using completion and multiple-choice written tests (see Table E-4).

Table E-4

Mean Scores on Written Tests of Technical Knowledge:
Integrated System

Subject and Leader Group	Pre-Training			Post-Training		
	N	Mean	SD	N	Mean	SD
Machine Gun						
Experimental	35	31.1	11.5	32	62.0	12.9
Control	35	30.7	8.8	33	48.3	15.3
Fire team	71	30.6	10.9	27	53.8	16.2
Automatic Rifle						
Experimental	41	43.3	9.3	39	59.3	11.2
Control	35	44.0	9.8	35	55.9	13.0
Fire team	57	41.5	30.8	50	59.7	8.5
Map Reading						
Experimental	36	23.0	14.7	36	58.6	15.5
Control	35	21.6	12.0	29	37.9	13.7
Fire team	72	19.2	12.8	37	43.3	16.3
Squad Tactics						
Experimental	40	33.9	12.4	39	59.8	13.3
Control	20	54.4	10.1	19	60.0	9.1
Fire team	49	50.3	13.0	44	57.1	8.6
Rocket Launcher						
Experimental	40	38.0	9.6	38	54.9	12.6
Control	20	38.8	13.9	19	55.3	13.8
Fire team	48	35.4	12.6	44	50.8	13.5
Signal Communications						
Experimental	41	46.8	10.5	40	61.9	13.3
Control	35	49.8	9.3	34	60.6	11.1
Fire team	60	45.6	8.3	52	55.9	7.9

Of these six subjects, training for the experimental groups in Machine Gun, Map Reading, and Squad Tactics had been covered by compressed and/or accelerated classes; training in Automatic Rifle and Rocket Launcher had been covered in compressed courses; and Signal Communications had been covered

by conventional methods. Control subjects were trainee leaders and followers in three other AIT companies. Group Ns were variable, ranging from 32 to 41 for the experimental group and from 19 to 35 for the control group.

Mean scores of the post-training test in Machine Gun (training presented in special and compressed classes) indicated a significant ($p < .005$) superiority of the experimental over the control leaders. The experimental leaders had slightly lower mean scores than the control leaders in the Squad Tactics and Rocket Launcher tests, but these differences were so small that they did not reflect a lower level in technical proficiency of the experimental leaders. In the other three subjects the experimental leaders exhibited a post-training technical proficiency which was slightly superior to the conventionally trained control group.

Performance of the fire team leaders of the experimental companies was measured in an attempt to determine whether their exposure to the experimental program through their trainee leaders would yield informative results. As was the case with the experimental leaders, the performance of the fire team leaders in Squad Tactics and Rocket Launcher was slightly inferior to that of the control leader group. The fire team leaders had a higher mean score than the control group on the Machine Gun test, and a lower mean score than the control group on the post-training Signal Communications test.

Short Course System

Seven written tests of technical knowledge were also administered in the Short Course System. All of these tests were multiple-choice except the Map Reading test, which was a completion form. The MOS-specific tests were derived from the Weapons Military Information Test which had been developed earlier in the leadership training research (3), the Tactics and Signal Communications tests were those developed during the Integrated System study, and the First Aid Test was newly developed for the Short Course System.

These written tests were administered in alternate forms to the experimental group before and after the four-week LPC (N = 35) and again at the end of AIT (N = 33). The alternate forms of the tests were also administered to control leaders in other AIT companies (Ns varied from 18 to 39) at the end of the AIT cycle. Analyses of covariance indicated significant superiority (at the .01 and .05 levels) in performance of three of the four experimental GT-MOS classified test groups in the Map Reading Test. Results are presented in Table E-5.

Table E-5

Mean Scores on Written Tests of Technical Knowledge: Short Course System

Test	Experimental Group ^a										Control Group		
	LWI 1 (N = 8)		LWI 2 (N = 10) ^b		LWI 2 (N = 11)		Total LWI and HRI						N
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
First Aid	11.6	2.7	12.0	2.5	9.8	3.1	13.2	3.1					
Before LPC	11.5	4.2	16.0	2.5	13.8	2.6	12.1	3.1					
After LPC	12.0	2.1	12.6	3.3	14.8	1.7	14.0	4.2	12.3	3.2	39	14.0	3.1
After AIT													

(Continued)

Table E-5 (Continued)

Mean Scores on Written Tests of Technical Knowledge: Short Course System

Test	Experimental Group ^a										Control Group		
	LWI 1 (N = 8)		LWI 2 (N = 10) ^b		LWI 2 (N = 11)		Total LWI and HRI						N
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Weapons Orientation													
Before LPC	8.3	3.2	12.2	2.4	13.0	3.0	11.2	2.6					
After LPC	12.4	4.7	14.6	3.7	9.7	4.5	11.9	4.5					
After AIT	12.6	2.5	15.3	3.3	15.5	4.4	16.9	4.5	15.2	4.0			
Tactics Form A													
Before LPC	18.9	3.7	22.1	3.6	16.8	3.5	18.5	3.6					
After LPC	13.5	4.6	19.9	4.3	21.0	6.2	22.0	4.4					
After AIT	18.3	4.9	21.9	2.6	21.2	5.6	19.8	4.1	20.2	4.3	9	21.8	2.8
Tactics Form B													
Before LPC	22.4	7.1	27.5	4.8	25.3	4.8	24.5	4.7	24.9	5.5	10	26.0	3.1
After AIT													
Map Reading													
Before LPC	3.4	1.9	6.6	4.0	5.5	4.0	6.1	3.7					
After LPC	7.0	5.0	13.0	5.9	10.0	4.8	12.9	4.2					
After AIT	6.8	3.8	13.8	4.4	9.3	6.3	10.9	4.0	10.3	5.0	34	7.3	4.1
Signal Communications													
Before LPC	16.1	2.3	16.0	3.6	14.7	5.5	16.6	4.5					
After LPC	15.1	4.5	20.6	4.6	18.7	3.4	19.9	3.5					
After AIT	19.4	2.3	24.1	3.3	18.8	5.8	21.5	3.0	21.1	4.0	34	21.8	4.0
Light Machine Gun													
Before LPC	10.1	3.4	—	—	13.7	6.0	—	—					
After LPC	13.3	3.4	—	—	15.5	5.6	—	—					
After AIT	21.3	4.5	—	—	21.5	7.2	—	—	21.4	5.5	33	18.0	6.5
106 Recoilless Rifle													
Before LPC	—	—	8.1	2.7	—	—	8.6	2.3					
After LPC	—	—	11.7	3.3	—	—	11.1	3.1					
After AIT	—	—	17.4	3.3	—	—	18.5	3.0	18.0	3.0	18	18.1	2.4
Automatic Rifle													
Before LPC	16.1	2.5 ^b	—	—	17.7	4.6	—	—					
After LPC	14.4	5.2	—	—	20.2	7.0	—	—					
After AIT	22.4	4.5	—	—	21.0	6.8	—	—	21.8	5.4	21	23.1	5.3
81mm Mortar													
Before LPC	—	—	8.8	2.7	—	—	8.0	2.8					
After LPC	—	—	10.3	2.3	—	—	10.9	3.1					
After AIT	—	—	19.0	1.8	—	—	20.0	2.7	19.6	2.3	16	18.9	3.2

^aFor testing purposes, the LWI and HRI trainees were paired on GT and assigned randomly to either Group 1 or 2.
^bN = 7

In the all-LWI company of the Integrated System, observations were made of trainee leaders in two different situations—while briefing their men according to specific instructions, and while performing their leadership duties in bivouac. The observations of briefings were chiefly to determine the feasibility of deriving interaction patterns of squad members or the limiting conditions for the execution of the military roles of the men in the squad. The trainee leaders had received pertinent information about their missions and had been given clear and specific directions on how to conduct the briefings. The situation was highly structured. Such situations are frequent in Army training and can be easily reproduced. If interaction patterns could be picked up in this type of situation, it was concluded that they should be observable in any other kind of situation. The observations yielded enough definitive information on interaction patterns that it was felt that this approach was worth pursuing and that questions and interactions might be classified into categories relating to different types of interaction patterns.

Observations of trainee leader group-associated behavior were not conducted in as highly structured a situation as had been the observations on briefing. In the course of four mornings during the seventh week of training bivouac, all of the trainee squad leaders in the all-LWI company were observed from wake-up to first company formation. Unfortunately, what was observed was not encouraging. Leadership was nominal and military atmosphere and discipline were limited. Neither the cadre nor the trainee leaders attempted to relate the bivouac situation to a possible combat application. There was little interaction between the cadre and the men, there was no roll call and no scheduled training until late morning, and since trainee leaders were not provided information regarding the daily plan or time schedule, they could not brief their men. Under the circumstances, little opportunity existed for observing trainee leaders performing their duties.

Eleven-Station "County Fair" Test

Individual performance tests for the Short Course System study were combined into a battery of 11 tests administered in "county fair" fashion. Nine tests applied to both LWI and HWI, and two tests were MOS-specific (i.e., the tests differed for LWI and HWI).

The Signal Communications station required the trainee leader to prepare and use radio and telephone equipment. At the Map Reading station the trainee leader was given a map and a compass and had to (a) orient the map and compass, (b) identify two objects from azimuths given, (c) give azimuths to two objects pointed out to him, and (d) set the compass at a given azimuth for night reading. When confronted with a "victim" and informed of the nature of the "injuries," the trainee leader was required to administer proper First Aid. A terrain board was used at the Route Selection station, where five different routes from a starting point to an objective were laid out and the trainee leader had to indicate his choice of a day and a night route and then had to identify a danger area on each of the five routes.

The Combat Intelligence station was divided into two sections. In section A the trainee leader was sent on a short, simulated reconnaissance patrol. In section B (which immediately followed section A), the trainee leader was asked to report what he had seen on the patrol and was scored on the basis of 13 possible positive items of intelligence value which had been located on the patrol route; negative points were scored for imagined items. In the post-AIT administration, probing questions were put to the trainee leaders and a separate score recorded for additional responses.

Appendix F

PERFORMANCE TESTS

INDIVIDUAL LEADERSHIP PERFORMANCE TESTS

Four-Station Individual Performance Test

In an attempt to get at simple performance counterparts of certain areas of the True-False Test of Leadership Knowledge, a four-station performance test was administered in "county fair" fashion to the trainee leaders in the Recycle System. Each individual undergoing testing was given a specific job to perform, each job typical of what a squad leader might have to do in briefing, supervising-instructing, orienting, and counseling. The test was administered at the end of the third week of instruction after most of the formal leadership instruction, and again at the end of cycle. Trained "stooges" were used as necessary. The group mean difference between administrations was slight. However, personnel changes during the cycle required that an almost entirely different group of observer-scores be used for the second administration. Because scorer differences may have obscured a training effect, and because of the inconsistency of these results with other results of individual and group tests, this test, as administered, was interpreted as not sensitive to changes in performance.

Use of Observations in Lieu of Performance Tests

In the Integrated System, scored tests were not used to assess trainee leaders' individual performance as squad leaders. Instead, research staff members observed on-the-job performances of trainee leaders in different situations. In the split-MOS company, one trainee leader designated by the cadre as a "good" leader and one designated as "poor" were observed for approximately 35 hours over a three-day bivouac period during the seventh week of training. Classification of the two trainee leaders was based on elements of difference between them in motivation, initiative, and consistency of behavior, rather than on paper-and-pencil tests or technical proficiency. Following the observations, the two trainee leaders and their squad members were interviewed privately with open-ended questions designed to elicit the men's feelings toward the training and the company.

The "good" trainee leader took his job seriously, tried to learn and to do a good job, and tended to see himself as others saw him. His men had confidence in him, liked and respected him, saw him as consistent, and felt that he provided a stable frame of reference for the group. In contrast, the "poor" leader was seen by his men as inconsiderate, undependable, non-communicative, and annoying in his personal habits, although he was consistently superior to the "good" leader in test results, and considerably higher in GI and IN scores. The "poor" leader lacked drive and thoroughness, and no interest in the Army or his accomplishment as a leader, and often became a bad example to his men by being "gigged" for not doing such essentials as cleaning his rifle.

The Dismounted Drill station evaluated the trainee leader on his ability to conduct four men (who had been instructed to be troublesome) through the drill in a limited area. For Physical Training, the trainee leader was required to lead a man through three repetitions of a specified exercise. In Rifle Instruction, a "stogie" was instructed to incorrectly assemble the rifle and the trainee leader, after being told to prepare for a rifle assembly demonstration, was evaluated on the way he handled the entire situation. The Rebellious Man problem presented the trainee leader with a role-playing situation which was scored on the appropriateness of his interaction with a trained stogie.

The MOS-specific stations required Automatic Rifle disassembly and Light Machine Gun assembly for the LWI trainee leaders, and required crew position information and weapons proficiency with the 106 Recoilless Rifle and 81mm Mortar for the HWI trainee leaders.

The experimental trainee leaders took these tests before LPC (N=35), after LPC (N=34), and after AIT (N=33). Trainee leaders and followers in two other AIT companies comprised the control groups and took the tests only after AIT (N=21). Analyses of covariance which were run on the test data revealed no significant differences in level of performance. It was assumed that failure to obtain differences might as well be attributed to unreliability of the measure due to its lack of development or poor control in its administration. Test means and standard deviations are presented in Table F-1.

GROUP-ASSOCIATED LEADERSHIP PERFORMANCE TESTS

Extended Field Exercise

At the end of the Recycle System cycle, a 24-hour Extended Field Exercise was conducted as an assessment of trainee leader performance in a series of tactical problems. After having been briefed on the activity at hand, each trainee leader prepared squad orders which he delivered orally to staff evaluators. The quality of each man's briefing performance was rated on the basis of inclusion of essential content and manner of presentation.

Approach march was executed twice, with the group organized into a platoon column with one squad as point. The point squad was rotated 12 times, a new trainee leader being point leader on each rotation; this assignment was controlled so that three different individuals from each of the four APS groups worked as point squad leader. During each trainee leader's assignment as point squad leader, the squad was fired upon by an aggressor, halting the advance. Each leader was evaluated on the quality of his performance in overcoming the resistance in order to permit resumption of the advance.

At the termination of the first Approach march, the group was organized into a platoon defense perimeter with all four squads on the perimeter for the night defense problem. One individual from each of the four APS groups served as leaders of the four squads. Each squad leader was evaluated on the quality of his performance as a leader during his squad's preparation of its position. From midnight to 0600, the four squads rotated through four exercises: an ambush patrol, two different recon patrols, and a defense exercise in their positions on the perimeter. At any given time three squads were out on patrol while the fourth remained in position. As each squad rotated through the exercises, the squad leader was changed, with a total of 16 different squad leaders being evaluated.

The Recon and Ambush problems proved satisfactory in elicited behavior and in duration for assessment purposes. The perimeter defense problem,

Table F-1
Mean Scores on 11-Station County Fair Test
Short Course System

Subject	Experimental Leaders			Control Group Post-AIT (N=21)
	Pre-LPC (N=35)	Post-LPC (N=34)	Post-AIT (N=33)	
Combat Intelligence				
Mean	9.1	9.1	20.9	19.8
SD	2.0	2.9	4.5	6.8
Combat Intelligence - Problem				
Mean	-	-	23.6	23.8
SD	-	-	4.9	5.1
Rebellious Man				
Mean	5.2	7.4	7.7	5.3
SD	2.2	1.9	1.9	1.9
Rifle Instruction				
Mean	6.5	8.1	15.8	15.2
SD	2.8	2.4	0.7	11.4
Dismounted Drill				
Mean	30.5	40.0	45.4	39.1
SD	7.6	8.1	8.0	11.0
Physical Training				
Mean	23.0	26.3	25.3	19.2
SD	6.0	3.8	3.5	8.5
First Aid				
Mean	6.4	9.2	9.8	9.2
SD	2.5	2.2	2.5	2.6
Map Reading				
Mean	3.4	4.4	6.0	5.0
SD	1.8	1.9	1.0	1.8
Route Selection				
Mean	5.9	8.8	6.7	6.6
SD	1.9	0.5	1.6	1.5
Signal Communications				
Mean	3.5	7.4	6.7	6.7
SD	2.7	2.4	1.8	1.7
Automatic Rifle (LWI only)				
Mean	Data Incomplete	Data Incomplete	10.9	9.8
SD	Data Incomplete	Data Incomplete	0.5	0.6
Light Machine Gun (LWI only)				
Mean	Data Incomplete	Data Incomplete	9.8	9.8
SD	Data Incomplete	Data Incomplete	0.8	0.9
Blum Mortar (HWI only)				
Mean	Data Incomplete	Data Incomplete	2.7	3.3
SD	Data Incomplete	Data Incomplete	1.8	1.4
106 Recoilless Rifle (HWI only)				
Mean	Data Incomplete	Data Incomplete	4.6	6.3
SD	Data Incomplete	Data Incomplete	0.7	1.2

however, was a poor measure, since it proved to be more of a test between patrols than a defense exercise.

Following administration of the second Approach march exercise, the day-time defense perimeter was ordered. The same four squad leaders who were in charge for preparation of the night defense perimeter were leading. When

sufficient position preparation had been accomplished to permit evaluation of each squad's work, the entire exercise was terminated.

For these exercises, squads were all composed of experimental trainee leaders who were rotated in leader-follower roles. Negligible differences in scores between the two administrations of the daytime exercises lent little support to any conclusions about training or practice effects. The data for each exercise were, therefore, combined and examined for selection effects, and the findings are presented in Appendix A.

The Recon and Ambush patrol night exercises were executed by all those Recycle trainee leaders—including trainee platoon sergeants, guides, and squad leaders—who had not had an opportunity to participate in the daytime problems. These exercises separated the scores of the recognizably poor leaders from the scores of the rest of the leaders by a substantial margin, but scores of leaders who had been noted as superior by other criteria were not differentiated from scores of the more average leaders.

Five-Station Field Leadership Test Battery

An additional battery, the Field Leadership Test Battery (FLTB), was employed in the Recycle System. Each of five subtests posed a squad tactical problem to be solved or a tactical mission to be executed. Four of the subtests were derived from previous research work (8) and the Ambush problem had been devised specifically for assessment in the Recycle System.

On a Red Cross problem, the group of trainees were sent out as a patrol with the mission of capturing a prisoner. They soon encountered a "wounded" enemy soldier who had been so placed on their route that he could not be missed. Beside him was a roll of maps. He was "wounded" in the chest and unable to walk or get up by himself. He gave no sign of understanding when questioned. Approximately one minute after the patrol found the "wounded" enemy, they heard a call for help from nearby. This call came from a friendly soldier who had been "wounded" in the leg—unable to walk but not in critical condition. He stated that he had been wounded and separated from the rest of his squad while returning from a reconnaissance patrol the night before. If questioned he said that his patrol had picked up information that the enemy was moving reinforcements into their sector. The leader is faced with the problem of dealing simultaneously with the two wounded men. He should search and attempt to question the enemy soldier and should handle him in an effort to keep him alive for questioning. He should give adequate attention to the friendly soldier, but in so doing should not neglect his primary mission. (30 points)¹

Tanglefoot, a command presence test, was designed to measure leadership abilities involved in giving orders rapidly and accurately under stressful conditions. Each examinee was required to lead a group of eight men through close order drill in a prescribed course in a limited amount of space. (8 points)

On the Streamer problem, the group was sent out as a patrol to recover a streamer dropped from a plane. Attached to the streamer was some important information needed by headquarters at once. The streamer was caught in a tree visible from the starting point. The enemy had probably observed it and sent out a patrol also. As the patrol moved toward the tree, it was twice attacked, first by a lone sniper who allowed himself to be captured, and then, when the patrol reached the tree, by another sniper who withdrew if the patrol put up a determined fight. (21 points)

¹A "point" indicates one specific behavioral item on the scoring check list rather than an intended system of weighting.

On a Wire Barrier problem, the group was sent out as a patrol to capture a sniper at an enemy sniper post. After the trainees had proceeded a short distance, they encountered a barbed wire barrier across their route. Since all other approaches to the sniper post were said to be mined, they were required to cross the barrier, which was exposed to fire from the sniper. After crossing the wire, the group captured the sniper, who had been briefed to surrender after a short fight. During the return, the captive makes an attempt to escape. (24 points)

On an Ambush problem, the group was sent out as a patrol to set up an ambush along a trail. The leader's job was to set up the ambush and then spring it on a small group coming up the trail. (35 points)

The battery was administered to orders of five squads each, with each of the five squads running concurrently on a different subtest. Data were collected on 19 Recycle System squads where experimental trainee leaders led their own squads at the end of the cycle; 10 squads of the highly trained and experienced troops of the U.S. Army Combat Developments Experimentation Center (CDEC); and 9 control AIT squads at the end of the cycle. The CDEC sample represented the closest available approximation to experienced, integral squads that might be found in TOE units.

Analyses of variance and appropriate t-tests showed that the CDEC and the Recycle squads were superior to the AIT squads at beyond the .01 level, whereas the CDEC and Recycle squads differed at between the .30 and .40 levels. (It should be noted that this lack of difference between CDEC and Recycle squads refers to the accomplishment of specific checklist items covering critical leader activities.) It was obvious to the observers that the CDEC squads performed in a much smoother way, since they had operated as teams for a long time. The important point is that the experimental trainee leaders executed the necessary steps as frequently as the CDEC squads.

As measured by total mean scores on the FLTB, which are given in Table F-2, the training received by the Recycle System trainee leaders improved their performances over those of conventionally trained AIT trainee leaders, and raised performance to a level comparable to that of the CDEC squad leaders. Three of the subtests, Red Cross, Tanglefoot, and Ambush, differentiated between trained leaders (CDEC and/or Recycle) and untrained leaders (AIT). The Streamer and Wire subtests, which were more specifically structured and did not permit a wide range of freedom of decision and action on the part of the squad leader, did not differentiate between trained and untrained groups.

Table F-2

Test Battery	Mean Scores on Five-Station Field Leadership Test Battery			
	Group	N	Mean	SD
Recycle System	CDEC	10	99.4	16.6
	Experimental	19	94.8	10.3
	Control AIT	9	75.3	18.2

Four-Station Field Leadership Test Battery

A revised Field Leadership Test Battery of only four stations was administered in the Integrated System study.

¹Currently, the U.S. Army Combat Developments Command Experimentation Command.

The Red Cross and Ambush problems were the same as in the Recycle System; each was scored 28 points.

On a Returning Patrol problem, the group was sent out to retrieve maps and return them to headquarters. During the problem, after maps had been secured, the patrol came under fire by a sniper and one man was wounded. (26 points)

On a Lost Patrol problem, the group was sent in search of a patrol which was presumably lost while on a mission to obtain information on enemy positions. During the problem the patrol came upon a wounded survivor of the lost patrol who stated that a map of the enemy positions, that had been lost when the man was wounded, was in the area. (26 points)

Data were collected on 14 Integrated System squads (half of the squads in each of the experimental companies) in their second week of AIT training, and on eight squads of a control company (half of the company) in its third week of AIT training. In the last week of the AIT cycle, the battery was readministered to the same squads which had taken the tests early in the cycle and to the remaining squads in the three companies.

For those squads which took the four-station FLTB twice—early in cycle and at the end of cycle—the scores of the control group were higher than those of the experimental group on the first administration, and lower on the second administration. Mean differences between the groups were slight, as shown in Table F-3, and no analyses were run. Those experimental squads which took the four-station FLTB only once, at the end of cycle, also scored higher than the control group scored on its second time through the battery. All control group squads reached substantially the same level of achievement on first exposure to the battery, regardless of whether that exposure was early or late in the training cycle. Considering these results, a definite training effect was indicated.

Table F-3

Mean Scores on Four-Station
Field Leadership Test Battery:
Integrated System

Group	Squad N	Mean	SD
Experimental			
Group A (during AIT)	14	42.4	11.9
Group A (end of AIT)	7	57.9	12.0
Group B (end of AIT)	13	56.4	6.6
Control			
Group A (during AIT)	8	50.5	12.0
Group A (end of AIT)	5	54.2	9.7
Group B (end of AIT)	9	50.1	12.3

The Red Cross station of the battery was a reasonably reliable measure of discrimination among various levels of training. Comparisons of mean scores achieved by differently trained groups on this station were ordered as follows: the highly trained CDEC squads used as comparison standards in the Recycle System; the Recycle System experimentals after their second AIT cycle; the AIT control squads of the Recycle System study at the end of their AIT cycle; and the Integrated System experimentals prior to any AIT and/or leadership training.

There was a fair amount of agreement among scorers of the four-station FLTB as to a given individual's performance at the extremes—the individuals at the positive and negative poles were consistently scored high or low by all the scorers. Scores on this battery could not, however, be used to discriminate between "average" and just-below or just-above "average" trainee leaders.

Three-Station Leadership Performance Battery

A three-station battery of leadership performance tests was used in the Short Course System and was administered to the experimental trainee leaders (LWI and HWI) and to the leaders in two control companies after AIT.

A Demolitions problem required the trainee leaders to lead his men in a raiding patrol to destroy a building thought to be used as an enemy outpost. (86 points)

A Command Post problem required the trainee leader to lead a combat patrol to determine the location of an enemy outpost, to find out the number of men there, and to take a prisoner if possible. (87 points)

A Two Wounded Men problem was parallel to the Red Cross problem. (86 points)

The trainee leaders did not lead their own men on these problems, but men who were trained to play roles appropriate to the test situation. Test means and standard deviations are presented in Table F-4. Analyses of covariance, using CT as the covariable, indicated significant superiority in performance of the LWI experimentals over the LWI controls in Demolitions ($p < .05$) and Command Post ($p < .01$). In addition to the scores recorded, each of the four followers rated the trainee leader on the basis of the leader's performance during each problem. Again, scoring was based on the ability of the trainee leader to deal with leadership and technical problems in fulfilling his assigned mission. The mean follower rating of the trainee leaders on this battery was 2.7, which was considered to be high, based on other findings, although there were no comparison data here.

Table F-4

Mean Scores on Three-Station Leadership
Performance Battery: Short Course System

Test	Experimental Leaders				Control Leaders			
	LWI (N = 14)		HWI (N = 10)		LWI (N = 10)		HWI (N = 9)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Demolitions	48.9	17.8	58.2	17.6	38.3	15.2	50.1	17.6
Command Post	51.8	9.6	53.7	12.3	44.0	21.8	40.1	17.5
Two Wounded Men	40.7	12.4	47.4	16.6	40.1	15.8	36.4	14.9

END-OF-CYCLE GRADED PROFICIENCY TEST Recycle System

At the end of each AIT cycle at Fort Ord, a Graded Proficiency Test was administered to all graduates. At the time of the Recycle System study, this test was a modified version of the Expert Infantryman Badge (EIB) test. An informal examination was undertaken to compare means of experimental trainee leaders' test scores in relation to other EIB test scores. Seventeen companies

at Fort Ord achieved a test mean of 110.1. The Recycle System trainee leaders achieved a test mean of 134.8 at the end of their first AIT cycle, and a test mean of 133.4 following their Recycle System training. The followers of the Recycle System trainee leaders achieved a test mean of 128.7.

Within limitations of knowledge of preparation and test change factors, comparison of these means suggested that the procedure for selecting the Recycle System trainee leaders picked individuals who were only slightly above the Fort Ord average. However, it appeared that an effect of the Recycle System training was to substantially raise follower scores above the Fort Ord average, and that performance of the Recycle System trainee leaders was substantially improved after a second time through AIT.

Integrated System

The split-MOS company of the Integrated System study was one of the last companies to receive the Expert Infantryman Badge proficiency test as its end-of-AIT-cycle test, since a new form of the Graded Proficiency Test was being instituted at that time. Consequently, the originally projected plan to gather EIB test data for this company was abandoned.

The all-LWI company of the Integrated System study was scheduled to receive the new form of the Graded Proficiency Test, and a special study was undertaken in this company to examine the performance effects of controlled methods of preparation for the test.

Normally, the training company conducted a rehearsal of the test in preparation for the actual test, which was administered about one week later. In the rehearsal, the actual test station content and test conditions were typically duplicated with moderate fidelity and the trainees proceeded through the stations while being observed by company cadre and training committee personnel. The week between rehearsal and the actual test provided time for necessary remedial training.

In order to give the experimental trainee leaders an opportunity to function in the leadership capacities of diagnosing and correcting their men's deficiencies, two platoons of the all-LWI company were designated to receive an experimentally devised version of the rehearsal using trainee leaders instead of cadre or committee personnel as observers. Of the three remaining platoons in the company, two were designated to receive a conventional company-controlled preparation, and the third was not to receive preparation. Although the subjects to be covered in the test were common knowledge to the cadre and committee personnel, the specific testing format to be used on the new test was not known.

The company-controlled preparation covered all major subject areas. Approximately 40-50 minutes were used at each station in briefing the trainees, observing their performances, and critiquing. The performance requirement was demonstration of those knowledges and skills believed by the company to be relevant to the content area.

The experimental preparation covered only eight of the major subject areas of the test and not all of the sub-areas within each major area—partly due to supervisory personnel shortages and limitations of time. Prior to the exercises, the trainee squad leaders were supplied with Advance Sheets and briefed on subjects and procedures. Trainees rotated through the stations by squad and under the command of their trainee squad leaders. Only 20 minutes were spent at each station, during which time trainee followers were required to demonstrate knowledge and skills thought by the research staff to be relevant to the content area; trainee squad leaders had to note their men's deficiencies and needs for remedial

training; and the followers were critiqued on their performances by the research staff supervisor assigned to the station. The remainder of the day was spent in remedial training of the followers by the trainee squad leaders.

The trainee squad leaders had been instructed to use time during the week between the preparation and the actual test to give their men remedial training; however, there was very little opportunity to give remedial training because of company preparation for a major inspection and because required equipment was not available. In actuality, the trainee followers received remedial training only on the afternoon of the day of the devised preparation and after a rather brief exposure to the stations.

Mean scores are presented in Table F-5. The overall performance of trainee leaders receiving the experimental preparation was not significantly different from the "company preparation" group, but was significantly better ($p < .05$) than the "no preparation" group. The only subject in which the company-prepared leaders performed significantly better ($p < .01$) than the experimentally prepared leaders was Mines and Booby Traps, which had not been covered at all in the experimental preparation.

Table F-5

Mean Scores of Trainee Leaders and Followers on End-of-Cycle Graded Proficiency Test by Type of Preparation: Integrated System

Subject Area*	Leaders' Preparation			Followers' Preparation		
	None (N=5)	Experimental (N=9)	Company (N=9)	None (N=29)	Experimental (N=51)	Company (N=49)
Map Reading ^b	6.4	8.2	7.8	4.4	5.0	7.7
Range Cards	5.0	7.0	7.2	2.9	4.8	6.0
Machine Gun ^c	16.6	16.6	16.1	13.8	15.6	16.2
Automatic Rifle ^c	9.2	14.1	9.0	8.7	12.9	12.6
Rifle Squad-Attack ^c	4.2	4.2	4.3	1.8	3.4	2.6
Squad Patrolling ^b	11.2	9.1	8.2	9.2	8.6	8.8
Rifle Squad-Defense ^c	3.2	3.6	3.8	3.1	3.7	3.3
Signal Communication ^c	7.8	9.9	9.1	7.8	8.7	9.0
Mines and Booby Traps ^{**}	9.4	10.6	13.1	8.6	9.1	12.3
Rocket Launcher ^c	2.0	4.4	5.8	4.4	4.6	6.0
Total	75.0	87.7	85.4	65.5	76.6	84.8

*Unless otherwise indicated, entire subject was covered in experimental preparation; *indicates partial coverage, and **indicates no coverage.

^bExperimental received special classes.

^cExperimental received compressed classes.

The overall performance of trainee followers receiving company preparation was significantly better ($p < .01$) than that of followers receiving either the experimental preparation or no preparation. Followers receiving experimental preparation performed, overall, significantly better ($p < .01$) than followers receiving no preparation. Differences in performance were attributed to disparity between cadre and experimental trainee leaders in proficiency in methods of instruction, ability to diagnose follower deficiencies, technical competence in instruction, knowledge of test patterns in general, and ability to efficiently budget available time and resources for remedial training. More work with trainee leaders would certainly have to be undertaken if they were to fulfill these particular AIT roles.

Short Course System

The end-of-cycle Graded Proficiency Test which was administered following the Short Course System study was slightly different in composition from that administered to the all-LWI company of the Integrated System. The revised form of the test was composed of four subtests common to both MOSs: 3.5 Rocket Launcher, Map Reading and Compass, Signal Communication, and Mines and Booby Traps. The remainder of the subtests were MOS-specific. For the LWI, the subtests were: Rifle Squad in Defense and CHR; Range Card for Light Machine Gun (LMG); Rifle Squad in Offense; Automatic Rifle; LMG Assembly and Disassembly; and Scouting and Patrolling. For the HWI, the subtests were: 106mm Recoilless Rifle; 81mm Mortar Squad Tactics; 81mm Mortar Forward Observer; Noncommissioned Essential Items; Antitank Squad Tactics; and 81mm Mortar Operation.

No data were available for the experimental group on the first subtest, 3.5 Rocket Launcher. Data were collected on the remaining subtests for the experimental trainee leaders and their followers and compared with data from control leaders and followers in three other AIT companies. Means and standard deviations are presented in Table F-6 and F-7.

Analyses of covariance using the GT score as the covariable yielded differences which were significant at the .05 and .01 levels. These differences, however, were scattered throughout the 15 subtests (see Table F-8) and were further distributed between MOS groups and between leader/follower groups.

Table F-6

Mean Scores of LWI Leaders and Followers on End-of-Cycle Graded Proficiency Test: Short Course System

Subtest	LWI Leaders						LWI Followers					
	Experimental (N=14)			Control 1 (N=10)			Experimental (N=65)			Control 2 (N=81)		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
3.5 Rocket Launcher	-	-	5.7	1.8	5.9	1.9	7.4	0.9	-	-	5.5	1.8
Map Reading and Compass	8.1	2.1	7.8	2.7	9.4	3.1	11.0	2.0	6.1	3.5	5.0	3.4
Signal	11.6	1.5	10.8	1.3	11.3	1.6	12.4	0.7	11.1	1.6	9.7	1.9
Communication	10.8	3.2	12.7	3.0	12.1	2.1	13.2	1.6	10.4	2.8	10.5	2.3
Mines and Booby Traps	4.3	0.6	3.8	0.8	3.7	1.0	4.2	0.7	4.5	0.6	3.8	0.7
Rifle Squad in Defense	5.6	2.0	7.7	2.7	7.0	2.8	5.6	2.2	4.9	2.4	5.9	2.7
Range Card for LMG	6.4	2.1	6.0	2.9	6.8	1.6	8.3	2.4	6.1	2.5	3.7	2.7
Rifle Squad in Offense	14.9	2.4	12.9	4.7	12.9	4.0	15.5	2.3	12.7	3.7	10.8	4.3
Automatic Rifle	14.1	2.2	18.5	2.1	19.6	0.7	19.4	0.9	15.1	2.7	17.6	2.3
LMG Assembly and Disassembly	12.9	1.9	13.2	2.9	13.6	1.8	12.6	1.6	14.1	2.1	12.4	3.2
Scouting and Patrolling												

Generalized conclusions were that controls performed better than experimental on: Map Reading and Compass; Mines and Booby Traps; and LMG Assembly and Disassembly. Experimental usually performed better than controls on Rifle Squad in Defense and consistently performed better in 81mm Mortar Squad Tactics—this last finding holding true for leaders and followers. Over all subtests, the evidence was not particularly strong that the experimental group performed either better or worse than the control groups.

Table F-7

Mean Scores of HWI Leaders and Followers on End-of-Cycle Graded Proficiency Test: Short Course System

Subtest	HWI Leaders						HWI Followers					
	Experimental (N=19)			Control 1 (N=10)			Control 2 (N=51)			Control 3 (N=12)		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
3.5 Rocket Launcher	-	-	6.2	1.5	6.6	1.7	6.1	1.1	-	-	3.8	1.4
Map Reading and Compass	7.3	3.0	6.2	2.2	10.8	1.8	8.7	2.7	5.7	2.8	5.3	1.0
Signal	11.0	1.9	10.4	1.3	11.4	1.8	11.5	1.7	10.4	1.7	9.9	1.7
Communication	10.0	3.4	13.0	2.9	11.0	2.1	12.5	2.0	9.2	3.0	11.7	2.6
Mines and Booby Traps	3.6	1.1	3.1	1.4	4.0	0.7	3.4	1.5	3.4	1.1	3.4	1.1
106mm Recoilless Rifle	6.8	1.5	5.4	1.4	7.2	1.8	5.3	1.0	6.2	1.4	4.6	1.1
81mm Mortar Squad Tactics	10.1	2.6	11.3	1.2	11.6	0.9	7.9	2.8	9.4	3.6	9.9	2.9
81mm Mortar	14.5	2.6	15.4	0.8	15.4	0.9	11.9	3.1	13.3	2.6	13.9	1.9
Forward Observer	15.8	1.4	15.2	2.5	16.8	1.1	18.3	1.3	14.8	2.8	14.3	2.9
Antitank Squad Tactics	23.5	1.3	20.6	3.5	22.0	4.5	23.2	1.3	22.8	2.1	21.7	3.3
81mm Mortar Operation												

Table F-8

Summary of Analyses of Covariance of End-of-Cycle Graded Proficiency Test Scores: Short Course System

Subtest	LWI						HWI					
	Experimental vs. Control 1			Experimental vs. Control 2			Experimental vs. Control 1			Experimental vs. Control 2		
	Experimental vs. Control 1	Experimental vs. Control 2	Experimental vs. Control 3	Experimental vs. Control 1	Experimental vs. Control 2	Experimental vs. Control 3	Experimental vs. Control 1	Experimental vs. Control 2	Experimental vs. Control 3	Experimental vs. Control 1	Experimental vs. Control 2	Experimental vs. Control 3
Map Reading and Compass	.01C	NS	NS	NS	NS	NS	.05C	NS	.05C	NS	NS	NS
Leaders	.05C	NS	.05E	NS	.05E	.05C	.01C	.05C	.05C	.01C	.05C	.05E
Followers	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Signal	NS	NS	NS	NS	NS	NS	.01C	.01C	.01C	.01C	.01C	.01C
Communication	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Leaders	.01C	NS	.01E	NS	.01E	.01C	.01C	.01C	.01C	.01C	.01C	.01E
Followers												

(Continued)

Table F.8 (Continued)

Subtotal ^a		LBI						HRI					
		Experimental vs. Control 1		Experimental vs. Control 2		Experimental vs. Control 3		Experimental vs. Control 1		Experimental vs. Control 2		Experimental vs. Control 3	
Mines and Roads													
Troops													
Leaders		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Followers		.01C	NS	NS	NS	.01C	.01C	.01C	NS	NS	NS	.01C	.01C
Rifle Squad in Defense													
Leaders		NS	.05E	.05E	.01C	.05E	.01C	.05E	NS	.05E	NS	.05E	NS
Followers		.01E	.01C	.01C	.01C	.01C	.01C	.01C	NS	.01C	NS	.01C	NS
Range Card for LMG													
Leaders		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Followers		.05E	.01C	.01C	.01C	.01C	.01C	.01C	NS	.01C	NS	.01C	NS
Rifle Squad in Offense													
Leaders		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Followers		NS	NS	NS	NS	.01E	.01E	.01E	NS	.01E	NS	.01E	NS
Automatic Rifle Leaders		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Followers		.01C	.01C	.01C	.01C	.01C	.01C	.01C	NS	.01C	NS	.01C	NS
Scouting and Patrolling													
Leaders		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Followers		.01E	NS	NS	NS	.01E	.01E	.01E	NS	.01E	NS	.01E	NS
106 Recoilless Rifle													
Leaders		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Followers		.01E	NS	NS	NS	.01E	.01E	.01E	NS	.01E	NS	.01E	NS
81mm Mortar Squad													
Leaders		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Followers		.01E	NS	NS	NS	.01E	.01E	.01E	NS	.01E	NS	.01E	NS
81mm Mortar Forward Observer													
Leaders		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Followers		.01E	NS	NS	NS	.01E	.01E	.01E	NS	.01E	NS	.01E	NS
Nonlethal													
Leaders		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Followers		.01E	NS	NS	NS	.01E	.01E	.01E	NS	.01E	NS	.01E	NS
Antitank Squad													
Leaders		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Followers		.01E	NS	NS	NS	.01E	.01E	.01E	NS	.01E	NS	.01E	NS
81mm Mortar													
Operation		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Leaders		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Followers		.01E	NS	NS	NS	.01E	.01E	.01E	NS	.01E	NS	.01E	NS

^aC = Favor control group; E = Favors experimental group.^bThe N for leaders varied from 48 to 37; the N for followers varied from 195 to 252.

Appendix G

ADDITIONAL STUDIES CONDUCTED IN ASSOCIATION WITH THE SHORT COURSE SYSTEM

TRAINEE ATTITUDE QUESTIONNAIRE

A Trainee Attitude Questionnaire was administered to the trainee leaders and followers of the Short Course System. A comparison of means, according to category of question asked, is presented in Table G-1.

Table G-1

Mean Scores on Trainee Attitude Questionnaire:^a Short Course System

Question Category	Experimental (N=27)	Control 1 (N=130)	Control 2 (N=68)
Army (15 Items)	2.8	3.3	3.2
NCOs (4 Items)	2.7	3.2	3.0
Trainee Leaders (4 Items)	3.3	3.6	3.9
Officers (4 Items)	2.7	2.7	2.7
Army as a Career (6 Items)	3.1	3.3	3.3

^aRange: 1 = Agree Completely; 6 = Disagree Completely.

SQUAD LEADER ACTIVITY QUESTIONNAIRE

Previous Humkro research (9) had made considerable investment in developing a Leadership Activities Questionnaire from which information on platoon leader and platoon sergeant behavior had been obtained. From the several hundred items comprising this original questionnaire, the NCO research staff selected 91 items to derive information about squad leader behavior as perceived by their followers. The questionnaire was administered to AIT followers of the Short Course experimental trainee leaders and to followers of control leaders in two other Fort Ord AIT companies at the end of the AIT cycle. Because of the similarity of mean scores for the experimental and control groups, no statistical analyses were run. Mean scores, according to category of question, are presented in Table G-2.

BUDDY SYSTEM CHECKLIST

One of the goals of the Short Course System was to increase the trainee leader's ability to evaluate his own performance through feedback furnished by other trainees. To provide the feedback, a buddy system was devised in which each trainee leader was to be paired with another as his buddy and each was given the responsibility for observing his buddy and keeping him informed

Table G-2

Mean Scores on Squad Leader Activity Questionnaire:
Short Course System

Question Category	Experimental Followers (N=67)	Control 1 Followers (N=93)	Control 2 Followers (N=110)
I. Defining	2.6	2.5	2.3
II. A. Pre-Task Motivation (Positive)	2.0	1.7	1.7
II. B. Pre-Task Motivation (Negative)	2.5	2.3	2.2
III. A. Post-Task Motivation (Positive)	1.3	1.2	1.4
III. B. Post-Task Motivation (Negative)	2.2	2.0	2.0
IV. Handling Disruptive Influences	2.0	1.8	2.0
V. Getting Information	2.7	3.0	2.8

Categories II, A, II, B, and V contained a combination of True/False and multiple-choice items. The multiple-choice scale was 0=Never; 1=Once; 2=2 or 3 times; 3=4 or 5 times; 4=Many times. In order to bring the True/False item weights into balance with the multiple-choice item weights in the composite mean scores, False answers were assigned a score value of .5 and True answers were assigned a score value of .5*.

on his development as a leader. The original intention of pairing the men on the basis of similarity (education, interests, age, background, GI, etc.) yielded to the necessity of organizing squads and platoons that were of roughly equivalent ability. Since acting leaders in the LPC were rotated each day, by the end of the course each man had served numerous times as an acting leader with a buddy observer and as the observing buddy of an acting leader. The LPC buddy pairs were broken up when the men were assigned to the training company in AIT.

For the AIT phase, each leader was paired with his assistant—some of whom had not received the four-week LPC training. Responses to a questionnaire item ("How do you feel about the buddy system which was used, where one buddy helped the other buddy on how to be a leader?") indicated that the trainees' opinions of the buddy system deteriorated between the end of the four-week LPC and the end of the AIT cycle. This was thought to be a function of the erratic pairing in the system. It seems that buddy pairs in the AIT phase need be made up of the leader and his assistant (for the sake of proximity of observer to observed), and that the leader ought to be allowed as much as possible to express his preference in the selection of his buddy—which, under these circumstances, would mean choosing his assistant.

A common frame of reference for buddy-observer interactions was intended by use of job checklists which outlined the main functions of the squad leader while performing certain tasks. In most cases, however, the checklists were completed only perfunctorily and had little meaning. It was thus not possible to determine how much, if any, informal effect the technique had in instructing the men on the functions of a leader or in providing incentive for improvement.

THE "MUDDLING-MODELING" SPECIAL TRAINING EFFECTS STUDY

In the Field Leadership Problems conducted during the four-week LPC in the Short Course System, a problem-instruction-application sequence was utilized

in which the trainees were briefed and put through a practical leadership exercise problem; a critique of leader performance was conducted; specific instruction in the areas covered by the problem was then given; the trainees were briefed for a new problem which covered the same areas as the initial problem but in a modified context; leaders were rotated, and the instruction was applied to the new problem by these new leaders.

To determine the value of this sequence as a leader training device, a "method A vs. method B" study was conducted during the course of the first Field Leadership Problem. In one method, the trainee leaders were allowed to "muddle through" the problem phase on their own while being observed and critiqued by trained personnel. In the other method, the squads were led by trained personnel, allowing the trainee leaders to observe a "model" of squad leader behavior. The instruction and application phases were conducted normally in each method. Comparisons of the two methods of initial exposure to a problem, as evaluated by trainee leader performance during the application phase, proved inconclusive.

MISCELLANEOUS INSTRUMENTS

In addition to the several assessment measures which have been described, a few lesser instruments were developed and used on a one-time-only basis during and after the Short Course System study. Since none of these instruments yielded results of particular import, each will be described only briefly.

An Ideal Squad Questionnaire required each squad member to select from among all of the trainees in his platoon the men whom he would want in an "ideal" combat squad. Scoring was based on the percentage of men a trainee selected from his own squad.

A Knowledge of Training Schedule test was simply a measure of the trainee's knowledge about his unit's next day's training schedule, type of uniform required, and so forth.

A Trainee Leader's Critique Sheet was designed to determine the trainee leader's attitudes toward the authority, responsibility, privileges, and problems he encountered as a leader in AIT, and to question him regarding his desire to be a leader in his next unit.

A Knowledge of Men test measured the extent of the trainee squad leader's knowledge about the personal aspects of the men in his squad. For each squad member the leader was required to furnish such information as first name, last name, years of schooling completed, main activity before entering the Army, and ambition after leaving the Army. The trainee squad leaders also ranked their men on the bases of intelligence, Army know-how, and motivation. Although this instrument was not used further in subsequent research under Work Unit NCO, further analysis of the findings proved to be moderately informative with respect to the relation between a leader's knowledge of his men and his leadership capability (10).

¹⁰The "muddling" approach is currently used in the Army's Leader Preparation Course during an abbreviated field exercise conducted on the first day of the course, as a means of bringing home clearly to the leader candidate his ability or inability to perform a satisfactory leadership function.