AD-A134 243 THE ITERATIVE DECISION METHOD (IDM): ACADEMY OF HEALTH SCIENCES REPORTS S..(U) ACADEMY OF HEALTH SCIENCES (ARMY) FORT SAM HOUSTON TX K FINSTUEN MAR 83 AHS-4 1/1

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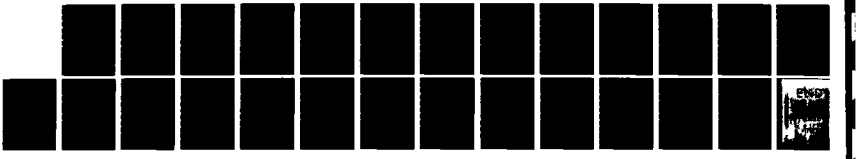

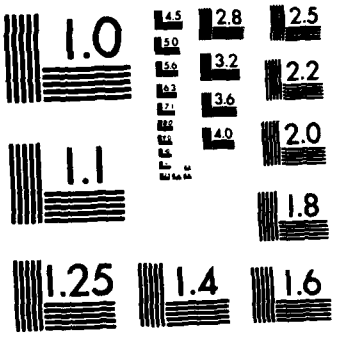

TECHNICAL REPORT AHS - 4

MARCH 1983

THE ITERATIVE DECISION METHOD (IDM): ACADEMY OF HEALTH SCIENCES REPORTS, SMALL GROUP DECISION-MAKING AND PROBLEM-SOLVING BIBLIOGRAPHY, AND STATISTICAL REFERENCES

INDIVIDUAL TRAINING DIVISION
DIRECTORATE OF TRAINING DEVELOPMENT
ACADEMY OF HEALTH SCIENCES, U.S. ARMY
FT. SAM HOUSTON, TX 78234

REPORT DOCUMENTATION PAGE

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Resulting from manual and automated searches of the literature, this report is a comprehensive bibliography of over 200 studies dealing with small group decision making and problem solving. This bibliography forms the literature basis from which the Iterative Decision Method (IDM) was developed.

Technical Report AHS - 4

March 1983

The Iterative Decision Method (IDM): Academy of Health Sciences Reports, Small Group Decision-making and Problem-solving Bibliography, and Statistical References

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DISCLAIMER NOTICE : The views of the author are his own and do not purport to reflect the position of the Department of the Army or the Department of Defense

INTRODUCTION

Group decision making has long been a practice of military management. Generally group decisions tend to be more accurate, effective, and efficient than decisions made by an individual. The Army Medical Department (AMEDD) currently utilizes the Iterative Decision Method (IDM) for the selection and prioritization of individual training tasks. The IDM is a structured group decision-making technology which employs five or seven expert medical personnel to examine a set or series of judgmental objects, items, or task statements. Two rounds of decisions are required: a) an initial independent set of judgments (J1), followed by b) a second interactive discussion phase in which feedback results from the first round of judgments are used to render a set of group revised judgments (J2). The IDM has also been used to prioritize combat service support deficiencies for mission area analyses, and to prioritize workloads for soldier's manuals and skill qualification tests at the Academy of Health Sciences, Ft. Sam Houston, Texas. A listing of current Academy IDM reports is contained in Section I of this report.

The IDM technology has been recognized as an effective and efficient decision-making management tool by the Office of The Surgeon General (see pages 2 and 3), and continues to be a productive means of providing a flexible and quantitative basis for making group decisions while maintaining a comprehensive audit trail of decision activities.

As an initial step in the design and development of the IDM, a comprehensive literature review was conducted of small group decision-making and problem-solving techniques and methods. Section II of this report contains a listing of over 200 research articles, experiments, and reviews pertaining to the rationale upon which the IDM is based. While most articles and sources located were psychological in nature (viz., Journal of Applied Psychology, Organizational Behavior and Human Performance), many other sources were obtained from the literature of education, sociology, educational technology, and the management and decision sciences.

In establishing the scope of this bibliography several factors were considered. First, the assignment of experts to serve on boards or panels primarily is based upon members' past experience, performance, and familiarization with the content of the medical and medical training domains. As a result, this compendium listing of studies does not consider the available research which deals with either group member personality or leadership variables. Additionally, the extent of this listing is limited to studies of individuals working separately compared to individuals working in interactive groups. Therefore experimental studies concerned with group rewards and payoffs under choice dilemma, risky-shift, and mock jury situations that use intact groups were likewise excluded from consideration.

Finally, Section III provides a list of sources concerned with the computation of inter-rater reliability via intraclass correlation as used in the IDM technology, and statistical references for multiple linear regression analyses of J1 and J2 group decisions.

DEPARTMENT OF THE ARMY
ACADEMY OF HEALTH SCIENCES, UNITED STATES ARMY
FORT SAM HOUSTON, TEXAS 78234

REPLY TO
ATTENTION OF:

HSHA-CDS

27 OCT 1982

SUBJECT: After Action Report for AMEDD Combat Service Support Mission Area Analysis Deficiency Prioritization

HQDA (DASG-HCZ/DCA), WASH DC 20310
Commander, US Army Medical Research and Development Command, Fort Detrick, MD 21701
Commander, 7th Medical Command, APO NY 09102
Commander, US Army Health Services Command, ATTN: HSDC

1. The staff report at inclosure 1 provides a detailed analysis and audit trail that documents the procedures employed for the prioritization of AMEDD medical combat deficiencies for the Mission Area Analysis program. Again, we thank you for your time and cooperation in serving as a member on the decision-making panels. Your participation helped to make this project a success.

2. The draft report is presently being edited for subsequent publication as one of a series of planned AHS monographs and is expected to be distributed early next year. We would appreciate any comments or reactions in regard to the report or the decision-making method. Two additional papers describing other applications of the iterative decision method (IDM) are at inclosures 2 and 3. Both of the briefer papers are scheduled for presentation at the Military Testing Association to be held in San Antonio next month.

3. Please address any comments or reactions to Major Paul H. Hatkoff, DCD, AUTOVON 471-6565.

FOR THE COMMANDANT:

Calvin E. Williams

CALVIN E. WILLIAMS
CPT, MSC
Adjutant General

3 Incl
as

DASG-HCD (27 Oct 82) 1st Ind
SUBJECT: After Action Report for AMEDD Combat Service Support Mission Area Analysis Deficiency Prioritization

HQDA(DASG-HCZ), WASH DC 20310 26 NOV 1982

TO: Commandant, Academy of Health Sciences, US Army, ATTN: HSHA-CDS, Fort Sam Houston, TX 78234

1. The staff report and the two presentation papers have been reviewed and no comments or modifications to the report are proposed.

2. The Iterative Decision Method (IDM) appears to be an effective methodology to maximize the effectiveness and efficiency of decision-making for an expert panel. Continued use of this methodology has the potential for maximizing decision productivity for medical expert boards.

3. POC for this action is LTC Yohman, AV 227-2213.

FOR THE SURGEON GENERAL:

For: WILLIAM P. WINKLER, JR.
Brigadier General, MC
Director, Health Care Operations

wd all incl

CF:
Cdr, USAHSC

CHARLES C. OTTERSTEDT
Colonel, MSC
Deputy Director, Health
Care Operations

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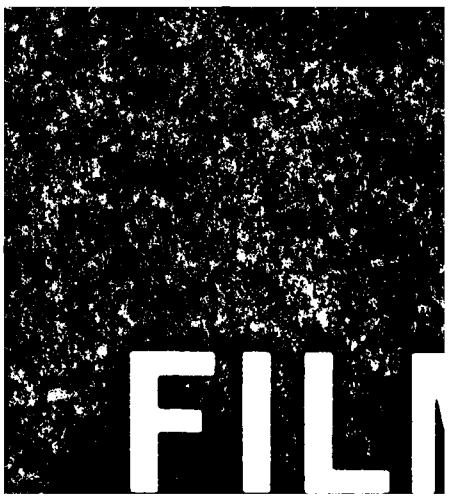
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