

40-A138 359

PERSONNEL TECHNOLOGY - PERFORMANCE APPRAISAL A PROCESS 1/4
APPROACH(U) PURDUE UNIV LAFAYETTE IN DEPT OF
PSYCHOLOGICAL SCIENCES J L BARNES-FARRELL ET AL.

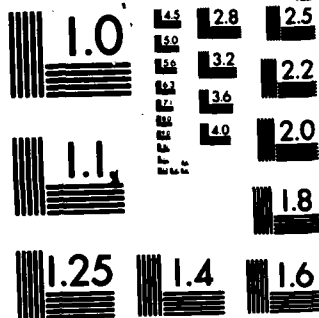
UNCLASSIFIED

OCT 83 TR-83-5 N00014-82-K-0449 F/G 5/10

NL



END
DATE
FILMED
* 4 94
DTIC



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

Unclassified

(13)

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER 83-5	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Personnel Technology-Performance Appraisal, A Process Approach: A Final Report		5. TYPE OF REPORT & PERIOD COVERED Final: 6/15/82-8/14/83
AUTHOR(s) Janet L. Barnes-Farrell & Daniel R. Ilgen		6. PERFORMING ORG. REPORT NUMBER
PERFORMING ORGANIZATION NAME AND ADDRESS Dept. of Psychological Sciences Purdue University West Lafayette, IN 47907		7. CONTRACT OR GRANT NUMBER(s) N00014-82-K-0449
CONTROLLING OFFICE NAME AND ADDRESS Organizational Effectiveness Research Programs Office of Naval Research, Arlington, VA 22217		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 61153N 42 NR 170-940 RR04208 RR0420801
8. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		12. REPORT DATE October, 1983
		13. NUMBER OF PAGES
		14. SECURITY CLASS. (of this report) Unclassified
		15. DECLASSIFICATION/DOWNGRADING SCHEDULE
9. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited. Reproduction in whole or in part is permitted for any purpose of the U.S. Government.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Performance Appraisal Performance Evaluation Accuracy Measures		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report briefly outlines research performed under a contract awarded for investigating processes affecting the accuracy of performance appraisals. A general overview of the research is provided, followed by a listing of major topic areas investigated and reference to the research reports that describe the research in detail. An Appendix to the report lists the titles of the technical reports, presentations at professional meetings, and theses or dissertations that resulted from (cont'd)		

ADA138359

DTIC FILE COPY

DTIC
SELECTED
FEB 28 1984
S A

DD FORM 1 JAN 73 1473

EDITION OF 1 NOV 65 IS OBSOLETE
S/N 0102-LF-014-6601

UNCLASSIFIED
SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

20. ABSTRACT (cont'd)

the research.

S/N 0102-LA-014-6601

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

Personnel Technology - Performance Appraisal, A Process Approach:
A Final Report

Janet L. Barnes-Farrell
and
Daniel R. Ilgen

Purdue University

Prepared for
Organizational Effectiveness Research Programs
Office of Naval Research

Contract #N00014-82-K-0449
Janet L. Barnes-Farrell and Daniel R. Ilgen,
Principal Investigators

Period Covered: June 15, 1982 - August 14, 1983
Technical Report No. 83-5
December 1983



Accession For	
SEARCHED	<input checked="" type="checkbox"/>
INDEXED	<input type="checkbox"/>
ANNOUNCED	<input type="checkbox"/>
DISTRIBUTION	<input type="checkbox"/>
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A1	

84 02 28 014

Abstract

↓
This report briefly outlines research performed under a contract awarded for investigating processes affecting the accuracy of performance appraisals. A general overview of the research is provided, followed by a listing of major topic areas investigated and reference to the research reports that describe the research in detail. An Appendix to the report lists the titles of the technical reports, presentations at professional meetings, and theses or dissertations that resulted from the research.
↑

Personnel Technology - Performance Appraisal, A Process Approach
A Final Report

Performance appraisal systems play a central role in the effective functioning of any large organization. However, despite the importance and the increasing demand for effective performance appraisal systems, our ability to perfect these systems has been quite limited. For the most part, work on performance appraisal has focused on (1) the design of performance appraisal instruments and (2) the training of people to use the scales. In order to advance beyond our present state with regard to performance appraisal, we must resist the tendency, represented by these two approaches, to stress intervention over understanding. Instead, it is necessary to have a better understanding of the processes involved as one individual judges the performance of another.

The purpose of this research project was to adopt a process view of performance appraisal and then explore and test assumptions from this framework with empirical research. Originally, we intended to approach this goal through the development of a three-phase research program, which was to be conducted over a period of three years. During Phase I, task materials and measures necessary for assessing rater accuracy were to be developed. The purpose of Phase II was to explore those factors that influence the accuracy of performance appraisals. The third phase was intended to focus upon applications. However, it became necessary to terminate this contract after only one year. As a result, research described in this report focuses primarily on Phase I activities. The

activities planned for Phases II and III will be completed under separate contracts to Dr. Barnes-Farrell and to Dr. Ilgen. The research which will be conducted under those contracts represents the continuation of work begun during this project.

The primary focus of our work during Phase I was the development of task materials and measures necessary for assessing rater accuracy. Materials were developed for use in laboratory and procedures for use in field research settings respectively.

Laboratory materials. Our goal was to produce a set of videotaped samples of employee performance in which the true level of performance could be accurately estimated by expert raters. In addition, behaviorally oriented performance rating scales had to be developed to accompany the videotaped stimulus materials. These materials would provide use with a means of assessing the accuracy of performance ratings provided by evaluators under a variety of controlled laboratory conditions.

The development of laboratory materials took place in two major stages, each consisting of several tasks. The first step was to identify a job and to develop an instrument for evaluating performance on each of the important performance dimensions included in that job. The second stage was the production of videotaped samples of performance which provided behavioral examples of performance at low, moderate, and high levels of effectiveness for each performance dimension. Briefly, they can be summarized as follows.

A job type, "restaurant waiting" was identified as a

position for the development of a laboratory measure of rating accuracy. That job was selected, in part, because persons used later with the stimulus materials would have some familiarity with it, because relatively objective measures could be developed, and because we could gain access to a facility for creating videotaped episodes of performance. Students from the Department of Restaurant, Hotel, and Institutional Management worked with our research team to identify important dimensions of work performance and examples of effective and ineffective work performance. After being subjected to a retranslation procedure, scale values were estimated for these examples, and behaviorally anchored rating scales were constructed for each dimension.

Seven dimensions were selected for videotaping: Menu Familiarity, Knowledge of Beverage Service Procedures, Maintaining Performance Levels, Memory, Cooperation, Work Habits, and Dinner Bill Activities. For each of those dimensions, benchmarks with high, moderate, and low scale values were identified and brief scripts were prepared to represent them. Each script was performed and videotaped twice: once with a male actor playing the role of the focal employee, and once with a female playing that role. Thus a total of forty-two vignettes were produced as a result of this effort. The final step in this process, the verification of intended performance levels and final editing of the tapes will be completed under Contract #N00014-83-K-0757 (Dr. Barnes-Farrell, Principal Investigator).

Field materials. Our goal in the development of field measures was to develop and evaluate a set of procedures for assessing the relative accuracy of a) different rating sources,

and b) different individual raters in a field setting. In addition, we hoped to develop a more general measure of "rating skill" which would differentiate between accurate and inaccurate appraisers. The major activities involved in this project are summarized below.

The cooperation of university custodians was obtained, and the job of custodian became the focus of the development of field materials. As before, the first step was to identify the primary performance dimensions of the job. The researchers worked closely with small groups of custodians, who identified the following eight dimensions as important to work effectiveness: 1) Floors, 2) General Cleaning and Polishing, 3) Restrooms, 4) Classrooms, Offices and Laboratories, 5) Personal Safety, 6) Custodial Maintenance, 7) Security, and 8) People. Behavioral examples providing benchmarks for each dimension were generated, retranslated, and scaled to produce a behaviorally oriented performance rating instrument for the job of custodian.

Once the scales were developed, the custodians participating in the study were rated by five different sets of raters: supervisors, peers, self, area workers, and expert observers. The relative accuracy of these sources was examined, using four indices of accuracy. In addition, the relative difficulty in accurately appraising performance on each of the eight dimensions was examined.

Finally, several measures in addition to performance were obtained in order to explore some of the factors that may influence responses to performance appraisal scales. These

included measures of rater-ratee familiarity, perceived source accuracy, perceived patterns of past and future performance, and causal attributions about performance.

Final work on the field measure will be completed under Contract #N00014-K-83-0756 (Dr. Ilgen, Principal Investigator).

Other Research. In addition to the development of task materials and accuracy measures, several empirical studies examining various aspects of the appraisal process were conducted during year one of this contract. The effects of such variables as prototypicality of the ratee's behavior and purpose of the appraisal upon accuracy of evaluation were examined, and the process of occupational age-typing was studied (see I-1, I-3, III-1, III-2, IV-1, IV-2, IV-3 in the Appendix). This work is still underway, but preliminary findings suggest that the investigation of process variables will yield valuable information about the way the task of performance evaluation is carried out in organizations and the kinds of conditions which will facilitate accurate performance evaluation.

Appendix
Research Publications
on
ONR Contract #N00014-82-K-0449

I. Technical Reports

- | Number | Author(s), Title and Date |
|---------|---|
| 1. 83-1 | Barnes-Farrell, J. L. <u>Perceptions of age-typed occupations: A preliminary investigation.</u> April, 1983. |
| 2. 83-2 | Barnes-Farrell, J. L. & Weiss, H. M. <u>Effects of standard extremity on mixed standard scale performance ratings.</u> April, 1983. |
| 3. 83-3 | Couture, K. A. & Barnes-Farrell, J. L. <u>Effects of rating purpose and rater self-esteem on performance ratings.</u> April, 1983. |
| 4. 83-4 | Ilgen, D. R. & Favero, J. L. <u>Methodological contributions of person perception to performance appraisal.</u> April, 1983. |
| 5. 83-5 | Barnes-Farrell, J. L. & Ilgen, D. R. <u>Personnel technology - Performance appraisal, a process approach: A final report.</u> December, 1983. |

II. Books and Book Chapters

1. Ilgen, D. R. & Barnes-Farrell, J. L. Modules in management: Performance planning and evaluation. SRA Associates, in press.

III. Presentations

1. Barnes-Farrell, J. L. Age-typing of occupations. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL, May 1983.
2. Moore, C. F. & Ilgen, D. R. Goal-setting and feedback effects on proof-reading performance. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL, May 1983.

3. Ilgen, D. R. Performance appraisal and feedback: A workshop. Workshop presented at the Conference for Industrial/Organizational Psychology and Organizational Behavior Graduate Students, Chicago, IL, March 1983.
4. Couture, K. A. & Barnes-Farrell, J. L. Effects of rating purpose and rater self-esteem on performance ratings. Paper presented at the annual meeting of the American Psychological Association, Washington, DC, August 1982.
5. Ilgen, D. R. & Favero, J. L. Methodological contributions of person perception to performance appraisal. Paper presented at the annual meeting of the American Psychological Association, Washington, DC, August 1982.

IV. Dissertations/Theses

1. Couture, K. A. Contextual influences on performance ratings: The effect of purpose on rating accuracy. Unpublished master's thesis, Purdue University, 1982.
2. Favero, J. L. Effects of prototypicality and time on evaluation accuracy and rater observation in a performance appraisal context. Unpublished master's thesis, Purdue University, 1983.
3. Nowicki, C. Effects of impression formation in the employment interview. Unpublished doctoral dissertation, Purdue University, 1983.

LIST 1
MANDATORY

Defense Technical Information Center
ATTN: DTIC DDA-2
Selection and Preliminary Cataloging Section
Cameron Station
Alexandria, VA 22314

Library of Congress
Science and Technology Division
Washington, D.C. 20540

Office of Naval Research
Code 4420E
800 N. Quincy Street
Arlington, VA 22217

Naval Research Laboratory
Code 2627
Washington, D.C. 20375

Office of Naval Research
Director, Technology Program
Code 200
800 N. Quincy Street
Arlington, VA 22217

LIST 2
ONR Field

Psychologist
Office of Naval Research
Detachment, Pasadena
1030 East Green Street
Pasadena, CA 91106

Dr. James Lester
Organizational Effectiveness Group
Department of the Navy
Office of Naval Research
Arlington, VA 22217

LIST 3
OPNAV

Deputy Chief of Naval Operations
(Manpower, Personnel, and Training)
Head, Research, Development, and
Studies Branch (Op-115)
1812 Arlington Annex
Washington, D.C. 20350

Director
Civilian Personnel Division (OP-14)
Department of the Navy
1803 Arlington Annex
Washington, D.C. 20350

Deputy Chief of Naval Operations
(Manpower, Personnel, and Training)
Director, Human Resource Management
Plans and Policy Branch (Op-150)
Department of the Navy
Washington, D.C. 20350

Chief of Naval Operations
Head, Manpower, Personnel,
Training and Reserves Team
(Op-964D)
The Pentagon, 4A478
Washington, D.C. 20350

Chief of Naval Operations
Assistant, Personnel Logistics
Planning (Op-987H)
The Pentagon, 5D772
Washington, D.C. 20350

LIST 4
NAVMAT & NPRDC

NAVMAT

Program Administrator for Manpower,
Personnel, and Training
MAT-0722
800 N. Quincy Street
Arlington, VA 22217

Naval Material Command
Management Training Center
NAVMAT 09M32
Jefferson Plaza, Bldg #2, Rm 150
1421 Jefferson Davis Highway
Arlington, VA 20360

Naval Material Command
MAT-00K & MAT-00KB
OASN(SNL)
Crystal Plaza #5
Room 236
Washington, D.C. 20360

Naval Material Command
MAT-03
(J. E. Colvard)
Crystal Plaza #5
Room 236
Washington, D.C. 20360

NPRDC

Commanding Officer
Naval Personnel R&D Center
San Diego, CA 92152

Naval Personnel R&D Center
Dr. Robert Penn
San Diego, CA 92152

Naval Personnel R&D Center
Dr. Ed Aiken
San Diego, CA 92152

Navy Personnel R&D Center
Washington Liaison Office
Building 200, 2N
Washington Navy Yard
Washington, D.C. 20374

LIST 6

NAVAL ACADEMY AND NAVAL POSTGRADUATE SCHOOL

Naval Postgraduate School
ATTN: Dr. Richard S. Elster (Code 012)
Department of Administrative Sciences
Monterey, CA 93940

Naval Postgraduate School
ATTN: Professor John Senger
Operations Research and
Administrative Science

Superintendent
Naval Postgraduate School
Code 1424
Monterey, CA 93940

Naval Postgraduate School
Code 54-Aa
Monterey, CA 93940

Naval Postgraduate School
ATTN: Dr. Richard A. McGonigal
Code 54
Monterey, CA 93940

U.S. Naval Academy
ATTN: CDR J. M. McGrath
Department of Leadership and Law
Annapolis, MD 21402

Professor Carson K. Eoyang
Naval Postgraduate School, Code 541G
Department of Administrative Sciences
Monterey, CA 93940

Superintendent
ATTN: Director of Research
Naval Academy, U.S.
Annapolis, MD 21402

LIST 7

HRM

Officer in Charge
Human Resource Management Detachment
Naval Air Station
Alameda, CA 94591

Officer in Charge
Human Resource Management Detachment
Naval Submarine Base New London
P. O. Box 81
Groton, CT 06340

Officer in Charge
Human Resource Management Division
Naval Air Station
Mayport, FL 32228

Commanding Officer
Human Resource Management Center
Pearl Harbor, HI 96860

Commander in Chief
Human Resource Management Division
U.S. Pacific Fleet
Pearl Harbor, HI 96860

Officer in Charge
Human Resource Management Detachment
Naval Base
Charleston, SC 29408

Commanding Officer
Human Resource Management School
Naval Air Station Memphis
Millington, TN 38054

Human Resource Management School
Naval Air Station Memphis (96)
Millington, TN 38054

Commanding Officer
Human Resource Management Center
1300 Wilson Boulevard
Arlington, VA 22209

Commanding Officer
Human Resource Management Center
5621-23 Tidewater Drive
Norfolk, VA 23511

Commander in Chief
Human Resource Management Division
U.S. Atlantic Fleet
Norfolk, VA 23511

Officer in Charge
Human Resource Management Detachment
Naval Air Station Whidbey Island
Oak Harbor, WA 98278

Commanding Officer
Human Resource Management Center
Box 23
FPO New York 09510

Commander in Chief
Human Resource Management Division
U.S. Naval Force Europe
FPO New York 09510

Officer in Charge
Human Resource Management Detachment
Box 60
FPO San Francisco 96651

Officer in Charge
Human Resource Management Detachment
COMNAVFORJAPAN
FPO Seattle 98762

LIST 8
NAVY MISCELLANEOUS

Naval Military Personnel Command
HRM Department (NMPC-6)
Washington, D.C. 20350

LIST 15
CURRENT CONTRACTORS

Dr. Clayton P. Alderfer
Yale University
School of Organization and Management
New Haven, Connecticut 06520

Dr. Richard D. Arvey
University of Houston
Department of Psychology
Houston, TX 77004

Dr. Stuart W. Cook
Institute of Behavioral Science #6
University of Colorado
Box 482
Boulder, CO 80309

Dr. L. L. Cummings
Kellogg Graduate School of Management
Northwestern University
Nathaniel Leverone Hall
Evanston, IL 60201

Dr. Richard Daft
Texas A&M University
Department of Management
College Station, TX 77843

Bruce J. Bueno De Mesquita
University of Rochester
Department of Political Science
Rochester, NY 14627

Dr. Henry Emurian
The Johns Hopkins University
School of Medicine
Department of Psychiatry and
Behavioral Science
Baltimore, MD 21205

Dr. Arthur Gerstenfeld
University Faculty Associates
710 Commonwealth Avenue
Newton, MA 02159

Dr. Paul S. Goodman
Graduate School of Industrial
Administration
Carnegie-Mellon University
Pittsburgh, PA 15213

Dr. J. Richard Hackman
School of Organization
and Management
Box 1A, Yale University
New Haven, CT 06520

Dr. Herry Hunt
College of Business Administration
Texas Tech. University (Box 4320)
Lubbock, TX 79409

Dr. Lawrence R. James
School of Psychology
Georgia Institute of Technology
Atlanta, GA 30332

Dr. F. Craig Johnson
Department of Educational Research
Florida State University
Tallahassee, FL 32306

Dr. Allan P. Jones
University of Houston
4800 Calhoun
Houston, TX 77004

Dr. Dan Landis
Department of Psychology
Purdue University
Indianapolis, IN 46205

Dr. Frank J. Landy
The Pennsylvania State University
Department of Psychology
417 Bruce V. Moore Building
University Park, PA 16802

Dr. Bibb Latane
The University of North Carolina
at Chapel Hill
Manning Hall 026A
Chapel Hill, NC 27514

Dr. Edward E. Lawler
University of Southern California
Graduate School of Business Administration
Los Angeles, CA 90007

Dr. Edwin A. Locke
College of Business and Management
University of Maryland
College Park, MD 20742

Dr. Fred Luthans
Regents Professor of Management
University of Nebraska-Lincoln
Lincoln, NE 68588

LIST 15 (CONTINUED)

Dr. R. R. Mackie
Human Factors Groups
5775 Dawson Street
Goleta, CA 93117

Dr. William H. Mobley
College of Business Administration
Texas A&M University
College Station, TX 77843

Dr. Lynn Oppenheim
Wharton Applied Research Center
University of Pennsylvania
Philadelphia, PA 19104

Dr. Thomas M. Ostrom
The Ohio State University
Department of Psychology
116E Stadium
404C West 17th Avenue
Columbus, OH 43210

Dr. William G. Ouchi
University of California,
Los Angeles
Graduate School of Management
Los Angeles, CA 90024

Dr. Charles Perrow
Yale University
I. S. P. S.
111 Prospect Avenue
New Haven, Connecticut 06520

Dr. Irwin G. Sarason
University of Washington
Department of Psychology, NI-25
Seattle, WA 98195

Dr. Benjamin Schneider
Department of Psychology
University of Maryland
College Park, MD 20742

Dr. Edgar H. Schein
Massachusetts Institute of Technology
Sloan School of Management
Cambridge, MA 02139

H. Ned Seelye
International Resource Development, Inc.
P. O. Box 721
La Grange, IL 60525

Dr. H. Wallace Sinaiko
Program Director, Manpower Research
and Advisory Services
Smithsonian Institution
801 N. Pitt Street, Suite 120
Alexandria, VA 22314

Dr. Richard M. Steers
Graduate School of Management
University of Oregon
Eugene, OR 97403

Dr. Siegfried Streufert
The Pennsylvania State University
Department of Behavioral Science
Milton S. Hershey Medical Center
Hershey, PA 17033

Dr. James R. Terborg
University of Oregon West Campus
Department of Management
Eugene, OR 97403

Dr. Harry C. Triandis
Department of Psychology
University of Illinois
Champaign, IL 61820

Dr. Howard M. Weiss
Purdue University
Department of Psychological Sciences
West Lafayette, IN 47907

Dr. Philip G. Zimbardo
Stanford University
Department of Psychology
Stanford, CA 94305

Dr. Philip Wexler
University of Rochester
Graduate School of Education
and Human Development
Rochester, NY 14627