ANALYSIS OF FY82 USER RESPONSES TO NAVPERSRANDCEN RESEARCH UTILIZATION EVALUATIONS

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ANALYSIS OF FY82 USER RESPONSES TO NAVPERSRANDCEN RESEARCH UTILIZATION EVALUATIONS

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In FY81, NAVPERSRANDCEN developed a user-oriented system for assessing user response to Center products. In this system, identified users are asked to review a Center product and evaluate it on various aspects. Results indicate that the system has great potential for initiating and maintaining a productive dialogue between researchers and operational consumers. Data provided can be used to improve the quality of R&D management decisions by offering both long-term trend information and immediate feedback regarding product utilization. This report analyzes FY82 user evaluations.
FOREWORD

This effort, which was sponsored by NAVPERSRANDCEN management, is a continuation of a FY81 reimbursable work unit (Implementation Planning) sponsored by the Chief of Naval Operations (OP-115). Its objective was to expand and refine the product tracking system that was developed in FY81 and described in NPRDC SR 82-29.

The overall findings indicate that a user-oriented tracking system can provide the means for initiating and maintaining a productive dialogue between operational consumers and research activities.

JAMES F. KELLY, JR.
Commanding Officer

JAMES W. TWEEDDALE
Technical Director
Problem and Background

For some time, the Congress and the Administration have been concerned with the relevance and use of research conducted by the National Science Foundation (NSF) at its 11 laboratories. In 1977, the General Accounting Office recommended that a feedback system be developed and implemented. NSF established a system to track selected technical reports, evaluate them, and assess the impact of Center products. In the evaluation process, we were asked to evaluate a report describing an R&D product. The evaluation report was designed to assess the impact of the report on the interaction between R&D producers and the user communities.

Objective

The objective of this effort was to expand and refine the tracking system developed in FY81.

Approach

In FY82, the evaluation report was upgraded as to format and modified by including a new section on Center follow-up assistance during operational implementation. In FY82, 160 evaluation requests, covering 79 reports, were sent out. Of these, 119 were returned, for a response rate of 74 percent. The information provided by the returned questionnaires became part of a computerized data base immediately available for a variety of statistical and graphic representations.

Results

Analysis of the reports showed the following:

1. Eighty-two percent of the respondents felt that the amount and type of communications with NAVPERS/RANDCEN were sufficient.

2. Fifty-one percent claimed an actual involvement with some aspect of the research effort, and 78 percent felt the degree of involvement was substantial.

3. Seventy-six percent predicted that the product would result in either cost savings or increased efficiency or effectiveness.

4. A global estimate of user satisfaction showed that 95 percent of those responding were satisfied with the research product.

Conclusions

The data indicated that communication with user communities is highly satisfactory and that overall satisfaction with the contents and products of the study was high, as reflected in FY81.

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INTRODUCTION

Problem and Background

The concern of the Congress and the Department of Defense (DoD) about the relevance and use of human resource RDT&E end products has increased during the past decade. This concern has emphasized a need to develop methods to increase the probability that research products and outcomes will be used. To illustrate, in 1977, the General Accounting Office (GAO) recommended that a management monitoring and feedback system on research utilization be developed and implemented.¹

In response to this concern, the Navy Personnel Research and Development Center (NAVPERSRANDCEN) designed, implemented, and tested a system to track and evaluate application/utilization of Center R&D products.² During FY81, this system was pilot-tested, using a selected sample of NAVPERSRANDCEN technical reports, special reports, and technical notes describing Center products. Commands previously identified as user organizations were asked to review the reports selected and complete a questionnaire addressing the following areas:

1. Type and frequency of communications between the user and NAVPERSRANDCEN.
2. The extent of user involvement in phases of research, including planning, research design, analyses, and interim or final recommendations.
3. Whether or not the user conducted a formal management review of the product.
4. Degree of satisfaction with the product's timeliness, completeness, clarity, relevance, feasibility of implementation, cost of implementation, and projected benefits of implementation.
5. Impact of the research.
6. Overall user evaluation of the research.

Objective

The objective of this effort was to expand and refine the product tracking system developed and pilot-tested in FY81.

¹Human resources research and development results can be better managed--Department of Defense. Washington, DC: Comptroller General's report to the Committee on Appropriations, House of Representatives, April 22, 1977.

APPROACH

During FY82, the format of the questionnaire was upgraded (it was "professionally printed" as opposed to being xeroxed) to attract the interest and attention of the recipients. An additional section was added regarding the user's need for assistance from NAVPERSRANDCEN in the operational implementation phase of the end products (see item P4, p. A-2).

In FY82, NAVPERSRANDCEN published 127 reports. User evaluations were not requested for 48 of these reports, either at the request of the research program director or because the reports were considered inappropriate for evaluation (e.g., bibliographies). For the remaining 79 reports, 160 evaluation requests were sent to individuals representing the following organizations:

- Chief of Naval Education and Training (CNET).
- Chief of Naval Operations (CNO).
- Chief of Naval Material (CNM).
- Chief of Naval Technical Training (CNTT).
- Naval Military Personnel Command (NMPC).
- Navy Recruiting Command (NRC).
- Headquarters, Marine Corps (HQMC).
- Commander in Chief, U.S. Pacific Fleet (CINCPAC).
- Commander in Chief, U.S. Atlantic Fleet (CINCLANT).
- Naval Air Systems Command.
- Department of Defense.
- U.S. Naval Academy.
- Center for Naval Analyses.
- Naval Surface Weapons Center.
- U.S. Coast Guard.

RESULTS

A total of 119 evaluation reports were returned, for a response rate of 74 percent. Evaluations were not returned for nine of the reports.

Thirty-eight of the reports returned indicated that the user would require assistance from NAVPERSRANDCEN during the operational implementation phase. In these cases, the principal investigators were alerted for appropriate action.

Analysis of evaluation reports showed the following:

1. Eighty-two percent of the respondents believed that the amount and kind of communications with NAVPERSRANDCEN during the course of the research were sufficient.

2. Fifty-one percent stated they were actually personally involved with some aspect of the research effort; and 78 percent, that the degree of involvement was sufficient (i.e., they responded 1, 2, or 3 on scale of 6 to item IV, P6, p. A-3).
3. Seventy-six percent stated that the end product would result in either cost savings or increased efficiency or effectiveness.

4. Thirty-nine percent indicated that the product's implementation potential had already been formally reviewed.

Users were asked to indicate how satisfied they were with various aspects of the research (Item V, p. A-4). Results, which are presented in Table 1, show that there is a differential satisfaction with these aspects on the part of users.

<p>| Table 1 |
|------------------|------------------|------------------|------------------|------------------|
| User Satisfaction With Various Aspects of NAVPERSRANDCEN Research |</p>
<table>
<thead>
<tr>
<th>Aspect</th>
<th>Very or Somewhat Satisfied (%)</th>
<th>Neither Satisfied Nor Dissatisfied (%)</th>
<th>Somewhat or Very Dissatisfied (%)</th>
<th>N Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance of findings to the problem</td>
<td>77</td>
<td>14</td>
<td>9</td>
<td>112</td>
</tr>
<tr>
<td>Completeness of study</td>
<td>77</td>
<td>14</td>
<td>9</td>
<td>112</td>
</tr>
<tr>
<td>Clarity of recommendations</td>
<td>80</td>
<td>14</td>
<td>6</td>
<td>112</td>
</tr>
<tr>
<td>Projected benefits of implementation</td>
<td>71</td>
<td>21</td>
<td>8</td>
<td>102</td>
</tr>
<tr>
<td>Timeliness of response</td>
<td>71</td>
<td>21</td>
<td>8</td>
<td>111</td>
</tr>
<tr>
<td>Feasibility of implementation</td>
<td>58</td>
<td>31</td>
<td>11</td>
<td>103</td>
</tr>
<tr>
<td>Cost of implementation</td>
<td>55</td>
<td>42</td>
<td>3</td>
<td>93</td>
</tr>
</tbody>
</table>

A global estimate of user satisfaction obtained showed that 95 percent of all users responding were satisfied to some extent with the research product. Table 2 provides a breakout by user.

<p>| Table 2 |
|------------------|------------------|------------------|
| Overall Satisfaction With NAVPERSRANDCEN Research by User |</p>
<table>
<thead>
<tr>
<th>User</th>
<th>Percent Satisfied</th>
<th>Percent Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNET</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>CNO</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>CNM</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>CNTT</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>NMPC</td>
<td>89</td>
<td>11</td>
</tr>
<tr>
<td>NRC</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>HQMC</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>CINCPAC</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>All others</td>
<td>88</td>
<td>12</td>
</tr>
</tbody>
</table>
The questionnaire also included a number of open-ended questions to obtain user comments on various aspects of Center research. The information provided by such comments is extremely valuable as a diagnostic aid, substantially increasing the quality of feedback to Center researchers. The following comments are representative of those extracted from user evaluations:

1. This report confirms what we have known for some time: The Correctional Custody program is effective and extremely beneficial to the Navy.

2. I am responsible for actions taken and agree with the findings and the recommendations and we are following them.

3. ... use of the preliminary objectives has already proven to be beneficial to team performance of ship crews.

4. We communicated, but there was not always listening.

5. No worthwhile recommendations were made.


7. Study provides excellent background on role of instructors in self-paced courses.

8. Results appear to be useful and applicable.

9. Good comprehensive piece of work.

10. The results of this study have caused policy makers for the surface community to clearly focus on our major problem areas which were not previously known to us.

11. Product is implemented and in production status.

Most of the comments were positive and reinforcing. However, comments 4, 5, and 6 indicate that some users feel that reports do not respond to their needs.

Table 3, which provides comparison data for the FY81 and FY82 tracking systems, shows the following:

1. Although more evaluation requests were sent and received in FY82 than in FY81 (160 and 119 vs. 133 and 99), the response rate (74 percent) was the same for both years.

2. In FY82, 82 percent of the users felt that the amount and kind of communication were sufficient, compared to 79 percent in FY81.

3. Only 51 and 64 percent of FY82 and FY81 users respectively claimed actual involvement in the research. However, for both years, 78 percent felt the degree of involvement was sufficient.

4. In FY82, 76 percent of users predicted that the product would result in either cost savings or increased efficiency or effectiveness, compared to 59 percent in FY81.
Table 3
FY81/FY82 Tracking System Comparison Data

<table>
<thead>
<tr>
<th>Item</th>
<th>FY81</th>
<th>FY82</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of reports evaluation requests were sent for</td>
<td>61</td>
<td>79</td>
</tr>
<tr>
<td>Number of evaluation requests sent</td>
<td>133</td>
<td>160</td>
</tr>
<tr>
<td>Number of evaluation requests returned</td>
<td>99</td>
<td>119</td>
</tr>
<tr>
<td>Response rate</td>
<td>74%</td>
<td>74%</td>
</tr>
<tr>
<td>User felt the amount and kind of communication with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAVPERSRANDCEN were sufficient</td>
<td>79%</td>
<td>82%</td>
</tr>
<tr>
<td>User claimed actual involvement with some aspect of research</td>
<td>64%</td>
<td>51%</td>
</tr>
<tr>
<td>User felt degree of involvement was sufficient</td>
<td>78%</td>
<td>78%</td>
</tr>
<tr>
<td>User predicted that the product would result in either cost savings or increased efficiency or effectiveness</td>
<td>59%</td>
<td>76%</td>
</tr>
</tbody>
</table>

The most significant improvement in FY82 was in the global estimate of user satisfaction. The percentage indicating "moderate," "great," or "very great" extent of satisfaction increased from 76 percent in FY81 to 87 percent in FY82.

CONCLUSIONS

The FY82 data indicated that communications with the user community were highly satisfactory and that overall satisfaction with the Center's end products increased over that reflected in FY81. A significant number of users predicted that a product would result in either cost savings or increased efficiency or effectiveness.
APPENDIX

RESEARCH UTILIZATION EVALUATION REPORT

A-0
NAVY PERSONNEL RESEARCH AND DEVELOPMENT CENTER (NPRDC)
RESEARCH UTILIZATION EVALUATION REPORT

Return this form to NPRDC (Code 303), San Diego, CA 92152

(D8)
(R1)
(RS) P or S
(US)

I. SO THAT WE CAN PROVIDE MORE USEFUL FEEDBACK TO OUR RESEARCHERS AND R&D MANAGERS, WE ENCOURAGE YOU TO EVALUATE THE RESEARCH EFFORT REPRESENTED BY:

(PI) __________________________________________________________

______________________________________________________________ , (PN) __________________________________________________________

The principal investigator for this project is (PI) __________________________________________________________

______________________________________________________________ , (CO) __________________________________________________________ , (IV) __________________________________________________________

II. COMPLETED BY USER/SPONSOR:

(UN) Name: ___________ ___________ ___________ ___________ ___________ ___________

(RK) Rank or Grade: __________________________________________________________

(TI) Position: __________________________________________________________

(UV) Autovon Number: __________________________

(UC) Commercial Phone Number: __________________________

(OS) Office Symbol: __________________________

(UA) Address: __________________________

(PO) User/Sponsor’s Parent Organization:

(TU) Type of organization: ________ 1 Navy ________ 2 Army ________ 3 Air Force ________ 4 Marine Corps ________ 5 University ________ 6 Other

NOTE: The NPRDC Utilization and Appraisal Office is responsible for this evaluation form. If you have any questions, contact NPRDC (Code 303), San Diego, CA 92152. A/V: 933-7450 or Commercial: (714) 225-7450.
** IMPORTANT **

IF YOU WILL BE THE USER OF THIS RESEARCH-PRODUCT – OR IF YOU HAVE A SIGNIFICANT RESPONSIBILITY FOR IMPLEMENTING THE PRODUCT – WILL YOUR ORGANIZATION REQUIRE FOLLOW-UP ASSISTANCE FROM NPRDC IN THE OPERATIONAL IMPLEMENTATION PHASE; EVEN THOUGH THE RESEARCH MAY HAVE BEEN COMPLETED?

YES? ________ NO? ________ UNKNOWN AT THIS TIME. ________

III. DURING THE COURSE OF THIS RESEARCH PROJECT, ABOUT HOW OFTEN WERE EACH OF THE FOLLOWING KINDS OF RESEARCHER-USER COMMUNICATIONS USED:

(Fill in the blank with one of the following letters to indicate frequency)

a. Weekly or more often
d. Twice a year
b. Monthly
e. Once a year or less
c. Every two months
f. Never

tcl: ________ Telephone calls?
wcl: ________ Written communications (memos, progress reports, etc.)?
pv: ________ Personal Visits?
c: ________ Conferences, workshops?

Indicate your estimate of the research-user communication for this project by circling the appropriate scale value below

1 2 3 4 5 6

55: The overall amount was sufficient

9: There should have been more

9: Further comment?
IV. TO WHAT EXTENT WAS YOUR ORGANIZATION INVOLVED IN THE FOLLOWING STAGES OF THIS RESEARCH PROJECT:

1. To a very great extent 4. To a little extent
2. To a great extent 5. To a very little extent
3. To a moderate extent 6. None
7. Don’t know

(Ps) Planning: Identification of research needs, defining the objective(s), scope, data requirements, etc.

(DS) Design: Deciding upon methodology, selection of techniques of data collection and/or analysis, design of data collection instruments, etc.

(AS) Analysis: Description, explanation, interpretation of data.

(FS) Formulation of Recommendations: Recommendation of adoption of new or revised programs, policies, procedures, regulation, manuals, equipment, courses of instruction, legislation, etc.

Indicate your estimate of the user organizational involvement by circling the appropriate scale value below:

(PG) For this research project:

1 2 3 4 5 6

The total amount was sufficient There should have been more

(S8) Were you personally involved in any of the above stages of this research project?

_____ Yes _____ No

(S9) Comments:
V. HOW SATISFIED ARE YOU WITH EACH OF THE FOLLOWING ASPECTS OF THIS RESEARCH?

(Fill in the blank with one of the number below:)

1. Very satisfied
2. Somewhat satisfied
3. Neither satisfied or dissatisfied
4. Somewhat dissatisfied
5. Very dissatisfied

(ST) _______ Timeliness of response?
(SC) _______ Completeness of study?
(SR) _______ Clarity of recommendations?
(SF) _______ Relevance of findings to the problem?
(SI) _______ Feasibility of implementation?
(SP) _______ Cost of implementation?
(SB) _______ Projected benefits of implementation?

(SD) PROVIDE ANY INFORMATION AVAILABLE ON THE SATISFACTION OR DISSATISFACTION OF THE USER WITH THE RESULTS OF THE RESEARCH. (Provide documentation if available: e.g., letters, memorandums, etc.)

VI. HAS THERE BEEN A FORMAL OR MANAGEMENT REVIEW OF THE IMPLEMENTATION POTENTIAL OF THIS REPORT, E.G., BY DECISION-MAKING INDIVIDUALS OR COMMITTEES REPRESENTING YOUR COMMAND OR HIGHER ECHELONS?

(FF) Yes _______ No _______

If yes, please describe the findings of this review. If no, why not? Please indicate below if a decision has been reached to definitely implement the product.
VII. THE RESEARCH WILL IMPACT AS FOLLOWS (IF APPLICABLE):

Place a "P" next to each item the research has a potential impact on.
Place an "A" next to each item that the research has already impacted on.

Operational Commanders

| (OD) | Changes in doctrine |
| (OP) | Changes in procedures |
| (OI) | Information on human capabilities and limitations |
| (OM) | Modification in requirements for manpower or equipment |

Personnel and Manpower

| (CP) | Changes in management policy or techniques |
| (CG) | Changes in planning capability |
| (CR) | Changes in manpower requirements |
| (CS) | Solutions to specific problems |
| (CD) | Information on which to base R&D requirements |

Training Managers

| (DI) | Development of, or change, in course of instruction or training programs |
| (DR) | Development of requirements for training curricula and equipment |
| (DM) | Development of, or change in, instructional delivery methods and media |
| (MP) | Changes in management policy or practices |
| (TD) | Training device prototypes |
| (TG) | Information on which to base long range objectives and further R&D requirements |
| (EM) | Evaluation of specific materials and procedures |

System Developers

| (SH) | Information on human capabilities and limitations |
| (SE) | Evaluation of specific designs |
| (HE) | Human Factors Engineering (HFE) design principles |
| (HE) | Efficient ways of applying HFE |
| (DP) | Changes in development management practices |

R&D Community

| (RH) | Information about human capabilities and limitations |
| (RM) | Information on the effectiveness of various manpower, personnel, or training programs |
| (RT) | Solutions to technical problems |
| (RR) | Identification of further R&D requirements |

Other (describe)
VIII. WILL THE POTENTIAL OR ACTUAL IMPACT OF THE RESEARCH RESULT IN EITHER COST SAVINGS, OR INCREASED EFFICIENCY OR EFFECTIVENESS?

_____ Yes  _____ No

If yes, explain how.

________________________

________________________

IX. DID THE RESEARCH SATISFY THE USER NEEDS? (Circle one of the responses.)

1. To a very great extent
2. To a great extent
3. To a moderate extent
4. To a little extent
5. To a very little extent
6. Not at all

Explain or expand your response to the question above if applicable.

X. WHERE DO YOU BELIEVE THE AUTHORITY TO IMPLEMENT THE BULK OF THE RECOMMENDATIONS (IF ANY) IS LOCATED?

A. _____ The operational unit level
B. _____ The intermediate management level
C. _____ The major organization management level (Fleet or Systems Command)
D. _____ Office of CNO/Chief of Staff
E. _____ Secretary of Defense management level or above
F. _____ No recommendations were made

XI. WHICH OF THE FOLLOWING BEST DESCRIBES THE ROLE OF YOUR ORGANIZATION CONCERNING THE IMPLEMENTATION OF THE RECOMMENDATIONS?

A. _____ We have no role in implementation
B. _____ We have only an advisory role
C. _____ We participate in a group, committee or council which decides
D. _____ We have the authority to make the implementation decision
E. _____ No recommendations were made

XII. IF YOUR RESPONSE TO THE ABOVE QUESTION WAS "NO ROLE", OR "ONLY AN ADVISORY ROLE", WHO DOES HAVE THE AUTHORITY TO MAKE IMPLEMENTATION DECISIONS?

________________________

________________________
XIII. IF DOLLAR RESOURCES ARE REQUIRED FOR IMPLEMENTATION AND OPERATIONAL USE, HAVE THEY BEEN IDENTIFIED AND ADDED TO THE POM SUBMISSION?

   Yes   No   Not required

XIV. COMMENTS?:

THANK YOU FOR PROVIDING THIS EVALUATION
DISTRIBUTION LIST

Chief of Naval Operations (OP-01), (OP-11), (OP-12) (2), (OP-13), (OP-14), (OP-15), (OP-110), (OP-115) (2), (OP-140F2), (OP-964D), (OP-987H)
Chief of Naval Material (NMAT 00), (NMAT 05), (NMAT 0722)
Chief of Naval Education and Training (02)
Commander Naval Air Development Center
Commander Naval Weapons Center
Commander David W. Taylor Naval Ship Research and Development Center
Commander Naval Surface Weapons Center
Commander Naval Ocean Systems Center
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