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Research Memorandum 75-5

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**ASSOCIATE EVALUATIONS:
IMPROVING FIELD ACCEPTANCE**

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Ronald G. Downey

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Research Memorandum 75-5

ASSOCIATE EVALUATIONS:
IMPROVING FIELD ACCEPTANCE

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ASSOCIATE EVALUATIONS: IMPROVING FIELD ACCEPTANCE

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ASSOCIATE EVALUATIONS: IMPROVING FIELD ACCEPTANCE

THE PROBLEM

Capitalizing upon demonstrated validity of associate evaluations in the U.S. Military Academy, Officer Candidate School, and Ranger Course, the U.S. Army initiated a research program to investigate the potential usefulness of associate nominations for evaluating leadership qualities in other Army training programs. A persistent problem in associate evaluation programs has been a lack of acceptance by school staff and students. The dimensions of the acceptance problem are not well defined; both the focal points and the degree of objections are unknown. Further, if the nature of acceptability problems can be clarified, what remedial steps (e.g., better education, increased rater participation, changes in procedures) would improve the level of acceptance of such evaluations?

OBJECTIVES

The objectives of this study were to: 1) develop a measure of attitudes on the value of associate ratings and their acceptance for use in Army officer personnel management, 2) develop and apply an educational program on ratings to determine the effect upon their acceptance and value, 3) study how attitudes on value are related to acceptance, 4) study how attitudes on value and acceptance are related to actual ratings received, and 5) study the effects of the educational program on changes in level of acceptance and value.

It was hypothesized that the use of a more extensive educational training program would improve the overall acceptance of peer ratings by staff and students. The level of acceptance itself was not expected to affect the peer rating outcomes (reliability, validity) unless long-term staff neglect resulted in degeneration of the program.

METHOD

Sample for Analysis

The subjects were officers in two successive classes of a 12-week training course (Infantry Officer Basic Course--Class A, N = 94; Class B, N = 143). The majority were ROTC 2nd Lieutenants on duty only for the training period, although officers from Regular Army, Officer Candidate School, and National Guard, and 1st Lieutenants and Captains were also enrolled. The officers attended classes about 8 hours a day, 5 days a week. Classes were divided into platoons, and the platoon was the group within which the associate evaluations were made. After scoring, data from the platoons were combined for analysis; sample sizes vary in different analyses because of missing data.

Procedures

Data Collection. Three measures were used to gather data and evaluations:

1. Associate Evaluation--Students in both classes were asked to make associate evaluations of the leadership potential of the others in their platoons at the end of the 11th week of training. They were asked to name the 6 officers "you would most like to have commanding a platoon flanking your platoon in combat" and the 6 officers "you would least like to have commanding a platoon flanking your platoon in combat." Nominations were scored by assigning a value of 1 to a low nomination, 4 to no nomination, and 7 to a high nomination; summing, for an individual, across raters (self ratings were not allowed); and dividing by the number of raters. An associate evaluation score was produced for each individual.

2. U.S. Army Associate Rating Questionnaire (ARQ)--The ARQ was administered to each class at the end of the 11th week evaluation session. The ARQ was developed to measure attitudes toward associate evaluation and included 27 items--18 items on attitudes toward the value and accuracy, appropriate setting, and appropriate use of associate evaluations. An additional 7 items on attitudes toward other training evaluations as measures of leadership were included as baseline reference questions. Finally, the officers were asked where they would rate themselves (top through bottom fifths of the group) and where they thought the evaluation group would place them (top through bottom fifths). Item content on the ARQ had been pretested in a different Army training course. (See Appendix A for items in the ARQ.)

3. The Officer Evaluation Battery (OEB)--The OEB, developed by the U.S. Army Research Institute, yielded seven scores which were used as a control for comparability of classes. Three scores were obtained from cognitive (C) or knowledge items and four scores from non-cognitive (N-C) or attitudinal items. The OEB scores were: combat leadership (C) or knowledge of military tactics and practical situations; combat leadership (N-C) comprising measures of interest in the outdoors sports and aggressive physical activities; technical-managerial leadership (C) or knowledge of scientific, historical, cultural, and political items; technical-managerial leadership (N-C) or interest in mathematics and physical science plus an urban rather than rural background; career potential (C) composed of knowledge of military technology and management. The non-cognitive career potential scales represented career officers' response patterns and interest in physical tasks rather than white collar jobs. Finally, a career intention scale was included, composed of overt responses on intent to remain in the Army.

Data were compiled by class on grade, source of commission, and component of the student officers. Comparisons were made to determine comparability of classes.

Experimental Treatment. The following procedures were instituted for each class:

Class A

Class B

Administrative staff (policy and records)

Given full briefing by Research Scientist on program, background, research findings, problem areas.

Same as for Class A; the importance of staff and student participation was stressed.

First-line supervisors and instructor (leadership department)

Short meeting covering program requirements.

Given the same information as administrative staff plus documentation of research. Meetings were held to answer questions and plan strategies.

Students (rater/ratee)

Informed (in written and verbal instructions) at the beginning of the course that associate evaluations would be given. A short question period was held during the Instructions for Administration.

Same as Class A, plus a meeting for the class during which a shortened form of the material presented to the administrative staff was presented to students by the first line supervisors. Questions were encouraged and a psychologist was available as a resource person.

Analyses. T-Tests for mean differences between OEB scales for the two classes and chi-square tests for differences in rank, source of commission, and component were computed as controls for differences between classes. Tests for differences in correlations between OEB scales and associate ratings for each class were also computed.

Chi-square tests were performed for class differences in responses to the ARQ (items 1-25). Pearson product moment correlations were computed between ARQ items and the associate evaluations and within the ARQ items.

RESULTS

Table 1 presents the t-tests for mean differences between the OEB scales for the two classes. None of the mean differences reached the .05 level of significance. In addition, Table 1 indicates that the differences between classes for the correlations (between OEB and associate ratings) were not significant.

Table 1

TESTS FOR CLASS DIFFERENCES ON THE OEB AND
OEB/ASSOCIATE EVALUATION CORRELATIONS

OEB Scale	Class A			Class B			t-Tests ^a	Fisher Z Transformation ^b
	\bar{X}	SD	r^c	\bar{Y}	SD	r^c		
Combat leadership (C)	94.5	21.8	.32	97.0	21.8	.20	.84	.95
Technical-managerial leadership (C)	93.9	22.6	.06	95.6	23.4	-.02	.55	.58
Career potential (C)	97.5	22.9	.18	97.7	20.4	.08	.07	.73
Combat leadership (N-C)	101.9	21.0	.25	102.4	22.8	.24	.17	.07
Technical-managerial leadership (N-C)	100.0	21.5	.08	97.4	20.7	.16	.90	.58
Career potential (N-C)	99.6	19.2	.24	102.7	20.1	.09	1.24	1.09
Career intent (N-C)	94.3	20.9	.25	99.9	22.3	.18	1.92	.58

^aTwo-tailed test for mean differences between OEB scores of the two classes.

^bTest for differences between correlations.

^cCorrelation between associate evaluations and OEB scale score.

Table 2 presents the distribution by class of component, source of commission, and grade of students, and the chi-square tests for differences between classes. The two classes were significantly different in the source of commissions, with proportionately more students commissioned by the National Guard in Class A and more from the Reserve Officer Training Corps (ROTC) in Class B.

Table 3 gives the means and standard deviations for ARQ items by class, and the chi-square tests for class differences on ARQ items. Class B responded with a significantly greater degree of acceptance on all but three items (Numbers 8, 9, and 10) (note that a lower mean value indicates greater agreement). Response data for the ARQ items are included in Appendix B. The correlations between self-ratings, perception of associate ratings received, and actual associate evaluations are given in Table 4. All three evaluations showed a moderate degree of correlation. There was a significantly higher degree of match between self and perceived evaluations for Class B.

In order to determine the degree of relationship between attitudes toward peer ratings and the actual peer evaluations, correlations were computed between each of the ARQ items and the peer score (Table 3). For Class A, only one correlation out of 25 was significant, while 14 out of 25 were significant for Class B. With the exception of one item (11) for Class B, the significant correlation indicated that individuals with more positive evaluations were more accepting of the ARQ and officers with less positive evaluations were less accepting.

An inspection of the intercorrelation matrix for ARQ items indicated a generally lower level of correlation between items for Class B. This was markedly true for items 8-15 with other ARQ items.

DISCUSSION

Results in Tables 1 and 2 show no significant differences between the two classes in background and personal characteristics at point of OBC entry except in source of commission (proportionately more ROTC commissions in Class B). Thus, differences found between these classes in acceptance of the associate ratings and other factors in the Officer Basic Course (OBC) evaluation program can be assumed to be due to differences in orientation and explanations given in each class.

Class B, which received more information and explanation on the associate rating system, indicated a more positive acceptance of associate ratings for evaluation (items 1-7, Table 3). The percentage of Class B students agreeing with items 1-7 was approximately twice as great as in Class A (see Tables B-1 and B-2 in Appendix), moving from a very definite negative response for Class A to a slight positive response for Class B. Class B students indicated that associate ratings were predictive of leadership, produced self-change and predicted school, combat, and staff performance, and that time and situations for rating were adequate.

Table 2

COMPARISONS OF COMPONENT, SOURCE
OF COMMISSION, AND GRADE, BY CLASS

	COMPONENT		
	<u>Regular</u> ^a	<u>ADT</u> ^b	
Class A	14	79	$\chi^2 = 2.35$
Class B	33	109	df = 1 p > .05

	SOURCE OF COMMISSION			
	<u>ROTC</u> ^c	<u>OCs</u> ^d	<u>Others</u> ^e	
Class A	66	5	22	$\chi^2 = 23.74$
Class B	120	17	5	df = 2 p < .001

	GRADE		
	<u>2LT</u>	<u>1LT/CPT</u>	
Class A	78	15	$\chi^2 = .06$
Class B	121	21	df = 1 p > .05

^aTo remain on active duty after training.^bActive duty for training only.^cReserve Officer Training Corps.^dOfficer Candidate School.^eDirect commission and National Guard.

Table 3

MEANS AND STANDARD DEVIATIONS BY CLASS AND CHI-SQUARE
TEST FOR DIFFERENCES FOR ARQ ITEMS 1-25

Item	CLASS A (N = 94)			CLASS B (N = 117)			χ^2 ^c
	Mean ^a	SD	r ^b	Mean ^a	SD	r ^b	
1. Ratings predict leadership	3.5	1.3	.19	2.8	1.1	.20*	17.34**
2. Length of time adequate	3.3	1.2	.15	2.7	1.2	.21*	21.05**
3. Situations adequate	3.4	1.3	.19	2.7	1.1	.37*	23.07**
4. Ratings produce self-change	3.3	1.4	.14	2.7	1.2	.07	13.16**
5. Ratings predict school performance	3.6	1.2	.17	2.8	1.1	.18*	24.55**
6. Ratings predict combat performance	3.5	1.3	-.01	3.0	1.1	.25*	13.16**
7. Ratings predict staff performance	3.5	1.2	.20	2.8	1.1	.12	21.75**
8. Physical training predicts leadership	3.0	1.3	.19	2.9	1.3	.14	1.95
9. Technical exam predicts leadership	3.0	1.2	.17	2.7	1.1	-.15	3.68
10. Spot report predicts leadership	3.5	1.1	.15	3.3	1.2	-.15	3.64
11. Academic grade (total) predicts leadership	3.1	1.1	.07	2.5	.9	-.15*	19.53**
12. Instructor's rating predicts leadership	3.0	1.2	-.01	2.6	1.0	-.14	9.84*
13. Practical field exercise predicts leadership	2.5	1.2	.08	2.0	.8	.07	16.68**
14. Associate rating predicts leadership	3.5	1.3	.21*	2.8	1.1	.20*	20.46**
15. Tactical rating predicts leadership	3.2	1.2	.05	2.6	.9	-.03	18.55**
16. Ratings should be used for school selection	3.7	1.2	.16	3.2	1.1	.18*	21.25**
17. Ratings should be used for assignments	3.8	1.2	.19	3.2	1.1	.07	20.07**
18. Ratings should be used for promotions	3.8	1.2	.19	3.1	1.2	.17*	16.71**
19. Ratings should be part of total DA record	3.7	1.3	-.01	3.0	1.2	.16	25.64**
20. Ratings valuable in combat training	3.2	1.4	.15	2.5	1.2	.25*	14.95**
21. Ratings valuable in basic courses	3.5	1.4	.14	2.7	1.2	.50*	16.13**
22. Ratings valuable in career courses	3.5	1.3	.13	2.8	1.2	.22*	17.02**
23. Ratings valuable in C&GSC	3.5	1.2	.07	2.8	1.1	.19*	19.77**
24. Ratings valuable in SSC	3.5	1.3	.03	2.8	1.1	.20*	18.69**
25. Rating records should be kept for ? time ^d	2.1	1.4	.08	2.8	1.3	.07	19.51**

^a Lower values indicate greater agreement; a value of 3.00 indicates an average neutral position by students.

^b Positive correlations between peer ratings and ARQ item indicates that individuals with higher peer scores tend to have greater agreement on the ARQ item.

^c Chi-squares were computed from data presented in Tables B-1 and B-2 in Appendix.

^d Lower values indicate less time or "do not want on the record".

* p < .05.

** p < .01.

Table 4

**CORRELATIONS^a BY CLASS BETWEEN SELF EVALUATION
AND PERCEIVED AND ACTUAL ASSOCIATE EVALUATION**

CLASS A	Self	Perceived
Perceived	.46 ^{b*}	---
Actual	.32*	.45*
CLASS B		
Perceived	.64 ^{b*}	---
Actual	.46*	.47*

^aCorrelations between ARQ items and actual were negative but indicated positive relationship.

^bSignificantly different from each other, $p < .05$.

*Significant correlation, $p < .05$.

Item 8-15 tapped the students' attitudes toward several training evaluation methods as useful predictors of leadership. Classes A and B did not differ significantly in their attitudes toward the techniques of physical training, technical exams, and spot reports (items 8-10). Conversely, Class B had a significantly higher rate of acceptance than Class A for instructor's ratings, practical field exercises, associate ratings, and tactical officer ratings as good measures of leadership. There was a generalized positive agreement to the measures for Class B.

Items 16-25 (see Tables B-1 and B-2 in Appendix for frequencies) dealt with the value and use of associate ratings for the Army. Again, Class B had a higher degree of acceptance for these items. About half of Class B agreed as to the value of ratings for combat training, basic courses, career courses, Command and General Staff Colleges and Senior Service Colleges. Concerning the use of associate ratings for school selection, assignment, promotion and as part of the total record (DA), there was significantly less disagreement for Class B. Finally, Class B wanted to keep the rating on the record longer and for more varied reasons.

The correlations between the associate ratings received from Class B and acceptance items indicated higher degrees of acceptance of the usefulness, appropriateness, value, and use and were in general associated with higher ratings. This was not true for Class A, indicating a more diffuse rejection of the associate rating technique.

Finally, the greater degree of acceptance of associate ratings by Class B was reflected in the increased match (correlation) between the self-evaluation of leadership potential and the perception of where the rating group would rate the student (see Table 4). This was another way of indicating a greater acceptance of associate ratings as valid indicators of leadership.

CONCLUSIONS

As Table 3 demonstrated, there was a rather substantial difference in attitudes toward value and acceptance of associate ratings between Classes A and B. Class B, which received more and better training, on the whole accepted associate ratings as able to predict future leadership in school, staff, and combat situations, although these ratings were still not as acceptable for leadership measurement as most other types of school evaluations (only physical training tests and spot reports had a lower level of acceptance). Students in Class B reported that they had adequate time and favorable situations for evaluating leadership potential and that the evaluations were valuable for self-use. Even given these rather positive feelings toward the value of associate nominations, the officers still had slightly negative attitudes (acceptance) toward their use as part of the official record.

The two classes differed somewhat in source of commission, but otherwise were quite similar.

The results indicated that the level of student acceptance of associate nomination can be increased by the introduction of training, instruction, and group discussion (low cost in terms of personnel and time). Also, anecdotal reports from school staff and instructors indicated more positive attitudes toward the associate nomination program by both staff and students. The influence of the school personnel on the program and student acceptance of it should not be underestimated. The viability of an operational program of associate nominations is a function of the degree of acceptance of that program. We have yet to determine the level of support needed, but it would seem that even with less than 50% acceptance, students can still provide reliable evaluations.

APPENDIX

Appendix	Page
A U.S. Army Associate Rating Questionnaire (ARQ)	13
B Table B-1--Class A Responses to ARQ Items 1-27 (N = 94)	17
Table B-2--Class B Responses to ARQ Items 1-27 (N = 117)	18

APPENDIX A U.S. ARMY ASSOCIATE RATING QUESTIONNAIRE (ARQ)

DIRECTIONS FOR MARKING ANSWERS TO THE QUESTIONS

Read each question carefully and pick the ONE choice which best indicates your opinion. Then **DARKEN** in the lettered space for this choice on the line corresponding to the question number on the ANSWER SHEET. Sample: You have selected alternative 2 for question A.

SAMPLE

A. 1 ☒ 3 4 5

QUESTIONS

NOTE: for questions **NUMBERED** 1-24 use the following scale for your answers

MARK THIS NUMBER

IF YOUR ANSWER IS

1-----COMpletely AGREE

2-----MOSTLY AGREE

3-----UNDECIDED

4-----MOSTLY DISAGREE

5-----COMpletely DISAGREE

MARK YOUR CHOICE FOR EACH QUESTION ON YOUR ANSWER SHEET

TURN TO THE NEXT PAGE AND BEGIN

1-----COMPLETELY AGREE	4-----MOSTLY DISAGREE
2-----MOSTLY AGREE	5-----COMPLETELY DISAGREE
3-----UNDECIDED	

Questions (1-4)

1. Associate ratings are valuable in predicting future leadership performance.
2. The length of time spent with members of your rating group was adequate to make sound judgments about their expected leadership performance in future operational situations.
3. The situations upon which your observations and judgments were based were adequate for making sound evaluations of the members of your rating group.
4. The information provided to you by an associate rating would be valuable in helping you change and improve your leadership behaviors.

Questions (5-7)

Associate ratings have value for predicting good performance in each of the following future situations.

5. Other Army Schools.
6. Combat situations.
7. Staff situations.

Questions (9-15)

For each of the following types of school evaluations, indicate to what extent you agree that they are good measures of potential leadership performance. NOTE: ANSWER EACH ONE even though it may not be part of your school's evaluation program.

8. Physical Training.
9. Technical Exams.
10. Spot Reports.
11. Total Academic Grade.
12. Instructors Ratings.
13. Practical Field Exercises.
14. Associate Ratings.
15. Tactical Officer Ratings.

GO ON TO THE NEXT PAGE.

1-----COMPLETELY AGREE	4-----MOSTLY DISAGREE
2-----MOSTLY AGREE	5-----COMPLETELY DISAGREE
3-----UNDECIDED	

Questions (16-19)

Associate ratings should become part of the record for specific selection programs, along with other evaluations (e.g. OER, Academic Records, etc.). Make an independent judgment for each of the following situations.

16. Selection for school and other training.
17. Duty assignment by U.S. Army Military Personnel Center.
18. Promotions.
19. Part of Total Record.

Questions (20-24)

It would be valuable to give associate ratings in schools. Give an independent judgment for each of the following schools.

20. Combat training courses (e.g. Ranger, Special Forces, etc.).
21. Branch Basic Courses.
22. Career Courses (Branch).
23. Command & General Staff College.
24. Senior Service College.

GO ON TO THE NEXT PAGE.

25. If the rating score is made a part of your record how long do you favor its use? (Check only one answer).

- 1 - Do NOT want on the record.
- 2 - Next assignment only.
- 3 - Until promoted to next grade.
- 4 - Indefinitely but given decreasing weight as later evaluations are collected.
- 5 - Until replaced by ratings in a subsequent school or training situation.

26. Comparing your Leadership Potential with the other members of your class where would you rate yourself?

- 1 - Upper 1/5
- 2 - Mid Upper 1/5
- 3 - Mid 1/5
- 4 - Mid Lower 1/5
- 5 - Lower 1/5

27. Where do you feel your final score actually falls?

- 1 - Upper 1/5
- 2 - Mid Upper 1/5
- 3 - Mid 1/5
- 4 - Mid Lower 1/5
- 5 - Lower 1/5

END

CLASS A RESPONSES TO ARQ ITEMS 1-27

(N = 94)

Item Number	Completely Agree	Mostly Agree	Undecided	Mostly Disagree	Completely Disagree	No Response
1	6	22	21	17	28	
2	8	18	21	28	19	
3	7	19	17	29	22	
4	9	22	21	14	28	
5	3	19	21	21	30	
6	7	16	21	22	28	
7	2	20	26	21	25	
8	7	36	15	17	19	
9	4	36	22	19	13	
10	1	18	25	28	22	
11	3	31	25	19	16	
12	6	32	27	11	18	
13	15	48	11	7	13	
14	5	21	25	9	34	
15	3	31	26	15	19	
16	2	18	25	8	41	
17	2	14	24	14	40	
18	3	16	23	11	41	
19	4	18	21	8	43	
20	10	27	15	13	29	
21	6	22	23	10	33	
22	3	22	25	12	32	
23	3	19	26	14	29	3
24	3	20	25	12	31	3
Response Number (see Appendix A)						
	1	2	3	4	5	
25 ^a	51	12	8	11	9	3
26 ^a	39	34	17	1	0	3
27 ^a	19	33	30	6	3	3

^aSee Appendix A for item stems. These items do not have the same response modes as questions 1-24.

Table B-2

CLASS B RESPONSES TO ARQ ITEMS 1-27

(N = 117)

Item Number	Completely Agree	Mostly Agree	Undecided	Mostly Disagree	Completely Disagree	No Response
1	12	42	36	16	11	
2	13	55	13	22	14	
3	10	57	16	25	9	
4	16	40	35	12	14	
5	11	47	31	16	12	
6	12	26	42	23	14	
7	11	43	36	18	9	
8	13	43	21	23	17	
9	7	61	23	17	9	
10	5	29	31	29	22	1
11	6	69	21	16	5	
12	10	53	31	16	7	
13	32	65	15	3	2	
14	8	47	36	13	13	
15	9	47	44	13	4	
16	7	24	41	25	20	
17	7	23	45	24	18	
18	10	31	34	20	22	
19	12	33	31	23	18	
20	21	50	22	9	15	
21	14	46	29	12	16	
22	12	41	38	10	16	
23	11	46	35	11	14	
24	9	46	36	12	14	

Response Number (see Appendix A)

	1	2	3	4	5	
25 ^a	42	5	15	38	14	3
26 ^a	44	33	32	2	4	2
27 ^a	24	33	37	14	6	3

^aSee Appendix A for item stems. These items do not have the same response modes as questions 1-24.