

A Comparison of Two Behaviorally Anchored Rating Scales

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Selection and Classification Technical Area
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Rating Scales	Discriminability																						
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Performance Measurement	Leniency																						
ROTC	BES																						
Halo																							
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Although previous comparisons have generally failed to yield findings of differences between alternative rating scale formats, there is evidence that a structured behavioral scale may be psychometrically superior to an unstructured one. The present investigation compared a skeleton behavioral expectation scale (BES) composed exclusively of behavioral examples with a complete BES. Ratings were obtained from 49 Army ROTC instructors on 309 cadets. The complete BES was significantly superior ($p < .05$) to the skeleton version in																							

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terms of discriminability and halo. It is postulated that raters may have difficulty matching observed behavior to behavioral examples and that BES structural elements may be essential in overcoming this difficulty.

A Comparison of Two Behaviorally Anchored Rating Scales

Michael G. Rumsey and John R. Mietus

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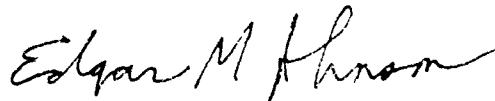
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FOREWORD

For many years, the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) has maintained a continuous research program in support of Army officer accession, training, evaluation, and career retention. ARI's Selection and Classification Technical Area undertook the project reported here at the request of the Deputy Chief of Staff for ROTC, Army Training and Doctrine Command (TRADOC), to develop a measure of on-campus performance in ROTC training. The materials discussed here have already been used in validating a test developed for ROTC selection.

The scientific knowledge gained from this effort will be useful to the Army as it develops new measures of officer and soldier effectiveness. This research has potential utility for personnel managers working in the Office of the Deputy Chief of Staff for Personnel and in the Military Personnel Center, for training evaluators in the Training and Doctrine Command, and for personnel and training specialists in the Air Force, Navy, and Marine Corps.



EDGAR M. JOHNSON
Technical Director

A COMPARISON OF TWO BEHAVIORALLY ANCHORED RATING SCALES

EXECUTIVE SUMMARY

Requirement:

To develop a measure of ROTC classroom performance.

Procedure:

Two rating scales containing identical dimensions but different levels of detailed information were developed, administered to ROTC cadets at 23 locations, and compared on the basis of the following rating characteristics: halo, leniency, precision, discriminability, and confidence in rating made.

Findings:

The rating scale with more detailed information was found to be superior, generating less halo and more discriminability than the less detailed scale. No significant differences were found with respect to any of the other rating characteristics.

Utilization of Findings:

The more detailed rating scale has been used, with some modifications, as a performance criterion of a potential ROTC selection measure. The information on performance measurement generated by this research has utility for the Deputy Chief of Staff of Personnel, the Military Personnel Center, and the Training and Doctrine Command of the Army, and for personnel and training specialists in each of the other services.



A COMPARISON OF TWO BEHAVIORALLY ANCHORED RATING SCALES

CONTENTS

	Page
INTRODUCTION	1
METHOD	1
Scale Development	1
Format Differences	2
Rating Procedure	2
Psychometric Comparisons	3
RESULTS	4
DISCUSSION	6
REFERENCES	9
APPENDICES	
A. Structured Bars	A-1
B. Unstructured Bars	B-1

LIST OF TABLES

Table 1. Interrater reliability data (precision)	5
2. Format means and standard deviations for leniency, discriminability, confidence level, and halo	6

LIST OF FIGURES

Figure 1. Examples of scale components	3
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A COMPARISON OF TWO BEHAVIORALLY ANCHORED RATING SCALES

INTRODUCTION

Twenty years ago, Smith and Kendall (1963) introduced a set of elaborate and sophisticated procedures for developing performance evaluation measures. These procedures appeared to surpass any approach previously offered. The measures developed, first labeled behavioral expectation scales (BESs) but later incorporated under the broader term behaviorally anchored rating scales (BARSs), were soon recommended by a number of investigators (e.g., Campbell, Dunnette, Lawler & Weick, 1970; Dunnette, 1966; Keaveny & McGann, 1975). Recently, Jacobs, Kafry, and Zedeck (1980) noted the potential advantages of the BARS in terms of such factors as feedback, training, job relevance, interpretability, and documentation of employee behaviors.

The most appealing promise of the BARS methodology was that it might reduce such apparently intractable rating errors as halo and leniency. A number of investigators have failed to produce evidence supporting that expectation. Jacobs, Kafry, and Zedeck (1980), reviewing the cumulated research findings, concluded that the BARS is psychometrically no better and no worse than alternative methods of performance evaluation. While further comparisons with other approaches appear unwarranted, one set of findings from research on BARS methodology does deserve closer attention. Bernardin, LaShells, Smith, and Alvares (1976) found that a BARS approach using clarification statements at three rating levels produced greater rater discriminability and less leniency than a BARS approach without such statements.

The Bernardin et al. (1976) results suggest that the structure of the rating format may indeed affect the rating given. The present research effort was directed at determining whether a comparable impact might be found not only if clarification statements were removed from the BARS, but if other structural elements such as dimension labels and definitions were removed as well, such that the remaining scale consisted essentially of behavioral statements. One previous study (Bernardin, 1977) compared a BES with a rating scale composed solely of behavioral statements and found no difference, but, because the BES and comparison evaluations were based on different incidents, that study cannot be considered definitive in the present context.

METHOD

Scale Development

Scale development procedures followed guidelines outlined by Smith and Kendall (1963). Two initial workshops were held, each attended by nine ROTC assistant professors who taught junior-year courses. The workshops were held at ROTC summer camp in Fort Riley, Kans., where these instructors were stationed. The participants, after a very brief introduction, were asked to list individually those major qualities that they believed to be important in evaluating a cadet's performance in the ROTC program prior to summer

camp. The participants then described two incidents of cadet behavior they had observed that illustrated each quality, one incident showing effective behavior and the other, ineffective behavior. These qualities and incidents were edited to remove redundancy and were shortened as much as possible.

The retranslation step of the Smith and Kendall procedure followed. Two more groups of about 20 officers each, at Fort Lewis, Wash., and Fort Bragg, N.C., were sampled. These officers were as knowledgeable about cadets as were the first groups; geographically distant samples were selected to obtain a range of judgments reflecting regional differences. These officers were asked to make two judgments regarding each incident. First, they sorted each incident into the dimension label it most closely represented. Second, they rated each incident on a 7-point scale based on the degree of effective or ineffective performance that it represented relative to the performance dimension in which it was grouped. Finally, the officers ranked the dimensions in terms of their importance.

Dimensions were retained based on the importance ranking and an adequate representation of behavioral examples. Behavioral examples were retained as anchors for the extremes and midpoint of a 7-point scale if raters saw the examples as clearly fitting a single dimension. The dimensions Drive and Initiative, Common Sense, Problem Solving, Social Competence, and Interest in ROTC were retained. The dimension labels, descriptions, and anchors were edited into two formats.

Format Differences

The two scale formats that were developed were a "structured" scale, shown in Appendix A, and an "unstructured" scale, shown in Appendix B. Instructions for using these scales are also provided in these appendixes. Examples showing the basic elements of each scale are presented in Figure 1. As this figure reveals, both formats have 7-point summated scales, anchored by examples of situation-specific performance at the 1, 4, and 7 levels. Performance in the same situation is described at each level. However, the structured scale provides rating clarification statements for the 1, 4, and 7 levels, such as Very High for the 7 level; the unstructured scale provides no such statements. The structured scale groups examples under dimensions that are labeled (e.g., Motivation, Perseverance, Willingness, Self-Starting, Self-Improving); the unstructured scale has no dimension labels or definitions. In the unstructured scale, the example becomes the item, with different descriptions of the example corresponding to different points on the scale. The rater responds by indicating the cadet's observed or predicted performance level in that situation. Four to seven items are provided per dimension. A dimension score is derived from the mean of these items. In the structured format, one overall judgment is made per dimension.

Rating Procedure

Military officer instructors ($N = 49$) were requested to rate their junior-year ROTC cadets ($N = 309$) at 23 ROTC colleges and universities on two separate occasions. At 15 schools the unstructured scale was administered first, followed by the structured version; at 8 schools the order was reversed. The two rating administrations were, on the average, 9 days apart. The plan was to have two instructors rate each cadet, but this was

Structured Scale

Drive and Initiative: Motivation, Perseverance, Willingness,
Self-Starting, Self-Improving

7	6	5	4	3	2	1
Very High		Moderate or Average			Very Low	
Having agreed to serve on most any committee, would attend all meetings, participate very actively, spend more time outside meetings than required.		Having agreed to serve on most any committee, would attend most meetings, participate adequately, spend time outside meetings only as required.			Having agreed to serve on most any committee, would attend few meetings or be late for them, not participate, spend no time outside of meetings, and complain about the intrusion on time.	

Unstructured Scale

7	6	5	4	3	2	1
6. I expect that this person, after agreeing to serve on most any committee, would						
attend all meetings, participate very actively, and spend more time outside meetings than required.		attend most meetings, participate adequately, and spend time outside meetings as required.			attend few meetings, be late for them, not participate, spend no time outside of meetings, and complain about the intrusion on his or her time.	

Figure 1. Examples of scale components.

not always feasible. Consequently, 202 cadets were rated by two instructors, and 107 were rated by one. The instructors were asked to rate between 12 and 20 cadets whom they knew well as a result of frequent interactions, and 26 of the 49 instructors did so, evaluating a total of 198 cadets. The remaining 23 instructors evaluated fewer than 12 cadets. The latter group of instructors evaluated a total of 111 cadets.

Psychometric Comparisons

A procedure developed by Borman and Vallon (1974) was adopted to compare formats in terms of the following rating characteristics: halo, leniency, precision, discriminability, and confidence in rating made. Halo was operationalized as a rater's mean interitem correlation for a given ratee. Coefficients were computed between dimension scores on each rating scale, then Fisher's (1948) r to z transformation was conducted on these coefficients. Leniency was each rater's mean rating level on each dimension across ratees.

Precision, as used here, was the correlation between two raters' evaluations of the same candidate on each of the dimensions and on an overall score consisting of the mean rating across dimensions. Precision scores were calculated separately for each format. This calculation of precision differed from that used by Borman and Vallon (1974). Precision correlation coefficients were converted to z scores for purposes of comparison. Discriminability was the standard deviation of a rater's score across ratees on each dimension of each format. As in the Borman and Vallon (1974) procedure, the standard deviation so computed became the unit of analysis. Confidence level was the rater's confidence estimate from 1 (not at all confident) to 7 (extremely confident) of how sure he or she felt about each dimension evaluation made for a given individual.

Except for the analysis on precision, which consisted simply of a comparison of correlation coefficients between ratings given by different raters, analyses of variance were conducted to evaluate the rating scales on each characteristic. For halo and confidence, 2 x 2 (format x order of administration) analyses of variance were conducted on the data points described. For the remaining dependent variables, leniency and discriminability, for which potential dimensional differences were of interest, 2 x 2 x 5 (format x order x dimension) analyses were conducted. Although some cadets were evaluated by one rater and some were evaluated by two, no attempt was made to add an additional factor to assess the impact of this difference, as to do so would have reduced cell size to an intolerably low level.

The failure of some raters to evaluate at least 12 ratees posed a potential problem for the analyses on halo, leniency, and discriminability, which involved cumulating separate rater judgments and which, therefore, might conceivably be affected by the number of ratees judged. For these analyses, only data from raters who had evaluated at least 12 cadets were used. For the analyses on confidence and precision, which did not involve pooled judgments, data from all raters were used.

RESULTS

In Table 1 are presented correlation coefficients used in evaluating precision (representing interrater reliability on each dimension), with corresponding z values, the z statistic used in comparing z values from each format, and correlation coefficients based on mean dimension scores for each format. Coefficients are presented for each condition of order--structured format presented first and unstructured format presented first--and for all cases combined. The results failed to show an advantage for either format. When each condition of order was examined separately, only one significant difference emerged, favoring the unstructured format on the Social Competence dimension. When the two conditions of order were combined, again only one significant difference was evident, this time favoring the unstructured format on the Interest in ROTC dimension. In none of the comparisons between mean scale scores was significant difference observed between formats.

The analyses of variance conducted on halo, confidence, leniency, and precision revealed no main effects for order of administration ($p > .05$). Only the analysis on leniency showed a significant interaction between order

Table 1
Interrater Reliability Data (Precision)

Dimension ^a	F_1^b		F_2^c		$\sigma z_1 - z_2$	$\frac{z_1 - z_2}{\sigma z_1 - z_2}$
	$\underline{r}$	$\underline{z}$	$\underline{r}$	$\underline{z}$		
Order 1: Unstructured format first ($\underline{n} = 156$)						
D	.46	.50	.45	.48	.11	.18
C	.38	.40	.51	.56	.11	1.45
P	.33	.34	.47	.51	.11	1.55
S	.31	.32	.26	.27	.11	.45
I	.61	.71	.49	.54	.11	1.55
M	.47	.51	.53	.59	.11	.73
Order 2: Structured format first ($\underline{n} = 34$)						
D	.70	.87	.44	.47	.25	1.6
C	.75	.97	.60	.69	.25	1.12
P	.70	.87	.58	.66	.25	.84
S	.68	.83	.28	.29	.25	2.16*
I	.67	.81	.43	.46	.25	1.40
M	.78	1.05	.60	.69	.25	1.44
All cases combined ($\underline{N} = 190$)						
D	.50	.55	.44	.47	.10	.80
C	.42	.45	.52	.58	.10	1.30
P	.40	.42	.50	.55	.10	1.30
S	.37	.39	.26	.27	.10	1.20
I	.62	.73	.48	.52	.10	2.10*
M	.52	.58	.55	.62	.10	.40

^a D = Drive and Initiative; C = Common Sense; P = Problem Solving; S = Social Competence; I = Interest in ROTC; M = Mean Dimension Score.

^b F_1 = unstructured format.

^c F_2 = structured format.

* $p < .05$.

and another variable. Order interacted with type of format ($F(1,230) = 19.92, p < .01$): The lower score for the unstructured format was obtained on the first administration (first administration $M = 24.37$; second administration $M = 25.96$), and the lower score for the structured format was on the second administration (first administration $M = 26.73$; second administration $M = 24.94$).

Analyses on leniency and confidence level revealed no effect for format ($ps > .05$). However, differences were found on the halo and discriminability analyses. Compared with the structured format, the unstructured format had significantly greater halo ($F(1,52) = 4.55, p < .05$), as measured by z score transformations of interdimension score correlations, and significantly less discriminability ($F(1,230) = 25.22, p < .01$), as measured by mean standard deviation across ratees. Means and standard deviations for each type of format for leniency, discriminability, confidence level, and halo are shown in Table 2.

Table 2
Format Means and Standard Deviations for Leniency,
Discriminability, Confidence Level, and Halo

Rating characteristic	Unstructured format		Structured format	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Leniency (rating level)	4.95	.53	5.08	.47
Discriminability (standard deviation)	.93	.26	1.18	.35
Confidence level	5.17	1.35	5.37	1.30
Halo (z score)	1.03	.35	.82	.30
Halo (dimension intercorrelation)	.77		.68	

The two analyses that involved the use of dimension as an independent variable (leniency and discriminability) both failed to show either a main effect or an interaction effect for this variable ($ps > .05$).

DISCUSSION

Researchers are increasingly beginning to reach the conclusion, expressed by Bernardin (1977, pp. 425-426), that "significant differences in psychometric error should not be expected between scales that have been rigorously developed...." This does not mean that all research investigations into the effects of format variations on psychometric characteristics of rating judgments are meaningless, however. If there are format variations that interfere so much with the rater's ability to render a meaningful judgment that their failings are manifested as psychometric errors, then it is particularly important to identify these variations. The present findings and those of Bernardin et al. (1976) indicate that such variations may in fact

exist. If presumably trivial factors, such as sentence structure of rating scale items, are overlooked, the major difference between the two scales examined in the present investigation was whether certain structural elements were present: rating clarification statements, grouping of items by dimension, and overall evaluation by dimension. The extent to which the omission of any one of these elements contributed to the results obtained is not clear, but the overall impact of the omissions was evidently to reduce rating accuracy.

The two psychometric errors associated here with the unstructured BES were halo (high dimension intercorrelation) and poor discriminability (low standard deviation of rater's judgments). Both halo and poor discriminability can be conceptualized, in this context, as evidence of limited capability on the part of the rater to fulfill all requirements of the rating task. Halo suggests an inability to make judgments concerning an individual beyond the rendering of a global evaluation. Poor discriminability suggests an inability to differentiate one individual from another. In light of the presumed advantage of the behavioral approach in lending objectivity and a common frame of reference to the rating process, it is curious to find such difficulties associated with a scale consisting entirely of behavioral examples. However, Borman (1979) and Bernardin and Smith (1981) have referred to raters' difficulty in matching observed behaviors to those presented on a BARS. If a match cannot be made and the rater has no further definition of the content of the rating criterion, then the behavioral anchor becomes of limited value for either intraindividual or interindividual discriminations. Although the behaviors developed for the scales used here were designed to be optimally relevant for evaluating military cadet behavior, by their very nature as examples these behaviors may not have provided a perfect fit in all situations.

Three cautions are advised in the interpretation of the results obtained here. First, the conceptualization of indexes of halo and low discriminability as error is a controversial one, as it implies an ideal level of such indexes, which, certainly in the present instance, cannot be precisely defined. However, interpreting as undesirable the relatively high level of halo and low level of discriminability observed here for the unstructured scale does not seem unreasonable. The second caution relates to the generalizations that can be made by examining the present results in conjunction with the findings of Bernardin et al. (1976). Although the two research efforts were consistent in identifying an advantage for a structured scale relative to a less structured one, they were not completely consistent in terms of which psychometric comparisons were associated with that advantage. In the present investigation, the differences were found with respect to discriminability and halo; the Bernardin et al. (1976) study found differences with respect to discriminability and leniency. The third caution relates to the practical significance of the results obtained. A visual inspection of the differences in the measures of halo (.77 to .68) and discriminability (.93 to 1.18) reveals that, while the differences are not trivial, neither do they assume dramatic proportions. The unstructured scale has perhaps somewhat less utility than the structured scale; these results do not suggest that the utility of the unstructured scale is anywhere near zero.

Despite these cautions, the results of this investigation do not support those investigators who find no value in research on psychometric differences between formats. Before such research is totally rejected, due consideration must be given to findings such as those presented here, which indicate that, at least in some circumstances, format can indeed make a difference.

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APPENDIX A
STRUCTURED BARS

**ROTC CAMPUS BEHAVIOR SCALES (CBS)
EXPERIMENTAL RATING FORMAT 2**

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(5 U S C 552a)

TITLE OF FORM

ROTC Campus Behavior Scales (CBS), Format 2 - PT5118a/b

PRESCRIBING DIRECTIVE

AR 70-1

1 AUTHORITY

10 USC Sec 4503

2 PRINCIPAL PURPOSE(S)

The data collected with the attached form are to be used for research purposes only.

3 ROUTINE USES

This is an experimental personnel data collection form developed by the U. S. Army Research Institute for the Behavioral and Social Sciences pursuant to its research mission as prescribed in AR 70-1. When identifiers (name or Social Security Number) are requested they are to be used for administrative and statistical control purposes only. Full confidentiality of the responses will be maintained in the processing of these data.

4. MANDATORY OR VOLUNTARY DISCLOSURE AND EFFECT ON INDIVIDUAL NOT PROVIDING INFORMATION

Your participation in this research is strictly voluntary. Individuals are encouraged to provide complete and accurate information in the interests of the research, but there will be no effect on individuals for not providing all or any part of the information. This notice may be detached from the rest of the form and retained by the individual if so desired.

FORM

Privacy Act Statement - 26 Sep 75

DA Form 4368-R, 1 May 75

GUIDELINES FOR USING THE CAMPUS BEHAVIOR SCALES (CBS)

GENERAL

This instrument will help you make accurate assessments of an MS III cadet's oncampus behavior in the following areas: Drive and Initiative, Common Sense, Problem Solving, Social Competence, Interest in ROTC. You can use these assessments to help you in developmental planning with cadets. When some form of this instrument is placed into operation, the Department of the Army will use these assessments along with other information in making decisions about the cadet's future status and initial assignment in the Army.

A large group of Army officers assigned to ROTC, and Army Research Institute psychologists developed these dimensions of cadet effectiveness based upon what they judged were the most important aspects of personal competence in cadets. The behavioral statements are drawn from real life examples of cadet behavior observed by these officers. Thus the content of this instrument deals with actual behavior-in-a-situation of cadets or results of that behavior, rather than vague personality traits or personal characteristics.

DESCRIPTION OF CBS MATERIALS

1. Behavioral Dimensions. There are five dimensions of cadet oncampus behavior.

a. General Description of Dimensions. Immediately after each of the five category titles is a short description of the category.

b. Examples of Very High, Average or Adequate, and Very Low Cadet Performance or Behavior. Performance/behavior examples are based on actual examples observed by ROTC-assigned officers. These 'anchor' the 7, 4, and 1 points on the seven point rating scales.

2. Response Coding Sheet. A separate coding sheet (PT 5118 b) is included for recording the dimension ratings.

MAKING THE RATINGS

1. Print the last names and social security numbers of the MS III cadets to be rated on the Response Coding Sheet.

2. Read and study everything on a single behavioral dimension page, e.g. Drive and Initiative. Then rate all the cadets on that one dimension. Refer frequently to the examples associated with particular scale points. These are anchors or standards for the 7, 4, and 1 scale points. RECALL how the cadet typically behaves in similar situations, or what the typical outcomes are of a cadet's being in similar situations. If you cannot recall a cadet's being in similar situations, you are to PREDICT what would happen. Then based on this recall or prediction, CHOOSE an appropriate rating number. Record it on the Response Coding Sheet. When you have rated all cadets on one dimension, go on to the next dimension. Complete all five dimensions and the "confidence in rating" question.

3. Each time you make a judgment about a cadet, place a small checkmark next to the example that you felt was most influential in your decision. These checkmarks will aid us in analyzing the usefulness of the examples. There is a sample sheet illustrating this on the following page.

4. If this is the second time you are rating cadets with the CBS, complete the Cadet Developmental Package (PT 5119 a/b), based on these ratings, for each cadet you will advise in a feedback interview. If this is the first time you are rating with the CBS, go on to completing the evaluation questionnaire, and then secure all your ratings so they do not influence your next set of ratings.

DRIVE AND INITIATIVE: MOTIVATION, PERSEVERANCE, WILLINGNESS, SELF-STARTING, SELF IMPROVING

7 VERY HIGH	6	5	4 MODERATE OR AVERAGE	3	2	1 VERY LOW
Having agreed to serve on most any committee, would attend all meetings, participate very actively, spend more time outside meetings than required.			Having agreed to serve on most any committee, would attend most meetings, participate adequately, spend time outside meetings only as required. ✓			Having agreed to serve on most any committee, would attend few meetings or be late for them, not participate, spend no time outside of meetings, and complain about the intrusion on time.
If realized doing poorly in important course, relationship, job, would devote extraordinary effort to improving.			If realized doing poorly in important job, course, relationship, would devote sufficient effort to improving, or at least have intention of improving. ✓			If realized doing poorly in important job, course, relationship, would give up, accepting failure. ✓
If instructing leadership lab, would set up full lesson plan, discuss with others, rehearse.			If instructing leadership lab, would set up a minimal but adequate lesson plan, not rehearse, and require a little cadre help in the execution phase. ✓			If instructing leadership lab, would not prepare at all and try to get others to do most of the work in the execution phase.
Devotes much time to extra-curriculars at school, job, other. ✓✓✓✓			Devotes an average or moderate amount of time to extracurriculars at school, job, other. ✓✓			Devotes no time to extracurriculars at school, job, other.
Adheres to rigorous physical training to prepare for Camp. ✓✓			Generally follows a moderate physical training schedule to prepare for Camp. ✓			Does not do anything to achieve or keep top physical condition to prepare for Camp. ✓✓✓
If very tired, but have important tasks to complete, would do all competently on own initiative.			If very tired but had important tasks to complete would do most in an adequate way after prompting from others.			If very tired but had important tasks to complete, would try hard to find ways not to do them even though prompted by others.
If assigned term paper would submit ahead of schedule a neat, well-detailed product.			If assigned a term paper, would submit on time a fairly neat, adequately-thought-out product. ✓✓			If assigned a term paper would submit late, a hastily done, sloppy product, or nothing. ✓

SAMPLE

ILLUSTRATION OF STEP (3) OF RATING INSTRUCTIONS

DRIVE AND INITIATIVE: MOTIVATION, PERSEVERANCE, WILLINGNESS, SELF-STARTING, SELF IMPROVING

VERY HIGH	MODERATE OR AVERAGE	VERY LOW
Having agreed to serve on most any committee, would attend all meetings, participate very actively, spend more time outside meetings than required.	Having agreed to serve on most any committee, would attend most meetings, participate adequately, spend time outside meetings only as required.	Having agreed to serve on most any committee, would attend few meetings or be late for them, not participate, spend no time outside of meetings, and complain about the intrusion on time.
If realized doing poorly in important course, relationship, job, would devote extraordinary effort to improving.	If realized doing poorly in important job, course, relationship, would devote sufficient effort to improving, or at least have intention of improving.	If realized doing poorly in important job, course, relationship, would give up, accepting failure.
If instructing leadership lab, would set up full lesson plan, discuss with others, rehearse.	If instructing leadership lab, would set up a minimal but adequate lesson plan, not rehearse, and require a little cadre help in the execution phase.	If instructing leadership lab, would not prepare at all and try to get others to do most of the work in the execution phase.
Devotes much time to extra-curriculars at school, job, other.	Devotes an average or moderate amount of time to extracurriculars at school, job, other.	Devotes no time to extracurriculars at school, job, other.
Adheres to rigorous physical training to prepare for Camp.	Generally follows a moderate physical training schedule to prepare for Camp.	Does not do anything to achieve or keep top physical condition to prepare for Camp.
If very tired, but have important tasks to complete, would do all competently on own initiative.	If very tired but had important tasks to complete would do most in an adequate way after prompting from others.	If very tired but had important tasks to complete, would try hard to find ways not to do them even though prompted by others.
If assigned term paper would submit ahead of schedule a neat, well-detailed product.	If assigned a term paper, would submit on time a fairly neat, adequately-thought-out product.	If assigned a term paper would submit late, a hastily done, sloppy product, or nothing.

COMMON SENSE: MATURE JUDGMENT, LEVEL-HEADEDNESS, THINKING ON ONE'S FEET

3
VERY HIGH: CADET VERY OFTEN ACCURATELY ASSESSES SITUATIONS AND REACTS APPROPRIATELY; IS VERY EFFECTIVE, IN CONTROL OF SELF AND THE SITUATION.

4
AVERAGE OR ADEQUATE: CADET HAS SOME FEEL FOR SITUATIONS AND GENERALLY REACTS ADEQUATELY.

5
CADET HAS LITTLE UNDERSTANDING OF SITUATIONS "SEEMS TO BE IN A FOG", REACTIONS ARE OFTEN INAPPROPRIATE AND HE/SHE OFTEN IS IN POOR CONTROL OF SITUATIONS

If all own methods/ideas had been exhausted, would ask other more skilled persons and consult resource material until able to do difficult task successfully.

If all own methods/ideas had been exhausted would, with no outside help, do difficult task as best as could, hoping it would be minimally adequately done.

If all own methods/ideas had been exhausted, would, with no attempt to actually complete difficult task, make task look like it was properly done and hope no one would discover he/she was at fault.

If knew in advance would not fulfill requirement on time, e.g. take exam, finish course project, would notify authority in advance even though prior notice was not expected or necessary.

If knew in advance would not fulfill requirement on time, e.g. take exam, finish course project, would notify authority at last allowable time that requirement was not yet fulfilled.

If knew in advance would not fulfill requirement on time, e.g. exam, course project, would not notify authority at all; later, when requirement was fulfilled, expect authority to treat it as if it were done on time.

Optimally balances conflicting demands, e.g. coursework, job, extra-curriculars, and does not overload self in any one area.

In balancing conflicting demands, e.g. coursework, job, extra-curriculars, cadet spends more time in personally rewarding activities at some expense to other parts of life.

Overloads self or gets excessively involved in one activity, e.g. coursework, job extracurriculars, at great expense to other important activities.

If at large party where others knew him/her to be in ROTC, would spend time discussing intelligently and confidently the role of the military in the U.S. with a small group of anti-military persons who confronted him/her.

If at large party where others knew him/her to be in ROTC, and if telling raucous jokes with friends, would change topic when it appeared this was making others uncomfortable.

If at large party where others knew him/her to be in ROTC, would temporarily become center of attraction by complaining about what he/she saw as inadequacy and mismanagement in ROTC program.

When trying to complete a task or lead a group, e.g. teach squad drill, would recognize quickly when ineffective and take appropriate corrective action.

When trying to complete a task or lead a group, e.g. teach squad drill, would recognize after a while that he/she was ineffective and try small modifications in method.

When trying to complete a task or lead a group, e.g. teach squad drill, would not recognize when he/she was ineffective and continue on in the same manner.

PROBLEM SOLVING: ABILITY TO PLAN, ORGANIZE, AND EXECUTE WORK EFFORTS

IS VERY EFFICIENT AND EFFECTIVE IN PROBLEM-SOLVING.

GENERALLY FOLLOWS THE STEPS OF GOOD PROBLEM-SOLVING: ASSESS THE SITUATION, CONSIDER ALTERNATIVES, CHOOSE, EXECUTE. AVERAGE EFFECTIVENESS AND EFFICIENCY.

HAPHAZARD AND INEFFECTIVE IN PROBLEM-SOLVING.

Makes term papers, essays and prepared oral reports which are excellent in language usage, comprehensiveness, organization.

Makes term papers, essays, and prepared oral reports which are average and adequate in language usage, comprehensiveness, organization.

Makes term papers, essays, and prepared oral reports which are totally unacceptable in language usage, comprehensiveness, organization.

If responsible for set-up of fairly complex equipment system (obstacle course, Leader Reaction Course) with squad, would well ahead of set-up time, obtain and study directions, ensure all material is available, decide tasks. At set-up, would assign responsibilities, supervise work, check quality.

If responsible for set-up of fairly complex equipment system, (obstacle course, Leader Reaction Course) with squad, would set-up adequately and in time. Would work as squad member; group would read directions, decide what goes where as work progressed.

If responsible for set-up of fairly complex equipment system with squad, (e.g. obstacle course, Leader Reaction Course) would cause total functional breakdown of operation, end up trying unsuccessfully to do work alone.

Meets time requirements (assignments, arriving for class, etc.) always on time or ahead of time.

Meets time requirements (assignments, arriving for class, etc.) generally on time.

Meets time requirements (assignments, arriving for class, etc.) generally late, often by a large margin.

If organizing important complex event, e.g. FTX, Awards Ceremony, would confer, coordinate with Cadre, list major tasks, set milestones, enlist ideas of subordinates, supervise until completion. Event would reflect primarily his/her own thoughts; would be executed with few problems.

If organizing important complex event, e.g. FTX, Awards Ceremony, would write simple, workable operations order, use lots of Cadre help, hold some meetings with subordinates. Event would be similar in form to previous ones; its execution would involve some errors.

If organizing important complex event, e.g. FTX Awards Ceremony, would put decisions off, make no detailed planning, delegate poorly, not keep superiors informed. Others would eventually have to do hasty preparations because of person's failures.

SOCIAL COMPETENCE: LEVEL OF SKILL IN 1) WORKING EFFECTIVELY WITH OTHERS, 2) IN EXPRESSING HIS/HER THOUGHTS AND FEELINGS, AND 3) IN UNDERSTANDING OTHERS.

EXTREMELY WELL-SKILLED

GENERALLY ADEQUATELY SKILLED
OR AVERAGE

VERY POORLY SKILLED

Person's written communications, e.g. papers, reports, notes, exams, are extraordinarily excellent in terms of clarity, conciseness, grammatical correctness, neatness, organization.

If in a leadership position, would get tasks accomplished through others with notable concern for subordinates' feelings and self-esteem.

When interacting with others, e.g. small discussion group, listens attentively to others, presents ideas effectively and skillfully, builds self-respect of others.

If in a situation allowing him/her to help others, e.g. teach less experienced persons a skill, or help an instructor or peer set up equipment for a demonstration, this person would help out without being asked, without seeming regard for personal recognition, even though this involved some personal costs.

If in an organizational position requiring considerable social competence and acceptance, e.g. social chairperson of a campus organization, would function so effectively that he/she would receive an award from national headquarters.

Person's written communications, e.g. papers, reports, notes, exams, are basically adequate or average for his/her peer group, in clarity, conciseness, grammatical correctness, neatness, organization.

If in a leadership position, would get tasks accomplished through others without attending to subordinates' self-esteem but without lowering their esteem or arousing counter-productive feelings, e.g. anger, guilt, fear.

When interacting with others, e.g. small discussion group, is generally attentive, presents ideas adequately, neither builds nor lessens self-respect of others.

If in a situation allowing him/her to help others, e.g. teach less experienced persons a skill, or help an instructor or peer set up equipment for a demonstration, this person would help out if asked.

If in an organizational position requiring considerable social competence and acceptance, e.g. social chairperson of a campus organization, would function adequately, about as well as would most any other average cadet in a similar position.

Person's written communications, e.g. papers, reports, notes, exams, are extraordinarily poor in clarity, conciseness, grammatical correctness, neatness, and organization.

If in a leadership position, would get tasks accomplished through others in a manner which arouses non-productive feelings or lowers self-esteem.

When interacting with others, e.g. small discussion group, is inattentive, ineffective in presenting ideas, belittles others or their ideas.

If in a situation allowing him/her to help others, e.g. teach less experienced persons a skill, or help an instructor or peer set up equipment for a demonstration, this person would not help out even if asked and if he/she had nothing better to do.

If in an organizational position requiring considerable social competence and acceptance, e.g. social chairperson of a campus organization, would be removed from office, or be seriously considered for removal for incompetence.

INTEREST IN ROTC: THE PROPORTION OF TIME AND ENERGY WHICH A CADET SPENDS ON ROTC AND RELATED ACTIVITIES AND THE CADET'S WILLINGNESS TO DO SO.

7 VERY HIGH	6	5	4 MODERATE OR AVERAGE	3	2	1 VERY LOW
In ROTC class, speaks often, volunteers to participate in mini-projects or reports, pays careful attention.			In ROTC class, speaks occasionally, sometimes attends carefully and sometimes does not.			In ROTC class, sleeps, daydreams often, reads non-class related materials.
When wearing the uniform, always has shoes 'spit-shined', brass brilliantly polished, and uniform well-pressed and clean.			When wearing the uniform, most often has shoes well-shined, brass adequately polished, and uniform pressed if not freshly so.			When wearing uniform, often has scuffed shoes, dull brass, and wrinkled uniform, and/or wears the uniform as little as possible.
Devotes a very large amount of time to ROTC, perhaps at a cost to other non-ROTC related activities.			Spends an adequate amount of time in ROTC studies and extracurricular activities.			Fails repeatedly to attend required and suggested ROTC activities and classes.
Expect that when among other civilians, this cadet often comments favorably on ROTC, military; works hard to change others anti-military positions.			Expect that when among other civilians, cadet is reasonably careful to make favorable remarks about ROTC, military; argues against anti-military stances when necessary.			Expect that when among other civilians, cadet often comments unfavorably on ROTC, military; does nothing to change anti-military positions or even encourages them.
Completes ROTC assignments <u>and</u> assigned readings always on time or ahead of time.			Completes ROTC assignments <u>and</u> assigned readings quite often on time.			Completes ROTC assignments <u>and</u> assigned readings seldom if ever on time or at all.
Involvement in ROTC extra-curricular activities is very active and includes many activities which primarily increase professional competence.			Involvement in ROTC extra-curricular activities is adequate and includes generally activities that provide enjoyment but not much competence development.			Involvement in ROTC extracurricular activities is non-existent.

Place your answers to this question in the column marked CONFIDENCE RATING on the Response Coding Sheet.

How much confidence do you have in the ratings you made about this person?

7	6	5	4	3	2	1
Very Much	Moderate				Very Little	

APPENDIX B
UNSTRUCTURED BARS

**ROTC CAMPUS BEHAVIOR SCALES (CBS)
EXPERIMENTAL RATING FORMAT 1**

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TECHNICAL DIRECTOR, ARMY RESEARCH INSTITUTE
FOR THE BEHAVIORAL AND SOCIAL SCIENCES
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR PERSONNEL
DEPARTMENT OF THE ARMY

PT 5117a

B-1

DATA REQUIRED BY THE PRIVACY ACT OF 1974
(5 U.S.C. 552a)

TITLE OF FORM

ROTC Campus Behavior Scales (CRS), Format 1 - PT5117a/b

PRESCRIBING DIRECTIVE

AR 70-1

1. AUTHORITY

10 USC Sec 4503

2. PRINCIPAL PURPOSE(S)

The data collected with the attached form are to be used for research purposes only.

3. ROUTINE USES

This is an experimental personnel data collection form developed by the U. S. Army Research Institute for the Behavioral and Social Sciences pursuant to its research mission as prescribed in AR 70-1. When identifiers (name or Social Security Number) are requested they are to be used for administrative and statistical control purposes only. Full confidentiality of the responses will be maintained in the processing of these data.

4. MANDATORY OR VOLUNTARY DISCLOSURE AND EFFECT ON INDIVIDUAL NOT PROVIDING INFORMATION

Your participation in this research is strictly voluntary. Individuals are encouraged to provide complete and accurate information in the interests of the research, but there will be no effect on individuals for not providing all or any part of the information. This notice may be detached from the rest of the form and retained by the individual if so desired.

FORM

Privacy Act Statement - 26 Sep 75

DA Form 4368-R, 1 May 75

B-2

GUIDELINES FOR USING THE CAMPUS BEHAVIOR SCALES (CBS)

GENERAL

This instrument will help you make accurate assessments of an MS III cadet's oncampus behavior in the following areas: Drive and Initiative, Common Sense, Problem Solving, Social Competence, Interest in ROTC. You can use these assessments to help you in developmental planning with cadets. When some form of this instrument is placed into operation, the Department of the Army will use these assessments along with other information in making decisions about the cadet's future status and initial assignment in the Army.

A large group of Army officers assigned to ROTC, and Army Research Institute psychologists developed these dimensions of cadet effectiveness based upon what they judged were the most important aspects of personal competence in cadets. The behavior statements are drawn from real life examples of cadet behavior observed by these officers. Thus, the content of this instrument deals with actual behavior-in-a-situation of cadets or results of that behavior, rather than vague personality traits or personal characteristics.

DESCRIPTION OF CBS MATERIALS

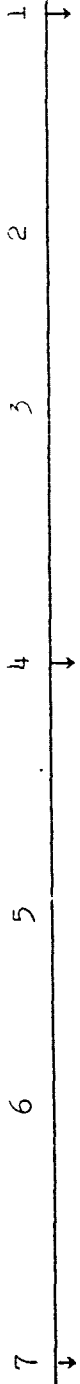
1. Rating Statements. Each of 27 rating statements is a situation and three examples of behaviors or outcomes possible in that situation. On the 7-point rating scales the examples establish reference points or anchors for your judgment of how an individual cadet would behave or what effect his or her behavior would have.
2. Response Coding Sheet. A separate coding sheet (PT 5117 b) is included for recording the individual item ratings.
3. Scoring Sheet (last page). This shows how to compute dimension scores after the second rating period so you can use the Cadet Developmental Package.

MAKING THE RATINGS

1. Write the last names and social security numbers of the cadets to be rated on the Response Coding Sheet.
2. Rate all cadets on one item at a time, then go on to the next item. Work through the items in the exact order in which they are arranged; however, you may change a cadet's rating on any item at any time.

In assessing each cadet on an item pay close attention to the behavior examples or possible outcomes listed. These are standards for 1, 4, and 7 points on the scale. RECALL how the cadet typically behaves in similar situations, or what the typical outcomes are of the cadet's behavior in similar situations. If you cannot recall a cadet's being in a similar situation, you are to PREDICT what would happen. Then based on this recall or prediction, CHOOSE an appropriate rating number and record it on the Response Coding Sheet. When you have rated all cadets on one item, go on to the next item. Complete all the items and the "confidence in rating" item.

3. Also, if you are rating cadets for the second time with the CBS, you are to compute cadet dimension scores. Do this according to the directions on the Scoring Sheet, which is at the back of this questionnaire booklet. Do this only for those cadets whom you will advise in the feedback interview outlined in the Cadet Developmental Package (PT 5119 a/b). If this is the first time you are rating cadets with the CBS, that is, you expect to rate them again in two weeks, do not compute dimension scores with the Scoring Sheet, and do not complete the Cadet Developmental Package based on these ratings.



1. I expect that if assigned a term paper or project, this person would submit,

ahead of schedule, a neat, well-detailed product.	on time, a fairly neat, adequately thought out product.	late, a hastily done, sloppy product or nothing at all.
---	---	---

2. I expect that this person, if given responsibility for setting up a fairly complex equipment system (obstacle course, small leadership reaction course) with his or her squad, would

well ahead of set-up time, obtain and study directions, ensure all material is available, decide tasks. At set-up, assign responsibilities, supervise the work, and check quality.	set up the equipment adequately and in time for use. He or she would work as a member of the squad; they would read directions and decide what goes where as the work progressed.	cause a total functional breakdown of the operation and end up trying unsuccessfully to do the work alone.
--	---	--

3. I sense that this person balances conflicting demands on his or her time, e.g. coursework, job, extra-curriculars, so as to

achieve an optimum balance and not overload him or herself in any one area.	spend more time in some activities which he or she finds more rewarding at some expense to other parts of life.	overload him or herself or get excessively involved in one activity at great expense to other important activities.
---	---	---

4. I expect that if this person were trying to complete a task or lead a group, e.g. teach squad drill, he or she would

recognize quickly when he or she was ineffective and take appropriate corrective action.	recognize after a while that he or she was ineffective and try small modifications in method.	not recognize when he or she was ineffective and continue on in the same manner.
--	---	--

- | | | | | | | |
|---|---|---|---|---|---|---|
| 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| ↓ | | | ↓ | | | ↓ |
5. I expect that, if this person realized that he or she was doing poorly in an important course, project, interpersonal relationship, job, etc., he or she would
- | | | |
|---|--|------------------------------------|
| <p>devote an extraordinary amount of effort to improving.</p> | <p>devote a sufficient amount of effort to improving, or at least have the intention of improving.</p> | <p>give up, accepting failure.</p> |
|---|--|------------------------------------|
6. I expect that this person, after agreeing to serve on most any committee, would
- | | | |
|--|---|--|
| <p>attend all meetings, participate very actively, and spend more time outside meetings than required.</p> | <p>attend most meetings, participate adequately, and spend time outside meetings as required.</p> | <p>attend few meetings, be late for them, not participate, spend no time outside of meetings, and complain about the intrusion on his or her time.</p> |
|--|---|--|
7. This person completes his or her ROTC assignments and assigned readings
- | | | |
|---|-----------------------------|--|
| <p>always on time or ahead of time.</p> | <p>quite often on time.</p> | <p>seldom if ever on time or at all.</p> |
|---|-----------------------------|--|
8. I expect that if this person were in an organizational position requiring considerable social competence and acceptance, e.g. social chairperson of a campus organization, he or she would
- | | | |
|--|--|---|
| <p>function so effectively that he or she would receive an award from national headquarters.</p> | <p>function adequately, about as well as would most any other appointee in a similar position.</p> | <p>be seriously considered for removal from office for incompetence or actually be removed.</p> |
|--|--|---|

7	6	5	4	3	2	1
↓						
9. I expect that if this person know in advance he or she would not fulfill a requirement, e.g. taking an exam, turning in a course project on time, this person would						
notify appropriate authority in advance, even though this prior notice was not expected or necessary.	notify appropriate authority at the last allowable time that the requirement was not yet fulfilled.	not notify authority at all, and then later when the requirement was finally fulfilled, expect the authorities to treat it as if it were done on time.				
10. I expect that this person, if in a leadership position, would get tasks accomplished through others						
with notable concern for subordinates' feeling and self-esteem.	without attending to subordinates' self-esteem but without lowering their esteem or arousing counter-productive feelings, e.g. anger, guilt, fear.	in a manner which arouses non-productive feelings or lowers self-esteem.				
11. This person						
devotes a very large amount of time to ROTC, perhaps at a cost to other non-ROTC activities.	spends an adequate amount of time in ROTC studies and extra-curricular activities.	fails repeatedly to attend required and suggested ROTC activities and classes.				
12. This person meets time requirements and due dates, e.g. assignments and projects, arriving for class meetings and other events						
always on time or ahead of time.	generally on time.	generally late, often by a large margin.				

13. This person's involvement in ROTC extra-curricular activities

is very active and includes many activities which primarily increase professional competence. is adequate and includes generally activities that provide enjoyment but not much competence development.

14. I expect that when in a situation allowing him or her to help others, e.g. teach less experienced persons a skill, or help an instructor or peer set up equipment for a demonstration, this person would

help out without being asked, without seeming regard for personal recognition, even though this involved some personal costs.

help out if asked.

not help out even if asked
and if he or she had nothing
better to do.

15. I expect that when among other civilians, this person

often comments favorably on ROTC, military; he or she works hard to change others' anti-military positions.

is reasonably careful to make generally favorable remarks about ROTC, military; argues against anti-military stance when necessary.

often comments unfavorably on ROTC, military; does nothing to change anti-military positions or encourages them.

16. In ROTC class, this person

speaks often, volunteers to participate in mini-projects or reports, pays careful attention.

speaks occasionally, sometimes
attends carefully and sometimes
does not.

sleeps, daydreams often,
reads non-class related
materials.

1

2

3

4

5

6

7

17. I expect that when informed that top quality physical conditioning is necessary to perform well at Advanced Summer Camp, this person will (or does)

adhere to a rigorous training schedule.

follow a moderate training schedule some of the time.

not do anything to achieve or keep top physical condition.

18. I expect that if assigned as cadet instructor in leadership laboratory, this person would

set up a full lesson plan, discuss it with others, and rehearse it.

set up a minimal but adequate lesson plan, not rehearse, and require a little cadre help in the execution phase.

not prepare at all, and try to get others to do most of the work in the execution phase.

19. I expect that this person, if very tired and if he or she still had important tasks to complete, would

do all of them competently on his or her own initiative.

do most in an adequate way after some prompting from others.

try hard to find ways not to do them, even though prompted by others.

20. This person's written communications, e.g. papers, reports, letters, notes, exam answers, are, in terms of clarity, conciseness, grammatical correctness, neatness, and organization,

extraordinarily excellent.

basically adequate or average for his or her peer group.

extraordinarily poor.

7 6 5 4 3 2 1

21. I expect that if working on a difficult task on which he or she felt all his or her own methods and ideas had been exhausted, this person would

ask other more skilled persons and consult resource material until he or she was able to do the task successfully.

with no outside help, do the task as best he or she could, hoping it would be minimally adequately done.

with no attempt to actually complete the task, make the work look like it was properly done and hope that no one would discover it was he or she who was at fault.

22. When interacting with others, as in a small group discussion or meeting, this person

listens attentively to others, presents ideas effectively and skillfully, builds self-respect of others.

is generally attentive, presents ideas adequately, neither builds nor lessens self-respect of others.

is inattentive, ineffective in presenting ideas, belittles others or their ideas.

B-110

23. I expect that this person, if writing a term paper, report, essay, or delivering a prepared oral report, would produce a product, which in terms of language usage, comprehensiveness, and organization, I would rate as

excellent.

adequate.

unacceptable.

24. I expect that this person, if organizing an important complex event, e.g. FTX, military awards ceremony, would

confer and coordinate with cadre, list the major tasks, set milestones, enlist ideas of subordinates, supervise until completion. The event would reflect primarily his or her own thoughts, and would be executed with few problems.

write a simple workable operations order, use lots of cadre help, hold some meetings with subordinates. The event would be similar in form to previous ones, and its execution would involve some errors.

put decisions off, make no detailed planning, delegate poorly, not keep superiors informed. Cadre and others would eventually have to do hasty preparations for the event because of the person's failures.

7	6	5	4	3	2	1
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25. This person, when wearing the uniform, always has shoes 'spit-shined', brass brilliantly polished, and uniform well-pressed and clean. most often has shoes well-shined, brass adequately polished, and uniform pressed if not freshly so. often has scuffed shoes, dull brass, and wrinkled uniform, and/or wears the uniform as little as possible.

26. I expect that this person, if at a large party at which others knew him or her to be in ROTC would spend time discussing confidently and intelligently the role of the military in the U.S. with a small group of anti-military persons who confronted him or her. and if engaged in telling raucous jokes with a few friends, would change the topic when it appeared the this was making others uncomfortable. would temporarily become the center of attraction by complaining about what he or she saw as inadequacy and mismanagement in the ROTC program.

27. I expect that in regard to extracurricular activities in general, whether school, job, or other, this person devotes much time. an average or moderate amount of time. no time.

28. How much confidence do you have in the ratings you made about this person?

7	6	5	4	3	2	1
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Very Much Moderate Very Little

SCORING SHEET

This procedure is for the second set of ratings only, and is to be applied to only those cadets you will be interviewing. There are five behavioral dimensions measured in the CBS.

Drive and Initiative: motivation, perseverance, willingness, self-starting, self-improving.

Common Sense: mature judgment, level-headedness, thinking on one's feet.

Problem Solving: demonstrated ability to plan, organize, and execute work efforts.

Social Competence: level of skill in 1) working effectively with others and 2) expressing his or her thoughts and feelings.

Interest in ROTC: the proportion of time and energy which a cadet spends on ROTC and related activities and the cadet's willingness to do so.

To compute an individual cadet's score on a dimension use the table below to determine which item statements fit into a dimension. Note that each item column on the Response Coding Sheet (PT 5117 b) has above it the first letter of its dimension label. For an individual cadet, sum the response scores for all items in a dimension, then divide by the number of items in that dimension to get the dimension score.

<u>DIMENSION</u>	<u>ITEMS</u>	<u>NUMBER OF ITEMS</u>
Drive & Initiative (D)	1, 5, 6, 17, 18, 19, 27	7
Common Sense (C)	3, 4, 9, 21, 26	5
Problem Solving (P)	2, 12, 23, 24	4
Social Competence (S)	8, 10, 14, 20, 22	5
Interest in ROTC (I)	7, 11, 13, 15, 16, 25	6

The resulting dimension scores will be recorded on the cadet's Interview Worksheet (PT 5119 b) in accordance with directions contained for the Cadet Developmental Package (PT 5119 a).