Bruce S. Sterling and John R. Mietus

ARI FIELD UNIT, USAREUR



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STRACT (Continue on reverse side if necessary and identity by block number)

The factor structure of the General Organization Questionnaire (GOQ) was studied. The GOQ is the primary paper-and-pencil diagnostic organization climate survey instrument in the U.S. Army's Organizational Effectiveness program. Two large samples of personnel within U.S. Army, Europe (USAREUR) were surveyed. Responses to 69 of the 84 items in the GOQ were factor analyzed; these items measure primary organizational processes. Five- and fourfactor solutions were generated for each sample. Both the solutions contain (Continued)

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factors measuring Unit Climate, Supervisory Leadership, Group Cohesion, and Mission Accomplishment. Only two of the four original GOQ dimensions received empirical support. Not only was the factor structure stable between organizations, but the amount of variance accounted for by a particular factor (or psychological importance of that factor) was also stable. Results suggest that the GOQ, if organized along empirically supported lines, is a diagnostic instrument which is equally applicable to various Army organizations.

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Technical Report 469

FACTOR STABILITY OF PRIMARY SCALES OF THE GENERAL ORGANIZATION QUESTIONNAIRE

Bruce S. Sterling and John R. Mietus

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The research reported here was accomplished by the Leadership and Organizational Effectiveness Work Unit, U.S. Army, Europe, Field Unit of the Army Research Institute for the Behavioral and Social Sciences. This unit's primary objective is the enhancement of combat readiness through research on improving organizational processes. The research is responsive to Army Project 2Q762722A779, Tachniques for Organizational Effectiveness; Management Training, FY79 Work Program; and Project 2Q162722A791, FY80 Work Program.

The complex, rapidly changing environment of the modern Army makes it imperative that organizational leadership, climate, and processes function optimally. The Leadership and Organizational Effectiveness Work Unit researches personal, small-group, and macro-organizational functioning in work settings, specifically in USAREUR, in an attempt to increase combat readiness and quality of life. The present technical report continues the study of the internal structure of an instrument designed to diagnose these variables.

JOSEPH ZEIDNER Technical Director

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Requirement:

The purpose of this report is to determine empirically the stability, across organizations, of the factor structure of the General Organization Questionnaire (GOQ). The GOQ is the primary diagnostic organization climate survey instrument in the U.S. Army's Organizational Effectiveness Program.

Procedure:

Samples of 2,167 Air Defense Headquarters battery and 493 Mechanized Infantry company personnel in U.S. Army, Europe (USAREUR) responded to the GOQ in 1977 and 1978. Responses to 69 of the 84 items were factor analyzed in both samples; these items measure primary organizational processes. Five- and four-factor solutions in each sample were compared with each other and with the four a priori GOQ factors.

Findings:

A stable four-factor structure pattern was found in both samples; this was different from the a priori GOQ factor structure. Factors were Unit Climate, Supervisory Leadership, Group Cohesion, and Mission Accomplishment. Also, the amount of variance accounted for by factors, hence their psychological importance, was the same across the two samples.

Utilization of Findings:

The findings of this study provide an empirical base for improving the diagnostic meaningfulness of this primary Organizational Effectiveness survey instrument. If organized along empirically supported lines, the GOQ could better serve as an instrument to evaluate organization climate in various Army organizations accurately and meaningfully.



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BACKGROUND

The U.S. Army is investing in an Organizational Effectiveness (OE) program to improve mission readiness (DA Letter 600-76-2, May 1976). OE is a process relying on accurate diagnosis of organizational functioning. The General Organization Questionnaire (GOQ) is the primary paper-and-pencil instrument used in this diagnosis. However, a recent study (Walizer & Mietus, 1979) has found the GOQ to have marginally adequate internal consistency scale reliabilities and considerable duplication between scales. This is a serious concern; the ability to make a pinpoint diagnosis is limited.

This paper has two purposes. The first is to compare the empirically determined item structure of the GOQ found in samples from two different Army organizations with the a priori item structure of the GOQ. The second is to determine whether there is a stable item structure for the GOQ across these samples from two different Army organizations.

One sample was drawn from air defense command (AADCOM) headquarters (HQ) battery personnel in U.S. Army, Europe (USAREUR). These units are high-technology organizations that are decentralized; that is, battalion units are spread out over a large area. The other sample consisted of mechanized infantry personnel from two USAREUR battalions. These are relatively standard Army technology organizations with a highly centralized chain of command, and all elements of a battalion located on the same kaserne. The questions asked in this report are (a) how applicable, to either of these samples, are the original dimensions of the GOQ, and (b) how generalizable are the empirically derived factors and/or original GOQ dimensions? In this specific instance, are the differences in tasks, organizational climates, job nature and relationships, operating environments, and technologies between the two types of units sufficient to affect factor structure? Little research has been done on this topic. Sims and La Follette's (1975) factor analytic study of the Litwin and Stringer (1968) Organizational Climate Questionnaire found a factor structure that was different from the a priori structure. Muchinsky (1976), in discussing the factor structure of the Litwin and Stringer questionnaire, reviewed four research efforts related to this question (Meyer 1968; Downey, Hellriegel, Phelps, & Slocum, 1974; Sims & La Follette, 1975; and Muchinsky, 1976) and concludes that while superficially there seems to be considerable factor communality, there is not when actual item loadings are examined. The author concluded that it is logical that different structures be found for different types of organizations. Organizational climate, in one research tradition, involves perceptions of work environments that are the results of organization practices and procedures. Differing organizational practices and procedures should produce different climates (Schneider, 1975), hence different factor structures. Woodman and King (1978) conclude that the factor structure of organizational climate instruments cannot be assumed to generalize from one type of organization to another.

METHOD

Subjects

Subjects from the AADCOM sample were 2,167 personnel of all ranks at company level from all HQ batteries of an air defense command in USAREUR. The data were collected in late 1977. The mechanized infantry sample consisted of 493 enlisted personnel and noncommissioned officers from two mechanized infantry battalions in the same brigade in USAREUR. Data were collected in 1978.

Instrument

The GOQ is a standard Army instrument used in the OE program. The 84 items that purportedly measure 21 areas of organizational functioning are presented in Table 1. Major indices and question patterns resemble the Survey of Organizations of the Institute for Social Research (Taylor & Bowers, 1972). Only items 1 through 69 of the total 84 items were included in this factor analysis. Items 1 through 69 measure primary organizational climate processes, and items 70 through 84 measure tangential climate issues. The GOQ is shown in the Appendix.

Analysis

Principle factoring with iteration and varimax rotation from the Statistical Package for the Social Sciences (SPSS) (Nie et al., 1975) was used to analyze the data. Also, a coefficient of congruence was used to compare empirically the factor solutions of the factor analyses using the same variables in the two different samples (Harmon, 1967). The coefficient of congruence is similar to a Pearson \underline{r} in that it can range from ± 1.00 (i.e., a perfect positive or inverse relationship), with zero indicating no relationship. A coefficient of congruence of .90 or above is considered sufficient to establish good factor congruity (Mulaik, 1972).

RESULTS AND DISCUSSION

The Five-Factor Solution, AADCOM Sample

The original factor analysis yielded 10 factors with eigenvalues greater than 1.00. However, examination of the 10-factor rotated solution revealed that only 6 of the 69 items had loadings equal to or greater than .30 on Factors 6 to 10 combined. Of Factors 1 through 5, the factor with the fewest items loading greater than or equal to .30 was Factor 5, and it had 6 such loadings alone. Thus, a five-factor solution seemed optimal and was generated. This five-factor solution is discussed below. 1

¹Since the order in which these factors are listed is arbitrary, the factors are listed to simplify comparison with the original GOQ dimensions. Later, other factors in this report are also organized to simplify comparison with previously reported factor analyses.

Table 1
GOQ Dimensions and Indexes

Area		Items numbered	Total no.
ı.	Unit Climate		
	 Communication Flow Decisionmaking Motivation Integration of Personnel and Mission Identification with Unit General Climate 	1-2 3-6 7-10 11-16 17-19 20-27	2 4 4 6 3 8 27
II.	Supervisory Leadership		
	 Support Teamwork Goal Emphasis Work Facilitation Influence 	28-31 32-33 34-37 38-43 44-45	4 2 4 6 2 18
III.	Co-Worker Interaction		
	 Support Teamwork Work Facilitation Peer Influence 	46-47 48-51 52-53 54-55	2 4 2 2 10
IV.	Work Group Processes		
	 Coordination Readiness Discipline Intergroup Cooperation 	56-57 58-65 66-67 68-69	2 8 2 2 14
v.	Effects on Personnel		
	 Satisfaction Equal Opportunity 	70-74 75 - 84	5 <u>10</u> 15
	Total		84

The five-factor rotated solution is reported in Table 2. Variables loading .30 or higher on a factor are underlined. Thus, certain items may load on more than one factor, while others may not load on any.

The first factor, Unit Climate, responsible for 10% of the variance among items, is a good match to the GOQ's Unit Climate dimension, although it appears Unit Climate in the original 84-item GOQ is also defined as Work Group Processes (items 61, 66 to 69) and Supervisory Leadership (items 38, 44).

The second factor, Supervisory Leadership, accounting for 12% of the item variance, is very similar to the GOQ Supervisory Leadership dimension. Only three items (54, 57, 64), which load at .30 or greater on this scale, are assigned elsewhere on the 84-item GOQ. This leadership dimension contains both items traditionally seen as consideration type items (e.g., "My supervisor makes it easy to talk to him") and items usually viewed as measuring initiating structure (e.g., "My supervisor maintains high standards").

The third factor, which accounts for 10% of the variance among the items, seems reasonably close to the third GOQ dimension, Co-Worker Interaction. However, perhaps a better name for this particular group of items is Group Cohesion, since it pictures a group that is "solid" internally (e.g., "I have the trust and support of my co-workers," "Co-workers discuss differences honestly) and that can respond to external demands as well (e.g., "People in my group work hard," "The group meets requirements of higher-ups").

The fourth factor, accounting for 5% of the variance, does not bear much relationship to any of the standard GOQ dimensions. It measures Mission Accomplishment (e.g., "My group can respond on short notice," "My supervisor wants mission accomplishment").

The fifth factor seems to tap Personal Job Fulfillment (e.g., "I get a sense of accomplishment from my job," "I'm working in a job for which I am trained," "I would stay in the unit for as long as possible"). This last factor explains 4% of the total variance and is also different from any GOQ factor.

The Five-Factor Solution, Mechanized Infantry Sample

The initial unrotated factor analysis on the data from the mechanized infantry sample generated 13 factors. However, the eigenvalue dropped below one after the fifth factor, suggesting the data contained, at most, five valid factors. Thus, a five-factor rotated solution was generated. This five-factor solution is examined below.

The five-factor rotated solution for the mechanized infantry sample is presented in Table 3. Factor loadings of .30 or over are underlined. Table 4 compares the original dimension structure of the GOQ with the five-factor solutions from both samples. Coefficients of congruence are shown in Table 5.

Unit Climate, accounting for 9% of the variance in the present sample, is similar to the Unit Climate factor in the previous sample. When comparing

Table 2

Five-Factor Solution, AADCOM Sample

Item no.	Label.	Unit	Supervisory Leadership	Group	Mission Accomplishment	Personal Job Fulfillment
200 00 00 00 00 00 00 00 00 00 00 00 00	Information through channels is accurate det all info about other sections Work priorities in line with objectives Meetings accomplish meaningful objectives Decisions made at levels of best info Decisions made from info from actual workers People in group work hard Get a sense of accomplishment from job Look forward to coming to work Want to do best for the mission Unit interested in personal welfare Job helps me achieve personal welfare Job helps me achieve personal selbful Unit places high emphasis on mission Workload is considered in planning Would stay in unit as long as possible Unit is respected on this post Job respected on this post Job respected on this post Unit willing to try new methods Enough competition emphasis Rules in unit are enforced Little interference from outside units Unit able to respond to all goal demands Job directly related to meeting unit's goals Unit able to respond to all goal demands Supervisor says when my job's well done Supervisor makes it easy to talk to him	स्विहिट्टिहाँ हैं है	221 212 213 214 215 215 217 217 217 217 217 217 217 217 217 217		21 22 22 23 24 25 26 26 26 26 27 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26	81 4 1 1 1 1 1 1 2 2 2 2 3 3 3 3 3 5 3 5 5 5 5 5 5 5 5 5

Table 2 (Continued)

Item no.	[Labe]	Unit Climate	Supervisory Leadership	Group	Mission Accomplishment	Personal Job Fulfillment
-	Easy to det to see subervisor	.11	.51	.13	.31	.13
; £	Supervisor emphasizes teamwork	17	13	.22	.27	.05
; ;	Supervisor wants differences discussed	.18	159	.22	.13	.14
3 6		9-	12	27	43	000
, t.	I KNOW MY WOLK GLOUP MILES ON SUDERVISOR WANTS mission accomplishment	. 18		.20	£14.	.01
3 %	Supervisor wants us to give best effort	.14	57	.18	41	.01
37	ىد	.19	.63	.16	32	.03
38	Conflicting demands up chain rarely made	.39	181.	.10	190.	.12
39	Supervisor doesn't interfere in my work	.17	.51	.12	.26	.18
40	Supervisor gives clear instructions	.21	.64	.16	.20	.10
41	Supervisor shows me how to improve	.20	89.	.20	.03	90.
42	Supervisor helps me plan ahead	.26	.61	.26	07	80.
43	Supervisor insures all material available	.31	.56	.24	.01	.10
44	Supervisor is heard by those above him	[E]	05	.15	.10	60.
45	Supervisor is highly regarded by group	.23	99	.20	.07	80.
46	Co-workers tell me if my job is well done	.20	.16	09	03	.15
47	Have trust and support of co-workers	80.	.13	.68	.16	.14
48	Co-workers work together as a team	.12	.15	77.	.13	.04
49	Co-workers want best effort from each other	.15	.16	11.	60.	.10
20	Co-workers maintain high standards	.17	.15	.75	.17	90.
51	Co-workers discuss differences honestly	.15	.21	.64	.07	.07
22	Co-workers help in planning ahead	.24	.22	2	01	.13
53	Co-workers offer new ideas to job problems	.10	.19	69.	.14	• 05
54	I am given adequate authority to do job	.27	.39 6.	.27	.18	.25
22	I have influence in group decisions	.07	.21	.49	.21	.23
99	Important info is exchanged in my group	.22	.27	15.	.23	.14
22	My group coordinates its efforts	.24	<u>۾</u>	9	.15	.14
28	I understand what is expected of me	60.	.25	.23	.43	.25
29	My group can respond on short notice	.08	.18	6	ဗျှ	80.
09		.13	.15	.37	.45	.10
61	Supplies and equipment are adequate I am working in job for which trained	æ12	.25	.17	.07	60°
) }	5) ** 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	! •			!!!	1

Table 2 (Continued)

Item	Label	Unit	Supervisory	Group	Mission	Personal Job
no.		Climate	Leadership	Cohesion	Accomplishment	Fulfillment
63 65 66 67 68	I'm training for more responsibility Supervisor is trained for job Group has enough qualified people in job Order and discipline maintained in group Group reflects military standards Cooperation is encouraged between groups I get assistance from other work groups	. 23 . 24 . 24 . 36 . 31 . 31 . 38 . 38 . 38	. 28 . 19 . 19 . 23 . 17 . 18	. 26 . 23 . 39 . 34 . 30	.20 .18 .16 .28 .24 .18	. 38 . 08 . 02 . 03 . 08

Table 3

Five-Factor Solution, Mechanized Infantry Sample

Item no.	Labe1	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment	Mission Orientation
Var 01 Var 02 Var 03 Var 04 Var 05 Var 07 Var 09 Var 10 Var 11 Var 11 Var 17 Var 18 Var 19 Var 19 Var 20 Var 20 Var 21 Var 20 Var 27 Var 28 Var 27 Var 28 Var 29 Var 29 Var 29 Var 29 Var 29 Var 29	Information through channels is accurate Get all info about other sections Work priorities in line with objectives Work priorities in line with objectives Decisions made at levels of best info Decisions made from info from actual workers People in group work hard Get a sense of accomplishment from job Look forward to coming to work Want to do best for the mission Unit interested in personal welfare Job helps me achieve personal goals Enough time off to tend personal-family needs Performance evaluations are helpful Unit places high emphasis on mission Workload is considered in planning Would stay in unit as long as possible Unit is respected on this post Job respected to make a mistake Unit willing to try new methods Enough competition emphasis Rules in unit are enforced Little interference from outside units Unit able to respond to all goal demands Job directly related to meeting unit's goals Unit able to respond to all goal demands Supervisor says when my job's well done Supervisor makes it easy to talk to him	संक्षिण हो हो हो हो हो हो हो हो है। संक्षिण हो हो हो हो हो हो हो हो है। संक्षिण हो हो हो हो हो हो हो हो है। संक्षिण हो है।	2. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	21. 20. 22. 22. 22. 22. 22. 23. 24. 24. 25. 25. 25. 25. 25. 25. 25. 25. 25. 25	4.0. 4.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0. 5.0.	2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.

Table 3 (Continued)

Item no.	[Label]	Unit Climate	Supervisory Leadership	Group	Mission Accomplishment	Mission Orientation
	Easy to get to see supervisor Supervisor emphasizes teamwork Supervisor wants differences discussed I know my work group mission accomplishment Supervisor wants mission accomplishment Supervisor wants mission accomplishment Supervisor wants us to give best effort Supervisor wants us to give best effort Supervisor maintains high standards Conflicting demands up chain rarely made Supervisor doesn't interfere in my work Supervisor gives clear instructions Supervisor shows me how to improve Supervisor shows me how to improve Supervisor insures all material available Supervisor is heard by those above him Supervisor is highly regarded by group Co-workers tell me if my job is well done Have trust and support of co-workers Co-workers want best effort from each other Co-workers maintain high standards Co-workers maintain high standards Co-workers offer new ideas to job problems I ma given adequate authority to do job I have influence in group decisions I may en influence in group decisions I mortant info is exchanged in my group My group coordinates its efforts I understand what is expected of me My group can respond on short notice	0 : : : : : : : : : : : : : : : : : : :	ट्राबाह्यास्त्रास्त्रास्त्र काट्यास्त्रास्त्रास्त्र हात्यास्य क्षास्त्र स्ट्रास्य स्ट्रास्य स्ट्रास्य स्ट्रास्य 	ं हुं हुं हुं हुं हुं हुं हुं हुं हुं हु	1. 1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.
var 60 Var 61 Var 62	Group meets requirements of higher ups Supplies and equipment are adequate I am working in job for which trained	5 8 S	.1, .21 .16	. 16	22 21	.10

Table 3 (Continued)

Item no.	Labe 1	Unit	Supervisory Leadership	Group	Mission Accomplishment	Mission Orientation
Var 63 Var 64 Var 65 Var 66 Var 67 Var 68	I'm training for more responsibility Supervisor is trained for job Group has enough qualified people in job Order and discipline maintained in group Group reflects military standards Cooperation is encouraged between groups I get assistance from other work groups	16 1 16 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	. 28 . 18 . 22 . 28 . 29	22. 26. 14. 14. 15. 15. 15. 15. 15. 15. 15. 15. 15. 15	. 26 . 20 . 20 . 32 . 25 . 23	11. 42. E. S.

Table 4

Comparisons of Five-Factor Solutions with Original GOQ Dimensions

Original GOQ	Factors in AADCOM	Factors in
dimensions	HQ bttry sample	mech inf sample
Unit Climate Supervisory Leadership Co-Worker Interaction Work Group Processes	Unit Climate (10) Supervisory Leadership (12) Group Cohesion (10) Mission Accomplishment (5) Personal Job Fulfillment (4)	Unit Climate (9) Supervisory Leadership (12) Group Cohesion (11) Mission Accomplishment (5) Mission Orientation (4)

Percentage of variance accounted for by factor is enclosed in parentheses. Note.

Table 5

Coefficients of Congruence for the Five-Factor Solutions

		Me	chanized inf	Mechanized infantry sample	
AADCOM sample	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment	Mission Orientation
Unit Climate	.92	.67	.58	.61	.83
Supervisory Leadership	69.	66.	.58	.62	.59
Group Cohesion	.57	.57	66.	.58	.49
Mission Accomplishment	.53	•65	.63	.92	89.
Personal Job Fulfillment	.85	.57	.85	.74	.37

items with factor loadings at or above .30 on this factor in each sample, there are as many items that do not match as do match (18 items in each case). Nonetheless, the coefficient of congruence between these factors is .92. This empirically derived Unit Climate factor contains items from other original GOQ dimensions of Supervisory Leadership (28 to 30, 38, 42, 43), Co-Worker Interaction (54), and Work Group processes (61, 63, 69) as well as from the original Unit Climate factor (items 1 to 6, 8 to 14, 16 to 19, and 21).

Supervisory Leadership, accounting for 12% of the variance in the present sample, is very similar to the Supervisory Leadership factor in the previous sample. This factor taps both the traditional leadership components of Consideration (e.g., "It is easy for me to get in to see my supervisor," "When appropriate, my supervisor supports my decisions") and Initiating Structure (e.g., "My supervisor emphasizes mission accomplishment," "My supervisor ensures that all required materials are available to accomplish the job"). The items loading .30 or above on the Supervisory Leadership factor in both samples are identical with the exception of one item (57). These factors have 20 items in common. Harmon's coefficient of congruity between these two factors is .99. Of the items these factors have in common (i.e., with loadings of .30 or greater on both factors), all but two (54, 64) are in the Supervisory Leadership dimension in the original GOQ.

Group Cohesion, accounting for 11% of the variance in the present sample, is very similar to the Group Cohesion factor in the previous sample. This factor reflects not only group solidarity (e.g., "I have the trust and support of my coworkers," "My work group plans together and coordinates its efforts"), but also group responsiveness to external demands (e.g., "People in my work group work hard," "My work group meets all requirements placed on it by higher levels of command"), and discipline (e.g., "Army standards of order and discipline are maintained in my work group"). All but three of the items loading .30 or above (items 19, 34, 54) are the same in both samples. There are 18 items loading above .30 on this factor in both samples. The coefficient of congruity between these two factors is .99. However, this factor consists of items from all four original dimensions of the GOQ (mostly from Co-Worker Interaction and Group Processes) and thus fails to confirm empirically the original dimension structure of the GOQ.

The fourth factor, Mission Accomplishment, which accounts for 5% of the variance in the present sample, is fairly similar to the fourth factor in the previous sample, Mission Accomplishment. In this sample, the Mission Accomplishment factor taps the feeling that the job is worthwhile (e.g., "My job is directly related to meeting the unit's goals," "I get a sense of accomplishment from the work I do") and that the unit is trying to do the job (e.g., "My supervisor emphasizes mission accomplishment," "My work group is able to respond on short notice to heavy work demands placed on me"). Although there are seven items with loadings of .30 or above on this factor in one sample but not the other (items 8, 9, 15, 31, 37, 56, 66) and nine with loadings above .30 on both factors (items 10, 26, 27, 34 to 36, 58 to 60), Harmon's coefficient of congruence between the factors is still .92. This factor is not similar to any of the four original GOQ dimensions and in fact draws about an equal proportion of items from all but one of the original GOQ dimensions (Co-Worker Interaction).



The fifth factor, Mission Orientation, which accounts for 4% of the variance in this mechanized infantry sample, is not at all similar to the fifth factor in the AADCOM sample, Personal Job Fulfillment. In fact, no items loading .30 or more on either sample are the same, and the coefficient of congruity between the fifth factors in both samples is .37. Mission Orientation is fairly similar to the fourth factor in the present infantry sample, Mission Accomplishment. Mission Orientation seems to measure the unit's ability to focus energy on the mission, and away from extraneous things (e.g., "Work priorities are established in line with the unit's objectives," "There is little interference from outside units in doing our work"). Like the fifth factor from the previous sample, this factor is not similar to any dimensions in the original GOQ. Mission Orientation draws items mostly from the original GOQ dimensions of Unit Climate (items 3, 15, 16, 21 to 24, 27) and Work Group Processes (items 65 to 68).

The Four-Factor Solution, AADCOM Sample

Since the GOQ hypothesized four dimensions, a four-factor solution was computed for the AADCOM sample even though the original factor analysis implied that a five-factor solution was optimal. The four-factor solution for the AADCOM sample is reported in Table 6 and discussed below.

Unit Climate, comprising 10% of the total item variance, strongly resembles the GOQ Unit Climate dimension. However, like the Unit Climate factor of the previous five-factor solutions, this factor is also influenced by Work Group Processes (items 61, 63, 66, 68, 69), Supervisory Leadership (items 38, 43, 44), and item 54 from Co-Worker Interaction.

Supervisory Leadership, accounting for 11% of the variance, is quite similar to the GOQ Supervisory Leadership dimension. It includes one item concerning the supervisor (64) that is considered part of the GOQ Work Group Processes dimension and one item (54) that is part of the Co-Worker Interaction dimension.

Group Cohesion, accounting for 10% of the variance among items, is a mixture of the GOQ dimensions labeled Co-Worker Interaction and Work Group Processes. It is similar to the Group Cohesion factor of the five-factor solutions, since it reflects group solidarity (e.g., "My co-workers work together as a team," "My co-workers offer new ideas to solve job-related problems") and group esprit de corps ("Army standards of order and discipline are maintained in my work group," "My work group meets all requirements placed on it by higher levels of command").

Mission Accomplishment, making up 6% of the overall item variance, does not resemble any dimension of the original GOQ. It measures mission accomplishment from both a personal perspective (e.g., "I want to contribute my best efforts to the unit's mission and my assigned tasks," "I understand what is expected of me on my job") and from a group perspective ("This unit places high emphasis on accomplishing the mission," "This unit is able to respond to all demands put on it to accomplish the mission"). This factor is quite similar to the Mission Accomplishment factor of the five-factor solutions.

Table 6

Four-Factor Solution, AADCOM Sample

Item no.	Labe1	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment
01 02 03 04 05 06 07 06 09 09 11 11 11 11 11 11 11 12 13 13 14 14 15 16 17 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	through chann to about other liies in line w complish meani made at levels nade from info group work hard to accomplish to accomplish to to coming to the best for t ested in persor ne achieve persor to rest to try new n pected on this pos to make a mist ng to try new n petition emphas nit are enforce prierence from to respond to a says when my j makes it easy	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	20. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		1 1. 0. 1. 1. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.
30	Supervisor appropriately supports me	.20	.67	•16	.23

Table 6 (Continued)

Item no.	[Labe]	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment
31 32	Easy to get to see supervisor Supervisor emphasizes teamwork	.12	.51	.12	.34
33	Supervisor wants differences discussed	.21	 -	.21	.17
34	I know my work group mission	.18		. 26	74.
36 36	Supervisor wants us to give best effort	11.	575	18	388
37	ਲ੍ਹ	.18	63	.16	<u>8</u>
38	Conflicting demands up chain rarely made	.40	.18	.10	60.
39	doesn	.20	<u>13</u>	.12	띪
40	gives	.22	.64	.15	.21
41	shows	.21	<u>ها:</u>	.20	.05 ?
42	helps	. 28	<u>وا</u> :	. 26	٠0°-
43	insur	34	26	.24	.03
44	is he	34	ડો!	.15	.12
ر 4	is highly regarded by grou	. 25	<u>۽</u> اءِ	07.	5.0
4 4 6	tame truck and compart of co-workers	• 24 0 (.13	513	.0.
48	Work	î.	15	17.	.15
49	best effort	.16	.16	17.	.13
20	Co-workers maintain high standards	.17	.15	.75	.19
21	Co-workers discuss differences honestly	.16	.20	[6]	60.
52	Co-workers help in planning ahead	.26	.22	21	• 04
53	Co-workers offer new ideas to job problem	.10	.19	69.	.16
54	I am given adequate authority to do job	.32	ابع	. 26	.26
22	I have influence in group decisions	.12	.21	48	.29
26	Important info is exchanged in my group	.23	.27	[5]	.27
22	My group coordinates its efforts	• 26	뛰	<u>8</u>	.19
28	I understand what is expected of me	.13	.25	.22	<u>\$</u>
29	My group can respond on short notice	90.	.19	6E]	હો
9	regu	11.	.16	36	.46
19	equ	<u>ون</u>	.25	.17	60°
70	I am working in job for which trained	٠	90.	97.	?

Table 6 (Continued)

Item no.	Label	Unit Climate	Supervisory Leadership	Group	Mission Accomplishment
£ 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	I'm training for more responsibility Supervisor is trained for job Group has enough qualified people in job Order and discipline maintained in group Group reflects military standards Cooperation is encouraged between groups I get assistance from other Work groups	. 22 . 21 . 24 . 28 . 33 . 37 . 37	.27 .49 .19 .23 .17 .26	23 23 23 30 30 30 30 30 30 30 30 30 30 30 30 30	. 15 . 16 . 26 . 23 . 17

The Four-Factor Solution, Mechanized Infantry Sample

To enable comparison between the four-factor solution using the AADCOM sample, the original GOQ dimensions and the mechanized infantry sample, a four-factor rotated solution was computed on the mechanized infantry sample, even though the original factor analysis suggested that a five-factor solution was optimal. The four-factor rotated solution for the mechanized infantry sample is contained in Table 7. Factor loadings of .30 or above are underlined. A comparison of the factors from the two samples and the original GOQ dimension structure appears in Table 8. Coefficients of congruence are shown in Table 9.

Unit Climate, accounting for 10% of the variance in the mechanized infantry sample, is similar to the Unit Climate factor in the AADCOM sample. Although 11 items load at or above .30 on this factor in one sample and not the other (10, 15, 22, 23, 27 to 30, 42, 66, 68) and 24 items load at or above .30 on both factors, the coefficient of congruence between these two factors is still .97. Again, however, as in the five-factor solutions in both samples and four-factor solutions in the previous sample, Unit Climate is defined more broadly than in the original GOQ, including items from the original dimensions of Supervisory Leadership (28 to 30, 38, 42 to 44), Co-Worker Interaction (54), and Work Group Processes (61, 63, 69).

Supervisory Leadership, which accounts for 12% of the variance in the mechanized infantry sample, is quite similar to the Supervisory Leadership factor in the AADCOM sample. In fact, the variables loading .30 or above on this factor in both samples are the same except for two items (54, 57). There are 18 items loading .30 or above on this factor in both samples. The coefficient of congruity between these two factors is .99. Also, of the items loading at or above .30 on the factor in both samples, all but one (64) belong to the original GOQ Supervisory Leadership dimension.

Group Cohesion, accounting for 11% of the variance in this mechanized infantry sample, is similar to the Group Cohesion factor in the AADCOM sample. Only three items have factor loadings of .30 or above in one sample and not the other (19, 34, 54), while 18 have loadings of .30 or above on both samples. The coefficient of congruence between these two factors is .98. As with the five-factor solutions in both samples, this factor again measures group solidarity, responsiveness to external demands, and discipline. However, this factor again shows no similarity to any of the four original GOQ dimensions; it draws some items from all dimensions, but mostly from Co-Worker Interaction and Work Group Processes.

The fourth factor, Mission Accomplishment, accounting for 6% of the variance in the mechanized infantry sample, is similar to Mission Accomplishment in the AADCOM sample. Considering items loading .30 or more on each factor, there are more items that do not overlap (16 items) than those that do overlap (10 items). However, the coefficient of congruence between these factors is .92. Again, this Mission Accomplishment factor measures the extent to which the job is worthwhile and the unit's energy is focused on mission accomplishment. Also, this factor is not similar to any in the original GOQ; it contains items from all original dimensions except Co-Worker Interaction.

Table 7

Four-Factor Solution, Mechanized Infantry Sample

Item no.	[Labe]	Unit Climate	Supervisory Leadership	Group	Mission Accomplishment
	r pp. an a a a a a a a a a a a a a a a a a a	2131313121211 41818181018131811 418181810181811 4181818101 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181 61818181	25. 25. 25. 25. 25. 25. 25. 26. 27. 28. 27. 28. 28. 28. 28. 29. 29. 29. 29. 29. 29. 29. 29. 29. 29	21.20 81.00 82.00 82.00 82.00 83.00 84.10 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00 86.00	12 12 12 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16
Var 29 Var 30	Supervisor makes it easy to taik to nim Supervisor appropriately supports me	કોલા	7991	.12	.10

1

Table 7 (Continued)

Item no.	Label	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment
	to see super ants difference to see super ants difference to sants us to sants us to sants us to santains higher support of support	011	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	86 E	31.5.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1. 11.6.1.
Var 62	I am working in job for which trained	.20	.16	.17	.23

Table 7 (Continued)

Item no.	Label	Unit	Supervisory Leadership	Group	Mission Accomplishment
Var 63 Var 64 Var 65 Var 66 Var 67 Var 68	I am training for more responsibility Supervisor is trained for job Group has enough qualified people in job Order and discipline maintained in group Group reflects military standards Cooperation is encouraged between groups I get assistance from other work groups	. 18 . 18 . 25 . 24 . 26 . 31	. 23 . 18 . 22 . 18 . 29	24 13 25 25 144 144 135	. 25 . 31 . 37 . 38 . 38 . 27

Table 8

Comparison of Four-Factor Solutions with Original GOQ Dimensions

Original GOQ	Factors in AADCOM	Factors in
dimensions	HQ bttry sample	mech inf sample
Unit Climate Supervisory Leadership Co-Worker Interaction Work Group Processes	Unit Climate (10) Supervisory Leadership (11) Group Cohesion (10) Mission Accomplishment (6)	Unit Climate (10) Supervisory Leadership (12) Group Cohesion (11) Mission Accomplishment (6)

Note. Percentage of variance accounted for by factor is enclosed in parentheses.

Table 9

Coefficients of Congruence for the Four-Factor Solutions

		Mechanized	Mechanized infantry sample	
AADCOM sample	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment
Unit Climate Supervisory Leadership Group Cohesion Mission Accomplishment	. 97 . 69 . 58 . 66	.68 .99 .57	. 57 . 58 . 98	.77 .68 .62

CONCLUSIONS

The Supervisory Leadership dimension in the original GOQ was found, nearly intact, in both the five- and the four-factor solutions in both samples. This factor received the strongest empirical support of any original dimension. It accounted for the highest percentage of total variance of any factor in both the four- and five-factor solutions, for both the AADCOM and mechanized infantry samples. Admittedly, Group Cohesion, Supervisory Leadership, and Unit Climate all accounted for essentially the same amount of total item variance (i.e., 9% to 12%) across all factor solutions.

Unit Climate was also a distinct factor on both five- and four-factor analyses in both samples. However, it was not quite as stable across samples in factor loadings as was Supervisory Leadership. The empirical definition of Unit Climate is broader than that hypothesized in the original GOQ.

The Group Cohesion factor also emerged in both the five- and four-factor analyses and was stable with regard to item composition across the two samples. Thus, this factor, which was not one of the original GOQ dimensions, received empirical support in two independent samples, using two different factor solutions (five versus four factors).

Mission Accomplishment received general support from both five- and four-factor analyses in both samples. This factor was not an original GOQ dimension. Item composition was slightly more stable across samples for the five- than for the four-factor solution.

The fifth factors generated in the two separate sets of data bear little relationship to each other, either empirically (i.e., in terms of the coefficient of congruence) or in terms of item composition (i.e., items loading on the fifth factor at .30 or better in both samples). Thus, although original factor solutions in both samples suggest a five-factor solution as optimum, there may be only four stable factors across samples (Supervisory Leadership, Unit Climate, Group Cohesion, and Mission Accomplishment), with the fifth varying according to the sample's composition.

In summary, the a priori structure of the GOQ was not well supported in either the mechanized infantry sample or the AADCOM sample. Across these two samples there was a stable factor structure. Supervisory Leadership remained intact as in the a priori scales. Unit Climate emerged as a factor, but with more items than in the a priori scales. Co-Worker Interaction and Work Group Processes from the a priori scales were not replicated, but the new factors of Group Cohesion and Mission Accomplishment were found in both samples.

Thus, in these two samples, not only did items generally load onto the same factors, but the amount of total item variance accounted for by the factors remained stable across both four- and five-factor solutions and different samples. As mentioned previously, Group Cohesion, Supervisory Leadership, and Unit Climate were the three most important factors, accounting for roughly 10% of the item variance each across all analyses. Mission Accomplishment was the replicated factor accounting for the least item variance (5% to 6%) across solutions.

These findings, if replicated in other types of Army organizations, could have important practical implications. One could then reasonably assume that across Army organizations, peoples' perceptions of organizational climate are determined by the same general factors, and further, that the psychological importance of these factors remains the same across types of organizations. If such stability in factors determining organizational climate existed across Army organizations, it would narrow to a handful the major issues in organizational climate that the Army managers and policymakers would have to deal with. Also, if the Army designed programs to impact on these issues, they would be equally applicable to various types of Army organizations.

The results of this report, if replicated in other Army organizations, would also be helpful to OESOs since they suggest that it is not necessary to reanalyze data for each new type of organization to discover what elements determine how organizational climate is perceived and the relative psychological importance of each element. In short, assuming these results are reliable, the GOQ, if organized along the lines outlined in this report, could better serve as a diagnostic instrument, one which is known to be equally applicable across various Army organizations.

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Appendix A

The General Organization Questionnaire

PRECEDENG PACE BLANK-MOT FILMED

ORGANIZATIONAL EFFECTIVENESS

GENERAL ORGANIZATION QUESTIONNAIRE (GOQ)

THIS QUESTIONNAIRE IS INTENDED TO PROVIDE INFORMATION ABOUT HOW THE MEMBERS OF YOUR ORGANIZATION WORK TOGETHER. THE INFORMATION YOU PROVIDE WILL BE USED BY COMMANDERS/MANAGERS/SUPERVISORS TO IMPROVE THE EFFECTIVENESS OF THE UNIT/ORGANIZATION.

If the results are to be helpful, it is important that you answer each question as thoroughly and frankly as possible. This is not a test, there are no right cr wrong answers.

THE COMPLETED QUESTIONNAIRES WILL BE PROCESSED BY AUTOMATED EQUIPMENT WHICH WILL SUMMARIZE THE ANSWERS IN STATISTICAL FORM SO THAT INDIVIDUALS CANNOT BE IDENTIFIED. PLEASE DO NOT WRITE YOUR NAME ANYWHERE ON THE QUESTIONNAIRE OR ANSWER SHEET.

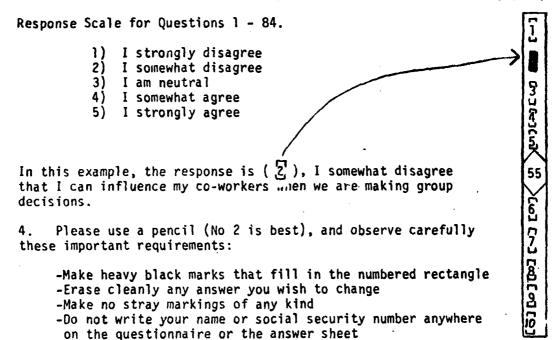
USA ORGANIZATIONAL EFFECTIVENESS TRAINING CENTER
FORT ORD, CALIFORNIA
OCTOBER 1977



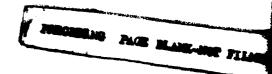
INSTRUCTIONS

- 1. Mark all responses on the machine-readable answer sheet. If you do not find the exact response that fits your case, use the one that is closest to it.
- 2. Remember, the value of the survey depends upon your being straightforward in answering the questionnaire. Your answer sheets are processed by automated equipment and no one from your command will see them.
- 3. The answer sheet is designed for automatic scanning of your responses. Items are answered by marking the appropriate response rectangle (\Box) on the answer sheet as illustrated in the following example.

Item #55. I am able to influence my co-workers when we are making group decisions.



- 5. The particular meaning of the term "this unit" will be announced by the person administering the questionnaire. For example, "this unit" may refer to your Company, Battalion, Brigade, etc. Questions about "your supervisor" refer to the person to whom you report directly. Questions about "your co-workers" refer to the people you associate with from day to day in order to get the job done--they usually report to the same supervisor. Questions about "your work group" refer to the entire team of people, including your co-workers and your supervisor(s) who work for a common goal.
- 6. Turn to side two (GREEN SIDE) and fill in the appropriate unit/org code. Write your code number in the boxes and then pencil mark the corresponding numbered rectangles.



ON SIDE TWO (GREEN SIDE), LOCATE ITEM 116 AND ANSWER THE FOLLOWING BACKGROUND INFORMATION ITEMS.

BE SURE THAT THE <u>ITEM NUMBER</u> ON THE ANSWER SHEET IS THE <u>SAME</u> AS THE <u>QUESTIONNAIRE ITEM</u> YOU ARE ANSWERING.

BACKGROUND

- 116. Service type.
 - 1) Military service (active or reserve)
 - 2) Civil Service
- 117. Sex.
 - 1) Male
 - 2) Female
- 118. Education.
 - 1) Did not finish high school
 - 2) High School graduate or GED
 - 3) Some college, but not a 4-year degree
 - 4) College graduate, 4 year degree
 - 5) Graduate degree, or work beyond a 4-year degree
- 119. Ethnic background.
 - 1) White
 - 2) Black
 - 3) Spanish-Mexican American
 - 4) Oriental American
 - 5) Other (American Indian, Filipino, Puerto Rican, etc)
- 120. Marital Status.
 - 1) Married
 - 2) Single, never married
 - 3) Other (divorced, separated, widowed)
- 121. How long have you been in this unit?
 - 1) Less than 3 months
 - 2) 3-6 months
 - 3) 7-12 months
 - 4) 13-24 months
 - 5) More than 24 months
- 122. How long have you been at this installation (this tour of duty)?
 - 1) Less than 3 months

4) 13-24 months

2) 3-6 months

5) More than 24 months

3) 7-12 months

123.	How long have you been in the Army, or Civil Service if you are a civilian
	1) Less than 12 months 2) 12 to 36 months 3) 37 months to 6 years 4) 7 to 10 years 5) more than 10 years
124.	Which of the following best describes your career intentions at the presentime?
	 I will definitely stay until retirement I will probably stay until retirement I am undecided about staying I will stay for now but will probably leave before retirement I will definitely leave at the earliest opportunity
125.	Military pay grade.
	1) E-1 - E-2 2) E-3 - E-4 3) E-5 - E-6 4) E-7 - E-9 5) W-1 - W-4 6) 01 - 02 7) 03 8) 04 - 05 9) 06 or above
126.	Which military branch corresponds closest with your primary MOS?
	<pre>1) Infantry 2) Field Artillery, Air Defense Artillery 3) Armor 4) Corps of Engineers 5) Signal Corp 6) Military Police/Military Intelligence 7) Logistics (Ordnance, Quartermaster, Transportation) 8) Adjutant General/Finance 9) Other (Medical, Dental, Chaplain, etc)</pre>
127.	Civilian pay grade (GS, WG, WL, WS).
	1) 1-4 2) 5-8 3) 9-10 4) 11-12 5) 13 or above
128.	Civilian wage classification.
	1) GS (Grade Scale) 2) WG, WL, WS (Wage Grades) 3) Other (NAF, etc.)

TURN THE ANSWER SHEET OVER TO SIDE ONE (BLUE SIDE) AND ANSWER ITEMS 1-75.

RESPONSE SCALE FOR ITEMS 1-84

- 1) Strongly disagree
- 2) Somewhat disagree
- 3) Undecided
- 4) Somewhat agree
- 5) Strongly agree

ITEMS ABOUT YOUR UNIT.

- 1. The information I receive down through formal channels is generally accurate.
- 2. I get all the information I need about what is going on in other sections or departments in my unit.
- 3. Work priorities are established in line with the unit's objectives.
- 4. Meetings in this unit generally accomplish meaningful objectives.
- 5. Decisions are made in this unit at those levels where the most adequate information is available.
- 6. Decisions are made in this unit after getting information from those who actually do the job.
- 7. People in my work group work hard.
- 8. I get a sense of accomplishment from the work I do.
- 9. I look forward to coming to work everyday.
- 10. I want to contribute my best efforts to the unit's mission and my assigned tasks.
- 11. This unit has a real interest in the welfare of assigned personnel.
- 12. My job helps me to achieve my personal goals.
- 13. I have enough time off to take care of my personal and family needs.
- 14. My performance evaluations and efficiency reports have been helpful to me.
- 15. This unit places a high emphasis on accomplishing the mission.
- 16. Workload and time factors are taken into consideration in planning our work group assignments.

RESPONSE SCALE FOR ITEMS 1-84

- l) Strongly disagree
- 2) Somewhat disagree
- 3) Undecided
- 4) Somewhat agree
- 5) Strongly agree
- 17. I would like to stay in this unit as long as I can.
- 18. My unit is respected on this post.
- 19. The job I have is a respected one on this post.
- 20. I am not afraid to make an occasional mistake.
- 21. My unit is willing to try new or improved methods of doing work.
- 22. There is enough emphasis on competition in this unit.
- 23. Rules in this unit are enforced.
- 24. There is little interference from outside units in doing our work.
- 25. There is a good working relationship between civilian and military personnel in this unit.
- 26. My job is directly related to meeting the unit's goals.
- 27. This unit is able to respond to all the demands put on it to accomplish its mission.

ITEMS ABOUT YOUR SUPERVISOR.

- 28. My supervisor lets me know when I have done my job well.
- 29. My supervisor makes it easy to tell him/her when things are not going as well as he/she expects.
- 30. When appropriate, my supervisor supports my decisions.
- 31. It is easy for me to get in to see my supervisor.
- 32. My supervisor emphasizes teamwork.
- 33. When there is disagreement, my supervisor encourages the people who work for him/her to openly discuss their differences.
- 34. I know what my work group is trying to accomplish.
- 35. My supervisor emphasizes mission accomplishment,
- 36. My supervisor encourages us to rive our best effort.

RESPONSE SCALE FOR ITEMS 1-84

- 1) Strongly disagree
- 2) Somewhat disagree
- 3) Undecided
- Somewhat agree
- Strongly agree
- 37. My supervisor maintains high personal standards of performance.
- 38. Rarely do other people up the chain of command make conflicting demands on me while I am at work.
- 39. Unless I ask for help, my supervisor lets me do my work without interfering.
- 40. My supervisor gives clear instructions when he/she assigns me a task.
- 41. My supervisor shows me how to improve my performance.
- 42. My supervisor helps me plan and schedule my work ahead of time.
- 43. My supervisor ensures that all required materials are available to accomplish the job.
- 44. My supervisor is able to be heard by and influence those above him/her.
- 45. My supervisor is highly regarded as a leader by members of my work group.

ITEMS ABOUT YOUR CO-WORKERS.

- 46. My co-workers tell me when they think I have done a good job.
- 47. I have the trust and support of my co-workers.
- 48. My co-workers work together as a team.
- 49. My co-workers encourage each other to give their best effort.
- 50. My co-workers maintain high standards of performance.
- 51. Open and honest discussion is used when there are disagreements among my co-workers.
- 52. My co-workers provide the help I need so I can plan, organize and schedule work ahead of time.
- 53. My co-workers offer each other new ideas for solving job related problems.
- 54. I feel that I am given adequate authority to perform the tasks and responsibilities assigned to me.
- 55. I am able to influence my co-workers when we are making group decisions.

RESPONSE SCALE FOR ITEMS 1-84

- 1) Strongly disagree
- 2) Somewhat disagree
- 3) Undecided
- 4) Somewhat agree
- 5) Strongly agree

ITEMS ABOUT YOUR WORK GROUP.

- 56. Information important to our work is widely exchanged within my work group.
- 57. My work group plans together and coordinates its efforts.
- 58. I understand what is expected of me on my job.
- 59. My work group is able to respond on short notice to heavy work demands placed upon it.
- 60. My work group meets all requirements placed on it by higher levels of command.
- 61. The supplies and equipment I receive are adequate to perform my work.
- 62. I am working in the job area for which I have been trained.
- 63. I am getting the training I need to take on more responsibility.
- 64. My supervisor is trained for his/her job.
- 65. My work group has sufficient qualified personnel to accomplish its mission.
- 66. Army standards of order and discipline are maintained in my work group.
- 67. Members of my work group reflect Army standards of military courtesy, appearance and grooming.
- 68. Cooperation is encouraged between work groups in my unit.
- 69. When I am doing a job that requires the assistance of another work group, I usually receive the help I need.

ITEMS ADOUT YOUR PERSONAL SATISFACTION.

- 70. All in all, I am satisfied with my present job.
- 71. All in all, I am satisfied with the people in my work group.
- 72. All in all, I am satisfied with my supervisor.
- 73. All in all, I am satisfied with my unit.
- 74. All in all, I am satisfied with my career in the Army.
- 75. Administering of discipline in my unit is done fairly.



TURN THE ANSWER SHEET OVER TO SIDE TWO (GREEN SIDE) AND ANSWER ITEMS 76-84.

RESPONSE SCALE FOR ITEMS 1-84

- 1) Strongly disagree
- 2) Somewhat disagree
- 3) Undecided
- 4) Somewhat agree
- 5) Strongly agree
- 76. I receive fair and objective efficiency reports in this unit.
- 77. My job provides opportunity for me to advance my skills and/or personal education.
- 78. I know what I have to do to get recognized for doing a good job.
- 79. Work assignments are fairly made in this unit.
- 80. This unit recognizes a person for what he/she does and not just by favoritism.
- 81. Racial problems in my unit are confronted and dealt with fairly.
- 82. A spirit of cooperation exists among races in my unit.
- 83. My unit does not have a drug problem.
- 84. Excessive drinking is not a problem in my unit.

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