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AN ANALYSIS OF FACTORS WHICH
CONTRIBUTE TO THE DEVELOPMENT
OF HIGH MORALE



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AN ANALYSIS OF FACTORS WHICH CONTRIBUTE TO
THE DEVELOPMENT OF HIGH MORALE.

A THESIS
SUBMITTED TO THE GRADUATE SCHOOL
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
for the degree
MASTER OF ARTS

Division of Correlated Studies

by
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INTRODUCTION

The purpose of this study is to attempt to identify scientifically those factors which contribute to the development of positive or high morale in the military service. Although the methods employed in this study are designed to meet the peculiarities of the military service, they are applicable to industrial and other civilian situations. The majority of the items, however, are limited by their structure to a military environment.

During World War II, as in all national emergencies, the vital importance of morale among the services was emphasized by the differentiating effectiveness of units with varying levels of morale. The realization of this situation led to extensive research by the armed services in order to understand the causes and effects of high and low morale.

The lack of an emergency makes it difficult for the service man to readily and willingly subordinate his own feelings and needs to the objectives of his organization. The serviceman faces daily routine tasks much like the industrial worker and, in addition, is constantly frustrated by the regimentation of military life. It becomes necessary for the military leader to be able to identify those factors which contribute to these frustrations and to reduce or eliminate them.

This study is not intended to solve all the existing problems common to morale but merely serves as another step toward that direction. The reader is cautioned against projecting the findings of this study beyond the organizations concerned. These organizations are not necessarily typical of all organizations in the military services.

HISTORICAL SURVEY

The study of morale presents a field in which only slight progress has been made. The term "morale" is not clearly defined and as stated by Quinn McNemar (1), "morale is not an entity, there are many morales." The concept of morale changes with the environment. There is industrial morale, civilian morale, military morale; in fact, the term "morale" has been used interchangeably with many other terms.

The area of greatest confusion exists in the distinction between morale and job satisfaction. In his book "Industrial Psychology and Its Social Foundations" (2), Milton Blum attempts to clarify the existing concepts:

Authors and experimenters have measured employees' reactions and have labeled them sometimes job satisfaction, sometimes morale, and at other times merely attitudes.

Job satisfaction is the result of various attitudes possessed by an employee. In a narrow sense, these attitudes are related to the job and are concerned with such specific factors as wages, supervision, steadiness of employment, conditions of work, advancement opportunities, recognition of ability, fair evaluation of work, social relations on the job, prompt settlement of grievances, fair treatment by employer, and other similar items.

A more comprehensive approach requires that many additional factors be included before a complete understanding of job satisfaction can be obtained. In short, job satisfaction is a general attitude which is the result of many specific attitudes in three areas, namely, specific job factors, individual adjustment, and group relationships outside the job.

Reviewing the many studies in the area almost leads one to the conclusion that job satisfaction is anything that an author measures when he thinks that he is measuring job satisfaction. Too few experimenters in this field have been concerned with either the reliability or the validity of their measures.

Job satisfaction is the result of various attitudes the employee holds toward his job, toward related factors, and toward life in general. Industrial morale is a by-product of a group and is generated by the group. It has four determinants: feeling of group solidarity; need of a goal; observable progress toward the goal; and individual participation in meaningful tasks necessary to achieving the goal. Industrial morale may be defined as the possession of a feeling, on the part of the employee, of being accepted by and belonging to a group of employees through adherence to common goals and confidence in the desirability of these goals.

The fact that morale is a by-product of the group and can often be generated by small segments of the group is important.

Quinn McNemar states (1), it may be that "morale is a lot of little things," hence difficult to define as a scientific concept. It seems reasonable, however, to believe that these "little things" are not entirely independent - that certain of them tend to go together or form clusters, and that such clusters are conceivably independent of each other.

. During World War II the U. S. Army, recognizing the vital importance of morale, conducted extensive studies in this field. The results of these studies were later published by the Information and Education Division of the Army Service Forces (4). The studies of the Army were directed primarily at general attitudes as expressed by discipline, self-confidence, job satisfaction, and zeal. The writer obtained many items and a few factors

from this source which were modified and used in this study.

Eugene J. Benge (3) adopts the dictionary definition which defines morale as:

The condition as affected by, or dependent upon, such moral or mental factors as zeal, spirit, hope, confidence, etc; mental state, as in a body of men, an army and the like.

In suggesting items to be covered in a morale questionnaire, Benge suggests questions directed at the feelings of the individual toward his job, about his supervisor, and his organization. These same areas are considered by Blum to constitute job satisfaction which he distinguishes from morale.

Irvin L. Child (5) defines morale as referring to the condition of a group where there are clear and fixed group goals that are felt to be important and integrated with individual goals; where there exists confidence in the attainment of these goals, in the means of attainment, in the leaders, associates, and finally in oneself; where group actions are integrated and cooperative; where aggression and hostility are expressed against the forces frustrating the group rather than toward other individuals within the group.

The above interpretations of morale as presented by Blum, McNemar, Benge, and Child are typical of the existing literature in the field. There is little or no scientific research, as such, to substantiate the concepts presented.

STATEMENT OF THE PROBLEM

The study of morale presents a number of problems. There being no clear cut concept of morale it becomes necessary to determine a concept appropriate for military use. A scale is necessary to classify individuals as to their morale in order to discover the factors affecting it. This scale must lend itself to statistical manipulation in order to make possible the computation of reliability as well as for scoring purposes. The items of the scale must be worded in a simple and direct manner in order to reduce or eliminate the opportunity for misinterpretation on the part of all subjects.

The selection of an adequate sample meeting the necessary requirements of good sampling technique presents the greatest problem. It is desirable to have included in the sample several groups of individuals representing differences in objective conditions which would cause different levels of morale. Such factors as availability of subjects, possible biasing caused by relative status of administrator and subjects, anonymity of responses, and preadministration instructions represent administrative problems worthy of consideration.

PROCEDURE AND METHODS

After an extensive survey of the available literature on morale the writer listed those factors "which are logically postulated as the ingredients of morale." (1) No attempt was made to select factors which are completely independent of one another. A number of questions designed to reveal the feelings of the subjects within the area of each factor were constructed. With the anticipated participation of Marine Corps and Navy personnel these questions were constructed in the informal language characteristic of the Marine Corps and Navy. This was done in order to make possible the comprehension of all items by all potential subjects.

The Lickert (6) technique was adopted as the most practical approach to the statistical problem. With the use of the Likert technique each item becomes a scale in itself. There are five possible responses from which the subject selects one that best describes his feelings toward that particular item. The wording of the responses is such as to indicate a gradual change of feeling from the positive to the negative extremes with each item. The two positive and two negative responses are divided by a neutral response. These responses were then numbered from one to five with the respective number of each response becoming the arbitrary weight of that response. In order to facilitate scoring, all responses were so arranged

as to have low score indicate high morale. This arbitrary method of scoring item responses as though the distances between them were equal has been justified by statistical research conducted by Lickert(6).

CONCEPT OF FACTORS

The selection of the factors utilized in this study was based primarily on previous works conducted by the Information and Education Division of the Army Service Forces (4) and the work of Allport and Murray (15). Prior to the construction of the items, it was necessary to establish, for the purpose of this scale, an adequate concept of each factor. The factors and their respective items, numbered as they appear on the scale, are listed on Table 1. The concepts of the twelve factors are discussed below.

Factor I - Individual Welfare

A sincere and active interest on the part of the organization officers in assisting the enlisted man in adjusting to the regimentation of military life. To express this desire for the well-being of the individual by sharing his interests, by proper guidance, and by establishing an atmosphere of confidence and acceptance. In short, the officer's role becomes that of a good counselor.

Factor II - Attitudes Toward Leaders and Practices

The feelings of the enlisted man toward his leaders and the manner in which they, the leaders, execute their duties. The effective leader delegates authority commensurate with responsibility. He recognizes the abilities of his men, he is explicit in his instructions, and always

ready to recognize and give credit to the efforts of a job well done. He maintains an effective two way line of communications with his subordinates, receiving as well as transmitting information which affects his subordinates. He fosters the development of group cohesiveness within his organization.

Factor III - Discipline

Men are controlled by two motives (16): The hope of reward and the fear of punishment. It is the certainty rather than the severity of the punishment which restrains men. The administration of punishment should be consistent, impartial, and appropriate to the offense committed.

Factor IV - Food

All food prepared and served in a Marine Corps or Navy mess hall should be prepared in quantity sufficient to adequately provide each individual an ample amount of food. The food should be of good quality and be well balanced in content. It should be well prepared and served in an appetizing manner. All individuals of the group should have access to the same mess privileges.

Factor V - Medical Care

The medical and dental care provided should be adequate and available to meet the needs of the personnel involved.

Factor VI - Confidence in Self

A basic sense of personal adequacy, founded on a

realistic appraisal of the individual's abilities to cope with any situation that might arise in the performance of his duties.

Factor VII - Confidence in Training and Equipment

The knowledge among the group that they are well equipped technically, and a sense of confidence in the instructors and training provided. The training received should be such as to train every man to satisfactorily perform all the duties required of his rank and to enhance the self-confidence of the individual.

Factor VIII - Confidence in Organization

The feeling of acceptance by, and oneness with the group, on the part of its individual members. The feeling of group cohesiveness in work and liberty. The recognition of the group as a team with confidence in the individual members and in the superiority of the unit.

Factor IX - Pride in Organization

A high esteem of the organization manifesting itself in acts of the individual in identifying himself with the organization. This feeling of pride may be influenced by the type of recognition afforded the organization by respected friends and relatives.

Factor X - Job Satisfaction

The proper placement of each individual in the job that provides an equal balance of opportunity for advancement and self expression, lasting interest in the job,

and the abilities of the individual to satisfactorily meet the requirements of the job. The proper placement of the individual should be supplemented by adequate training.

Factor XI - Effectiveness and Popularity of Leaders

The morale of leaders is reflected in that of the group. Wavering and uncertain decisions on the part of leaders and unpopular leaders lower morale. When the present leader measures up to the statute of effective leaders in the past, the higher the morale. When a leader allows the group to develop a feeling of participation in the functions of the group the morale is improved.

Factor XII - Impartiality of Leaders

The practice of distributing in an unbiased manner the pleasant as well as the unpleasant assignments. Making certain that each individual receives his share of liberty and leave. A promotion policy which is based on merit rather than favoritism. The curbing of any tendencies for the expression of aggression at the expense of subordinates. A general policy of fair play toward all individuals in the group.

TABLE 1

THE 12 FACTORS AND THE ITEMS DESIGNED TO MEASURE EACH FACTOR, NUMBERED AS THEY APPEAR ON THE SCALE.

Factor I - Individual Welfare

1. Are your officers interested in your personal problems?
14. Are your officers helpful in solving your personal problems?
31. Do you feel free to take your personal problems to your officers?
42. How many of your company officers know you by name?
59. Do your officers show an interest in your ambitions?
74. Do your officers show an interest in your hobbies and other interests?

Factor II - Attitudes Toward Leaders And Practices

7. Do the officers of your company know their stuff?
12. Do the officers know the abilities the men in your company possess?
19. Do you or the other men in your company receive recognition or praise for a job well done?
24. Do the officers in your company back up the enlisted men when they are right?
29. Are you given enough authority to do your job?

TABLE 1 (Continued)

36. Do you feel that the best use is made of training time?
41. Are you satisfied with your recreational facilities provided by the Marine Corps (Navy)?
48. Do you feel that the men in your company are given enough information as to why they are performing particular jobs?
53. Do you have the opportunity to show how well you can perform your job?
60. Are you familiar with your organization orders?
67. Are you familiar with your organization policies concerning leave, liberty, work assignments, etc?
72. If you wanted to see your company commander, do you know what steps you would have to take in order to see him?
79. Are you told exactly what you are expected to do when you are given a job?
86. Are you told in advance of any changes in your organization that may affect you?

Factor III - Discipline

16. How often do you try to do your job in such a way that it might result in a better chance for weekend liberty or some other reward?
27. Do you feel that you get away with violating any orders?

TABLE 1 (Continued)

38. Are you criticized when you do a poor job?
49. Do you feel that the punishment for offenses committed in your organization is fair?
56. When you are criticized or punished by an officer or NCO, do you feel that he is out to get you?
61. Do you feel that punishment in your organization is not personal and is administered only because an order has been violated?
66. Do the officers and the NCOs in your organization compliment you when you do a good job?
80. How do you feel about a fellow who violates an order?
85. Do you think that the "wise guys" in your outfit get away with anything?
89. How often do you perform your job because you think you might be punished if you didn't do it?

Factor IV - Food

9. What is the quality of food you are served in the mess hall?
22. Is the food well prepared in your mess hall?
39. Is the food in your mess hall properly served?
54. Do you get all that you want to eat at your mess hall?
71. Are you able to obtain food from the galley between meals without proper authority?

TABLE 1 (Continued)

82. Do you know of any individuals or groups of individuals who are able to obtain food from the galley between meals without proper authority?

Factor V - Medical Care

11. What do you think of the medical care you receive at the dispensary?
20. Is it possible for you to see a doctor as often as you think necessary?
37. Do you feel free to go to the dispensary whenever necessary?
40. What do you think of the medical care you receive at the Naval Hospital?
51. Do you receive enough dental treatment?
64. How good is the dental treatment you receive?
70. What do you think of the medical care you receive in the Marine Corps (Navy)?
81. How do you like the dental care you receive in the Marine Corps (Navy)?

Factor VI - Confidence in Self

3. How well do you know your job?
18. Could you handle any emergency that might arise in your job?

TABLE 1 (Continued)

33. With a reasonable amount of training could you handle any other job requiring your rank in the Marine Corps (Navy)?
50. Could you handle any duty required by your rank without further training?
63. How do you think you compare with the average enlisted man of equal rank and experience in your company in the performance of your duties?
76. Do you feel that you are qualified for a promotion?

Factor VII - Confidence in Training and Equipment

5. How do you think your equipment compares with the equipment of a unit doing the same type of duty in the Army?
30. Do you feel that your instructors know their stuff?
45. Do you feel that the training given by the Marine Corps (Navy) is good enough to train the average enlisted man to perform all the duties of his rank?
62. Do you feel that the training program of your organization needs improving?
75. Do you feel that the training received by the average enlisted man in the Marine Corps (Navy) prepares him for any emergency that may arise in his particular job?
84. As a whole, how do you think your Marine Corps (Navy) training compares with the Army?

TABLE 1 (Continued)

Factor IX - Pride in Organization

13. Do you feel proud of being a Marine (Sailor)?
28. Do you wear your uniform while on leave?
43. How does your family feel about your being a Marine (Sailor)?
58. What do your friends in the home town think about the Marine Corps (Navy)?
73. Do you feel proud of your outfit?
88. Do you like to tell people what a good outfit the Marine Corps (Navy) is?

Factor X - Job Satisfaction

6. Would you change to some other job in the Marine Corps (Navy) if given the chance?
10. Do you think your ability and experience fits you better for some other job or duty?
23. Do you think that the Marine Corps (Navy) is giving you a chance to show what you can do?
25. Do you feel that everything possible has been done to place you in the job where you best fit in the Marine Corps (Navy)?
32. How interested are you in your present Marine Corps (Navy) job?
69. How satisfied are you about being in your present Marine Corps (Navy) job instead of some other job in the Marine Corps (Navy)?

TABLE 1 (Continued)

Factor XI - Effectiveness and Popularity of Leaders

2. How would you rate morale of the officers in your outfit?
8. Are your officers open to suggestion from you or other enlisted men?
44. How do you feel about working for your present NCOs?
55. How do your present officers compare with those of similar rank you have known in the past?
83. Are the decisions of your officers final?
87. As a whole, how popular are the officers in your outfit?

Factor XII - Impartiality of Leaders

4. So you feel that you are asked to do things which are unreasonable?
17. Do you receive your share of leave and liberty?
21. Are the unpleasant jobs distributed fairly in your organization?
34. How fair is the promotion policy in your organization?
47. Are the pleasant jobs distributed fairly in your organization?
52. In your organization, do promotions go to those who deserve them?

TABLE 1 (Continued)

65. Are disciplinary cases handled fairly in your organization?
78. Do you receive sufficient personal attention from your officers?

Upon the completion of the postulated factors assumed to develop morale and their respective items, they were submitted for criticism to a seminar class which included four naval officers and one marine officer in addition to several veterans. The suggestions of this group were helpful in eliminating ambiguous items and improving the instrument as a whole.

It was decided to use the split-half method for computing the reliability of the scale. In order to facilitate this method, the items designed to measure each factor were numbered consecutively and independently of the other factors. The odd numbered items of each factor were then scrambled throughout the odd numbers of the scale. The even numbered items of each factor were distributed in the same manner among the even numbers of the scale. The result was an even distribution of the items of each factor between the odd and even items of the scale. The scrambling of the items throughout the final scale¹ was designed to destroy any pattern in the arrangement of items and, in doing so, to encourage an independent response for each item. It was presumed that this method would make it more difficult for the subject to identify the continua involved. An independent judgment for each item then would avoid a spuriously high reliability resulting from an attempt to make responses consistent.

¹See Appendix "G"

POPULATION

The primary factor determining the sample used was availability of subjects. This sample was drawn from the enlisted men under the command of the Marine Barracks of the U. S. Naval Training Center, Great Lakes, Illinois. In order to have represented in the sample groups of individuals representing differences in objective conditions which would presumably cause different levels of morale, four groups were selected and made available to the writer. These four groups were: (A) The Navy and Marine Corps prisoners confined in the station brig, (B) The Marine Barracks Guard Company, (C) The Marine Barracks Headquarters and Service Company, (D) The Marine Barracks Training Company.

GROUP "A" - PRISONERS¹

Of the prisoner group, the scale was administered to 12 marines and 84 naval personnel. The total sample of that group was 96. The sample was composed of all those prisoners available at the scheduled date of administration.

Of these prisoners, 49 percent were general court martial prisoners, 26 percent summary court martial prisoners, four percent deck court martial prisoners, two percent were serving sentence of commanding officer's

¹See Tables 2 and 4.

TABLE 2

CLASSIFICATION OF PRISONERS ACCORDING TO STATUS
AND COURTS MARTIAL ASSIGNED, IN PERCENT.

	General Court	Summary Court	Deck Court	Office ¹ Hours	ACO	AAHA	Total
Serving Sentence	15	19.6	5	2	0	0	41.6
Awaiting Results	17.6	2.8	0	0	0	0	20.4
Awaiting Trial	16.3	3.7	0	0	0	0	20.0
Other	0	0	0	0	13	5	18.0
Total	48.9	26.1	5	2	13	5	100.0

Source: Brig records.

AAHA - Awaiting action of higher authority.

ACO - Awaiting action of commanding officer.

¹Punishment awarded by the Commanding Officer.

punishment, four percent were awaiting action of higher authority, and 15 percent were awaiting action of the commanding officer.

Approximately 42 percent of the prisoners were actually serving sentence, 20 percent were awaiting results of their trials, 20 percent were awaiting trial, and the remaining 18 percent were either awaiting action of the commanding officer or that of higher authority. Except for two cases convicted of defrauding the government, one awaiting results of a general court martial on the charge of theft, and three awaiting action of the commanding officer on moral charges, all prisoners were confined on charges of absence without leave, absence over leave, or other such minor offenses.

For the most part the duties of the prisoners consisted of little more than policing and maintaining their own facilities.¹ Facilities available to the prisoners included a library which was open from 1800 to 2000, a laundry and tailor shop which was operated by and for the brig personnel, and a barber shop. Periodic inspections insured the proper maintenance of all facilities as well as a clean and wholesome brig.

Controls had been established and exercised by the Commanding Officer to prevent possible abuse of prisoners. They were authorized to see the chaplain or the Red Cross

¹See Plan of Day, Appendix "B".

representative upon request. Prisoners were also permitted to see the Commanding Officer of the Marine Barracks if they so desired.¹

All prisoners were classified by the Commanding Officer to one of three classes depending on their conduct and bearing as prisoners. Class one prisoners were available for routine outside working parties in addition to inside details. They were permitted to have visitors each Sunday and enjoyed other privileges. They did not require close supervision.

Class two prisoners were available for inside and outside details and required supervision. They were permitted to write three letters weekly and have visitors the first two Sundays of each month. This group received fewer privileges than class one prisoners. Upon confinement to the brig a prisoner was automatically placed in class two.

Class three prisoners, if not serving solitary confinement were available for inside and outside details and required supervision. They were permitted one letter a week and were permitted visitors only on the first Sunday of each month. The other privileges of this group were greatly restricted.

The assignment of a prisoner to a particular class was not final. He could, by his conduct, affect a

¹See Rules for Prisoners, Appendix "A".

reclassification. The classification of prisoners served as an incentive to produce better discipline by providing class one as a reward for good behavior and class three as punishment for misconduct.

Of the prisoner confined during the administration of the scale, 18 percent were first class prisoners, 74 percent were second class prisoners, and eight percent were third class prisoners.

GROUP "B" - THE GUARD COMPANY¹

There were 47 subjects available from the guard company which consisted of 150 enlisted marines. The general duties of this group were primarily those characteristic of a security unit. The company was divided into two watches each watch spending one day on guard duty and the following day in training. Guard mount was held at 0800 and the watch going on duty remained on guard duty for 24 hours. During those 24 hours they were required to be on sentry duty for four hours and off eight, giving them a total of eight hours on post and 16 off. All posts were outdoors and most of them were walking posts. During those hours which they were off post the members of the guard were called upon to act as prison chasers or to perform other incidental tasks. When not occupied they were permitted to rest. At this point it would be appropriate to note that the scale was administered on the 21st of March after these men had completed several months of duty during inclement weather.

Upon completion of their 24 hours of guard duty one watch would be relieved by the other which would follow the same routine. The watch coming off guard duty would then participate in the established training schedule

¹See Table 4.

of basic subjects.¹ Training would continue until 1630 at which time they were permitted to go on liberty which expired at 0615 of the following day.

It should be noted that unlike the headquarters and service group, whose liberty expired at 0750 for married personnel, liberty expired at 0615 for all hands whether or not they were married. A muster was held at 0615 followed by breakfast at 0630. Policing of the barracks was performed at 0725 and at 0800 the watch coming from liberty would be back on guard duty again.

In addition to having liberty every other night, a schedule was arranged in order for the members of this group to have week-end liberty every other week. This meant that while one watch was on a week-end liberty the second watch would be on guard duty for forty-eight hours.

Recreational facilities such as ping pong tables, pool tables, and a library were provided at the respective barracks of all groups but the prisoners. Movies and facilities for seasonal sports were provided on the station.

¹See Plan of Day, Appendix "C".

GROUP C - THE HEADQUARTERS AND SERVICE COMPANY¹

The headquarters and service consisted of 43 enlisted marines. The total enlisted strength of this company was 184. The sample depended entirely on availability of the personnel involved.

The personnel of this group performed administrative functions typical of office workers, including such functions as typing, filing, maintaining pay records, supply records, master rolls, etc. The work involved was light but very exacting; they were not called upon to perform guard duty. Two afternoons a week they were required to participate in the training program of basic military subjects from 1300 to 1600.

This group began the day with reveille roll call at 0610 for all hands except married personnel; they were permitted to report at 0750. At 0630 breakfast was served, and the barracks were policed at 0730. At 0800 each individual reported to his assigned job and commenced his regular work day. Work was secured at 1130 for dinner - they reported back on the job at 1300. The work day was completed at 1630 at which time the men were free to go on liberty or remain on the station. Approximately one percent of the company was required to remain on duty as duty clerks.

¹See Table 4.

This group was permitted to have liberty every night and on all week-ends. The recreational facilities were similar to those of the guard company.

GROUP D - THE TRAINING COMPANY¹

There were 102 subjects available from the training company which had a total strength of 316 enlisted marines. The general duties of this group were those characteristic of any service school personnel. The majority of this group consisted of highly selected individuals who, upon completion of their recruit training, were ordered to attend the electronics school at the Great Lakes Naval Training Center. They were scheduled to attend this school for 26 weeks and, upon successful completion of the course, would be promoted to the next higher rank. Those successfully completing the course at Great Lakes would then be sent to Camp Pendleton for the second course in electronics which was of 16 weeks duration. The highest 50 percent of this group successfully completing the course at Camp Pendleton would be advanced to the next higher rank. The personnel of this group were aware of this procedure.

For this group the day began with reveille at 0600, followed by reveille roll call at 0615. Breakfast was served at 0630 and at 0725 the barracks would be policed. Classes for the morning began at 0800 terminating at 1100 followed by organized athletics until 1200. Dinner was served immediately after the completion of the organized

¹See Table 4.

athletics period. At 1315 the afternoon classes began, lasting until 1620. Some outside study was required and facilities were provided for this purpose.

This group, like the headquarters and service group, was permitted to have liberty every night and on all weekends. They were not required to perform duties other than attending school, maintaining their outside studies, and policing their barracks. Recreational facilities were similar to those of groups "B" and "C".

ADMINISTRATION OF THE SCALE

In order to insure uniformity of instructions and atmosphere created by the relative status of the interviewer and interviewees it was decided that the writer would administer the scale to all groups. The fact that the writer was an officer in the U. S. Marine Corps presented a situation which could have a biasing effect on the responses. To further aggravate the issue, a few of the Marine Barracks personnel were aware of the writer's status, preventing any possible attempt at deception. In view of the above, the writer attempted to alleviate the possible biasing by presenting himself in civilian clothes, at the same time, explaining to each group his status.

The instructions to be presented were outlined¹ prior to administering the scale in order to insure uniformity and were given orally by the writer. The instructions included comments on the purpose of the scale, how to indicate properly the desired response, the purpose of the open end question at the end of the scale, and the fact that they were an experimental group whose cooperation was needed in order for the scale to function properly.

Prior to the administration of the scale the writer interviewed those officers whose duties brought them in close contact with the enlisted personnel of all four

¹See Appendix "D".

groups. They were asked to express their opinion as to the relative status of morale of the four prescribed groups. There was complete agreement in all cases that the prisoners had the lowest morale; the guard company's morale was relatively poor but somewhat higher than that of the prisoners; the morale of the headquarters and service group was definitely very good; and the training company group exceeded all others, having excellent morale.

At least two senior non-commissioned officers from each group were asked to rank the four groups in the order of their relative morale. The non-commissioned officers, in all cases, concurred with the commissioned officers.

Those factors mentioned by the officers and non-commissioned officers as the determining factors of this difference in morale were working conditions and liberty. The working conditions included such items as the number of hours spent on duty, the type of duty involved, and the physical environment of the job. The amount of liberty or free time during which the subjects could leave the station was mentioned as the second determining factor of morale for these groups. It might be implied from the above statements that given the same working conditions and the same liberty privileges, these four groups would have the same approximate level of morale.

According to the results of the scale, the causes of low morale for group "B" and "A" were more extensive than indicated by the officers and non-commissioned officers. In comparing factor sub-scores between group "B" and the group having the highest morale (group "D") it is noted that group "B" is significantly lower in morale in seven of the factors. Those factors being Attitudes Toward Leaders and Practices, Confidence in Training and Equipment, Confidence in Organization, Pride in Organization, Job Satisfaction, Effectiveness and Popularity of Leaders, and Impartiality of Leaders.

ADMINISTERING THE SCALE TO GROUP "A"

At 0900 the prisoners were marched by prison guards into the prison mess hall for the administration of the scale. The guards and the prison warden remained in the immediate area for the purpose of maintaining order. At no time did they interfere in any way with either the administration of the scale or its completion by the prisoners. After the prisoners were seated at the mess tables the scales were distributed, instructions were given as planned, and they began working on the scale.

All prisoners were retained at their seats until all had completed the scale after which they were marched from the mess hall. The completed scales were stacked by each individual man on a designated table in leaving the mess hall. The maximum time consumed in completion of this scale was fifty minutes.

ADMINISTERING THE SCALE TO GROUPS "B", "C", AND "D"

The administration of the scale to the guard, headquarters and service, and the training groups was uniform in every respect. The recreation rooms of their respective barracks were used for this purpose with ample space and writing facilities provided. Groups "B" and "C" completed the scale jointly; their scales were segregated by the individuals as they left the room. The administrator was the only person supervising the proceedings in each

case. Individuals were permitted to leave the room upon completion of the scale.

In administering the scale to these three groups it was observed that a few of the subjects completed the scale in 20 minutes, the majority were through in 35 minutes, and no one took over 50 minutes.

All four groups received the scale on the same day at the following hours: group "A" at 0900, groups "B" and "C" at 1400, and group "D" at 1900. The same procedure was used with each group and the same oral instructions were given.

ANALYSIS PROCEDURE

The completed scales were inspected, eliminating scales of those subjects who had not completed the scale. In most cases incomplete scales were caused by the subjects overlooking the items on the back side of the pages of the scale. There were 12 scales eliminated by this process resulting in a reduced sample break-down as follows:

<u>Group</u>	<u>N</u>
"A" (Prisoners)	90
"B" (Guard Co.)	44
"C" (Headquarters Co.)	42
<u>"D" (Training Co.)</u>	<u>100</u>
Total	276

Each scale was then given an identification number which consisted of a three digit number. The first digit of the number was used to identify the group to which the scale belonged and the second two digits identified the scale within the group.

With the final selection of the completed scales and their identity established, the analysis of the scales was completed in the following order:

1. Odd, even, and total scores were computed for each scale. As previously mentioned, the weight of each response was determined by its number. The odd and even scores were to be used in computing reliability.

2. The mean score of each group was computed.
3. All personal information appearing in the first section of the scale was coded to facilitate punching in I.B.M. cards.
4. The identification number of each scale and the responses to the ninety items of the scale were punched in the I.B.M. cards to facilitate further analysis.
5. The frequency of responses for each item by group was computed in order to identify the most effective items.
6. Those items which were the most effective in discriminating between high and low morale were determined. This was accomplished by computing the weighted mean response of each item for the group having the highest morale and for that group having the lowest morale, as determined by the scale. The magnitude of the difference between the weighted mean responses determined the effectiveness of the item.¹
7. Split-half reliability was computed using the product moments method.
8. The weighted responses of the items for each scale were isolated according to the factor which

¹See Table 5.

they were designed to measure and totaled. All further analysis was to be based on the sub-scores of these twelve factors.

9. Another set of I.B.M. cards was punched, indicating the following information for each scale: identification number, personal information, odd score, even score, total score, and the sub-scores of each factor. This information was punched in cards to facilitate further analysis.
10. In order to determine the significance of these factors to the development of morale it was necessary to compute the mean, the standard deviation, the coefficient of dispersion, the standard error of the mean, and the level of significance of the difference between group means of each factor.¹
11. The comments in response to the open-end question were analyzed. The number of favorable comments appearing in response to this question were negligible and, therefore, not considered. The adverse comments were classified under general titles to facilitate handling. This classification was strictly subjective. Comments noted were counted only once for each subject.

¹See Tables 3, 6, 8-13.

TABLE 3

THE MEANS AND STANDARD DEVIATIONS OF THE TWELVE
FACTOR SUBSCORES, BY GROUP

Factor	Group "A"		Group "B"		Group "C"		Group "D"	
	M*	S.D.**	M	S.D.	M	S.D.	M	S.D.
I	21.23	4.81	20.57	5.88	16.21	4.95	18.16	4.62
II	40.61	9.35	38.78	9.25	30.67	6.20	31.75	6.91
III	28.10	5.40	25.23	5.13	23.36	4.32	23.23	3.73
IV	19.36	4.50	18.93	3.80	21.36	3.39	21.55	3.68
V	21.80	8.31	18.89	6.69	17.93	5.46	20.76	5.87
VI	15.53	4.88	13.68	3.03	13.36	3.36	14.17	3.20
VII	18.87	4.53	16.82	4.26	16.43	3.84	13.90	2.86
VIII	22.50	4.83	23.25	4.80	20.50	3.81	17.91	3.94
IX	17.13	5.76	14.43	4.98	12.68	3.66	10.66	3.19
X	19.93	5.34	20.43	7.14	15.29	7.17	13.78	5.98
XI	19.27	3.81	17.98	4.14	13.79	3.24	13.24	2.93
XII	25.60	6.11	22.84	5.94	16.64	3.60	17.79	3.61

* Mean ** Standard Deviation Source: Original data.

Factors as denoted by number:

I	Individual Welfare	VII	Confidence in Tr. and Equipment
II	Attitudes Toward Leaders and Practices	VIII	Confidence in Organization
III	Discipline	IX	Pride in Organization
IV	Food	X	Job Satisfaction
V	Medical Care	XI	Effectiveness and Pop- ularity of Leaders
VI	Confidence in Self	XII	Impartiality of Leaders

RESULTS

I. PERSONAL DATA

As it was explained in the procedure of this study, the Likert technique of scale construction was used. The five possible responses for each item were numbered from one to five with the respective number of each response becoming the arbitrary weight of that response. All responses were arranged in such a manner as to have low score indicate a positive or high morale response. High score indicated a low morale response. Those responses of each item numbered one and two were considered as the low scores. The response numbered three was considered a neutral response. The responses numbered four and five were considered as the high scoring responses.

To determine the general level of morale for each group it was necessary to obtain the total score of each subject. This was accomplished by totalling the response weights for each item, as designated by the subject. Using this computed score for each subject the respective mean of each group was computed.

As noted on Table 4 the total mean scores of the four groups established their general level of morale in the same relative order as expressed by the officers and non-commissioned officers of the organization concerned. The mean score for group "A" was 274, for group "B" 251, for group "C" 220, and for group "D" it was computed to be 217 -- low score indicating high morale.

TABLE 4

PERSONAL DATA AND MEAN SCORES OF SUBJECTS, BY GROUP

	Group "A"	Group "B"	Group "C"	Group "D"
Age, years ¹	20	21	21	19
Rank, by pay grade ¹	6	5	3.5	6
Married (percent)	30	27	40	7
Children* (percent)	20	2.3	26	3
Time in grade (months) ¹	11	13	7	4
Career** (percent)	9	25	33	15
Non-career** (percent)	77	64	45	74
Undecided** (percent)	14	11	22	11
Months in organization ¹	18	4	6	5
Convictions (percent):				
Deck Court	32	18	2	1
Summary Court	50	6	2	0
General Court	40	0	0	0
Total score*** (mean)	274	251	220	217

* percent of group having children.

** whether or not they plan to make service their career.

*** low score indicates high morale.

¹median used

In attempting to analyze the personal data as presented on Table 4, it was noted that the convictions in military courts martial correlated with the respective levels of group morale. Because the status of the prisoner group necessarily caused a high percentage of convictions they were not considered in the evaluation of conviction records. Of the three remaining groups ("B", "C", and "D") it was noted that with increased morale there was a definite trend toward fewer convictions.

Whether the low morale caused the offenses that led to convictions or the convictions caused the low morale is a question which the writer did not feel qualified to answer. The remaining information on Table 4 was considered inconclusive.

II. RELIABILITY

Using the product moments method the split-half reliability was found to be .91 which is considered satisfactory. Referring to Table 5, it is noted that there are a number of items which do not discriminate between the highest ("D") and lowest ("A") morale groups. The elimination of those non-discriminating items would result in higher reliability.

Following such a procedure and arbitrarily selecting the satisfactory difference between means of the two groups as being .50, it is noted that 30 items may be eliminated. An analysis of these items reveals that of the six items based on the factor "food", five would be eliminated; of the six based on the factor "confidence in self", four would be eliminated; of the eight based on the factor "medical care", five would be eliminated. Conversely, all the items based on the factors "impartiality of leaders", "effectiveness and popularity of leaders", and "pride in the organization" would remain intact.

It does not necessarily follow that these items which do not discriminate in this study should be eliminated. The sample used in this study is not necessarily typical of the entire U. S. Marine Corps and Navy, therefore, such an action would be presumptive. Until further studies are accomplished it may be stated that these items did not discriminate between groups "A" and "D" of this particular study.

TABLE 5

WEIGHTED RESPONSE MEAN DIFFERENCES BETWEEN GROUP "A" AND GROUP "D" OF EACH ITEM BY FACTOR, IN ORDER OF MAGNITUDE.

Item	Mean, Group "A"	Mean, Group "D"	Diff.	Factor
17	2.88	1.16	1.72	XII
84	3.16	1.49	1.67	VII
88	3.33	1.80	1.58	IX
82	3.28	1.75	1.53	IV
24	3.23	1.77	1.46	II
1	3.67	2.28	1.39	I
52	3.55	2.19	1.36	XII
25	3.55	2.22	1.33	X
23	3.83	2.51	1.32	X
68	3.40	2.11	1.29	VIII
73	2.97	1.74	1.23	IX
14	3.70	2.50	1.20	I
83	2.56	1.38	1.18	XI
57	3.39	2.24	1.15	XI
49	3.20	2.06	1.14	III
7	2.91	1.78	1.13	II
69	3.20	2.09	1.11	X
58	2.93	1.84	1.09	IX
2	3.35	2.26	1.09	XI
13	2.62	1.58	1.04	IX
55	3.41	2.38	1.03	XI
80	2.87	1.84	1.03	III
29	3.00	2.00	1.00	II

TABLE 5 (Continued)

Item	Group "A"	Group "D"	Diff.	Factor
28	2.85	1.87	.98	IX
32	3.00	2.02	.98	X
37	2.60	1.62	.98	V
66	3.68	2.73	.95	III
35	3.03	2.08	.95	VIII
44	3.27	2.34	.93	XI
10	3.54	2.64	.90	X
21	3.42	2.53	.89	XII
26	2.95	2.07	.88	VIII
34	3.00	2.12	.88	XII
78	3.89	3.03	.86	XII
65	2.93	2.11	.82	XII
53	3.42	2.61	.81	II
20	2.60	1.79	.81	V
5	2.97	2.16	.81	VII
75	3.07	2.27	.80	VII
86	2.94	2.15	.79	II
43	2.55	1.77	.78	IX
31	3.61	2.85	.76	I
59	3.67	2.91	.76	I
8	3.41	2.67	.74	XI
48	3.28	2.55	.73	II
47	3.19	2.48	.71	XII
6	2.94	2.26	.68	X
19	3.46	2.78	.68	II

TABLE 5 (Continued)

Item	Group "A"	Group "D"	Diff.	Factor
36	2.90	2.22	.68	II
61	2.59	1.92	.67	III
4	2.98	2.31	.67	XII
85	3.26	2.63	.63	III
45	2.77	2.16	.61	VII
33	2.15	1.55	.60	VI
74	3.91	3.33	.58	I
77	3.06	2.48	.58	VIII
15	3.13	2.57	.56	VIII
62	3.41	2.89	.52	VII
79	2.88	2.36	.52	II
89	3.16	2.65	.51	III
90	2.32	1.83	.49	VIII
12	3.20	2.85	.35	II
67	2.22	1.87	.35	II
57	2.61	2.32	.29	VIII
76	2.71	2.43	.28	VII
46	2.12	1.86	.26	VIII
56	2.86	2.62	.24	VI
51	2.74	2.95	.21	V
63	2.95	2.74	.21	VI
60	2.46	2.26	.20	II
30	3.05	2.93	.12	VII
70	2.79	2.72	.07	X
18	2.36	2.30	.06	VI

TABLE 5 (Continued)

Item	Group "A"	Group "D"	Diff.	Factor
72	1.78	1.77	.01	II
16	2.42	2.42	.00	III
11	2.77	2.79	-.02	V
3	2.44	2.47	-.03	VI
40	2.49	2.63	-.14	V
41	3.10	3.27	-.17	II
81	2.97	3.15	-.18	V
38	2.31	2.52	-.21	III
71	4.43	4.65	-.22	IV
64	2.81	3.07	-.26	V
54	2.87	3.15	-.28	IV
56	1.73	2.05	-.32	III
22	3.22	3.89	-.67	IV
39	2.93	3.89	-.96	IV
27	2.20	3.24	-1.04	III
9	3.09	4.25	-1.16	IV
42	2.75	4.28	-1.53	I

Factors as denoted by number:

Source: Original data.

- | | |
|--|---|
| I Individual Welfare | VIII Confidence in Organization |
| II Attitudes Toward Leaders
and Practices | IX Pride in Organization |
| III Discipline | X Job Satisfaction |
| IV Food | XI Effectiveness and Pop-
ularity of Leaders |
| V Medical Care | XII Impartiality of Leaders |
| VI Confidence in Self | |
| VII Confidence in Training and Equipment | |

III. ANALYSIS OF FACTORS

The relative level of morale of the four groups was established by utilizing the opinion of the officers and non-commissioned officers of the organization concerned, and the total mean scores of each group on the scale. By using the relative morale status of each group as the criteria it is now possible to determine the contributory effectiveness of each factor to morale.

The significance of the differences between the factor means of the groups having the lowest ("A") and highest ("D") morale is used for this purpose. Referring to Table 6 it is observed that the differences between means of all factors except V and VI are of the one percent level of significance. However, the means of groups "A" and "D" of factor IV represent a negative difference indicating lower morale for group "D" on that factor. This same observation may be made on Table 11¹ in the comparison of groups "B" and "D".

The fact that all groups were provided with identical or very similar mess facilities and that groups "B" and "D" used the same mess hall indicates that the factor "food" is not as important a factor as is generally believed. It may also be interpreted that the apparent satisfaction of groups "A" and "B" with "food" is due to

¹Appendix "E" (4).

TABLE 6

THE MEANS OF GROUP "A" MINUS THE MEANS OF GROUP "D", THE
STANDARD ERROR OF THE DIFFERENCES, THE CRITICAL SCORES
AND LEVEL OF SIGNIFICANCE OF THE MEAN DIFFERENCES,
OF FACTOR SUBSCORES.

Factor	("A" - "D")			
	Diff. ¹	S.D. Diff. ²	T Score ³	sig. Level ⁴
I	3.07	.68877	4.46	1%
II	8.86	1.2098	7.32	1%
III	4.82	.68397	7.05	1%
IV	-1.69	.603	2.80	1%
V	1.09	1.0598	1.03	10%
VI	1.36	.60907	2.23	5%
VII	4.97	.55926	8.39	1%
VIII	4.59	.614727	7.09	1%
IX	6.47	.69019	9.37	1%
X	6.15	.825565	7.45	1%
XI	6.03	.49966	12.07	1%
XII	7.81	.74275	10.52	1%

Source: Original data.

¹Difference between means.

²Standard error of diff.

³Critical score

⁴1% denoted 1% level of
significance and better.

5% denotes 1.01% to 5%

10% denotes all over 5%.

the relatively greater dissatisfaction of these two groups with those factors which, to them, provide a more important source of irritation. This places "food" in a secondary role.

In order to establish a rigid criteria for the evaluation of the comparative effectiveness of each factor it was decided to establish the one percent level of significance as the critical point of acceptance. In so doing it is found that factors V (Medical Care) and VI (Confidence in Self) do not satisfy the one percent level of significance. The differences between means of groups "A" and "D" for factors V and VI, therefore, may be considered as being due to chance.

Medical Care, as in the case of "food", may be considered as a secondary factor in its contribution to morale. Because of the lack of a significant difference between subscore means the factor "confidence in self" may also be considered as a secondary factor. This tends to detract somewhat from the emphasis that is placed on self-confidence as a necessary trait of an individual's personality.

The remaining factors satisfy the requirements of the one percent level of significance, or better. It may then be stated that, for the purposes of this study, the nine remaining factors contribute to the development of high morale. These factors are listed in the order of

their significance as follows:¹

- XI Effectiveness and Popularity of Leaders
- XII Impartiality of Leaders
- IX Pride in Organization
- VII Confidence in Training and Equipment
- X Job Satisfaction
- II Attitudes Toward Leaders and Practices
- VIII Confidence in Organization
- III Discipline
- I Individual Welfare

Because of the difference in the N of each group it was necessary to compute the coefficient of dispersion for each factor subscore. This made it possible to compare the amount of dispersion about each factor mean. This information appears on Table 13, appendix F. The standard errors of the means also appear on the same table.

A comparison of all means, the standard errors of the differences, the critical scores, and the levels of significance of the mean differences of factor subscores by group, but those appearing on Table 6 may be found on Tables 8 through 12, appendix "E".

¹ See Table 6.

IV. ANALYSIS OF OPEN-END QUESTION¹

The analysis of adverse comments appearing in response to the open-end question revealed areas of discontentment peculiar to each group. For group "A" (prisoners) the area which presented the greatest discontentment was that of Navy policies. The comments expressed were very bitter and can best be typified by the comment, "the Navy can go to hell". There were 33 comments to that effect.

There were 22 comments indicating discontentment toward naval officers with comments ranging from, "too friendly with the men" to, "stuffed-shirt sons of bitches". Variety and originality of comments prevailed in this area.

The prisoners indicated discontentment toward the marine personnel which is typified by the statement, "Marines are shit, I don't see why they got them in the Navy". It is of interest to note that marines were employed as prison chasers and guards for this group. The majority of prisoners were naval personnel.

The area of greatest discontentment expressed by group "B" (marine guard personnel) was that of liberty, with 17 comments. The comments may be typified by the statement, "not enough liberty".

The marine officers of this company received six adverse comments of which the statement, "company officers

¹See Table 7.

are one-way" or the officers look out only for their own interests is typical. Closely related to the above were five comments expressing discontentment with the company as an organization. The statement, "this company is fouled up" typifies the comments in this area.

The area of greatest discontentment expressed by group "C" (marine headquarters personnel) was that of food and sanitation of the mess hall with 11 adverse comments. "Chow and messing facilities are lousy" was a typical comment. There were also four comments on the living conditions which were the barracks provided on the station. It was impractical for the writer to make an objective investigation of justification of such comments. The area of greatest discontentment expressed by group "D" (marine training personnel) was that of food, with 34 comments similar to those of group "C". The comments on Marine Corps policies took second place with a total of 16. These comments, however, were very different from those of group "A". The majority of these comments criticized the Marine Corps placement and selection methods. There was no strong or foul language used.

The medical care provided was subject to 13 comments for group "D". These comments were centered about the inadequacy of dental care. This inadequacy was based on the unreasonable delay involved between making an appointment and seeing the dentist.

The miscellaneous comments for all groups were too varied for classification and dealt primarily with points of personal interest to the individual. In order to illustrate the tone of these comments a typical comment from each group is listed as follows:

Group "A" - "A married man should be careful what he does in military and civilian life."

Group "B" - "I can't understand why you have to be 21 to drink."

Group "C" - "We need foul weather gear which is presentable in public."

Group "D" - "I have been trying to meet a clean, decent girl for some clean decent fun---."

In general groups "C" and "D" resented what they felt to be the subordination of the Marine Corps to the Navy. They did not like associating with the Navy and expressed a particular dislike toward Navy food.

The comments of group "A" originated from those Marines who were confined as prisoners. They expressed a desire to leave the Marine Corps. There was only one comment about the Marine Corps originating with group "B" which merely stated that the Marine Corps was fouled up. Group "C" like group "D" generally expressed dissatisfaction with the placement methods of the Marine Corps.

In the comparison of comments of the various groups toward their officers there was a very noticeable change

TABLE 7

ANALYSIS OF ADVERSE COMMENTS IN RESPONSE TO OPEN-END QUESTION, BY GENERAL SUBJECT, FREQUENCY MENTIONED, AND PERCENT OF GROUP N.

Subject:	Group "A" F.*	Group "A" %**	Group "B" F.	Group "B" %	Group "C" F.	Group "C" %	Group "D" F.	Group "D" %
Navy Policies ¹	33	37	0	0	0	0	0	0
Navy ²	0	0	0	0	2	5	4	4
Marine Corps Policies ²	5	7	1	2	3	7	16	16
Marine Personnel ¹	7	8	0	0	0	0	0	0
Officers	22	25	6	14	2	5	1	1
NCOs	2	2	3	7	1	2	5	5
Organization ³	2	2	5	12	0	0	1	1
Disciplinary Methods	5	6	0	0	0	0	0	0
Promotions	5	6	2	5	2	5	6	6
Living Conditions ⁴	0	0	0	0	4	10	1	1
Working Conditions	0	0	5	12	2	5	1	1
Pay, Adequacy of	0	0	0	0	2	5	8	8
Income Tax ⁵	0	0	1	2	0	0	5	5
Liberty	0	0	17	39	0	0	0	0
Food	2	2	1	2	11	25	34	34
Medical Care	2	2	1	2	1	2	13	13
Housing ⁶	0	0	1	2	5	12	0	0
Miscellaneous	1	2	7	16	8	18	18	18

Source: Original data. *Frequency. **Percent of group N.

¹By naval personnel.

⁴ Personnel living in barracks.

²By marine personnel.

⁵ Object to paying.

³Org. to which attached.

⁶ Personnel living off station.

of tone of these comments in progressing from the lowest morale group (group "A") to the highest (group "D"). The comments of group "A" are very bitter and expressed in strong and foul language. This bitterness gradually disappeared and upon considering the comment made by one member of group "D" it was considered rather gentle, "Our company officer should stand up for the Marines against the Navy."

The tone of the comments directed against the non-commissioned officers was fairly uniform. All groups seemed to feel that the NCOs were slightly prejudiced against the lower ranks of enlisted men.

Of the four groups, group "B" expressed the strongest feelings against the company to which they were attached. They felt that the company policies were unreasonable and different from the parent organization which was the Marine Barracks. The comments of the other three groups were rather casual criticisms of the recreational facilities and other minor areas.

The disciplinary methods of the Marine Corps and Navy particularly concerning courts martial were typical prisoner type remarks. They claimed to be either entirely innocent or that they had received an unfair trial. Only group "A" expressed comments toward this subject.

It is interesting to note that all four groups had about the same interest in promotions. These subjects

mentioning this subject felt that either promotions were too slow or that partiality was shown in the awarding of promotions.

Although all groups except the prisoners occupied similar barracks, group "C" was practically the only group criticizing the living conditions. Those individuals commenting on the living conditions expressed dissatisfaction concerning the lighting system, the heating system, and the number of cockroaches occupying the building.

Only groups "C" and "D" expressed dissatisfaction with the amount of pay received considering it inadequate. They seemed to have a higher regard for the value of their services. Only groups "B" and "D" objected to paying income tax. They merely felt that servicemen should not pay income tax.

The criticism of medical care by all groups was typical of that found among servicemen. One individual felt that A P C tablets were not the appropriate cure for flat feet. Another felt that the medical officers could not make a living in civilian life because of their "poor grade" of work.

Although 30 percent of the individuals composing group "A" were married they expressed no comments on the housing situation. Of group "B" 27 percent were married and only one person expressed dissatisfaction with the housing problem. Of group "C" 40 percent were married

and 12 percent or five individuals expressed dissatisfaction with the housing situation. Those who mentioned housing felt that there were not enough available homes, civilian or governmental, and that the rents were much too high.

DISCUSSION

In compiling the responses to the open-end question it becomes noticeable that each group has one or two areas in which the frequency of comments are concentrated. Group "A" is particularly bitter about the Navy as a whole, more definitely concerning officers. The marine personnel who act as prison chasers and guards at the brig in which this group was confined were third in line for criticism. It appears to the writer that this is a perfectly natural reaction in which the prisoners are attempting to project the responsibility of their situation to persons of authority.

Group "B" (guard personnel) who actually did not receive as much liberty as either group "C" or "D" indicated their dissatisfaction by the frequency of comments. It is the opinion of the writer that this group felt that the company officers were responsible for this situation. This was indicated by the adverse comments on the company officers. These comments, however, were not as strong as those of group "A".

In progressing from group "B" to "C" it is noted that the morale of group "C" is considerably higher. Again, however, it is noted that there is an area of discontentment. This group uses the same mess facilities as group "B" which had only one adverse comment on food as compared to 11 for group "C". Group "D" which had the

highest morale also expressed considerable discontentment concerning food. Group "D" did not use the same mess hall but one very similar to it. It seems to the writer that groups "C" and "D" criticized food and mess facilities for lack of something more important to complain about. Comments on officers dropped sharply for these last two groups.

In attempting to bolster the morale of an organization the listing of the factors contributing to morale in the order of their significance makes it possible to take remedial steps accordingly. Present trial and error methods and empirical guess work could be eliminated by using a more scientific approach.

The scale constructed and used in this study could be used for the purpose of determining the general level of morale of a military organization and, more specifically, would indicate those areas, or factors, which needed the most urgent attention. The general level of morale of any one unit could be compared with that of similar units in order to determine the effectiveness of the unit leaders as well as more objective influences of morale.

An analysis of the various factors would indicate particular weak or strong points of a unit. This analysis would make it possible for a commanding officer to take corrective action and thereby bolster the morale of his unit.

It is not recommended that any attempt be made to apply the present scale to such use in its present form. This form is experimental in design and needs considerable further study before it could be applied to practical use. There is a need for a more complete list of factors which contribute to the development of high morale. A more thorough list of items designed to measure these factors could probably be devised. The writer had to depend for the most part on his own opinion as to the selection of items which undoubtedly led to a certain amount of unconscious biasing. In addition, it would be necessary to pretest, statistically determine the discriminating items and factors, and standardize this scale with a typical representation of the organization concerned. This standardization group should be selected according to best possible sampling techniques. The standardization of the scale would give the average level of morale in the organization resulting in a basis for comparison of units within the organization.

CONCLUSIONS AND SUMMARY

It may be concluded that this scale is sufficiently sensitive to discriminate between high and low morale groups. That the reliability of .91 establishes the dependability of the scale. That the following factors do contribute to the development of high morale: Effectiveness and Popularity of Leaders, Impartiality of Leaders, Pride in the Organization, Confidence in Training and Equipment, Job Satisfaction, Attitudes Toward Leaders and Practices, Confidence in the Organization, Discipline, and Individual Welfare.

The purpose of this study is to determine those factors which contribute to the development of morale in a military organization. The writer listed 12 factors postulated as the ingredients of morale. Items designed to measure each of the 12 factors were constructed. Likert's technique was adopted in the construction of the scale making each item a scale in itself. The postulated factors and their respective items were submitted for criticism to a class consisting mainly of naval and marine officers. Some suggested changes were adopted.

Sample used was drawn from the Great Lakes Naval Training Center and depended entirely on availability. Four groups representing differences in objective conditions were used: 90 prisoners, 44 members of the marine

guard company, 42 members of the marine headquarters company, and 100 members of the marine training company.

Scale was administered to groups by the writer. Officers and non-commissioned officers ranked morale of groups. Results of this ranking as follows: prisoners, guard personnel, headquarters personnel, and training personnel - morale improving from left to right. Group mean scores substantiated the ranking. Split-half reliability of .91 was computed.

Subscores for each factor were computed. Differences between mean subscores of highest (training personnel) and lowest (prisoners) groups used to determine effectiveness of each factor. One percent level of significance used as criteria of significance.

Those factors proving effective in discriminating the four groups, by order of significance: Effectiveness and Popularity of Leaders, Impartiality of Leaders, Pride in Organization, Confidence in Training and Equipment, Job Satisfaction, Attitudes Toward Leaders and Practices, Confidence in Organization, Discipline, and Individual Welfare.

Those factors proving ineffective in discriminating the four groups: Food, Medical Care, and Confidence in Self.

The open-end question indicated areas of discontentment for each group as follows: prisoners - Navy policies,

officers, and marine guards; guard personnel - liberty and officers; headquarters personnel - food and mess hall facilities; training personnel - food and mess facilities, and Marine Corps policies. Criticism of Marine Corps policies was of much milder nature than those of Navy by prison personnel.

REFERENCES

1. McNemar, Quinn, Opinion-Attitude Methodology, Psychological Bulletin, 1946, Vol. 43, pp. 289-374.
2. Blum, Milton L., Industrial Psychology and its Foundations, published by Harper and Brothers, pp. 75-106.
3. Benge, Eugene Jackson, How to make a Morale Survey: A Manual of Procedures. Deep River, Conn.: National Foreman's Institute, 1941.
4. What is Morale? What the Soldier Thinks, published by Information and Education Division, Army Service Forces, 1943, No. 1, pp. 1-7.
5. Child, Irvin L., Morale: A Bibliographical Review, Psychological Bulletin, 1941, Vol. 38, pp. 393-420.
6. Rundquist, E. A. and Sletto, R. F., Personality in the Depression, Minneapolis: University of Minnesota Press, 1936, pp. 1-100.
7. Roethlisberger, F. J. and Dickson, William, J., Management and the Worker, published by Harvard University Press, Cambridge, Mass., 1946.
8. Hoslett, Schuyler Dean, editor, Human Factors in Managemment, published by Harper and Brothers, 1946, pp. 117-322.
9. Rodgers, Carl R., and Wallen, John L., Counseling with Returned Servicemen, published by McGraw-Hill Book Company, 1946, Chapter 2.

10. Seashore, R. H., and Hevner, K., A Time-saving Device for the Construction of Attitude Scales, Journal of Social Psychology, 1933, Vol. 4, 366-372.
11. Attitudes Toward Noncommissioned Officers, What the Soldier Thinks, published by Information and Education Division, Army Service Forces, 1943, Quarterly Report No. 2, 41-45.
12. Job Satisfaction and the Utilization of Skills, What the Soldier Thinks, published by Information and Education Division, Army Service Forces, 1943, Quarterly Report No. 2, 47-53.
13. Baier, D. E., A Review of Leadership Studies with Particular Reference to Military Problems, Psychological Bulletin, 1947, Vol. 44, pp. 466-467.
14. Cattell, R. B., Concepts and Methods in the Measurement of Group Sytnality, Psychological Review, 1948, Vol. 55, pp. 48-63.
15. Worksheets on Morale. Prepared by a seminar on psychological problems of morale in the Department of Psychology at Harvard University, under the direction of G. W. Allport and H. A. Murray.
16. Thebaud, Hewlett, RADM, U.S.N. Leadership in Relation to Punishment, U. S. Naval Training Bulletin, Feb., 1949, pp. 18-20.

APPENDICES

APPENDIX "A" (1)

RULES FOR PRISONERS

ALL PRISONERS, immediately upon being confined, will read and familiarize themselves with these rules, which will be strictly enforced.

1. CONDUCT

- (a) All prisoners shall bathe daily.
- (b) Prisoners' hair will be cut short in a regulation manner.
- (c) Prisoners shall be clothed in the uniform of the day.
- (d) Each prisoner shall be responsible for the cleanliness and appearance of his cell. All gear shall be stowed according to regulations.
- (e) Prisoners shall not, in any manner, deface the walls and floors of the brig.
- (f) Prisoners shall not alter, cut, or mutilate their clothing or shoes.
- (g) Prisoners shall not go into quarters other than those assigned them except on orders from proper authority.
- (h) Prisoners shall keep all articles belonging to them in plain view.
- (i) A prisoner may have photographs of his immediate family in his possession.

APPENDIX "A" (2)

- (j) Prisoners shall not have in their possession or in their cells, money, jewelry, watches, postage stamps, matches, razors, knives, tools, weapons, bottles or valuables.
 - (k) Cigarettes or tobacco other than that issued to the prisoners, knives, bottles, and any item that is a potential weapon are considered contraband. These items will be taken from prisoners and destroyed. Any items not listed above may be taken from prisoners and destroyed if such items adversely affect the security of the unit.
 - (l) Prisoners shall not waste food, nor take food out of the mess halls.
 - (m) Prisoners shall perform the work assigned to them in a quiet and diligent manner.
 - (n) Prisoners shall be clean shaven at all times.
 - (o) Prisoners will not be permitted to sleep, lie on the deck, or bunk between the hours of 0500 to 2100.
 - (p) Prisoners while confined within their respective wings or cells will not be allowed to converse in loud tones or conduct any form of noise making whatsoever.
2. OBEDIENCE AND DEPORTMENT
- (a) Prisoners shall not salute or pay military compliment except to stand at attention.

APPENDIX "A" (3)

- (1) When on an outside working detail, prisoners shall not cease work on the approach or in the presence of an officer unless so ordered.
- (2) All prisoners on inside details within the Brig compound shall stand at attention upon the approach of an officer and will remain so until "Carry On" is given or the officer passes.
- (b) Prisoners shall obey promptly and without argument the orders of any person in authority over them.
- (c) Prisoners shall speak to duty personnel only after permission is granted.
- (d) In addressing any person in authority over them, prisoners shall stand at attention and state his name and request permission to speak.
- (e) In answering any person in authority over them, prisoners shall speak clearly and distinctly and will not use slang or profanity.
- (f) At inspections, prisoners shall stand at attention close to the cell doors; if in squad room, at foot of their bunks.
- (g) At the command of "Attention" prisoners will stand at attention until "Carry On" is given. At the mess table "Attention" will be obeyed by sitting upright, and remaining quiet until

APPENDIX "A" (4)

"Carry On" is given.

- (h) Prisoners while in formation will maintain order and silence and march at attention.

3. CLASSES OF PRISONERS

- (a) Prisoners will be assigned by the Commanding Officer to one of three classes in accordance with their conduct and bearing as prisoners.
- (b) When received at the Center Brig, a prisoner will automatically be placed in Class 2, thus affording him an opportunity to show his qualifications for advancement to Class 1, or his unfitness to continue in the enjoyment of the privileges of Class 2. Assignment to class is not final and prisoners will be instructed that their classification depends entirely upon their conduct, performance duty, and general attitude. Each week on Fridays, the Wardens will submit to the Commanding Officer, via the Officer-in-Charge, a list of names of prisoners recommended for advancement from Class 3 to Class 2, and from Class 2 to Class 1. The Wardens will likewise, when occurring, submit recommendations for recommendations for reduction from Class 1 to Class 2, and from Class 2 to Class 3. Any man serving sentence of solitary confinement will

APPENDIX "A" (5)

automatically be placed in Class 3 status during the period of solitary confinement.

- (c) Prisoners awarded punishment for violation of Brig regulations by the Commanding Officer, Center Brigs, shall be automatically reduced to 3rd Class.

4. PRIVILEGES

(a) All prisoners

- (1) Each prisoner will be issued two (2) cigarettes after each meal. Smoking period will be for one-half hour after each meal. Smoking will be permitted in individual cells and wings only.
- (2) Each prisoner may have one library book in his possession.

(b) Class 1

- (1) Available for routine inside details, not requiring close supervision.
- (2) Available for outside working parties.
- (3) May write six letters weekly, two of which must be to his immediate family.
- (4) May have visitors each Sunday.

(c) Class 2

- (1) Available for inside and outside details requiring supervision.
- (2) May write three letters weekly, one of which must be to his immediate family.

APPENDIX "A" (6)

(3) May have visitors the first two Sundays of each month.

(d) Class 3

(1) Available for inside and outside details requiring supervision if not serving solitary confinement.

(2) May write one letter weekly, and this only to a member of his immediate family.

(3) If not a bread and water prisoner, may have visitors the first Sunday of each month.

5. REQUESTS

(a) Any prisoner desiring to see the Commanding Officer may request that privilege through official channels.

(b) Any prisoner desiring to make a request to the Officer-in-Charge, may do so in writing at any time.

(c) Sick call requests may be made to Warden via the sentry at 0600 and 1800 daily.

(d) Requests to visit the Chaplains or Red Cross representative may be made to Warden daily at 0900.

6. ANY VIOLATIONS OF THESE RULES WILL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE COMMANDING OFFICER.

APPENDIX "B" (1)

PLAN OF DAY - PRISONER'S

WEEK DAYS

0500 Reveille

0510 General Muster

0530 Police Call (Wings and Heads)

0600 Physical Exercise

0645 Mess Formation

0700 Breakfast

0730 Muster Prisoners - Holding list

- Outside working parties
- Sick call

0800 Sick Call

0815 Police Call

1000 Inspection (Ass't OIC and Chief Warden)

1100 Recreation (1st Class - outside)

1145 Mess Formation

1200 Dinner

1245 General Muster

1300 Muster Prisoners - Holding list

- Outside working parties

1330 Police Call

1430 Inspection (Officer-in-Charge)

1500 Recreation - (2d and 3d Class - outside)

- (inclement weather - physical exercise)

APPENDIX "B" (2)

1630 General Muster
 1700 Supper - Library Call
 1800 Bath and Shave; Letter Writing
 1930 Police Call (Wings and Heads)
 2030 Wing Inspection (Duty Warden)
 2045 General Muster
 2100 Taps

SATURDAYS

0500)
 to) Same as Weekdays
 1245)

1300 (Library Call
 (Outside Recreation)

1400 Secure Library Call

1500 Secure Recreation

1530 Police Call

1545 Wing Inspection (Duty Warden)

1615 General Muster

1645 Mess Formation

1700 Supper

1800 Music (loud speaker)

1930 Bath and Shave

2000 (Police Call (Wings and Heads)

2045 General Muster

2100 Taps

SUNDAYS

0600 Reveille
 0610 General Muster

APPENDIX "B" (3)

0630 Police Call (Wings and Heads)
0645 Mess Formation
0700 Breakfast
0730 Wing Inspection (Duty Warden)
0800 Church Call
0900 (Library Call
(Outside Recreation (1st Class)
1030 Police Call (General)
1145 Mess Formation
1200 Dinner
1230 Prisoner Inspection
(those expecting visitors)
1300 (Visitors Call
(Recreation
(Library Call
1400 Secure Library Call
1500 (Secure Visitors
(Secure Recreation
1530 Police Call (General)
1630 General Muster
1645 Mess Formation
1700 Supper
1800 (Music (loud speaker)
(Letter Writing
1930 Bath and Shave
2000 Police Call (Wings and Heads)
2045 General Muster
2100 Taps

APPENDIX "C"

PLAN OF DAY - GUARD COMPANY

WEEKLY:

0600 Reveille
0615 Expiration of Liberty
0615 Reveille Roll Call
0630 Breakfast
0725 Police Call
0800 Routine Work
0800 Guard Mount
0900 School
1110 Recall from School
1115 Mess Call
1130 Recall from Routine Work
1130 Dinner
1300 Routine Work
1300 Barracks Inspection
1400 Inspection - Weekly Inspection (Friday)
1630 Recall from Routine Work
1630 Liberty Call (previous days guard)
1700 Supper
2200 Taps

APPENDIX "C" (2)

SATURDAYS, SUNDAYS, AND HOLIDAYS:

0630 Reveille

0615 Expiration of Liberty

0630 Breakfast

0900 Liberty Call

1115 Dinner

1630 Supper

2200 Taps

APPENDIX "D"

POINTS COVERED IN ORAL INSTRUCTIONS

1. Identification:

1.1 Writer identified himself as a captain in the U.S. Marine Corps, presently attending graduate school at Northwestern.

2. Purpose of scale:

2.1 Purpose of this scale is to obtain the enlisted man's view point about particular situations in the service and to try and evaluate it.

2.2 This scale has never been used before and your group has been selected as an experimental group to test this scale.

3. Instructions:

3.1 You are urged to answer all questions. If there are any questions which you feel that you cannot answer with certainty, make your best guess.

3.2 Answer all questions exactly as you feel and not the way you think that I would like to have them answered.

3.3 This is not a test, it will not have any effect on your status in your organization.

3.4 Indicate your answer to each question by drawing a circle around the number which designates the response that best describes your feelings.

(Example)

APPENDIX "D" (2)

- 3.5 Form an independent judgment for each question.
- 3.6 On the last page of the scale there is an open-end question with space provided for you to write in any problems that you may have.
- 3.7 Do not write your name anywhere on these papers - this is to protect you as an individual from being identified.
- 3.8 There is no time limit for the completion of this scale.
- 3.9 Your complete cooperation is needed and requested in order to give this scale a fair trial.

APPENDIX "E" (1)

TABLE 8

THE MEANS OF GROUP "A" MINUS THE MEANS OF GROUP "B", THE STANDARD ERROR OF THE DIFFERENCES, THE CRITICAL SCORES AND LEVEL OF SIGNIFICANCE OF THE MEAN DIFFERENCES, OF FACTOR SUBSCORES.

("A" - "B")

Factor	Diff.	S.D.Diff.	T Score	Sig. Level
I	.66	1.0322	.64	10%
II	1.83	1.725	1.06	10%
III	2.87	.96968	2.96	1%
IV	.93	.75095	1.24	10%
V	2.91	1.3486	2.16	5%
VI	1.85	.694	2.67	1%
VII	2.05	.80802	2.54	5%
VIII	-.75	.89411	.84	10%
IX	2.70	.97515	2.77	1%
X	-.50	1.2282	.41	10%
XI	1.29	.75009	1.72	10%
XII	2.76	1.1147	2.48	5%

Source: Original data.

APPENDIX "E" (2)

TABLE 9

THE MEANS OF GROUP "A" MINUS THE MEANS OF GROUP "C", THE STANDARD ERROR OF THE DIFFERENCES, THE CRITICAL SCORES AND LEVEL OF SIGNIFICANCE OF THE MEAN DIFFERENCES, OF FACTOR SUBSCORES.

("A" - "C")

Factor	Diff.	S.D.Diff.	T Score	Sig. Level
I	5.02	.92553	5.42	1%
II	9.94	1.386	7.17	1%
III	2.87	.96968	2.96	1%
IV	-2.00	.7123	2.81	1%
V	3.87	1.2266	3.16	1%
VI	2.17	.73686	2.95	1%
VII	2.44	.76837	3.18	1%
VIII	2.00	.785	2.55	5%
IX	4.49	.83697	5.36	1%
X	4.64	1.33	3.49	1%
XI	1.29	.75009	1.72	10%
XII	8.96	.85844	10.44	1%

Source: Original Data.

APPENDIX "B" (3)

TABLE 10

THE MEANS OF GROUP "B" MINUS THE MEANS OF GROUP "C", THE STANDARD ERROR OF THE DIFFERENCES, THE CRITICAL SCORES AND LEVEL OF SIGNIFICANCE OF THE MEAN DIFFERENCES, OF FACTOR SUBSCORES,

("B" - "C")

Factor	Diff.	S.D.Diff.	T Score	Sig. Level
I	4.36	1.1845	3.68	1%
II	8.11	1.7125	4.74	1%
III	1.87	1.0338	1.81	10%
IV	-2.93	.785	3.73	1%
V	.96	1.33045	.72	10%
VI	.32	.7	.46	10%
VII	.39	.8853	.04	10%
VIII	2.75	.94409	2.91	1%
IX	1.79	.9512	1.88	10%
X	5.14	1.62335	3.17	1%
XI	4.19	.8096	5.18	1%
XII	6.20	1.0675	5.81	1%

Source: Original data.

APPENDIX "E" (4)

TABLE 11

THE MEANS OF GROUP "B" MINUS THE MEANS OF GROUP "D", THE STANDARD ERROR OF THE DIFFERENCES, THE CRITICAL SCORES AND LEVEL OF SIGNIFICANCE OF THE MEAN DIFFERENCES, OF FACTOR SUBSCORES.

("B" - "D")

Factor	Diff.	S.D.Diff.	T Score	Sig. Level
I	2.41	1.0179	2.37	5%
II	7.03	1.5733	4.47	1%
III	1.95	.86817	2.25	5%
IV	-2.62	.68743	3.81	1%
V	-1.87	1.18	1.59	10%
VI	-.49	.564	.87	10%
VII	2.92	.71054	4.11	1%
VIII	5.34	.83313	6.41	1%
IX	3.77	.825	4.57	1%
X	6.65	1.2447	5.34	1%
XI	4.74	.69705	6.80	1%
XII	5.05	.97695	5.17	1%

Source: Original data.

APPENDIX "A" (5)

TABLE 12

THE MEANS OF GROUP "C" MINUS THE MEANS OF GROUP "D", THE STANDARD ERROR OF THE DIFFERENCES, THE CRITICAL SCORES AND LEVEL OF SIGNIFICANCE OF THE MEAN DIFFERENCES, OF FACTOR SUBSCORES.

("C" - "D")

Factor	Diff.	S.D.Diff.	T Score	Sig. Level
I	-1.95	.90157	2.16	5%
II	-1.08	1.1919	.91	10%
III	.08	.77217	.10	10%
IV	.31	.645	.48	10%
V	-2.83	1.0366	2.73	1%
VI	-.81	.61587	1.32	10%
VII	2.53	.66518	3.80	1%
VIII	2.59	.71473	3.62	1%
IX	1.98	.65592	3.02	1%
X	1.51	1.34475	1.12	10%
XI	.55	.58525	.94	10%
XII	-1.15	.66988	1.72	10%

Source: Original data.

APPENDIX "F"

TABLE 13

THE STANDARD ERRORS OF THE MEANS AND THE COEFFICIENTS OF
DISPERSION OF THE TWELVE FACTOR SUBSCORES, BY GROUP.

Factor*	Group "A"		Group "B"		Group "C"		Group "D"	
	S \bar{X}	V%	S \bar{X}	V%	S \bar{X}	V%	S \bar{X}	V%
I	.509	22.66	.898	28.59	.773	30.54	.464	25.44
II	.991	23.02	1.412	23.85	.969	20.21	.694	21.76
III	.572	19.22	.783	20.33	.675	18.49	.375	16.02
IV	.477	22.66	.580	20.07	.529	15.51	.369	17.08
V	.881	38.12	1.021	35.42	.853	30.45	.589	28.28
VI	.517	31.42	.463	22.15	.525	25.15	.322	22.58
VII	.480	24.01	.650	25.33	.600	23.37	.287	20.58
VIII	.512	21.47	.733	20.65	.595	18.59	.396	22.00
IX	.611	33.63	.760	34.51	.572	28.96	.321	29.92
X	.566	26.79	1.090	34.95	1.203	46.89	.601	43.40
XI	.404	19.77	.632	23.03	.506	23.50	.294	22.13
XII	.648	23.87	.907	26.01	.563	21.63	.363	20.29

Source: Original data.

S \bar{X} - Standard error of the mean.

V% - Coefficient of dispersion, percent.

* For factor titles see Table 3.

AN ATTITUDE SCALE

Age _____ Rank _____ Married _____ Single _____ No. Of Children _____

How long have you been in your present rank? _____

What is the total number of years you plan to remain in the service? _____

How long have you been in your present organization? _____

Write the number of court martial convictions you have on your record:

Deck Court _____ Summary Court _____ General Court _____

This scale is designed to obtain your feelings toward particular situations in your organization. The success of this scale depends entirely on your answering the questions exactly as you feel and not the way you think they should be answered.

Do not write your name anywhere on these papers.

Indicate your answer to each question by making a circle around the number that designates it. The purpose of this scale will be served if in each case you circle the statement that comes closest to your judgement, even though it is only an approximation.

On the last page there is space provided in which you are asked to write the details of any personal or military problem that is bothering you, or any gripes that you may have. If there is anything particular that you like or dislike about your organization, write that in also.

IN ANSWERING THE FOLLOWING QUESTIONS, TRY TO FORM AN INDEPENDENT JUDGEMENT ON EACH QUESTION. CONSIDER IT APART FROM THE OTHERS.

1. Are your officers interested in your personal problems?

1. Always
2. Most of the time
3. Sometimes
4. Not often
5. Never

2. How would you rate the morale of the officers in your outfit:

1. Very high
2. High
3. Average
4. Low
5. Very low

3. How well do you know your job?

1. Very well
2. Well
3. Fair
4. Not so good
5. Don't know it

4. Do you feel that you are asked to do things which are unreasonable?

1. Never
2. Hardly ever
3. Sometimes
4. Most of the time
5. All of the time

5. How do you think your equipment compares with the equipment of a unit doing the same type of duty in the Army? Yours is --
1. Much better
 2. Better
 3. About the same
 4. Not as good
 5. Much worse
6. Would you change to some other job in the Marine Corps (Navy) if given the chance?
1. No
 2. Probably not
 3. Maybe
 4. Would like to
 5. Definitely would
7. Do the officers in charge of your company know their stuff?
1. All do
 2. Most do
 3. Some do
 4. Few do
 5. None do
8. Are your officers open to suggestions from you or other enlisted men?
1. All the time
 2. Most of the time
 3. Some times
 4. Hardly ever
 5. Never
9. What is the quality of the food you are served in the mess hall?
1. Very good
 2. Good
 3. Satisfactory
 4. Poor
 5. Very poor
10. Do you think your ability and experience fits you better for some other job or duty?
1. No
 2. Doubt it
 3. Undecided
 4. Probably
 5. Yes
11. What do you think of the medical care you receive at the dispensary?
1. Very good
 2. Good
 3. Satisfactory
 4. Poor
 5. Very poor
12. Do your officers know the abilities the men in your company possess?
1. All do
 2. Most do
 3. Some do
 4. Few do
 5. None do

13. Do you feel proud of being a Marine (Sailor)?
1. Very proud
 2. Proud
 3. Don't mind
 4. Don't feel proud
 5. Ashamed of it.
14. Are your officers helpful in solving your personal problems?
1. Always
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
15. Does everyone in your organization do his share of work?
1. All the time
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
16. How often do you try to do your job in such a way that it might result in a better chance for week-end liberty or some other reward?
1. All the time
 2. Most of the time
 3. Some time
 4. Not often
 5. Never
17. Do you receive your share of leave and liberty?
1. Always
 2. Most of the time
 3. Some time
 4. Not often
 5. Never
18. Could you handle any emergency that might arise in your job?
1. Definitely could
 2. Pretty sure
 3. Probably could
 4. Probably not
 5. No
19. Do you or the other men in your company receive recognition or praise for a job well done?
1. Always do
 2. Most of the time
 3. Some times
 4. Hardly ever
 5. Never
20. Is it possible for you to see a doctor as often as you think necessary?
1. All the time
 2. Most of the time
 3. Some times
 4. Not often
 5. Never

21. Are the unpleasant jobs distributed fairly in your organization?
1. Always
 2. Most of the time
 3. Some times
 4. Not oftens
 5. Never
22. Is the food well prepared in your mess hall? It is well prepared -
1. Always
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
23. Do you think that the Marine Corps (Navy) is giving you a chance to show what you can do?
1. All the time
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
24. Do the officers in your company back up the enlisted men when they are right?
1. Always do
 2. Most of the time
 3. Some times
 4. Not often
 5. They never do
25. Do you feel that everything possible has been done to place you in the job where you best fit in the Marine Corps (Navy)?
1. Definitely yes
 2. Probably
 3. Undecided
 4. It is doubtful
 5. Definitely not
26. Does your outfit work as a team?
1. Always do
 2. Most of the time
 3. Some times
 4. Not often
 5. Never do
27. Do you feel that you get away with violating any orders?
1. Never do
 2. Hardly ever do
 3. Some times do
 4. Most of the time do
 5. Never do
28. Do you wear your uniform while on leave?
1. Always do
 2. Most of the time
 3. Some times
 4. Seldom do.
 5. Never do

29. Are you given enough authority to do your job?
1. Always
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
30. Do you feel that your instructors know their stuff? They are -
1. Very good
 2. Good
 3. Satisfactory
 4. Poor
 5. Very poor
31. Do you feel free to take your personal problems to your officers?
1. Always
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
32. How interested are you in your present Marine Corps (Navy) job?
1. Very interested
 2. Interested
 3. Makes no difference
 4. Not interested
 5. Very uninterested
33. With a reasonable amount of training, could you handle any other job requiring your rank in the Marine Corps (Navy)?
1. Definitely yes
 2. Pretty sure
 3. Probably could
 4. Probably not
 5. No
34. How fair is the promotion policy in your organization?
1. Very fair
 2. Fair
 3. Some times fair
 4. Unfair
 5. Very unfair
35. How does your present organization compare with other organizations in the Marine Corps (Navy)? Yours is -
1. Much better
 2. Better
 3. About the same
 4. Not as good
 5. Much worse
36. Do you feel that the best use is made of training time?
1. Always
 2. Most of the time
 3. Some times
 4. Not often
 5. Never

37. Do you feel free to go to the dispensary whenever necessary?
1. All of the time
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
38. Are you criticized when you do a poor job?
1. Always
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
39. Is the food in your mess hall properly served?
1. All the time
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
40. What do you think of the medical care you receive at the Naval Hospital?
1. Very good
 2. Good
 3. Satisfactory
 4. Poor
 5. Very poor
41. Are you satisfied with your recreational facilities provided by the Marine Corps (Navy)? They are -
1. Very good
 2. Good
 3. Satisfactory
 4. Poor
 5. Very poor
42. How many of your company officers know you by name?
1. All do
 2. Most do
 3. Some do
 4. Few do
 5. None do
43. How does your family feel about your being a Marine (Sailor)?
1. They are proud of it
 2. Approve
 3. Don't mind
 4. Disapprove
 5. Strongly disapprove
44. How do you feel about working for your present NCO's?
1. Like it very much
 2. Like it
 3. Don't mind
 4. Dislike it
 5. Dislike it very much

45. Do you feel that the training given by the Marine Corps (Navy) is good enough to train the average enlisted man to perform all the duties of his rank?
1. It definitely does
 2. Pretty sure it does
 3. Probably does
 4. Doubt that it does
 5. Definitely does not
46. How many friends do you have in your company?
1. Very many
 2. Many
 3. Some
 4. Few
 5. None
47. Are the pleasant jobs distributed fairly in your organization?
1. Always are
 2. Most of the time they are
 3. Sometimes they are
 4. Not often
 5. Never
48. Do you feel that the men in your company are given enough information as to why they are performing particular jobs?
1. Always
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
49. Do you feel that the punishment for offenses committed in your organization is fair?
1. Always is
 2. Most of the time it is
 3. Some times it is
 4. Not often
 5. It is never fair
50. Could you handle any duty required by your rank without further training?
1. Definitely could
 2. Pretty sure you could
 3. Probably could
 4. Probably not
 5. No.
51. Do you receive enough dental treatment?
1. Always do
 2. Most of the time you do
 3. Some times do
 4. Not often
 5. Never

52. In your organization, do promotions go to these who deserve them?
1. Always
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
53. Do you have the opportunity to show how well you can perform your job?
1. Always do
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
54. Do you get all that you want to eat at your mess hall?
1. All the time
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
55. How do your present officers compare with those of similar rank you have known in the past? Your present officer are -
1. Much better
 2. Better
 3. About the same
 4. Not as good
 5. Much worse
56. When you are criticized or punished by an officer or NCO, do you feel that he is out to get you?
1. Never
 2. Not often
 3. Some times
 4. Most of the time
 5. Always
57. Do the other enlisted men in your outfit know their stuff?
1. They all do
 2. Most do
 3. Some do
 4. Few do
 5. None do
58. What do your friends in the home town think about the Marine Corps (Navy)? They think it is -
1. A great outfit
 2. Good outfit.
 3. They don't particularly care
 4. Not such a good outfit
 5. Lousey outfit

59. Do your officers show an interest in your ambitions?
1. All do
 2. Most do
 3. Some do
 4. Few do
 5. None do
60. Are you familiar with your organization orders?
1. All of them
 2. Most of them
 3. Some of them
 4. Few of them
 5. None of them
61. Do you feel that punishment in your organization is not personal and is administered only because an order has been violated?
1. Always
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
62. Do you feel that the training program of your organization need improving?
1. Definitely not
 2. Probably not
 3. Could stand some improvement
 4. Needs considerable improvement
 5. Whole program needs changing.
63. How do you think you compare with the average enlisted man of equal rank and experience in your company in the performance of your duties? You are -
1. Much better
 2. Better
 3. About the same
 4. Not as good
 5. Much worse
64. How good is the dental treatment you receive?
1. Very good
 2. Good
 3. Satisfactory
 4. Poor
 5. Very poor
65. Are disciplinary cases handled fairly in your organization?
1. Always
 2. Most of the time
 3. Some of the time
 4. Not often
 5. Never

66. Do the officers and the NCO's in your organization compliment you when you do a good job?
1. Always do
 2. Most of the time they do
 3. Some times they do
 4. Not often
 5. They never do
67. Are you familiar with your organization policies concerning leave, liberty, work assignments etc?
1. All of them
 2. Most of them
 3. Some of them
 4. Few of them
 5. None of them.
68. How does your present organization compare with those that you have been with in the past? Present organization is -
1. Much better
 2. Better
 3. About the same
 4. Not as good
 5. Much worse
69. Hhow satisfied are you about being in your present Marine Corps (Navy) job instead of some other job in the Marine Corps (Navy)?
1. Very satisfied
 2. Satisfied
 3. Makes no difference
 4. Dissatisfied
 5. Very dissatisfied
70. What do you think of the medical care you receive in the Marine Corps (Navy)?
1. Very good
 2. Good
 3. Satisfied
 4. Poor
 5. Very Poor
71. Are you able to obtain food from the galley between meals without proper authority?
1. All the time
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
72. If you wanted to see your company commander, do you know what steps you would have to take in order to see him?
1. Definitely yes
 2. Pretty sure
 3. Probably
 4. Doubt it
 5. No.

73. Do you feel proud of your outfit?
1. Always do
 2. Most of the time
 3. Some times
 4. Not often
 5. Never do
74. Do your officers show interest in your hobbies and other interests?
1. All do
 2. Most do
 3. Some do
 4. Few do
 5. None do
75. Do you feel that the training received by the average enlisted man in the Marine Corps (Navy) prepares him for any emergency that may arise in his particular job?
1. Definitely yes
 2. Pretty sure
 3. Probably
 4. Doubt it
 5. Definitely not
76. Do you feel that you are qualified for a promotion?
1. Definitely yes
 2. Pretty sure
 3. Probably
 4. Probably not
 5. No
77. Does everyone in your company cooperate in doing a job?
1. Always do
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
78. Do you receive sufficient personal attention from your officers?
1. Always do
 2. Most of the time
 3. Some times
 4. Not often
 5. Never do
79. Are you told exactly what you are expected to do when you are given a job?
1. Always
 2. Most of the time
 3. Some times
 4. Not often
 5. Never

80. How do you feel about a fellow who violates an order?
1. Strongly disapprove
 2. Disapprove
 3. Immaterial to you
 4. Approve
 5. Strongly approve
81. How do you like the dental care you receive in the Marine Corps (Navy)?
1. Very good
 2. Good
 3. Satisfactory
 4. Poor
 5. Very poor
82. Do you know of any individuals or groups of individuals who are able to obtain food from the galley between meals without proper authority? You know of -
1. None who do
 2. Very few do
 3. Don't know
 4. Quite a few do
 5. Many do
83. Are the decisions of your officers final?
1. Always
 2. Most of the time
 3. Some times
 4. Not often
 5. Never
84. As a whole, how do you think your Marine Corps (Navy) training compares with the Army? Yours is -
1. Much better
 2. Better
 3. About the same
 4. Not as good
 5. Much worse
85. Do you think that the "wise guys" in your outfit get away with anything?
1. They never do
 2. Not often
 3. Some times
 4. Most of the time
 5. All the time
86. Are you told in advance of any changes in your organization that may affect you?
1. Always
 2. Most of the time
 3. Some times
 4. Not often
 5. Never

87. As a whole, how popular are the officers in your outfit?
1. Very popular
 2. Popular
 3. About average
 4. Unpopular
 5. Very unpopular
88. Do you like to tell people what a good outfit the Marine Corps (Navy) is?
1. Always do
 2. Most of the time do
 3. Some times
 4. Not often
 5. Never
89. How often do you perform your job because you think you might be punished if you didn't do it?
1. Never
 2. Hardly ever
 3. Some times
 4. Most of the time
 5. All the time
90. Do you go on liberty with any of the fellows in your company?
1. Always do
 2. Most of the time do
 3. Some times
 4. Not often
 5. Never do

IN THE FOLLOWING SPACE WRITE ANY PROBLEMS OR GRIPES THAT YOU HAVE OR ANYTHING IN PARTICULAR THAT YOU LIKE OR DISLIKE ABOUT YOUR ORGANIZATION.

(2nd card)

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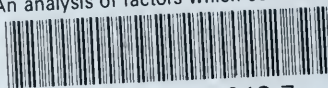
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