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STUDIES IN CAREER MOTIVATION; III
EFFECTS OF REPEATED QUESTIONNAIRE
ADMINISTRATION ON RETURNS AND ON
INTENDED AND ACTUAL REENLISTMENT

Task Assignment PF-016-07-001.1W

RS 62-5

ALBERT S. GLICKMAN
GEORGE W. MAYESKE

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PERSONNEL RESEARCH DIVISION
BUREAU OF NAVAL PERSONNEL

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February 1962

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BRIEF

This is a methodological report of the effects of repeated administration of the Career Motivation questionnaire.

Repeated exposure to the questionnaire did not have an adverse effect on the questionnaire returns nor on reenlistment intentions. Some tendency was found for those men who received a questionnaire to remain in the Navy more often than those who did not receive any questionnaire.

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STUDIES IN CAREER MOTIVATION: EFFECTS
OF REPEATED QUESTIONNAIRE ADMINISTRATION ON
RETURNS AND ON INTENDED AND ACTUAL REENLISTMENT

PURPOSE AND DESIGN OF THE STUDY

The basic design of the Career Motivation Survey involved administration of the same questionnaire to identical or equivalent groups of sailors at several points during the course of their first enlistment, all of whom entered the Navy at about the same time. The purposes of the research were to determine: (a) how and when attitudes change during the first enlistment; (b) whether these attitude changes are related to reenlistment; (c) what experiences and circumstances affect these attitudes; (d) when these attitudes become fixed; and (e) how well and how soon reenlistment can be predicted on the basis of these attitudes.

The experimental design, discussed in detail by Glickman, Learner and Spector (1959), is comprised of groups in a vertical and a diagonal sequence. The diagonal sequence includes all instances in which the groups were exposed to the questionnaire for the first time after different amounts of time spent in the Navy. The vertical sequence involves the same people who were given the questionnaire one, two, or three times, subsequent to their first encounter with the questionnaire, with varying times intervening between administrations. This aspect of the design enables one to trace the changes in response pattern of specific individuals from one administration time to another. It also makes possible evaluation of "instrument effects," i.e., the effect of responding to the questionnaire more than once.

This paper reports the effects of: (1) repeated administration of the questionnaire on intended and actual reenlistment; (2) administration versus non-administration of the questionnaire on actual reenlistment and; (3) repeated administrations upon the proportion of questionnaires returned.

DESCRIPTION OF THE QUESTIONNAIRE

The description of the development and pretest of the questionnaire and a complete copy is available in a previous report (Glickman & Learner, 1959). In brief, the CAMOSUR XI is a 59-item questionnaire comprised of three parts.

The first part has 39 Navy-related attitude items, all phrased so that the respondent can Strongly Agree, Agree, Disagree, or Strongly Disagree. Of the 14 items in Part II, half are of the error-choice type and are intended to measure some impressions of the men which may affect or reflect their opinions and attitudes. The six items in Part III ask for information about the man before he came into the Navy, such as place of origin and salary earned, and are filled in only the first time the man completes the questionnaire.

The intermediate criterion item, which provides a measure of reenlistment intention, appears as item 48 in CAMOSUR XI and is shown below.

48. What are you most likely to do after your first enlistment?
- a. Work for an employer, on salary, wages or commission.
 - b. Go to full time school or college.
 - c. Farm for myself.
 - d. Have my own business.
 - e. Reenlist in the Navy.
 - f. I haven't decided what I will do.

Responses to the criterion item are dichotomized, alternative e against all others.

METHOD OF ADMINISTRATION

Administrations 1 and 2 took place at the three Recruit Training Commands in operation in 1956. CAMOSUR XI was administered, by experienced Personnelmen, to every incoming male recruit until the requisite sample had been obtained.

All subsequent administrations took place at the subject's duty station. A self-administered questionnaire and return-addressed envelope were mailed to the subject via his commanding officer.

STATISTICAL ANALYSIS

Effects of Repeated Administration

It was originally hypothesized that greater frequency of exposure to the questionnaire would be associated with a greater distortion of response although it was not forecast just what direction this distortion would take. One might argue that repeated administrations would create an adverse attitude on the part of the subject or that repetitive administration might increase the person's sensitivity to certain aspects of the problem.

In addition it did not seem unreasonable to suppose that the more frequently a group was requested to fill out the questionnaire the less likely they would be to comply with this request. This would be reflected in a smaller proportion of the group returning the questionnaire on repeated administrations.

In order to ascertain the effects of repeated administrations upon reenlistment intentions, within each administration period comparisons were made of those groups who received the questionnaire once with those who received it two or more times. A breakdown of these figures is given in Table 1.

Comparisons within Each Administration Period of Effects of Repetitive Exposure

Table 1

Number of Months in Navy	Administration Number & Sample Identification	Frequency of Exposure to Questionnaire	Percent Return of Original Sample	Proportion Intending to Reenlist	Total Responding
42	8D	4	58	.12	595
	8G	3	58	.14	526
	8I	2	58	.13	524
	8K	1	61	.15	550
30	6D	3	75	.07	761
	6C+6G	2	75	.09	1113
	6I	1	77	.07	695
15	4D	2	79	.09	630
	4G	1	81	.10	677
6	3B	2	81	.15	366
	3F	1	80	.11	322
	2A	2	88	.25	299
3	2E	1	87	.23	288

Effects Upon Returns

The percent return shown here is the number of people out of the original sample who returned the completed questionnaire. Within each administration period (2, 3, 4, 6 and 8), the differences between the number of people who responded to the questionnaire once versus more than once (i.e. once vs. twice, once vs. twice vs. thrice, etc. as the case may warrant) are not significant by Chi square test (Walker & Lev, 1953). The decline over time in the absolute proportion of respondents is caused by the attrition of subjects due to medical and disciplinary discharges, minority enlistments and other causes.

A check was made at the fourth administration to see how many of the men from the original sample who were still in the Navy actually returned the questionnaire. At this administration period, out of the total number of men available to respond, 88% actually did so. Thus the decline in the absolute proportion of respondents reflects losses due to attrition and not a decline in the proportion of returns out of those available. The differences in the number of cases assigned to each sample in the beginning was an attempt to anticipate estimated attrition.

Effects Upon Reenlistment Intentions

A comparison of major interest in this table is between the frequency of response to the questionnaire and reenlistment intention within each time period. The comparisons are made between the number of people who have responded to the questionnaire once versus twice (Administrations 2, 3, and 4), once versus twice versus three times (Administration 6) and, once versus twice versus three times versus four times (Administration 8). None of these Chi square values were significant. Thus the number of repeated exposures to the questionnaire showed no systematic effect upon the reenlistment intention averages.

A comprehensive analysis of the number of men showing a positive reenlistment intention at each administration is presented in another report (Glickman, 1961).

Effects Upon Actual Reenlistment

Additional comparisons can be made between the following: (1) the reenlistment rate of those who received the questionnaire versus those who did not; (2) the effects of repetition of administration of the questionnaire on actual reenlistment; (3) the reenlistment trend of those who received the questionnaire at different times.

For the purposes of this study all men remaining in the Navy beyond the expiration of their initial enlistment are categorized as reenlistees.

In Table 2, comparison is made of the proportion of men who remained in the Navy among those who did receive and those who did not receive the questionnaire.

Table 2 shows some tendency for a greater proportion of the men who received the questionnaire to remain in the Navy, although the difference does not quite reach the usual significance level. The relatively small number of cases remaining in the "none" category puts a damper on this test. Replications with larger numbers would appear to be in order to provide a more definite result.

Table 2

Proportion of Men in Navy After Expiration
of Their Initial Enlistment Date by
Administration of Questionnaire

Administration	Number Remaining	Total	Proportion
None	48	349	.14*
One or more times	1193	6917	.17

*Two tailed p by Z for difference between proportions = .08.

No discernible trend was found between frequency of administration of the questionnaire and actual reenlistment. A breakdown of these figures is given in Table 3.

The trend for time of administration is given in Table 4.

Table 3

Effects of Frequency of Administration of
Questionnaire on Actual Reenlistment

Administration Number and Sample Identification	Frequency of Administration	Proportion Reenlisting	Total in Sample
8D	4	.19	1019
8G	3	.20	904
8I	2	.19	904
8K	1	.18	906
3B	2	.13	451
3F	1	.13	402
2A	2	.17	340
2E	1	.17	329

Table 4

Proportion of Men in Navy After Expiration of Their
Enlistment Termination Date by Administration Time

Administration Time	Number Remaining	Total	Proportion
8	707	3733	.19*
7	99	612	.16
6	95	572	.17
5	65	478	.14
3	113	853	.13
2	114	669	.17
None	48	349	.14

*Two tailed p by Z for 8 vs. none = .01.

Table 4 shows that there is a tendency for more men in Administration 8 to remain in the Navy than those in the sample that never received the questionnaire.

If this result could be obtained again using a larger control group, it would suggest that administration of the questionnaire as opposed to non-administration, has its greatest effect on actual reenlistments about six months prior to expiration of the original enlistment.

SUMMARY

This report is one of a series dealing with the attitudes toward the Navy and the career intentions of Naval enlisted men during the course of their first enlistment. It was found that repeated administration of the Career Motivation questionnaire (CAMOSUR XI) did not have an adverse effect on the proportion of subjects returning the questionnaire nor on the intended and actual reenlistment of the participants. Hence in further attitudinal research of this nature it will be possible to use the same respondents several times, and more complex and costly experimental designs can thus be circumvented.

Some tendency was also found for those men who received a questionnaire to remain in the Navy more often than did those who did not get any questionnaire. The administration of the questionnaire seemed to have its most favorable effect on the actual reenlistment of those subjects responding six months before the end of their initial enlistment. A replication of this aspect of the study using a larger control group was recommended.

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