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LIFE PATH AS A PREDICTOR OF PERFORMANCE IN THE NAVY: PHASE I RE--ETC(U)
SEP 76 W E GAYMON, G WEST
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)												
<p>The research reported here represents the first in a series of studies to examine the relationships between an historical construct, labelled "life path" and performance in the Navy, as indicated by "investment behavior." Life path, as used in this report, is a term used to describe typical patterns of interaction which an individual has experienced with various socializing institutions prior to his/her enlistment in the Navy. 'Investment behavior' is used to describe the relative willingness of an individual to engage in institutionally sanctioned behavior to enhance his/her</p>												

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20. Abstract, (continued (P 1473))

effectiveness in the Navy. The research is designed to determine the extent to which the life path variable can be used to predict variations in investment behavior. During Phase I, two prototype instruments were developed which were

The objective of the Phase I work was the development of two prototype instruments capable of measuring the two classes of variables described above. The methodology used in designing the two instruments (a life path instrument and an Investment Behavior Checklist) are described. The life path instrument consisted of seven scales in addition to a composite scale. The Investment Behavior Checklist was designed to permit company commanders to evaluate critical components of recruit performance during basic training. No criterion data were obtained during Phase I. Preliminary analyses were performed on the data derived from the life path instrument. ✕

The results indicate that, for the sample of 188 students, the scores on the composite scale formed a normal distribution in which virtually identical percentages of the cases were at the ends of the distribution (i.e., 15.4% exceeded +1σ while 16.4 were below -1σ). Thus, one would be able to identify high and low scorers. A component analysis indicated that there was sufficient independence among the scales to negate the concept of a composite scale. Further research will identify and label the factors involved in the life path measurement. Appropriate profile scores will be developed by which high and low scorers can be identified. Reliability coefficients were reasonable for all but two scales. In summary, the data from the research reported here suggest that the life path instrument can differentiate among individuals in terms of their responses to a biographically oriented questionnaire.

In Phase II of this research project criterion data will be collected in an ongoing Navy training environment and will consist of (1) data which the Navy usually accumulates on recruits, and (2) use of the Investment Behavior Checklist.

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LIFE PATH AS A PREDICTOR OF PERFORMANCE IN THE NAVY:
PHASE I RESEARCH

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September 1976

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LIFE PATH AS A PREDICTOR OF PERFORMANCE IN THE NAVY:

PHASE I RESEARCH

INTRODUCTION

In the prevailing era of an all-volunteer force, the Navy is obliged to compete with other industries to fulfill its manpower requirements. To compete more effectively, the Navy has embarked on a broad scale program designed to enhance its image in the community-at-large so that prospective recruits would be inclined to view the Navy as an attractive and personally rewarding career choice.

Even while the Navy has launched a program to increase its attraction among relevant target groups, concern has been expressed by officials over mounting attrition rates. According to figures recently obtained from the Department of the Navy, attrition for FY 1973 and prior was 30% among first-term enlistees. Comparable figures for FY 1974, 1975, and 1976 were 32, 37, and 42 percent, respectively. Projections for FY 1978 reach as high as 48%. Over the past few years, researchers have addressed the question of premature attrition and have primarily invested research effort toward the development of models for screening out individuals who, on the basis of empirically derived indicators, have a high probability of leaving the service prior to the normal termination of their first tour of duty.

As valuable as these studies have been in pointing to individual attributes which predict success in the Navy, they have not dealt with the subtle interaction between the individual and the institution which may exert differential impact upon individuals representing different cultural groups. In the case of individuals representing various subcultures, the operational systems of the Navy may serve to unwittingly reduce their chances of success.

In recognition of the dynamic relationship between individual and institutional expectancies, the current research is designed to examine in detail individual patterns of success and/or failure which men, or women, bring into the Navy, and to assess their impact upon subsequent performance. Focusing primarily upon biographical information, we conceive of our independent

variable, "life path," as an historical construct to emphasize its continuous and compounding effect. The performance variable is labeled "investment behavior." The major thrust of the research is to establish relationships between the two variables which, in essence, could serve predictive, as well as diagnostic, purposes.

DEFINITIONS

Life Path

Simply stated, the life path construct focuses upon patterns of interaction between an individual and the various socializing institutions which he confronts in the process of maturation (e.g., the home, the community, the schools, the labor market, social welfare agencies, etc.). A basic assumption is that generally positive patterns of interaction will be accompanied by increased confidence in one's personal competence and that the development of such confidence will compound over time to enhance one's effectiveness in institutional settings. Each success leads to an expectation of further success in subsequent situations. The converse would be true for individuals who experience generally negative patterns of interaction with institutions. These individuals would most likely develop negative expectations which lead them to anticipate failure in institutional settings, and to thus establish a self-fulfilling prophecy.

A secondary assumption is that some individuals possess personal skills and competence which are not measured by the usual psychometric tests administered by the Navy. Hopefully, this research would eventually allow the Navy to identify "hidden talent" and consequently devise mechanisms for comprehensive assessment of recruit talents at field recruit stations.

Yet another assumption of the research is that many of the dimensions to be measured by a "life path" instrument are modifiable. As the research progresses, more would be learned of the possibilities for remediation. Later phases of the research could address these questions.

Investment Behavior

On the performance side we have advanced the concept of "investment behavior" which is a variable used to describe the manner in which an individual behaves within the organization. Investment behavior refers to the

voluntary expenditure of resources (time, energy, etc.) by the recruit to improve the quality of his interactions with the institution. The essential component here is that the individual feels "inner," rather than "other directed" to perform in institutionally sanctioned behavior patterns. In order for such a concept to be meaningful, it is necessary to derive an organizational view of behavior patterns which are likely to enhance an individual's effectiveness in a given organization. We would consequently seek to develop a profile of institutional expectation regarding behavior patterns of successful recruits in the Navy. The data essential to such a profile will be derived from extensive interviews among commissioned and non-commissioned Navy officers.

In summary, then, the research is designed to systematically study the concepts of life path and investment behavior and to examine the relationships between them and other measures of performance which are routinely collected by the Navy. Consistent with agreements made with the Office of Naval Research (ONR) the current research effort (designated as Phase 1) is essentially a pilot study, the major purpose of which would be the development of two prototype instruments. One instrument would measure life path, while the other would provide an observational checklist which would measure salient aspects of investment behavior as manifested in recruit performance.

PROCEDURE

Development of the Life Path Instrument

To minimize time demands on an already overcrowded recruit schedule, it was agreed that the life path instrument would be developed, in the first instance, using a population outside of the Navy environment. Utilizing AIR's existing contacts with the educational system, we were able to make arrangements with three school systems to gain access to student samples. Two of the schools are in the Washington, D. C. metropolitan area while the third was a career studies center located in a small town in a predominately rural area of Maryland. It was our intention to draw samples from male high school juniors and seniors since they represent the groups from which recruit samples are most typically drawn. Development of the life path measuring instrument consisted of three separate tasks: (1) interviews, (2) development of a Biographical Information Blank (BIB), and (3) administration of the BIB.

INTERVIEWS

Individual interviews, averaging one hour each, were conducted with approximately 50 male high school juniors and seniors. The majority of the interviews were accomplished at a career studies center in a rural area of Maryland not far from the city of Washington. In order to obtain a more comprehensive view, the career studies sample was supplemented with ten additional interviews conducted among minority students from two high schools within the metropolitan Washington, D. C. area.

The purpose of the interviews was to generate a body of relevant content material to be used in constructing a life path questionnaire which could elicit pertinent biographical information from respondents in a group testing setting.

The interviews explored, rather extensively, various dimensions of the individuals maturational development cycle as perceived by the individual himself. The interviews were designed to elicit from the subjects examples of typical interactions with various agents representing a series of socializing institutions such as family, community, the labor force, police, etc. The overall objective was to obtain a comprehensive understanding of the extent to which the individual held a generally favorable or negative view of himself and the interviewer was constantly alert for potentially verifiable evidence of achievement or the lack thereof. The interviewer probed for key transition points in the life cycle which might account for outstandingly good or bad performance. To support and elaborate his assertions, the interviewee was encouraged to provide illustrative incidents.

DEVELOPMENT OF LIFE PATH QUESTIONNAIRE

Using the content material derived from the interviews, a questionnaire was developed which could elicit biographical information to form the basis of differentiating individuals on the basis of life path. It was anticipated from the outset that the instrument would be broader in scope than the typical biographical information blank. We were hopeful of developing a relatively complete picture of the individual and his/her pattern of interactions with a broad cross-section of socializing institutions. We also sought to develop a profile of some attitudes as well as activities in which he/she typically engages. The questionnaire was designed to yield a composite score as well

as a set of scale scores. The minimal requirement for this first instrument was to obtain sufficient variance in the composite score to permit us to set arbitrary points to distinguish high and low scorers.

The process of constructing the life path instrument began with the development of a number of hypotheses¹ which were used to generate specific items. Each hypothesis represented a positive or negative quality of interaction with the particular institution in question. For example, one such hypothesis was: "Active participation of parents in encouraging the child to understand and explore his environment should relate positively to effective performance in organizations." A series of items was then written to measure the degree to which the parents stimulated the individual's exploration and understanding of his environment. Examples of relevant questions can be found in Appendix A. Another hypothesis was: "The early assumption of duties around the home contributes to a sense of responsibility which relates to the adoption of positive attitudes toward work."

The first version of the instrument consisted of 150 items which we anticipated would require an average of one hour to complete. Our experience in the first testing session (fastest completion time was less than one-half hour) indicated that the instrument could be lengthened slightly. Consequently, our prototype questionnaire currently consists of 165 items.²

We next collapsed the set of hypotheses into seven scales which we felt would provide as complete a picture of the individual life path as we could hope for. The items were sorted into the following scales: (1) Evidence of Early Maturity; (2) Quality of Family Relationships; (3) Evidence of Personal Competence; (4) Adaptability to Heterogeneous Situations; (5) Patterns of Alienation/Affiliation; (6) Relationships with Authority Figures; and (7) Conformity. The composite score was to be the sum of the normalized scale scores. Both scale and composite scores would be used in investigating the degree of correlation between life path and performance.

During the month of June, the Life Path Questionnaire was administered to 188 male juniors and seniors at three high schools. An additional 66

¹ Described in Appendix A.

² A copy of the prototype life path instrument is included as Appendix B.

questionnaires were administered to females but the results are not included in this report.

DEVELOPMENT OF AN INSTRUMENT TO MEASURE INVESTMENT BEHAVIOR

Everyone agrees that the "good employee," "good worker," or "good Navy man" is someone who does more than what is strictly required by his job. But it is not clear, in any precise sense, what the things are that this good person should do. We considered it an essential task to make explicit what opportunities for investment are available during a recruit's first term of enlistment and how the individual apportions his time in pursuit of these opportunities. The objective was to develop an extensive list of behaviors, viewed by those who maintain responsibility for training recruits, to be those which truly make a difference to the quality of performance in the Navy. This task consisted of two distinct parts: (1) conduct of interviews among Navy commissioned and non-commissioned officers to develop an institutional view of ideal behavior patterns among recruits; and (2) the construction of an Investment Behavior Checklist. These activities will be described below.

INTERVIEWS TO DEFINE INVESTMENT BEHAVIORS

The basic objective of the interviews was to develop a profile of institutional expectations regarding the performance of recruits during basic training. We wanted to determine the extent to which the variance in individual allocation of formal work time as well as discretionary time could be used as indicators of potential effectiveness in the Navy. In pursuit of this objective we proceeded to interview a group of commissioned and non-commissioned officers, who had virtually constant contact with recruits, at the Recruit Training Center at Orlando, Florida.

The sample consisted of 36 non-commissioned officers all of whom were, or had been company commanders, and eight commissioned officers.

The interviews were arranged to permit 14 individual and three group interviews. Each was scheduled for one hour, though the group interviews actually ran considerably longer than this. During the interviews with the Navy officers the objective was to elicit their aid in identifying specific aspects of behavior which would tend to predict effective as distinct from non-effective performance among Navy recruits. The Navy officials were aware

that the end product of the exercise would be a checklist which might very well help them to make more systematic observations of behavior among recruits. They were encouraged to provide as many incidents as possible concerning the behavior of either outstandingly good or poor recruits. Most of the interviewees regarded the interviews as a serious exercise which might help them in their training functions. They rather enthusiastically supplied a large body of useful observations.

CONSTRUCTION OF AN INVESTMENT BEHAVIOR CHECKLIST

Using the content material from the interviews with Navy personnel, a checklist of behaviors was developed based on observed patterns of performance in a recruit training setting. A comprehensive list of 50 items was prepared for the prototype instrument. These items cover a wide spectrum of performance from behavior which denotes definite initiative and leadership potential, to that which would suggest ineffectual performance. The prototype Investment Behavior Checklist is included as Appendix C. In Phase II of the project the checklist will be tested in several companies and the data will be used as criterion measures against which the life path instrument will be validated.

DATA ANALYSIS

The research presented in this report represents a feasibility study designed primarily to develop two prototype instruments. Later phases of the project will include criterion measures which will permit testing the tenability of the life path hypothesis as it relates to performance in an ongoing Navy training environment. Later studies will also include extensive testing of the Investment Behavior Checklist in an authentic training context. The current analysis will be restricted to internal characteristics of the various scales of the Life Path Questionnaire.

SCORING

On the basis of responses to the 165-item questionnaire, a score was derived for each individual. The scoring protocol was such that a high scale score could always be interpreted positively (i.e., indicative of positive life path); appropriate item reflections were made when necessary to adhere to this principle. For example, questionnaire item #8, "I spend ___ hours

doing assigned chores....," can be scored in a straightforward manner. That is, a high score according to our hypothesis, connotes early assumption of responsibilities in the home and should thus predict positively for future performance. On the other hand, item #25, "...I have failed ___ school subjects," required a transformation in the scoring scheme so that low values would be coded as a high score for that item while high values were coded as low scores. In summary, then, a high scale score is to be interpreted as indicative of positive life path while the converse is true for a low score. The alienation/affiliation scale represented a special case in which a bipolar scale was used. A low scale score on the ALIENAFF scale is indicative of patterns of alienation and a high score represents affiliative patterns.

Table 1 presents the means and standard deviations of the scales. Each score represents the proportion of responses which indicates positive life path which for convenience were multiplied by 1000. Values for the mean scores could vary from zero to one thousand. The higher the score, the more it was indicative of positive life path. The scores for each subject were normalized based on the number of items to which he/she responded. This procedure precluded the possibility of a subject being assigned a low score simply on the basis of a low response rate. Sufficient variance exists in the array of scores on any particular scale to distinguish among respondents. Such spread of variance provides a rough check on potential usefulness of the scales in prediction.

Table 1. Mean Scale Scores

Scale	Mean	Standard Deviation
Evidence of Early Maturity (EARLMAT)	407	112
Quality of Family Relationships (FAMREL)	517	131
Evidence of Personal Competence (PERSCOMP)	422	115
Adaptability to Heterogeneous Situations (HETRSIT)	269	139
Patterns of Alienation/Affiliation (ALIENAFF)	484	105
Relationships with Authority Figures (AUTHFIG)	671	175
Conformity (CONFORM)	512	182

CORRELATIONAL ANALYSIS

The correlations presented here represent an analysis of internal characteristics of the prototype life path instrument. No attempt was made to gather criterion data pertaining to the high school students who comprised the sample. Item-scale coefficients were computed as well as scale-scale and scale reliability coefficients.

Scale-Scale Coefficients

A correlation matrix of the inter-scale correlations is presented in Table 2. A visual inspection of the matrix suggests that the inter-scale correlation coefficients are relatively low which is an indication that the scales are relatively independent of one another. A component analysis yielded the following eigenvalues: 2.08, 1.66, 0.94, 0.70, 0.62, 0.53, and 0.46, which confirm the visual indication of multiple dimensions. The analysis makes untenable the concept of a single dimension and therefore obliges us to abandon the use of the composite scale.

Table 2. Scale-Scale Correlation Matrix

Scale	EARLMAT	FAMREL	PERSCOMP	HETRSIT	ALIENAFF	AUTHFIG	CONFORM	OVERALL
EARLMAT								
FAMREL	.09							
PERSCOMP	.15	.36						
HETRSIT	.22	.28	.37					
ALIENAFF	.06	.34	.26	.09				
AUTHFIG	.13	.34	.09	-.09	.40			
CONFORM	-.13	-.01	-.19	-.27	.26	.26		

Reliability Coefficients

Scale reliabilities were estimated via the alpha coefficient. Derived originally by Cronbach, alpha coefficients are presented in Table 3.

Table 3. Scale Reliability Coefficients

Scale	Number of Items	Item Variance	Scale ^a Variance	Coefficient Alpha
EARLMAT	22	2.74	5.81	.55
FAMREL	21	3.08	7.49	.71
PERSCOMP	54	14.67	29.16	.51
HETRSIT	11	1.52	2.42	.41
ALIENAFF	19	3.35	3.97	.16
AUTHFIG	15	2.89	6.75	.61
CONFORM	9	1.92	2.67	.32

^a The scale variance was adjusted by the formula, $(N)^2 (\hat{\sigma}_x)^2$, to correct for unequal length of scales.

^b The reliability of the scales was calculated by means of the Alpha statistic:

$$\alpha = \left[\frac{k}{k-1} \right] \left[1 - \left(\frac{\sum \sigma_i^2}{\sigma_x^2} \right) \right]$$

Although these reliability coefficients are, in general, lower than one would desire, they nevertheless show promise for the prototype instrument. Only the values for the ALIENAFF and the CONFORM scales are completely unacceptable at this stage of development. Increases in the length of all scales, save the PERSCOMP scale, are planned during the Phase II work, plus the refinement of scales as outlined below.

ITEM ANALYSIS

An important component of this preliminary study was the development

of a set of scales which would measure critical aspects of life path which we assumed to be a multi-factored construct. In designing the items we attempted to include on each scale a set of items which were rationally determined to relate highly to one another within a scale while being relatively independent of other items across scales. In a word, we sought to minimize overlap among scales. Since the component analysis indicated that the scales did share some common variance, we conducted an item analysis to determine the "better" set of items to represent each scale.

Table 4 presents item-scale correlations for each of the seven scales. Of the seven scales, we have selected EARLMAT for purposes of illustration regarding the procedure followed in conducting an item analysis. The total sample of 188 cases was divided into two "sub-samples" which were analyzed separately: (1) group one included the first 78 cases analyzed; and (2) group two included the analysis of the total sample. The item-scale correlations for these two "sub-samples" are presented in Table 5. Comparable data for the remaining six scales are included as Appendix D. The data presented in Table 5 permits inspection of the item-scale correlation coefficients across the two samples.

It was necessary to develop a procedure for retaining or discarding items for the purpose of strengthening the scales. An arbitrary cutting point of .20 was set for the retention or rejection of items. The procedure was as follows: (1) an item was retained if it correlated .20 or above with its scale score on both samples; (2) if it met the criterion on one of the samples it was to be modified for further inclusion; and (3) if the item failed to meet the criterion on both samples, it was rejected.

Table 5 shows the results of applying this procedure to one scale. It is anticipated that the final Life Path Questionnaire will include seven scales consisting of 30 to 35 items each.

CONCLUSION

The present investigation was envisioned as the first in a series of studies to examine hypothesized relationships between life path and performance in the Navy. In conception, the life path construct purports to reflect the quality of interaction between an individual and a series of socializing

Table 4

ITEM-SCALE CORRELATIONS

Questionnaire Item

IF 2 3 4 5 6 8 14 15 26 28 43 44 45 46 49 104 106 114 126 152 155
 .58 .13 .13 .11 .16 .10 .27 .13 .31 .26 .05 .40 .56 .27 .25 .31 .29 .22 .20 .28 .13 .16

1A 1E 7 9 10 12 22 40 48 68 77 78 79 102 105 108 115 131 135 151 154
 .08 .01 .38 .27 .21 .27 .21 .47 .57 .26 .54 .44 .08 .32 .42 .34 .27 .43 .25 .48 .48

11 16 23 25 29 30 31 33 34 35 36 37 38 39 47 51 54 55 62 71 72 74 80 81 85 86
 .27 .16 .05 .18 .22 .24 .22 .30 .23 .37 .24 .39 .15 .28 .43 .33 .47 .23 .42 .21 .33 .44 .19 .25 .20 .34

89 98 101 103 107 118 120 121 122 123 124 127 129 132 133 136 137 141 141 146 149 150 153 156 157 158 162
 .27 .24 .17 .31 .07 .27 .15 .08 .39 .50 .45 .33-.03 .26 .30 .42 .29 .53 .27 .23 .48 .29 .28 .35 .30 .31 .30

17 24 27 53 57 69 76 82 144 163 164
 .07 .39 .32 .33 .34 .25 .33 .55 .45 .35 .57

13 58 60 88 91 92 94 97 109 110 119 130 134 147 159 161
 .06 .23 .23 .20 .20 .31 .41 .11 .29 .37 .13 .28 .08 .41 .38 .30

Table 4 (Continued)

	56	61	63	64	65	75	83	90	93	99	111	100	128	140
AUTHFIG	.46	.59	.50	.35	.27	.51	.42	.44	.39	.59	.35	.09	.35	.52

	67	70	73	116	117	125	138	143	148
CONFORM	.36	.25	.28	.46	.52	.49	.36	.42	.40

Table 5

Item-Scale Correlations for the EARLMAT Scale
 Across Two Sub-Samples Responding to the Life Path Questionnaire

	Sub-Sample 1 (N=78)	Sub-Sample 2 (N=188)
1f. Chronological position in family	.68	.58*
2. Age when took first trip away from family	.20	.13**
3. Longest period away from family	.34	.13**
4. First allowed to manage allowance	.18	.11+
5. Age when first permitted to select clothing	.15	.16+
6. Age when first allowed to use family car	.19	.10+
8. Hours per week doing chores at home	.38	.27*
14. Years earned money from job	.19	.13+
15. Dollars earned per week	.35	.31*
26. When first became responsible for setting hour to come in at night	.38	.26*
28. Parents stopped using physical punishment	.16	.05+
43. Hold regular part-time job	.46	.40*
44. Responsibility for younger sibling(s)	.69	.56*
45. Keep own room cleaned	.30	.27*
46. Parents hassle for not doing chores	.30	.25*
49. Own car	.34	.31*
104. Parents saw to it that I learned special skill	.22	.29*
106. Look forward being on own	.15	.22**
114. Expected to contribute part of earnings	.20	.20*
126. Frequently date	.12	.28**
152. Wish was grown	.09	.13+
155. Stay at home	.15	.16+

* retained items
 ** to be modified
 + to be rejected

institutions which an individual confronts in the process of maturation. The research thus focuses upon the dynamic nature of such interactions and attempts to establish a resultant pattern which might be generally positive or negative. It is hypothesized further that patterns of success generate expectancies of success which aggregate over time to increase one's confidence in his/her personal competence.

Within the scope of the proposed program of research, we hope to evaluate performance in terms of an individual's willingness to engage in institutionally sanctioned behavior designed to maximize his effectiveness in the Navy. Such a constellation of performance was defined as investment behavior. Recognizing that the current research approach is novel in Navy settings, the present study was designed to develop the instrumentality to measure the two classes of variables described above. The expected products from this Phase I research were to be two measurement instruments (the life path instrument and an Investment Behavior Checklist) which would be further tested in Phase II. Special attention must be paid to the degree to which the life path and the investment behavior constructs are amenable to measurement via a paper and pencil instrument.

Regarding the life path instrument, results from this preliminary research would seem to indicate that the instrument is capable of differentiating among respondents on the basis of their responses to a biographically oriented questionnaire. It was our original intention to derive a composite score which would be used to identify high and low scorers. Analyses indicated that the life path instrument is multi-dimensional and cannot be represented by a single score. In further research we will identify the precise number of factors; at this point there appear to be at least four. An appropriate profile will be developed to represent high and low scorers which will then be used to identify groups to be tracked throughout their term of service in the Navy.

With two important exceptions, scale reliabilities were within reach of a satisfactory range. The exceptions were the ALIENAFF and the CONFORM scales which yielded scale reliabilities considerably below an acceptable level. Essential tasks which remain to future research are (1) to increase the number of items on the various scales to increase reliability, (2) to

minimize the degree of overlap in items across scales, and (3) to develop a series of items which will address more directly the expectations held by a recruit upon entry into the Navy.

Future research efforts will also include the generation of criterion data from the Navy. Hopefully, such data will be derived from two sources:

- (1) Data that the Navy usually accumulates on enlistees (e.g., commendations, promotions, disciplinary actions, effectiveness reports, etc.); and
- (2) Responses to the Investment Behavior Checklist.

Such data will permit the development of validity measures. The ultimate value of the life path measure will relate to its utility in predicting performance outcomes among Navy personnel and in prescribing institutional responses to maximize effective utilization of all Navy personnel. Hopefully, the Life Path Questionnaire will suggest critical areas in the developmental cycle which are susceptible to remediation at the point when individuals join an organization such as the Navy. It is anticipated that the instrument will help the Navy to identify "hidden talent" which would not surface by means of the usual test batteries in current use.

Finally, with respect to the Investment Behavior Checklist, at this juncture we can only say that the prototype instrument was developed based on extensive interviews among Navy training personnel who bear the major responsibility for the training of recruits. The instrument appears to have a high level of face validity inasmuch as it addresses a broad range of critical performance areas on which all recruits must be judged. The checklist will be more fully developed and tested during future phases of this research.

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APPENDIX A
Clusters of Individual Development

APPENDIX A

Clusters of Individual Development

Home Environment

Hypothesis: Active participation of parents in encouraging child to understand and explore his environment should relate positively to effective performance in organization.

Examples of Items:

Did parents establish an allowance?

If yes, at what age did it begin:

5-8 9-11 12-14 15 or older

Did parents allow independence in spending allowance?

Did parents encourage your participation in savings program?

Did parents allow you to participate in planning family vacations?

To the best of your memory at what age did you take your first trip?

At what age did you take your first trip without parents?

What age were you when you first spent a week or more away from parents?

Did parents insist that you learn a special skill (music, athletics, etc.)?

Did parents encourage your participation in their discussions?

Did parents value your opinions?

Hypothesis: Positive relationships with parents contribute to a positive self-concept which in turn relates to effective performance in organizations.

Examples of Items:

I discuss only routine matters with my parents.

I can discuss very personal topics with either parent.

I can discuss very personal topics with my mother (female guardian).

I can discuss very personal topics with my father (male guardian).

I remember my home as a very pleasant place to be.
I stayed home only when there was nothing else to do.
I look forward to the day when I can get away from home.
I ran away from home: never, once, twice, three times
or more.
My primary reason for running away was _____

My parents allowed me to set my own time for coming in
at age:

11-12 13-14 15-16 17-18 19 or older

My parents and I spend a lot of time together in recrea-
tional activities.

I have a very close relationship with both parents.

I have a very close relationship to my mother.

I have a very close relationship to my father.

Hypothesis: The early assumption of duties around the home contribute
to a sense of responsibility which relates to the adoption
of positive attitudes toward work.

Examples of Items:

From an early age I was responsible for maintaining my
room.

I was expected to clean up behind myself at home.

I had definite chores to perform at home.

As an older child I had responsibilities toward younger
brothers and sisters.

My parents could rely on me to perform my chores.

My parents often argued with me about my chores.

Older brothers and sisters performed chores at home.

I would put off my chores as long as possible.

I used to complete my chores as rapidly as possible.

I tried to do as little as possible around the house.

Hypothesis: The quality of relationships with siblings is an important
determination of an individual's ability to interact
effectively with peers.

Examples of Items:

I was an only child.

I grew up in a family of ___ brothers and ___ sisters.

I was the oldest/youngest child in the family.
I was the oldest boy/girl in the family.
I was the youngest boy/girl in the family.
As a child I enjoyed my brothers and sisters.
As a child I had serious problems with brothers and sisters.
I frequently acted as a parent to younger brothers and sisters.
I enjoyed/resented my role as assistant parent.
As a younger child I enjoyed/resented the authority of older brothers and sisters.
I still maintain very close relationships with at least one or more brothers and sisters.
I have a distant relationship to my brothers and sisters.
My parents were effective in encouraging close relationships among brothers and sisters.
My parents acted to pit children against one another.

Hypothesis: The physical and/or psychological absence of parental figures during a child's formative years has far-reaching influences upon his/her need structure.

Examples of Items:

My parents maintained a very distant relationship to each other.
I always sensed a high level of tension between my parents.
My parents rarely engaged in activities together.
My father/mother died when I was quite young.
I grew up in a home with a stepfather/mother.
My stepfather/mother was very kind/unkind to me.
My parents were divorced while I was young.
I have never had the companionship of a mother/father.

Personal Development

Hypothesis: Individuals who learn skills early in life develop a sense of personal competence which relates positively to effectiveness and to resourcefulness.

Examples of Items:

I learned to drive a car at age:
10-12 13-15 16-18 18 or older

I own (have owned) a car.
I paid for (have paid for) my own car.
I have often made simple repairs on my car.
I have often made difficult repairs on my car.
As a youngster I developed my own business.
I maintain my own savings account.
I maintain my own checking account.
I began planning my own savings at age:
10 or less 11-13 14-16 16 or older
I learned to swim at age:
3 or younger 4-6 7-9 10-12
13-15 16 or older
As a youngster I learned to repair electrical appliances.
As a youngster I learned to repair televisions.
I have built a radio set.
I have organized important meetings/conferences.
I have engaged in meetings/conversations with important people.
I have held office in a school/church/community organization.
I am confident of my ability to succeed.
I enjoyed camping and hiking as a youngster.
I have participated in mountain climbing.
I have been on survival hikes.
I have travelled in a foreign country.
I can communicate in another language.
From an early age I knew what I wanted to be.
I always knew that I would attend college.
The primary influence in my life has been:
Father Mother Brother Sister Teacher
Other _____

Adaptability

Hypothesis: Individuals who grow up in racially, socially, and economically heterogeneous settings will demonstrate more adaptive patterns in large organizational settings.

Examples of Items:

During most of my childhood I lived in a town/city of:

- less than 10,000
- 10,000 - 50,000
- 50,000 - 100,000
- 100,000 - 500,000
- 500,000 or more

I grew up in a(n):

- urban area
- rural area
- suburban area in large metropolis
- isolated small town

I have acquaintances among other ethnic/racial groups.

I have close friends among other ethnic/racial groups.

I have had little contact with people of other ethnic/racial groups.

I have lived in isolation from people of other racial/ethnic groups.

I make new friends easily.

When I meet people for the first time it is hard for me to think of something to say.

I have worked with people of other ethnic/racial groups.

I have been in clubs with people of other ethnic/racial groups.

My close circle of friends includes people of other ethnic/racial groups.

My friends discouraged forming friendships among other ethnic/racial groups.

My parents' friends included members of other ethnic/racial groups.

My parents encouraged me to form friendships among other ethnic/racial groups.

My parents discouraged me from forming friendships among other ethnic/racial groups.

From an early age I went to school with people of other ethnic/racial groups.

School Environment

Hypothesis: Individuals who master the fundamentals of learning early in their school careers develop success patterns which are reflected in all aspects of their life.

Examples of Items:

When did you learn to read:

pre-school or earlier

first grade

second grade

third grade or later

Did you find reading:

easy to learn

moderately difficult

very difficult

have never been a good reader

How many books have you read in the last year:

none

5 or less

6 - 10

10 or more

Who taught you to read:

a parent

an older brother/sister

a teacher

other _____

In elementary school I had teachers who would explain things to me.

In elementary school teachers didn't care if I learned or not.

What subjects did you enjoy as a youngster?

In which subjects did you earn your best grades?

Was it difficult for you to learn elementary arithmetic?

I always felt that I could have been a better student if early teachers had given individual attention.

Do you enjoy writing?

Do you carry on regular mail correspondence with anyone?

Have you ever participated in a Pen Pal program?

Have you ever written a composition/essay which was published?

Have you ever written for a school newspaper?

What is the highest level math courses which you have taken?

I have had no difficulty mastering school subjects.

I have had some difficulty mastering school subjects.

I have had great difficulty mastering school subjects.

I have always avoided difficult courses in school.

I have always attempted to learn as much as I could.

Hypothesis: Patterns of alienation from school begin early in one's school career and increase steadily to more serious proportions.

Examples of Items:

In the lower grades I felt that:

I was a better student than most

I was as good a student as most

I was a little below average

I was a poor student

As an elementary school student:

The teacher rarely had to give me special help

Sometimes the teacher had to give me special help

Often the teacher had to give me special help

I always seemed to need special help

As an elementary school student:

I looked forward to attending school

I was sometimes absent from school

I was frequently absent from school

I would make excuses to stay home from school

I thoroughly disliked school

In intermediate school I was never suspended.

In intermediate school I was suspended three times or more.

In intermediate school I never had difficulty with teachers.

In intermediate school I was often in trouble with teachers.
I had a good reputation among teachers during intermediate school.

I had a bad reputation during intermediate school.

For the most part teachers did not know me during intermediate school.

In intermediate school I had at least one teacher who took a special interest in me.

In intermediate school my grades were:

above average

average

below average

extremely poor

In intermediate school I was active in school activities.

I had many friends during intermediate school.

Did you feel that you were a part of the school?

Most of my friends were good students.

Most of my friends were active in school activities.

Were your friends considered troublemakers in school?

Most of my friends were poor students.

I was a better student than most of my friends.

Did most of your friends consider themselves a part of the school?

Most of my friends were better students than I.

Most of my friends had interests similar to mine.

Were you considered as popular during intermediate school?

I had friends with different interests.

Were most of your friends considered popular during intermediate school?

During intermediate school I found it difficult to talk to teachers.

Have you ever failed a course; if yes, how many? _____

Did you ever repeat a grade in school; if yes, how many times? _____

Did you participate in varsity athletics?

Were you ever elected as team captain?

Did you feel free to participate in all activities of the school?

Did you ever feel that you were excluded from certain school activities?

Hypothesis: Protest behavior, if used judiciously, relates positively to leadership; if taken to extreme forms, however, it becomes counterproductive.

Examples of Items:

As a student did you ever participate in a movement to change school practices?

Most teachers treated you fairly.

Did you ever sign a petition?

Most teachers tried to hassle you.

Most school rules are for a good purpose.

Did you ever organize a movement to change school regulations?

In general, do most school regulations make considerations for student rights.

Did you ever point it out to a teacher if you thought he/she was wrong?

Did you ever represent other students against the school administration?

Are you aware of local school policies concerning student rights?

Did you ever have arguments with your teachers (principals)?

Were you ever suspended for arguing with a teacher (principal)?

I was suspended more than once for arguing with teachers.

Do you feel that you were treated fairly by school administrators?

On at least one occasion I was banned from a teacher's class.

I was part of a successful effort to change certain school policies.

In general I always acted as if teachers expected the worst from me.

School officials were open to change.

Most school officials must be forced to accept changes.

I was suspended more than once for breaking school rules.

I was often truant from school.

Evidence of Leadership

Early in my school career I was recognized as a leader.

I held office in school organizations:

never

once

once or twice

three times or more

habitually

I was class president.

I was a member of the student council.

I was an officer of the student council.

I was president of the student council.

On one or more occasions a teacher selected me as a representative.

On one or more occasions the principal sought my opinion.

I was involved in a school exchange program.

I was captain of a varsity team.

Hypothesis: Parental attitudes toward school and learning exert a significant influence upon a child's pattern of achievement.

Examples of Items:

My mother was a college graduate.

My father was a college graduate.

My mother was a high school graduate.

My father was a high school graduate.

After high school I plan to:

attend college

attend vocational school

work

enter military service

other _____

I have been accepted at a college.

I will be the first in my immediate family to attend college.

My parents encouraged me to do well in high school.

My parents were not interested in my school work.

My parents could not help me with my school work.
One or more of my brothers/sisters did not complete high school.
All of my brothers/sisters completed high school.
All of my brothers/sisters attend(plan to) college.
My father is a professional man.
My mother is a professional woman.
At least one of my parents is active in the home-school association.
At least one of my parents usually come to my school to talk with my teachers.
My parents are active in community affairs.
My parents maintained a large library at home.
My parents frequently borrowed books from the library.
My parents habitually took me to the library.
My parents read a lot.
As a family we usually discuss current events.
I always had a convenient place to study.
My parents study a lot at home.
My parents never understood my educational goals.

Hypothesis: Outstanding achievement in high school is a positive indicator.

Examples of Items:

I made the honor roll in high school.
I made the honor roll 4 times or more.
I always made the honor roll.
I was always in the top 1/2 1/3 1/4 1/5 of my class.
I was elected to the National Honor Society.
I completed physics in high school.
I completed chemistry in high school.
I completed calculus in high school.
I studied a foreign language.
I have won prizes in a science fair.
I was in an independent study group.
I was awarded a college scholarship.

Community

Hypothesis: Active participation in community activities demonstrates commitment to improvement of society as well as a sense of responsibility. High activity in this area should relate positively to effective performance in organizations.

Examples of Items:

I belonged to the Boy Scouts/Girl Scouts.
I was a leader in the Boy Scout troop.
I earned five or more merit badges.
I became a first class scout.
I became an eagle scout.
I participate in the local JC's.
I am active in church youth groups.
I teach a Sunday School class.
I participated in the programs of the YMCA/YWCA.
I belonged to the Hi Y.
I belonged to the 4-H.
I have won 4-H prizes.
I am recognized as a youth leader in my community.
I belong to a municipal boys/girls club.
I have attended meetings of my school board.
I have participated in meetings of my school board.
I have participated in community activities to improve understanding among racial and ethnic groups.
I am a member of at least one inter-racial community group.
I have organized special purpose community groups.

Hypothesis: Individuals who have interacted positively with community officials will demonstrate good leadership qualities and have fewer problems relating to authority figures.

I have had contact with elected municipal officials.
I have made presentations to city officials.
I have participated in a police "ride along" program.
I have received meritorious citation for community work.
Most police try to give young people a hard time.
Most police do their job well.

Most police use unnecessary force.
Most police break the law themselves.
Most young people should cooperate with police.
It is best not to trust police.
Police will usually give you benefit of the doubt.
I have had trouble with the police.
I have been stopped for speeding.
I have never been arrested.

Employment

Hypothesis: Individuals who have held jobs from an early age gain a sense of self-sufficiency which develops responsible attitudes toward work situations. Such individuals would tend to persevere under difficult circumstances.

Examples of Items:

While in school I usually held a part-time job.
While in school I held a part-time job two years or more.
I worked two summers or more while in high school.
I never held a part-time job.
I never held a summer job.
I worked to earn my own money.
I worked while in school to help support the family.
I always liked to work while in school.
I worked only out of necessity while in school.
I rarely missed work for recreational activities.
Recreational or athletic activities took precedence over work.

Hypothesis: Interaction with employers is a critical indicator of typical responses to authority figures.

Examples of Items:

I habitually maintained a good relationship with my boss.
My boss sets a good example for me to follow.
Most employers explained what they expected of me.
I have had bosses who hassled me unnecessarily.
My boss usually treats me fairly.

I always tried to understand the basis of problems between my boss and me.

My boss makes unfair requests.

I have never been fired from a job.

I have held one job for two or more years.

I have quit a job.

I have had serious arguments with my boss.

I always seek explanations for procedures.

Hypothesis: Evidence of increased responsibility in job situations is a positive indicator of effective performance and potential for growth in organizational settings.

Examples of Items:

I have had several job promotions.

In job situations I always looked for better ways of doing things.

I have supervised other employees.

I have been responsible for hiring other employees.

I did basically the same job for two years or more.

I have had jobs in which I handled funds.

I have had jobs in which I worked without supervision.

I always tried to learn as much as possible about my jobs.

I have had jobs in which I have been responsible for preparing reports.

Hypothesis: Individuals are more likely to enter vocations with which they have had primary contact through parents, other relatives, or close acquaintances.

Examples of Items:

My first contact with my chosen profession came from a relative who was _____.

My father runs his own business.

I am aware of the educational requirements for my chosen vocation.

I have spent one or more years in work related to my chosen profession.

Before selecting it, I knew very little about my chosen profession.

APPENDIX B
Life Path Questionnaire

APPENDIX B

Life Path Questionnaire

Age _____ Sex: M _____ F _____ Grade _____ Race _____

Part I. Numbers. [All of the blanks in the following items are to be filled with numbers. If zero is the correct response, write 0.]

1. In my present home there are _____ parents, _____ step parents, _____ older brothers, _____ older sisters, _____ younger brothers, and _____ younger sisters.
2. The first time that I took a lengthy trip (3 or more days) away from my family, I was _____ years old.
3. The longest time that I have been away from my family was _____ weeks.
4. I was first given a weekly allowance which I was allowed to manage when I was about _____ years old.
5. My parents have allowed me to select all or most of my own clothes since I was _____ years old.
6. I have been allowed to drive the family car since I was _____ years old.
7. In the average week I spend about _____ evenings with my family.
8. I spend about _____ hours per week doing assigned chores around the house.
9. I spend about _____ hours per week doing something with one or more of my brothers or sisters.
10. I spend about _____ hours per week doing something with my father.
11. I spend about _____ hours per week (outside of school) on school work.
12. I really like about _____ friends of my parents.
13. There are _____ people that I consider to be really close friends.
14. I have earned money from a job for about _____ years.
15. I currently earn about _____ dollars per week.
16. I decided on my vocation _____ years ago.
17. I live in a town of about _____ thousand population. [If you live in a rural area, write in 0.]

18. My father has worked for the same company for about ____ years.
19. I expect to retire when I am ____ years old.
20. Five years from now, I expect to be earning about ____ dollars per week.
21. During the past year I have read ____ books.
22. I ran away from home ____ times.
23. I learned to drive a car when I was ____ years old.
24. I have had ____ friends of another racial group.
25. To the best of my memory, I have failed ____ school subjects.
26. I was ____ years of age when I became responsible for setting my own hour for coming in at night.
27. During the last ten years my family has moved ____ times.
28. My parents stopped using physical punishment when I was ____ years old.

Part II. Activities. [Place a check mark (✓) after each item which is true for you.]

29. I have a savings account in my name. _____
30. I have a checking account in my name. _____
31. I have earned a varsity letter. _____
32. I belong to more than one social club. _____
33. I have made honor roll in high school. _____
34. I belong to the National Honor Society. _____
35. I have held office in one or more organizations. _____
36. I have been elected to the Student Council or to a class office. _____
37. I belong to a subject matter club (math, language, history, etc.). _____
38. I am a better than average automobile mechanic. _____
39. I can repair most small household appliances. _____
40. I discuss important personal matters with one or both of my parents. _____

- 41. I stay away from my house as much as possible. _____
- 42. I spend most of my free time out-of-doors. _____
- 43. I have a regular part-time job. _____
- 44. I have had responsibility for taking care of a younger brother or sister. _____
- 45. I keep my own room cleaned up. _____
- 46. My parents often hassle me for not doing things I'm supposed to do around the house. _____
- 47. I could read when I entered first grade. _____
- 48. My entire family is very close to one another. _____
- 49. I own my own car. _____
- 50. I do not plan to live in this area after I leave high school. _____
- 51. I am a very good swimmer. _____
- 52. I am fairly certain that I know the vocation I will be in ten years from now. _____
- 53. Almost all of the people who live in my neighborhood are of my race. _____
- 54. School learning has come easy to me. _____
- 55. I like mathematics and science better than English and Social Studies. _____
- 56. Teachers have generally treated me fairly. _____
- 57. I would probably like a career in one of the military services. _____
- 58. I have been suspended or expelled from school at least once. _____
- 59. One or more of my parents graduated from college. _____
- 60. I was an active Boy Scout for more than two years. _____
- 61. Police often hassle kids for no good reason. _____
- 62. I spend a lot of time in the library. _____
- 63. Most clerks in retail stores are not very nice to customers. _____

64. At work, most supervisors treat their workers fairly. _____
65. I like my present job. _____
66. My parents want me to go to college, but I don't
intend to go. _____
67. Most girls are lazy. _____
68. My parents work very hard. _____
69. I would like to live in Washington, D. C. _____
70. The United States should spend more money on
national defense. _____
71. I like to go on overnight camping trips. _____
72. I am a pretty good cook. _____
73. Smoking cigarettes should probably be outlawed. _____
74. I spend a lot of my time reading. _____
75. Most high school principals would fail at any other
job. _____
76. I would rather be in the Navy than in the Army or
Air Force. _____
77. My parents value my opinions. _____
78. From an early age, my parents included me in their
discussions. _____
79. My parents are divorced. _____
80. I have found some school subjects so difficult
that I dropped them. _____
81. I am confident of my ability to succeed. _____
82. My parents have friends of other racial groups. _____
83. I have used marijuana on at least three occasions. _____
84. Most of my friends are good students. _____
85. I have never been a good reader. _____
86. I have avoided taking difficult subjects. _____

87. I have a good reputation among my teachers. _____
88. I am a better student than most of my friends. _____
89. I am a below average student. _____
90. Most police use unreasonable force. _____
91. I have felt excluded from some school activities. _____
92. I have often felt that teachers expect the worst from me. _____
93. On more than one occasion, I have been treated unfairly by a school principal. _____
94. In general, I found school to be a waste of time. _____
95. I will be the first in my family to attend college. _____
96. One or both of my parents are active in community affairs. _____
97. I have belonged to a city boys' or girls' club. _____
98. I have attended meetings of the local school board. _____
99. It is best not to trust police. _____
100. I have had several job promotions. _____
101. I have supervised the work of other employees. _____
102. I plan to enter the same career field as one of my parents. _____
103. I am well acquainted with the educational requirements of my chosen profession. _____
104. My parents saw to it that I learned a special skill. _____
105. I stay at home only when there is nothing else to do. _____
106. I look forward to the day when I will be completely on my own. _____
107. I have often felt handicapped by my lack of educational preparation. _____
108. I frequently sense a great deal of tension between my parents. _____

- 109. I have often felt isolated from the life of the school. _____
- 110. Most teachers don't care if you learn or not. _____
- 111. School officials must be forced to accept change. _____
- 112. I always had a convenient place to study. _____
- 113. Police usually give you the benefit of the doubt. _____
- 114. I am expected to contribute part of my earnings toward family support. _____
- 115. My first contact with my chosen profession came from a close relative. _____

In the following section, place a check mark () beside the things which you do frequently.

- 116. Watch T.V. _____
- 117. Go to movies _____
- 118. Participate in athletics _____
- 119. Spectator at athletic events _____
- 120. Hunt, fish, camp _____
- 121. Work on automobile _____
- 122. Read newspapers _____
- 123. Read nonfiction books _____
- 124. Read novels _____
- 125. Spend time at a neighborhood hangout _____
- 126. Date _____
- 127. Read editorials _____
- 128. Drag race _____
- 129. Ride motorcycle _____
- 130. Attend church _____
- 131. Visit relatives _____

- 132. Go boating _____
- 133. Go swimming _____
- 134. Teach Sunday School class _____
- 135. Hassle with brothers and sisters _____
- 136. Read science fiction _____
- 137. Do gardening _____
- 138. Rap with friends _____
- 139. Participate in fights _____
- 140. Argue with teachers _____
- 141. Go to library _____
- 142. Attend classical concert _____
- 143. Attend rock concert _____
- 144. Travel out of town _____
- 145. Go dancing _____
- 146. Participate in drama _____
- 147. Feel bored _____
- 148. Read sports page _____
- 149. Visit a museum _____
- 150. Write letters _____
- 151. Get mad at parents _____
- 152. Wish you were grown _____
- 153. Write poetry _____
- 154. Work on projects with parents _____
- 155. Stay at home _____
- 156. Play a musical instrument _____
- 157. Go to see a play _____

158. Engage in school politics

159. Do volunteer work

160. Get sick

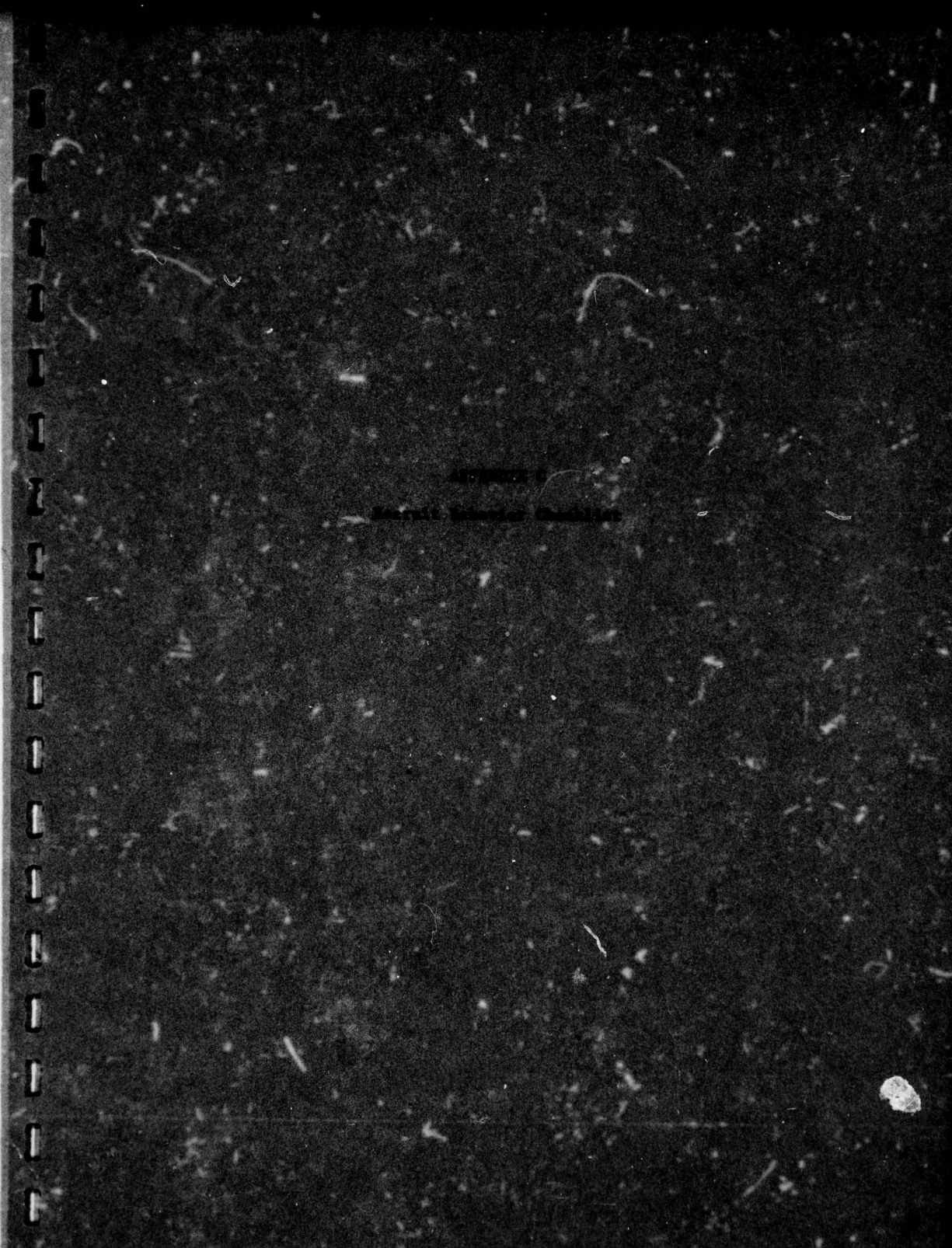
161. Get away by yourself

162. Build something

163. Fly in airplanes

164. Make new friends

165. Have a little too much to drink



APPENDIX C

Recruit's Name
& Serial No. _____

Date Completed _____

Name & Title of Completing
Officer _____

Week of Training _____

RECRUIT BEHAVIOR CHECKLIST

During the past two weeks I have observed the behavior indicated below, in the recruit, named above.

	<u>Yes</u>	<u>No</u>	<u>Not Observed</u>
Is an active participant in athletic activities	_____	_____	_____
Spends most of his free time alone	_____	_____	_____
Always completes assignments on time	_____	_____	_____
Needs frequent help from instructors or other recruits	_____	_____	_____
Always understands an explanation the first time	_____	_____	_____
Does more than is required	_____	_____	_____
Offers help to other recruits	_____	_____	_____
Is a key member in group activities	_____	_____	_____
Is in rather poor physical condition	_____	_____	_____
Needs constant prodding	_____	_____	_____
Always engaged in productive activity	_____	_____	_____
Avoids work	_____	_____	_____
Visits sick bay frequently	_____	_____	_____
Always well groomed	_____	_____	_____
"drifty;" seems to be in a fog	_____	_____	_____
Is extremely well organized	_____	_____	_____
Has a "chip on the shoulder" attitude	_____	_____	_____
Frequently fails to pass inspection	_____	_____	_____
Very popular with other recruits	_____	_____	_____
Has poor posture and bearing	_____	_____	_____
Notebook always up-to-date	_____	_____	_____
Uses free time to improve his performance	_____	_____	_____
Does what is told and nothing more	_____	_____	_____
Rarely knows "saying or rate of the day"	_____	_____	_____
Always attentive in class	_____	_____	_____
Highly regarded by other recruits	_____	_____	_____

	<u>Yes</u>	<u>No</u>	<u>Not Observed</u>
Resists authority, especially recruit officers	_____	_____	_____
Goofs off during free time	_____	_____	_____
Keeps to a small clique	_____	_____	_____
Poor classroom performance	_____	_____	_____
Generally late on assignments	_____	_____	_____
Never understands the first explanation	_____	_____	_____
Appears to be nervous much of the time	_____	_____	_____
Adapts well to adverse physical conditions	_____	_____	_____
Always friendly and cooperative	_____	_____	_____
Looks for ways to improve	_____	_____	_____
Always does a half-assed job	_____	_____	_____
Very poised and self-assured	_____	_____	_____
Needs step-by-step guidance	_____	_____	_____
Asks sensible questions of instructor	_____	_____	_____
Is arrogant and condescending to other recruits	_____	_____	_____
Always seems to be tired	_____	_____	_____
Is in excellent physical condition	_____	_____	_____
Sloppy in appearance	_____	_____	_____
Works hard on assigned tasks	_____	_____	_____
Is a very slow learner	_____	_____	_____
Locker always in shape	_____	_____	_____
Never volunteers information	_____	_____	_____
Always plans ahead	_____	_____	_____
Seeks out things to do	_____	_____	_____

APPENDIX 3

Statistical Correlations for the 1970-71 Season
for Sub-Samples According to the 1969-70 Survey

APPENDIX D

Item-Scale Correlations for the FAMREL Scale
 Across Two Sub-Samples Responding to the Life Path Questionnaire

	Sub-Sample 1 (N=78)	Sub-Sample 2 (N=188)
1a. Number of parent and/or guardian	.06	.08+
1e. Size of family, including respondent	-.01	.01+
7. Evenings per week spent with family	.43	.38*
9. Hours per week spent doing things with siblings	.28	.27*
10. Hours per week spent doing something with father	.12	.21+
12. Like how many friends of parents	.14	.27**
22. Number of times ran away from home	.15	.21**
40. Discuss important matters with parents	.42	.47*
48. My family is close to one another	.51	.57*
68. My parents work very hard	.41	.26*
77. My parents value my opinions	.57	.54*
78. My parents included me in their discussions	.41	.44*
79. My parents are divorced	-.23	.08+
102. Plan to enter career field of one of my parents	.31	.32*
105. Stay at home when nothing to do	.28	.42*
108. Sense tension between parents	.00	.34**
115. Contact with profession came from close relative	.34	.27*
131. Visit relatives	.28	.43*
135. Hassle with brothers and sisters	.25	.25*
151. Get mad at parents	.39	.48*
154. Work on projects with parents	.45	.48*

Item-Scale Correlations for the PERSCOMP Scale
Across Two Sub-Samples Responding to the Life Path Questionnaire

	Sub-Sample 1 (N=78)	Sub-Sample 2 (N=188)
11. Hours spent per week on school work	.37	.27*
23. Age learned to drive	.22	.05**
25. Failed school subjects	.09	.18+
29. Savings account	.34	.22*
30. Checking account	.39	.24*
31. Earned varsity letter	.35	.22*
33. Made honor roll in high school	.21	.30*
34. Belong to National Honor Society	.25	.23*
35. Held office in one or more organizations	.23	.37*
36. Elected to Student Council or class office	.27	.24*
37. Belong to subject matter club	.42	.39*
38. Better than average automobile mechanic	.19	.15+
39. Repair most small household appliances	.29	.28*
47. Read when entered first grade	.49	.43*
51. Very good swimmer	.24	.33*
54. School learning has come easy	.41	.47*
55. Like math/science better than English/Social Studies	.16	.23**
62. Spend a lot of time in library	.52	.42*
71. Like overnight camping trips	.09	.21**
72. Pretty good cook	.31	.33*

	Sub-Sample 1 (N=78)	Sub-Sample 2 (N=188)
74. Spend a lot of time reading	.46	.44*
80. Subjects so difficult dropped them	.06	.19+
81. Confident of ability to succeed	.20	.25*
85. Never been a good reader	.27	.20*
86. Avoided taking difficult subjects	.33	.34*
89. Below average student	.15	.27**
98. Attended meetings of local school board	.06	.24+
101. Supervised work of other employees	.25	.17+
103. Acquainted with requirements of chosen profession	.29	.31*
107. Felt handicapped by lack of preparation	-.03	.07+
118. Participate in athletics	.22	.27*
120. Hunt, fish, camp	-.00	.15+
121. Work on automobile	.02	.08+
122. Read newspapers	.30	.39*
123. Read nonfiction books	.54	.50*
124. Read novels	.47	.45*
127. Read editorials	.27	.33*
129. Ride motorcycle	-.06	-.03+
132. Go boating	.27	.26*
133. Go swimming	.19	.30*
136. Read science fiction	.57	.42*
137. Do gardening	.29	.29*
141. Go to library	.64	.53*
142. Attend classical concert	.46	.27*
146. Participate in drama	.14	.23**

	Sub-Sample 1 (N=78)	Sub-Sample 2 (N=188)
149. Visit a museum	.53	.48*
150. Write letters	.29	.29*
153. Write poetry	.25	.28*
156. Play a musical instrument	.20	.35*
157. Go to see a play	.39	.30*
158. Engage in school politics	.28	.31*
162. Build something	.18	.30**

Item-Scale Correlations for the HETRSIT Scale
 Across Two Sub-Samples Responding to the Life Path Questionnaire

	Sub-Sample 1 (N=78)	Sub-Sample 2 (N=188)
17. Population of hometown	.07	.07+
24. Friends of another racial group	.32	.39*
27. Times family has moved	.46	.32*
53. People in neighborhood are my race	.29	.33*
57. Like career in military	.43	.34*
69. Like to live in D. C.	.26	.25
76. Rather be in Navy than Army or Air Force	.16	.33**
82. Parents have friends of other racial groups	.60	.55*
144. Travel out of town	.47	.45*
163. Fly in airplanes	.34	.35*
164. Make new friends	.53	.57*

Item-Scale Correlations for the ALIENAFF Scale
Across Two Sub-Samples Responding to the Life Path Questionnaire

	Sub-Sample 1 (N=78)	Sub-Sample 2 (N=188)
13. People considered close friends	.01	.06+
58. Suspended or expelled at least once	.19	.23**
60. Boy Scout for more than two years	.20	.23*
88. Better student than most of my friends	.23	.20*
91. Felt excluded from school activities	.23	.20*
92. Felt teachers expect worst	.24	.31*
94. Found school to be waste of time	.13	.41**
109. Felt isolated from life of school	.10	.29**
110. Most teachers don't care	.47	.37*
119. Spectator at athletic events	.23	.13**
97. Belonged to a city boys' or girls' club	.22	.11**
130. Attend church	.16	.28**
134. Teach Sunday School class	.04	.08+
147. Feel bored	.37	.41*
159. Do volunteer work	.20	.38*
161. Get away by yourself	.41	.30*

Item-Scale Correlations for the AUTHFIG Scale
 Across Two Sub-Samples Responding to the Life Path Questionnaire

	Sub-Sample 1 (N=78)	Sub-Sample 2 (N=188)
56. Teachers treated me fairly	.32	.46*
61. Police hassle kids for no reason	.46	.59*
63. Most clerks are not nice to customers	.64	.50*
64. Most supervisors treat workers fairly	.31	.35*
65. Like present job	.35	.27*
75. Principals would fail at other jobs	.43	.51*
83. Used marijuana at least thrice	.32	.42*
90. Police use unreasonable force	.50	.44*
93. Been treated unfairly by principal	.35	.39*
99. Best not to trust police	.48	.59*
111. School officials must be forced to accept change	.31	.35*
100. Have had several job promotions	.18	.09+
128. Drag race	.50	.35*
140. Argue with teachers	.58	.52*

Item-Scale Correlations for the CONFORM Scale
Across Two Sub-Samples Responding to the Life Path Questionnaire

	Sub-Sample 1 (N=78)	Sub-Sample 2 (N=188)
67. Most girls are lazy	.42	.36*
70. U. S. should spend more on defense	.29	.25*
73. Cigarettes should be outlawed	.24	.28*
117. Go to movies	.63	.52*
116. Watch T.V.	.47	.46*
125. Spend time at neighborhood hangout	.56	.49*
138. Rap with friends	.32	.36*
143. Attend rock concert	.46	.42*
148. Read sports page	.47	.40*