Catalogue of Australian Army Psychology Corps Research Projects,

1978.

Compiled By

T. A. Thurbon

Commonwealth of Australia

Feb 79

APPROVED
FOR PUBLIC RELEASE

This Directorate of Psychology publication has been prepared by
the Psychological Research Unit and is authorised for issue by DPSYCH-A.

LTCOL D. J. Armstrong
Commanding Officer
1 Psychological Research Unit
Campbell Park Offices (CP4-6-13)
CANBERRA ACT 2600

ISSN 0156-8809
Abstract

This catalogue of research conducted during 1978 is produced in accordance with the Operating Handbook for the AA Psych Corps 2D-3. It consists of all projects which were undertaken within the Corps and which progressed to a stage where they were identifiable by a title. The catalogue summarises the returns of research submitted by all AA Psych Corps Units/Appointments.

Those projects which have been completed and resulted in the production of a report have been distributed on a scale determined by DPSYCH-A. Some reports were commissioned for/by a particular Unit or appointment and distribution has been limited. Requests for limited Distribution reports should be directed to DPSYCH-A.
1. **AN EXAMINATION OF TIME LOST DURING RECRUIT TRAINING.** (Research Note 1/78) January 1978. 1 Psych Research Unit. (Limited Distribution)

**LTCOL D. J. ARMSTRONG**

This Research Note reports a pilot study conducted to examine some aspects of time lost during Recruit Training. The data examined are outdated and it appears likely that administrative and training practices at 1RTB have changed during the intervening period. Results obtained, however, raise a number of issues and encourage a replication of the study in order to examine whether similar trends now occur.

2. **AN EXAMINATION OF OTHER RANK DISCHARGES FROM THE AUSTRALIAN REGULAR ARMY: 1 JUL 76 – 30 JUN 77.** (Research Note 2/78) January 1978. 1 Psych Research Unit. (Limited Distribution)

**CAPT S. A. MARTYN**

Data were drawn from discharges occurring in the one year period 1 Jul 76 – 30 Jun 77, and categories of discharge grouped under one of three categories: Nondelinquent, Delinquent or Maladjusted, approximating those derived by Campbell for a similar study conducted in 1956. Results of the present study were compared to those found by Campbell, and while conclusions based on those comparisons are tentative, differences noted are nevertheless discussed.


**MAJ M. J. ELEY**

Members of the Senior Class of Apprentices in 1970 (23rd Intake) were tested on the ATM two weeks before graduation. These results were then compared with their results on the same test prior to enlistment more than 3 years previously. A biserial correlation was carried out to assess the contribution of each test item to success in the test as a whole and the relationship between performance on test ATM and performance in Trade Mathematics I prior to any supplementary exams was studied to gauge the effectiveness of the ATM as a predictor of success in Mathematics at Army Apprentice School.

4. **AN EXAMINATION OF PREFERENCES FOR DIVISIONS IN PERFORMANCE APPRAISAL RATING SCALES.** (Research Note 4/78) April 1978. 1 Psych Research Unit. (Limited Distribution)

**CAPT W. J. GRACO**

A survey of selected officers was carried out to obtain their preferences on the number of scale divisions required on the new soldier report AAF A26A form and where these divisions should fall on the scale. The results obtained suggest tentatively that a balanced rating scale consisting of either five or seven divisions evenly spaced across the scale is what most reporting officers want. Limitations of the survey and implications of the results were discussed.

5. **AN EXAMINATION OF OFFICER DISCHARGES FROM THE AUSTRALIAN REGULAR ARMY: 1 JUL 76 – 30 JUN 77.** (Research Note 5/78) May 1978. 1 Psych Research Unit. (Limited Distribution)

**CAPT S. A. MARTYN**

During the period 1 Jul 76 – 30 Jun 77 a total of 230 officers were discharged from the Australian Regular Army. This investigation examines corps, rank, discharge reason and length of service. Results indicated that over the
examined period, resignation was the most frequent avenue of discharge and that the highest percentages of discharges fell to the ranks of Captain and Major but, compared with officer strength over the same period, the highest percentages of discharges over officer strength fell to the rank of Lieutenant Colonel.

It was also found that Arms officers tended to be longer serving than Other Corps officers and the discharged population was relatively young with an average of 18 years service. No attempt was made in this study to present in depth reasons for findings obtained.

6. TWENTY YEARS LATER: AN EXAMINATION OF THE ARMY CAREERS OF A CLASS OF ENTRANTS TO RMC DUNTRROON. (Research Note 6/78) May 78. 1 Psych Research Unit. (Limited Distribution)

LTCOL D. J. ARMSTRONG

An examination was made of selection process information, results and other information from RMC and information on career subsequent to graduation for a group of applicants for entry to RMC over twenty years ago. The group was divided into a number of subgroups: those who failed RMC, graduates who failed to complete twenty years service, and graduates who were either quick or slow in being promoted to the rank of Lieutenant Colonel. These subgroups were compared to discover whether they differed on any of the biographic or psychometric information. The small size of subgroups mitigated against statistically significant differences being found, though, in fact, the group promoted early to LTCOL differed from both the remaining applicants, and from the group slow in being promoted to LTCOL on two psychometric test results and two other non-cognitive variables measured at the time of selection. The implications of these results were discussed.

7. SOME CORRELATES OF SUCCESS AND FAILURE AT OCS. (Research Note 7/78) July 1978. 1 Psych Research Unit. (Open Distribution)

CAPT S. A. MARTYN

A total of five consecutive OCS courses beginning Jan 74 were examined in an attempt to elicit information on factors influencing success or failure at OCS. Australian Cadets originating from ARA, CMF (ARES), or Civilian Entry were divided into non-graduate and graduate samples. A number of hypotheses were proposed in an attempt to relate age at march-in, general intelligence as measured by AGC score, and type of entry to success or failure at OCS. Results indicated that there was a significantly higher proportion of younger cadets who did not graduate as opposed to older cadets who did. Previous military service proved to be related just significantly to success at OCS as opposed to absence of previous military experience. No relationships were found which related general intelligence to either length of service at OCS or success/failure. However a tendency was found for more cadets to be removed from OCS in the second half of their training year as opposed to the first half. Of the non-graduate cadets, it appeared to be the younger ones who remained or were held longer at Portsea.

8. NORMING RATIONALE FOR AA PSYCH CORPS TESTS. (Research Note 8/78) July 1978. 1 Psych Research Unit. (Limited Distribution)

MAJ J. W. KELLEY

This Research Note details the rationale for norming AA Psych Corps Tests and suggests four alternative methods for norming - centiles and three normalized scales (T scale, A scale and C scale).

LT COL D. J. ARMSTRONG

An examination was made of the relationship with success at Initial Employment Training for both Clerk Admin and Clerk Tech of two batteries of psychological Tests, the General Clerical Test and the AA Psych Corps battery administered to recruits. For male recruits it was found that failure at both trades could be predicted to a large extent by the adoption of certain selection criteria. For Clerk Admin training the predictive success of both test batteries was relatively similar. For Clerk Tech training, the AA Psych Corps test battery was more successful. It was further recommended that the AA Psych Corps test selection criteria be applied in future allocation of males to both trades.

10. A FURTHER EXAMINATION OF THE GENERAL CLERICAL TEST. (Research Note 10/78) Aug 1978. 1 Psych Research Unit. (Limited Distribution)

LT COL D. J. ARMSTRONG

Previously examined psychometric test variables and results at training courses for Clerk Admin and Clerk Tech (Research Note 9/78) have been re-examined using Discriminant Analysis procedures. The results obtained indicated that Discriminant Analysis could more accurately classify trainees than could cut-off levels which were established on the basis of raw score pass rates and which had been reported in the earlier Research Note.

11. RMC BATTERY RENORM. (Research Note 11/78) Aug 1978. 1 Psych Research Unit. (Limited Distribution)

MAJ J. W. KELLEY

The RMC Battery of tests (B42, AL, AQ and ASA) was renormed in centiles and three normalised scales - T Scale, A Scale and C Scale. Each test was normed for the total applicant population. Age norming (which previously had been found necessary for the B42, AL and AQ) was not carried out because no evidence was found for age effects on test performance.

12. AN EXAMINATION OF THE EFFECT OF BIRTH ORDER UPON PSYCHOMETRIC TEST SCORES. (Research Note 12/78) Aug 1978. 1 Psych Research Unit. (Open Distribution)

LT COL D. J. ARMSTRONG

An examination was made of the effect of birth order upon results obtained on a number of psychometric tests by unmarried recruits to the Australian Regular Army during the period Jul 75 to Jan 76. A subsidiary investigation compared test results of married and unmarried recruits. Although a number of statistically highly significant differences were found, no attempt was made to relate these results to existent theory because the current investigation did not control for variables which appear likely to influence psychometric test performance.

13. APPRENTICE BATTERY RENORM. (Research Note 13/78) Oct 1978. 1 Psych Research Unit. (Limited Distribution)

MAJ J. W. KELLEY

The tests in the Apprentice Battery (OHC, ATM, ASA, AM and SP117E&M) were renormed in centiles and three normalised scales - T Scale, A Scale and C Scale. Each test was normed for the total applicant population. Age norming (which previously had been found necessary for the OHC) was not carried out because no evidence was found for age effects on test performance.
14. **BONEGILLA DEVELOPMENT PROJECT: AN EXAMINATION OF SETTLEMENT PROBLEMS FACED BY OTHER ORGANISATIONS.** (Research Note 14/78) Sep 1978. 1 Psych Research Unit. (Limited Distribution)

**CAPT S. A. MARTYN**

In 1983 the Army Apprentices School (AAS) will relocate, along with the School of Military Survey and the Female Recruit Training School, to a central location at Bonegilla. The move will require a number of adjustments by all schools involved and AAS in particular will be required to adapt to a new community environment, one with which it will interact closely for many of its social, recreational and sporting needs. It is anticipated that AAS will experience some initial settlement problems and an investigation of a number of similar, comparable organisations is made, to draw upon the experiences of these organisations in order to anticipate and hopefully ameliorate the potential problems AAS is likely to face when the move to Bonegilla takes place. A comparative study is made of these organisations, with emphasis upon examination of social problems experienced either during periods of settlement or currently.

15. **NORMS: ROTHWELL INTEREST BLANK - RMC APPLICANTS.** (Research Note 15/78) Oct 1978. 1 Psych Research Unit. (Limited Distribution)

**MAJ J. W. KELLEY**

The RIB was normed in both the RMC A Scale and centiles for RMC applicants. RMC applicants chose as their first three preferences the categories "Outdoor", "Construction and Research" and "Professional" while they least preferred the categories of "Trades", "Clerical", "Verbal Written" and "Verbal Spoken". There were similarities with the choices of the Tasmanian School Boys. The RIB categories were found to be reasonably independent but analysis of data was limited. It was considered that the RIB should not be used with RMC applicants due mainly to its broad spread of interests.

16. **AN EXAMINATION OF THE EFFECT OF MONTH OF BIRTH UPON EXPRESSED OCCUPATIONAL PREFERENCES.** (Research Note 16/78) Oct 1978. 1 Psych Research Unit. (Open Distribution)

**LTCOL D. J. ARMSTRONG**

Groups of apprentice applicants classified according to month of birth did not show any differences in occupational interest as measured by the Rothwell Interest Blank. Similarly, the sub-groups did not differ from expected distributions based on either the relative size of each month, (indicating lack of seasonal variations for the current sample) or the relative live birth rate for each month. Comparison of the apprentice applicants with some identifiable occupational sub-groups in the Army did reveal significant differences in birth month patterns, suggesting the presence of birth month differences in actual occupational choice rather than occupational interest.

17. **NORMS - ROTHWELL MILLER INTEREST BLANK - RMC APPLICANTS.** (Research Note 17/78) Oct 1978. 1 Psych Research Unit. (Limited Distribution)

**MAJ J. W. KELLEY**

The RMIB was normed in both centiles and in the RMC A Scale for RMC applicants. Comparisons were made to some other population preferences and similarities were found to a Tasmanian School Boys sample and an Adult Professional/Skilled Workers Group. Misclassification of occupations into categories was evident. Comment was made that it was not worthwhile to use the RMIB with RMC selection.
18. NORMS - ROTHWELL INTEREST BLANK - APPRENTICE APPLICANTS. (Research Note 18/78) Oct 1978. 1 Psych Research Unit. (Limited Distribution)

MAJ J. W. KELLEY

The Rothwell Interest Blank was normed in the Apprentice A Scale and in centiles for Apprentice applicants. No differences in interests were found across yearly age groups for this sample. The RIB discriminated poorly between three norming groups. The RIB categories appeared to be independent although data was insufficient for a thorough investigation of internal structure. Comment was made on the usefulness of the RIB for Apprentice selection.

19. NORMS - ROTHWELL MILLER INTEREST BLANK - APPRENTICE APPLICANTS. (Research Note 19/78) Oct 1978. 1 Psych Research Unit. (Limited Distribution)

MAJ J. W. KELLEY

The RMIB was normed both in the Apprentice A Scale and in centiles for Apprentice Applicants. RMIB preferences for Apprentice applicants were similar to those for a Tasmanian Schoolboy sample but different to those for RMC applicants. The Apprentice applicants' preferences on the RMIB and the RIB were similar. It was suggested that the intercorrelation pattern among the categories remains much the same regardless of the main interest or occupational-type of the group completing the blank. It was recommended that the RMIB not be used for Apprentice Selection.

20. RENORM II: RENORMING OF TESTS RO2(R) AND RO3(X) OF THE MALE GENERAL ENLISTMENT BATTERY 1976. (Research Note 20/78) Nov 1978. 1 Psych Research Unit. (Limited Distribution)

CAPT S. A. MARTYN

As part of a general renorming project, tests RO2(R) and RO3(X) of the Male General Enlistment (MGE) battery were renormed to update the 1959 norms currently in use. The sample used was the total MGE applicant population who were tested during the period 1 Jan 76 - 31 Dec 76. Comparisons between the 1959 and 1976 norms are made and recommendations include the introduction of the new norms and the norming of MGE tests on a continuing basis.

21. INTERCORRELATIONS OF TESTS IN THE RMC TEST BATTERY AND APPRENTICE TEST BATTERY. (Research Note 21/78) Nov 1978. 1 Psych Research Unit. (Limited Distribution)

MAJ J. W. KELLEY

Intercorrelations of tests in the RMC Test Battery and the Apprentice Test Battery were examined. Overall, intelligence tests correlated highly and significantly with each other. Age and test SDI did not correlate meaningfully with any of the ability/achievement tests or with each other. Test ASA had significant but low correlations with the ability/achievement tests. It was concluded that all tests had some potential usefulness in the battery when considering their shared variances.

22. MILITARY DISTRICT DIFFERENCES FOR TESTS IN THE RMC AND APPRENTICE TEST BATTERIES. (Research Note 22/78) Nov 1978. 1 Psych Research Unit. (Limited Distribution)

MAJ J. W. KELLEY

Comparisons of mean scores across Military Districts were made for variables from the RMC Test Battery and the Apprentice Test Battery. The conservative Scheffe Test ($\alpha = 0.01$) was used to detect differences among means for Military
Several significant differences were found, mainly in the Apprentice Battery. The data were not sufficient to determine the reasons for these differences although some discussion is given on possible hypotheses and the meaningfulness of the data.

23. **RENORM II: RENORMING OF THE OCS TEST BATTERY.** (Research Note 23/78)
Dec 1978. 1 Psych Research Unit. (Limited Distribution)

CAPT S. A. MARTYN

Norms currently used for the psychometric tests in the Officer Cadet School (OCS) selection battery are dated 1955. Derived from a serving officer population these norms are today used for assessment of both serving officers and officer applicants alike. This Research Note presents a renorming of the OCS test battery based upon an applicant population. The tests - AGC, AL and ASA - are normed in four scales: centiles, T Scale, A Scale and C Scale. Recommendations include the introduction of these new scales to replace the 1955 norms.

24. **RENORM II: RENORMING OF THE WRAAC OCS TEST BATTERY.** (Research Note 24/78)
Nov 1978. 1 Psych Research Unit. (Limited Distribution)

CAPT S. A. MARTYN

Norms currently used for assessing WRAAC OCS applicants were introduced in 1955 and are based on a male serving officer population. This Research Note presents new norms based on a sample of all WRAAC OCS applicants tested in 1976 and makes comparisons between the 1955 male norms, earlier female norms and the 1976 female norms. Recommendations include the replacement of the 1955 norms with the 1976 norms.

25. **RENORM II: RENORMING OF THE ARA COMMISSION TEST BATTERY.** (Research Note 25/78)
Nov 1978. 1 Psych Research Unit. (Limited Distribution)

CAPT S. A. MARTYN

The psychometric test battery for ARA Commission entry to the Australian Army consists of tests B42, AL and ASA, although RAAMC and RAADC direct entry and undergraduate applicants are not required to do test AL. The tests of this battery are renormed using a 1976 applicant sample and utilising three normalised scales. Recommendations include the replacement of the 1955 norms currently in use with the 1976 norms as presented in this Research Note.


CAPT S. A. MARTYN

The FGE applicant and FGE classification batteries are renormed using the 1976 female applicant and female recruit populations respectively to replace the out-moded 1955 and 1959 male norms currently in use. Comparisons are made between 1955, 1959 and 1976 norms and also across military districts and months of testing. Recommendations include the replacement of the earlier norms with the 1976 norms.


LTCOL D. J. ARMSTRONG

An examination was made of the interrelationship of occupations and employment categories of the RIB. It was found that the occupations did not relate closely to the employment categories to which they had been arbitrarily allocated.
by Rothwell in the "experimental version" of the test which had been abandoned for a modified version by all other users in the early 1950s. Factor analysis suggested that a rearrangement of occupations into different occupational categories would produce a more efficient occupational interest inventory. It was recommended that neither instrument be used in AA Psych Corps selection test batteries.

CAPT W. J. GRACO
NOT YET COMPLETED

29. BONEGILLA DEVELOPMENT PROJECT: DEMOGRAPHIC SURVEYS - SCHOOL OF MILITARY SURVEY AND FEMALE RECRUIT TRAINING SCHOOL. (Research Note 29/78) Dec 1978. 1 Psych Research Unit. (Limited Distribution)
CAPT S. A. MARTYN

This Research Note is one of a series dealing with aspects of the Bonegilla Development Project. Basic demographic survey results are presented and examined for two Army training schools involved in the Bonegilla development - the School of Military Survey and the Female Recruit Training School. For each school, staff and student groups were surveyed.

WO2 T. A. THURBON

A catalogue of research conducted during 1977, produced in accordance with AA Psych Corps Standing Orders for Documentation A-3 para 16. It consisted of all projects which were undertaken within AA Psych Corps during 1977 and which progressed to the stage where they were identifiable by title. It summarised the returns of research submitted by all AA Psych Corps Units/Appointments.

CAPT W. J. GRACO

This Technical Note discusses a number of issues concerning the nature of leadership. It is one of a series of Technical Notes dealing with various aspects of the leadership process. Each Note deals with a specific leadership issue and gives a brief overview of trends and developments in that area. Future Technical Notes will discuss topics dealing with leadership traits, leadership development, leadership behaviours and the effect that situational variables have on leadership performance and effectiveness and maintenance of role. These Technical Notes are not summaries of the leadership literature. Other authors have made summaries of published theory and research (e.g. Stogdill, 1974) and it is not intended to duplicate their efforts - except where their findings relate to an issue being reviewed.

These Technical Notes are the product of the research activities of the AAF A26A Project Team. The Project Team reviewed literature on leadership theory and research to ascertain its status and determine its implications for the personnel management of soldiers.

CAPT W. J. GRACO

A review of research literature on personality characteristics of leaders was carried out. It was found that contrary to the trend evident in earlier research, personality characteristics showed consistently meagre but equivocal relationships with leadership status. Later research suggested that personality characteristics play an important role in giving a person the potential to be a leader. A number of studies examining different personality constructs and their relevance to leadership employment, performance and maintenance of role were considered. The ramifications and implications of the findings plus some of the faults of traditional leadership research methodology were discussed.


CAPT W. J. GRACO

This Technical Note gives a theoretical overview of the technical steps involved in the design and implementation of career systems and discusses the functions career managers perform in administering servicemen's careers.

34. SOME CHARACTERISTICS ASSOCIATED WITH CAREER PROGRESSION OF SENIOR ARMED SERVICE OFFICERS. (Technical Note 6/78) Nov 1978. 1 Psych Research Unit. (Limited Distribution)

CAPT W. J. GRACO

This Technical Note outlines tentative conclusions concerning a number of attributes that are considered to be associated with career progression to the highest levels of senior officers in the services. Career progression in this article refers to the process of the person receiving promotions and postings that entail increased responsibility and challenge. The purpose of this article is to draw attention to the need for empirical studies of characteristics associated with career progression of senior officers and to provide a background for future research.

35. SURVEY OF RECRUIT AWOL JULY 1977 - JUNE 1978

(Capt I. D. JOHNSTON)

The aim of this survey was to examine the circumstances of recruit AWOL and subsequent return to training. Of those recruits who go AWOL from lRTB a certain percentage return to training, either by compulsion or by their own volition. A survey of those recruits was conducted by 17 Psych Unit in an attempt to ascertain the motivation for the AWOL, the circumstances of return to training and the outcome of that return. The results show that dissatisfaction with Army life was the primary reason for AWOL and that the subsequent discharge rate of those returning to training, raises questions as to the cost effectiveness of attempting to recover absentees.

36. ASSESSMENT AND SELECTION OF SOLDIERS FOR SASR

(Maj P. DRAKE-BROCKMAN)

NOT YET COMPLETED

1. This study is being continued as a joint project between the author (now at 15 Psych Unit) and 1 Psych Research Unit.
37. THE INDIVIDUAL VARIABLE OF AN ORGANISATION. (HQ FF Comd Report No 1)

MAJ P. R. HUDSON

NOT YET COMPLETED

This paper discusses the individual needs, career pattern, frustrations and the like which affect the individual and the organisation in achieving mutual goals. The report is based on that given to the RODC.


MAJ E. J. E. LEWIS

A draft report to sponsor. It provided data about consequences of postings to isolated RAAF Bases.


MAJ E. J. E. LEWIS


MAJ E. J. E. LEWIS

Presentation to CSE/SASC Symposium. (Report in preparation). The paper described types/role of behavioural help in all stages of DSTO.


MAJ E. J. E. LEWIS

Draft report to sponsor. It described methods for structuring meetings, listing criteria, and evaluating options for Navy Underway Replenishment Ship.