The validation of the selection of male British army officers.

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Ph.D. thesis

The City University Business School

Submitted September 1991

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Key to Symbols and Abbreviations

ACO	Army Careers Officer
ACR	Annual Confidential Report
APRE	Army Personnel Research Establishment
ARM	Special-to-Arm young officer training course
ARM-C	Composite scale formed from the different Special-to-Arm young officer training courses
Bursars	Regular Commissions Board entrants who receive a bursary for university
CCF	Combined Cadet Force
Cadets	Regular Commissions Board entrants who receive a 3-year cadetship through university
DENG	Direct entry non-graduates
DEG	Direct entry graduates
FBG	Final Board Grade of the Regular Commissions Board
JDSC	Junior Division of Staff College
MOD	Ministry of Defence
MTO	Military Testing Officer
OCTU	Officer cadet training unit
OIR	Officer intelligence rating
'O' type	Potential officer training prior to Regular Commissions Board
PCBC	Platoon Commanders Battle Course
PVR	Premature Voluntary Retirement
RA	Royal Artillery
RAC	Royal Armoured Corps
RAOC	Royal Army Ordnance Corps

Ranks	Soldier or non-commissioned officer
RCB	Regular Commissions Board
RCC	Regular Careers Course
RCT	Royal Corps of Transport
RE	Royal Engineers
Reg.C	Regular Commission
R.Signals	Royal Signals
RMAS	Royal Military Academy Sandhurst
RTU	Return to Unit
SGC	Standard Graduate Course
SLO	Schools Liaison Officer
SMC	Standard Military Course
SNLR	Services no longer required i.e. discharged
SR	Selection Ratio
SRC	Special Regular Commission
SRO	Senior Reporting Officer
SSC	Short Service Commission
SSLC	Short Service Limited Commission
ULO	University Liaison Officer
UOTC	University Officer Training Corps
WOSB	War Office Selection Board
WRAC	Womens Royal Army Corps
YO	Young officer

SD	Standard Deviation
U	Ratio of corrected and uncorrected standard deviations

U_{inc}	Correction for incidental selection effects
U_{exp}	Correction for explicit selection effects
σ^2_{rc}	Total variance of corrected sample correlations
σ^2_{ec}	Error variance of corrected sample correlations
σ^2_{ρ}	True variance of correlations
α	Ratio of corrected to uncorrected correlations
ρ	Population correlation
r_{uc}	Uncorrected sample correlation
r_c	Corrected sample correlation
r_{yy}	Criterion reliability
SR_{RMAS}	Selection ratio at the Royal Military Academy Sandhurst
χ^2	Chi-square

Acknowledgement

I wish to thank the staff of the Regular Commissions Board, Rowallan Company, the Royal Military Academy Sandhurst, MS(CR), AO(DO), DAR, members of the research steering committee, and Army Personnel Research Establishment: without their advice and co-operation this research could not have been undertaken. Special thanks are due to Professor Allan Williams who throughout this research has been both mentor and friend.

Paul Dobson

Abstract

This report places the Regular Commissions Board in its historical context, considers the previous validation research into the Regular Commissions Board and the War Office Selection Boards, outlines the current officer selection and training procedures, and then describes the research methodology. The research analyzes the validity, utility and fairness of the Regular Commissions Board as a method for the selection of army officers. The research suggests that the Regular Commissions Board is moderately predictive of training and regimental performance, although little direct evidence is found that the Board is able to validly identify those who will be able to lead a platoon after training. It is estimated that the Regular Commissions Board is cost-effective though perhaps not necessarily cost-efficient. It is concluded that whilst there is some evidence of adverse impact against State educated schoolboys the Regular Commissions Board appears to be an acceptably fair selection mechanism.

After a discussion of the findings, the conclusions and recommendations made to the Secretary of State for Defence are reported. These include the consideration of a mechanism which will provide the various parts of the army involved in the assessment and training of young officers with objective information on the qualities required and knowledge of success in identifying and developing such qualities; the introduction of a system of routinised validation; an investigation into the

nature of the evidence available to Board members; and the need to assess the validity and fairness of the Board against more objective and independent criteria.

Finally, some reflections and wider implications of the research for selection theory and practice are discussed. These include the value of assessment centres, the limitations of traditional validation as a catalyst for change and of validity and dollar utility as indicators of satisfactoriness and benefit, and the frequent insensitivity of social science conclusions and recommendations to alternative statistical assumptions.

Chapter 1: Introduction

This report covers a three-year extra-mural research study carried out for the Ministry of Defence, Army Personnel Research Establishment by the City University, under Research Agreement No. 2090/052 (APRE).

The Regular Commissions Board (RCB) is responsible for assessing the suitability of applicants for training to be officers in the British Army. The selection system, comprising a board of officers using a series of tests, interviews and practical exercises, was originally devised by psychologists and psychiatrists in 1942. The assessment procedure has remained essentially the same since this time. The Regular Commissions Board opened in 1943 to assess applicants for regular commissions, and then in 1961 it took over the role of assessing applicants for short service commissions from the War Office Selection Boards.

1.1 Background to Research

Miles (1979) and Wheatley (1982) have made the case for an up-to-date validation of the Regular Commissions Board. It is desirable that any selection procedure operating in a changing social and technological environment should be regularly validated. This provides justification for the procedure's continued use and enables it to be adapted to new circumstances. At the moment

there is no mechanism for the regular validation of the Regular Commissions Board, and there has been no comprehensive validation study following the Regular Commissions Board changes initiated by the 1979 Review and the shortening of the Royal Military Academy Sandhurst course for potential officers.

A number of validation studies of the Regular Commissions Board have been made since its inception. Vernon and Parry (1949), Morris (1949) and Reeve (1971) report studies based upon information which is now nearly 40 years old. The more recent studies of Clarke (1965), Clarke (1967), and Laing-Morton et al (1983), have included only Regular and Special Regular Commissioned officers in their research. This type of officer represents less than half of those currently assessed by the Board. Clarke (1967) used 5 and 10 year criteria to validate the Regular Commissions Board, whilst Laing-Morton et al (1983) used grades obtained from the Junior Division of Staff College. As the Regular Commissions Board is neither charged with, nor attempts to predict performance over this time-scale, these studies do not strictly validate it.

Little previous work has been carried out on the validity of the Regular Commissions Board. Those studies which are reported have been largely based upon Board candidates during the 1950's, have only included Regular Commission candidates, and for the most part have used training performance as the criterion. Only one study investigated the ability of the Regular Commissions Board to predict job performance. As reported in the 1979 Regular

Commissions Board Review, the study of predictive validity is the least advanced area of investigation into the Board.

The lack of adequate and up-to-date statistical evidence to evaluate its success, together with a readiness to improve the procedure, led to the commissioning of the present Regular Commissions Board validation study.

The present study represents the most comprehensive attempt to validate the Regular Commissions Board that has been undertaken. It validates the present Board practices against Royal Military Academy Sandhurst and Annual Confidential Report performance in the context of current training and reporting procedures. The use of Special-to-Arm training as a criterion increases the relevance of the study, and in the case of the Platoon Commanders Battle Course, it approaches a true test of the Regular Commissions Board Charter. All groups assessed by the Board are represented in the sample.

1.2 Aims of the Research

The principal aim of the research was to validate the present Regular Commissions Board assessment procedure in order to provide guidelines for improving its effectiveness and to act as a base-line for evaluating future changes. More specifically:

(i) To establish the overall predictive validity of the Regular Commissions Board procedure against a range of

criteria, but with particular emphasis on performance as a platoon commander or equivalent.

(ii) To examine the relative effectiveness of components of the Regular Commissions Board procedure.

(iii) To recommend schemes for improvement of assessment procedures and for the conduct of regular validation studies.

(iv) To provide a data-base for future longer term validations.

The research began in October 1983. It was managed by a research steering committee comprising representatives from the Army Personnel Research Establishment, the Director of Army Recruiting, the Regular Commissions Board, and the Womens Royal Army Corps. The research was supervised by Professor A.P.O. Williams.

Differences in the aims and procedures of selection and training of male and female officers resulted in the validation of male and female selection being undertaken concurrently but separately. Whilst the history, and the current selection and training procedures for Womens Royal Army Corps officers are included in this report, in order to avoid unnecessary repetition, the detailed methodology and results of the Womens Royal Army Corps validation study are not. The great majority of potential Womens Royal Army Corps officers enter on a short service commission and they are not 'cap-badged' by the regiments as is the case for the male officers. Consequently, meta-analysis

was not undertaken in the Womens Royal Army Corps study. In most other respects the research methodology is essentially the same for male and female officers, with the Regular Commissions Board Final Board Grade serving as the predictor and training reports at the Royal Military Academy Sandhurst and the Annual Confidential Report from the regiments acting as criteria. The main findings, conclusions and recommendations from the Womens Royal Army Corps study are reported in Chapter 8 where they serve to supplement the conclusions and recommendations drawn from the male validation study.

The final report for the male validation study was presented in January 1987, and that for the female study in March 1987. Since the completion of the research an outline of the major findings from the male validation study have been published in the Journal of Occupational Psychology (Dobson & Williams 1989), and a technical paper based upon a statistical method developed during the research has been published in the British Journal of Mathematical and Statistical Psychology (Dobson 1988).

It should be noted that the contract with the City University was the first external contract given to validate the Regular Commissions Board, and, we were one of very few external bodies to have worked on the selection of British army officers. To some large extent we were ambassadors for our sponsors and others who may follow. Further, the selection of army officers is a politically sensitive issue. These facts need to be borne in mind when reviewing the research. Justifiably, we have trod warily in

interpreting the findings and in making recommendations.

PART I

THE REGULAR COMMISSIONS BOARD IN CONTEXT

CChapter 2: The Historical Basis of the Regular Commissions Board

Until 1942 the selection of officers in the British Army was based upon the recommendation of the Commanding Officer and a twenty minute interview by an Interview Board attached to the Army Command. However, by early 1941 it had become evident that this traditional method of selection was no longer satisfactory. A twenty to forty per cent failure rate was being reported at Officer Cadet Training Units (OCTU), and psychiatric examination of officers who had suffered a breakdown revealed that many should never have held commissioned rank. Morale, post-Dunkirk, was not good, and stories of candidates being rejected by the Command Boards on inadequate grounds such as a Grammar School education or socialist opinions were such that there was a real danger of insufficient officers being forthcoming. By the middle of 1941 as many as thirty questions a week were being asked in Parliament.

B.S. Morris, who was a member of the psychological research staff of the War Office Selection Boards (WOSB) from 1942 until 1946, suggests that the validity of traditional methods was based upon a social background common to both selector and candidate. War had, however, confronted the Interview Boards with candidates of unfamiliar personality and attitudes (Morris, 1949). Additionally, one may suggest that such a system was ideally suited to the use of stereotyped judgements, and in the absence of any external criterion (in the sense of being outside the Army's own system of officer appraisal), it was self-prophesying

and self-perpetuating: whilst the onset of war provided the acid test of its validity.

2.1 War Office Selection Boards

In June 1940 Area Psychiatrists were appointed to Commands. It soon became apparent that the number of officers attending psychiatric clinics was comparatively high, and that their destiny could have been foretold by the use of a psychiatric interview and intelligence tests (Gillman, 1947). Sir Andrew Thorne, GOC Scottish Command, who had previously been military attache in Berlin and had observed the selection techniques developed by the German military psychologists, encouraged the psychiatrists attached to Scottish Command to undertake experiments in officer selection. A new method was put forward by the Command Psychiatrist who, by means of intelligence tests, psychological tests and psychiatric interview, had found it possible to predict accurately which candidates would do well at Officer Cadet Training Units, which would be satisfactory, and which would be rejected. This method of selection was submitted to the Adjutant-General, and the first new-type Officer Selection Board was set up experimentally in Edinburgh at the end of 1941.

T.F. Rodger, Wittkower and other psychiatrists undertook validations of the new board. Two psychiatrists studied two separate groups of 50 officers attending the Company Commanders School in Edinburgh. Assessment of officer quality was made on the basis of a group intelligence test, a short questionnaire and

a psychiatric interview which lasted about an hour. Overall agreement between the psychiatrist's opinion and the Commandant and staff of the School, who had observed the officers for five weeks, was 85 per cent. In a similar study of 223 officers a close agreement was obtained between the psychiatrist and the School reports in 56 per cent; substantial agreement in 36 per cent; some discrepancy in 6 per cent; and divergence in 6 per cent of the cases. Gillman (1947) states that initial studies of the experimental board also involved two complete Officer Cadet Training Unit intakes in which a high degree of agreement was found.

Reeve (1971) has with some justification criticised the adequacy of the initial empirical work carried out on the experimental board and the conclusions drawn. Most of the work used officers attending the Company Commanders School, not Officer Cadet Training Units. These subjects had already had experience as junior officers, and reports on their performance were available to both the psychiatrists and the School staff. The predictor and criterion could not, therefore, be considered to be independent. Further, Reeve (1971) estimates that the general failure rate at the Company Commanders School was about 10 per cent. As a simple pass/fail criterion was used, one would even by chance expect a considerable level of agreement. "The overstatement of the evidence resulted in some senior officers believing that the original work was so successful that all that was necessary to ensure adequate selection was a psychiatric interview and intelligence tests" (Reeve, 1971, p.182).

With the addition of practical outdoor tests (command tasks) conducted by the Military Testing Officer, the new boards were approved and set up in each Command. By the end of 1942 all the Command Interview Boards had been replaced by some 17 War Office Selection Boards. In 1943 War Office Selection Boards were introduced for the selection of female officers in the Auxiliary Territorial Service. And also in 1943, a series of Leaderless Group Tasks, developed by Bion based upon his work in group psychotherapy (Bion 1949), were included. [An interesting description of an early War Office Selection Board is given in the Picture Post, 19 September, 1942].

The purpose of the early War Office Selection Boards was to select from the ranks those suitable to hold an Emergency Commission. After being recommended by a War Office Selection Board the potential officers underwent six months of officer training at an Officer Cadet Training Unit. The role of the War Office Selection Boards 1942-1946 was to identify officer potential after training and in that sense their role was very similar to the present day Regular Commissions Board.

Whilst the development of the War Office Selection Board method in the UK was the work of the psychiatrists and psychologists in Scottish Command and at the War Office Selection Board Research and Training Centre, the origins of the War Office Selection Board theory and practice lay elsewhere. Ansbacher (1951) states that origins of the assessment centre are to be found amongst German military psychologists just after the First World War.

J.B. Reiffert, working in Germany in the 1920's, is considered to be the major architect of the method.

By 1926 the basis of the technique later developed for British officer selection was in use in the German forces. Over a period of days candidates completed intelligence tests, psychological tests which included the study of emotional reactions and perception, command tasks, lecturettes, and a leaderless group discussion. Later, under the influence of the National Socialist Party, greater emphasis was placed upon 'characterology' and race. Between 1939 and 1942, that is at the same time as the development of the War Office Selection Boards in the UK, the work of the German military psychologists fell into disrepute and the psychologists were replaced. Interestingly, the major stimulus to the development of the War Office Selection Boards, namely an inadequate supply of able officers, was also a major factor in the demise of the German approach.

German psychology during the 1920's was dominated by the work of Buhler, Stern and the Gestalt psychologists. British military psychiatrists were similarly influenced, particularly by the field theory approach of Moreno and Lewin. Thus the Command psychiatrists and the psychologists at the Research and Training Centre who devised the initial War Office Selection Boards considered that the search for particular trait characteristics of officers, and for tests to measure these traits was likely to be a waste of time. Gillman, who was Senior Psychiatrist to the Middle East War Office Selection Board states in 1946:

"It has been impossible to agree upon a complete list of officer qualities and therefore to make up such a list and insist upon the Testing Officer making a note of each quality in relation to each candidate is profitless." (Gillman, 1947, p.108).

"They (the Research & Training Centre psychologists) could not accept traits as predominantly constant qualities of an individual which existed independently of the context in which they were expressed. Successful officers do not all show the same traits; thus, it would seem to be the total configuration of traits in their personalities rather than the individual traits which makes for success. It follows that a candidate should not be thought of as possessing a certain amount of leadership which he can display both in test and real life situations. His personality is an organised whole, a system of tension or needs, which interacts dynamically with the varying demands of different situations. 'Officer quality' should, therefore, be analyzed in terms of the main roles that future officers will be called on to play. By setting appropriate tasks a similar system of forces can be set up at the War Office Selection Board, whose interplay can then be observed by the Military Testing Officer or other board member. The candidate's most important role will be that of leader of a small group, and he should be able to uphold his

> own position in such a group, to give the group direction, and at the same time maintain its cohesion or solidarity against internal or external disruptive forces" (Vernon & Parry, 1949, p.61).

For these reasons the initial War Office Selection Boards did not use a profile list of desirable officer traits or characteristics.

In the original War Office Selection Boards an experimental attitude was encouraged; the framework of testing was elastic and principles and techniques were being continuously experimented with. Until 1946 there was considerable variation in the procedures adopted by the different War Office Selection Boards. Harris (1946) provides a detailed account of what was considered at that time to be best practice drawn from the procedures operating at 10 War Office Selection Board (Chester) and 5 War Office Selection Board (Wormley) in 1944 and 1945 respectively.

The 3-phase War Office Selection Board technique, where candidates were observed in group tests before and after the interviews, was considered by Harris to be the optimum procedure. The Board comprised:

(i) A President (Colonel) and Deputy President (Lt. Colonel) who shared the interviewing of the candidates. After 1945 the President's role became largely judicial and the Deputy President and Senior

Military Testing Officers were then constituted as Team Leaders who shared the interviewing.

(ii) Four Military Testing Officers who were specialists in the job analysis side of the work. As fighting officers they had experienced the roles required of an officer in both training and combat. The Military Testing Officers organised and observed command tasks, lecturettes, human problem sessions, planning of projects, physical obstacles, and the group race. They also assessed the ability and interest of the candidates for the technical Arms such as the Royal Engineers or the Royal Electrical and Mechanical Engineers. Tests were devised for the specialisms. The purpose of the Military Testing Officer's observation was to form an opinion of general officer quality. The Military Testing Officers messed with the candidates.

(iii) The Psychologist, who with 3 or 4 Sergeant testers was responsible for the testing of the candidates and feeding the psychiatrist 'personality pointers'. Three twenty-minute group tests were used to assess intelligence; the Army Verbal Intelligence Test and newer and more difficult versions of the Matrices and Shipley Abstraction Test. Several other tests were occasionally used. Educational achievement tests were also devised for candidates for University and Army College. A questionnaire was used to cover educational, family and medical history, and formed

the basis of interviews in order to ascertain what opportunities the candidate had had and what advantages he had made of them. The candidates were required to write self-reports; themselves as seen by a good friend, and as seen by a severe critic. A word association test, the Thematic Apperception Test and a sociometric test were also used.

(iv) The Psychiatrist, who on the basis of personality pointers interviewed those referred to him for 20 to 60 minutes. The proportion of candidates seen was limited. Vernon and Parry (1949) suggest that a contributing factor was the Army's desire to reduce the role of the psychiatrist to a minimum. The psychiatrist's role was to advise the board about:

a. the candidate's present physical and mental health;

b. his likely physical and mental stability at officer level in a specific Arm;

c. his present social and emotional maturity and its likely development in the near future - during training and early service;

d. points indicating special temperamental or vocational suitability or unsuitability for a specific Arm.

The War Office Selection Board process began with an opening address by the President, and the rest of Day 1 was taken up by

psychological testing. The morning of Day 2, after squadding in 8s, involved leaderless tasks and an intra-group race. This was followed by the first interim conference between observers so that attention could be directed to disagreements. The afternoon of Day 2 and all of Day 3 comprised the Military Testing Officer tasks and military, psychological and technical interviews. This was followed by a further conference of observers before the final exercise on the morning of Day 4. The final exercise was a leaderless group race. This was followed by the Final Board.

In early boards, each member studied the candidates independently until the final conference. This led to a somewhat unnatural atmosphere, since members felt constrained not to discuss the current group even informally, and serious disagreement sometimes occurred at the conference, when it was too late to make any further investigation of the doubtful candidates. Thus the introduction of collaboration and mutual consultation at all stages was found to have considerable advantages. Often most of the members would recognise certain candidates as clear passes or fails quite early on, and so feel free to concentrate their study on the borderline or controversial cases. Some of the boards operated a re-squadding system, where the candidates were re-grouped into 'pass', 'fail' and 'unsure' groupings for the later exercises.

Psychiatrists, psychologists and Military Testing Officers were technical advisers to the President; and each President would run his board as he wished, with as much or as little reference to

the technicians as he wished, subject only to the controlling authority of the Director for Selection of Personnel, himself a professional soldier. Hence, the President, representing the Army, was responsible for the final decisions; hence also a major part was played by Military Testing Officers who were regimental officers. The aim of the technicians was to educate the Army gradually into accepting scientific methods. However, as Vernon and Parry (1949) state, the compromise eventually achieved showed considerable technical defects.

By 1945 it was considered that there had been a major policy error with regard to the War Office Selection Boards in allowing them to develop their own idiom. This had led to variations in the standards at different Boards. As a consequence in 1945, for the five War Office Selection Boards remaining in peacetime, training was introduced for board members, with a standard programme and a 17-item candidate profile.

The origins of this profile, which presumably encapsulates the characteristics of successful officers, is unclear. It was obviously not developed by the Research and Training Centre psychologists, rather it was originated jointly by the Army and the industrial psychologists working for the Director for Selection of Personnel in the War Office. The characteristics were identified by a working party with strong Army presence and were based on little, if any, empirical research. (J.Davies, Chief Psychologist to D.S.P. in 1944, personal communication).

In 1944 the Crocker Report on the War Office Selection Boards (Crocker Report 1946) concluded that there was a great body of opinion in the Army favourable to the War Office Selection Boards and they were seen as an attempt to be scrupulously fair to all candidates. However, the committee also concluded that psychiatrists were an object of criticism. It was considered that they had too much influence in the boards and that they often recommended the rejection of suitable candidates. Further, they apparently upset those whom they interviewed. It was therefore recommended that psychiatrists should no longer be members of the boards. This was agreed and at the same time the projective psychological tests were withdrawn from the procedure. It was also true that at the time there was a shortage of appropriately trained staff. Consequently their efforts were concentrated in a central advisory role.

In fact, the psychologists and psychiatrists had been an object of criticism for some time prior to 1946. Sir Winston Churchill on the 19th December 1942 wrote to the Lord President of the Council:

> "I am sure it would be sensible to restrict as much as possible the work of these gentlemen (psychologists and psychiatrists), who are capable of doing an immense amount of harm with what may very easily degenerate into charlatanry."

Five days earlier Sir Winston had written to the Secretary of State for War:

"I am told that a very large proportion of candidates have been rejected by the Selection Boards, returning to the ranks with a sense of disappointment. I am of the opinion that the Commanding Officer of a battalion or tank unit is the best judge, and that if he is not a good judge he is scarcely fit for his position." (Churchill, W.S. 1951)

Since 1944 the role of psychologists had been limited to research and development. Vernon and Parry (1949) report that for the most part they were isolated in the Research and Training Centre at Hampstead and whilst they were responsible for developing and improving the method(s) used by all the boards, as their functions were advisory only, they had little influence. The psychologist sergeant-testers attached to the boards did not attend the final conference and were occasionally posted to other duties such as cutting the grass. The influence of the psychiatrist on the boards was curtailed by the limited number of interviews he could undertake, and by the Army authorities manifest desire to reduce his role to a minimum.

As in the Navy, the new methods raised considerable controversy and opposition. However the criticism came from the regular officers not from the candidates. The criticism was not surprising. The President of a War Office Selection Board was in a difficult position. Charged with selecting officers, which is partly a character assessment, he was faced with a trained expert in personality dynamics. A foreign body had been introduced into the tissues of the Army and to some extent by the end of 1942 the

Army had lost control of the selection of it's future officers. This position was significantly rectified in January 1943 with the introduction of the Regular Commissions Board, and by 1946 the Army had regained control over the selection of the officer. By 1948 the War Office Selection Board procedure was virtually indistinguishable from that of the Regular Commissions Board. Unfortunately the more sophisticated developments in procedure introduced into the War Office Selection Boards around 1944/45 had been thrown out with the psychiatric bath water. The War Office Selection Boards continued to select officers for National Service and Short Service Commissions until the ending of National Service in 1961.

2.2 The Regular Commissions Board

"During 1943, when the general tide of the war had clearly turned and planning had begun for peacetime conditions, it became obvious that special arrangements would have to be made for the selection of Regular Officers from the many who had taken Emergency Commissions. This was a different problem from that with which the War Office Selection Boards had been concerned. The War Office Selection Board technique had been developed for assessing the personality of young men very early in their Army careers when very little was known about them. Those Officers who wished to transfer from Emergency to Regular Commissions would, however, have served in the Army for a number of years, would be more mature, and would have shown their merits in real wartime conditions, which obviously presented a more realistic test

situation than the War Office Selection Board could ever provide.

At first glance, therefore, it seemed that the War Office Selection Board technique was not well adapted to solve this problem, but investigation showed that it could make a contribution. Although theoretically it should have only been necessary to study the reports on each officer and make a decision in the light of his wartime performance, there were certain draw backs in such a procedure. First, it was difficult to ensure that reports had been based upon similar views of what should be achieved by any officer. Second, in different theatres and Arms it would be difficult to form a reliable assessment of the minimum standards which were being set elsewhere in different situations. It followed that some central agency for screening applicants for Regular Commissions would be necessary, if only to ensure that comparable standards were set for all. It was decided, therefore, that the technique developed in the War Office Selection Boards, with minor modifications, should be applied to this new problem. For this task, Major Generals were appointed as Presidents of Regular Commissions Boards and they began work in January 1943." (Instructions for the Guidance of the Board Members, The Regular Commissions Board Army Officer Selection System, p.8).

The Regular Commissions Board's initial role was to select regular officers from those granted an Emergency Commission during the war. Unlike the War Office Selection Boards it was confronted with mature and tested candidates with a record of

leadership, who had already passed through the War Office Selection Board and officer training at an Officer Cadet Training Unit. Anyone who had served as an officer for six months could apply for a regular commission in the post-war Army.

The statement that the Regular Commissions Board was developed from the War Office Selection Boards with 'minor modifications' is perhaps somewhat misleading. There were at the early stage fundamental differences in exercise, personnel, process and philosophy. Psychologists and psychiatrists had only advisory involvement with the Regular Commissions Board and were never members of the board. Given that the candidates were mature and tested it was not considered necessary to consider officer quality in great depth at the Regular Commissions Board - the period in command provided a more realistic test. Consequently, there were no projective or sociometric tests, and the board members were all senior regular officers. As the Regular Commissions Board was developed from the early War Office Selection Boards, assessors did not discuss the candidates except for a very brief query conference towards the end of the board. There was no re-squadding of the borderline cases as developed in later War Office Selection Boards. Finally, in the absence of the psychiatrists to investigate personality dynamics, the board utilised the Military Testing Officers assessment of surface traits gained directly from the observation of behaviour during the exercises. The Gestalt and field theory approach that had underpinned the early War Office Selection Boards was lost and a trait approach to officer quality and leadership emerged. It

would seem likely that here lies the origins of the Regular Commissions Board 17-item personality profile which was later introduced into the War Office Selection Boards as the influence of the psychiatrists and RTC psychologists waned. Presumably with the support of the industrial psychologists working for the Director for Selection of Personnel, the assessment of the personality of the army officer changed from the in-depth assessment of signs of personality to the observation of samples of behaviour. Lost with this fundamental change in philosophy were the views of the field theorists that leadership was influenced by both the characteristics of the individuals and the situation. Instead the perhaps rather naive 'great man' approach to leadership was adopted.

In 1947 the role of the Regular Commissions Board was significantly changed. It was tasked with the selection of young potential regular officers for the new 18-month officer training course at the Royal Military Academy, Sandhurst. Essentially it used the same procedures, exercises and philosophy that had been developed for the assessment of mature and tested officers. With the ending of National Service in 1961, the Regular Commissions Board took over the responsibility for all officer selection, including Short Service Commissions and the Womens Royal Army Corps, but excluding a few of the smaller more specialist corps and the junior entry through Welbeck College and the Army Scholarship scheme.

Since its inception the Regular Commissions Board has had a

Major-General as its President, Brigadiers as Vice-Presidents and Lt.Colonels as Deputy Presidents. It has its own Training Officer and receives advice on educational potential from Educational Advisors provided by the Royal Army Education Corps. For the last 40 or so years the Regular Commissions Board has remained a powerful and independent entity. Very few changes have been introduced in method and, compared to the War Office Selection Boards or the Admiralty Interview Board, relatively little research has been undertaken.

2.3 History of the selection of the Womens Royal Army Corps officer

The selection of Womens Royal Army Corps officers has been faced with the problem of defining the role and requirements of a woman officer. The definition has changed over the years as have the attitudes towards women in the Army, held by the Army itself, by society, and by the women who volunteer. There has been a corresponding change in the evidence required by the Regular Commissions Board and consequently in the selection procedures.

In 1943 female War Office Selection Boards began selecting women for war-time emergency commissions in the Auxiliary Territorial Service (ATS). These War Office Selection Boards were composed entirely of female board members but the selection procedure was based on the same general principles as the male War Office Selection Boards.

Table 1: Changes in the selection and training of British army officers (1941-1984)

1941 Concern over standard of officers; high Officer Cadet Training Unit 'Return to Unit' rates; experimental board introduced in Edinburgh
1942 War Office Selection Boards replace all old Command Interview Boards for selection of Emergency Commissions from ranks; criticism of War Office Selection Board failure rates at Officer Cadet Training Unit and role of psychologists and psychiatrists; War Office Selection Board experimentation and development
1943 Leaderless Group exercises introduced; common Final Board Grade introduced in War Office Selection Boards; War Office Selection Boards select for Rowallan; Regular Commissions Board introduced to select Regular Commissioned officers from Emergency Commissioned officers; War Office Selection Boards used to select officers for Auxiliary Territorial Service
1944 Influence of psychiatrists and psychologists on War Office Selection Boards limited; Glover report on Recruitment & Training of Officers criticises pre-war training and selection, paves way for Royal Military Academy and supports use of 'War Office Selection Board-like' procedures for selection of officers
1945 Introduction of 17-item profile in all War Office Selection Boards
1946 Ritchie and Crocker reports recommend psychiatrists and psychologists should be removed from War Office Selection Boards and engaged as advisers and in research and development
1947 18-month Young Officer course introduced at new Royal Military Academy, Sandhurst; Regular Commissions Board tasked with selection Regular Commissioned Young Officers for Royal Military Academy Sandhurst; War Office Selection Boards select Short Service Commissions (temp) for National Service and officers for Auxiliary Territorial Service
1948 Regular Commissions Board selects officers for Womens Royal Army Corps
1955 2-year course introduced at Royal Military Academy Sandhurst
1961 End of National Service; Regular Commissions Board takes over selection of Short Service Commission officers
1978 Rowallan re-introduced for immature Regular Commissions Board candidates
1979 Changes to Regular Commissions Board procedures following Regular Commissions Board review for both male and female officers
1981 26-week Sandard Military Course and Standard Graduate Course introduced at Royal Military Academy Sandhurst followed by 26-week Regular Careers Course for Regular Commissioned non-graduates
1983 New 25-week course introduced for Womens Royal Army Corps

In February 1949 the Auxiliary Territorial Service was promoted from an emergency service to become part of the regular Army as the Womens Royal Army Corps. The founding of the Womens Royal Army Corps required the selection of Regular Officers from the Auxiliary Territorial Service. Therefore in 1948 arrangements were made for such candidates to attend the Regular Commissions Board on a Special Womens Royal Army Corps Selection Board. The boards included a male Vice-President (Brigadier), a female assistant Vice-President (Colonel), a female Deputy President (Lt.Col.) and a male Group Leader (Major). An analysis of the psychological essentials of the Womens Royal Army Corps officer was undertaken.

"It was felt that the officer's job was in a sense not a job at all, but the sphere in which the Auxiliary Territorial Service officer operated was essentially a social or interpersonal one, and it was felt that the concept of society provided the most meaningful starting point. Over 70 per cent were General Duties Officers and were required to be capable in interpersonal relationships and technical efficiency. Success as an officer depended upon the results of her interaction with her special group, not only on her own value as an independent personality. It is doubtful, in any case, whether such a thing as her self-activity on the part of the officer is possible. Action on her part must be a response, it is adjustment and adaptation, for all her activity takes place in a medium, in a situation, and with reference to its conditions both of people and of things ..... apart from the urgency associated with a war-time situation, she

should be just as effective an influence in a peace-time society. Her function is to create and integrate an efficient happy and stable community." (Given in Berman, 1980, p.6-7 from unreferenced source).

In response to this analysis no judgement of physical ability was made and outdoor tests were abandoned. The group exercises for women were designed to test their ability in an administrative and organisational role rather than a combat role. A twelve point profile was developed and comprised assessments of: Officer intelligence rating; Educational Suitability; Leadership Experience; Planning Ability; Level of Aims; Effectiveness in Pursuit of Aims; Awareness of Social Issues; Sense of Responsibility; Ability to Unify the Group; Adaptability to Different People; Capacity for Firmness; and Spontaneity.

This procedure operated in 1948 and 1949, but by 1950 considerable changes had been made and the Womens Royal Army Corps were selected as the men but with their own series of outdoor tests - the previous male War Office Selection Board/Regular Commissions Board procedures had been re-adopted. Thus, despite the different attitudes towards Womens Royal Army Corps and male officers, a similar selection procedure was used for both between 1950 and 1963.

By 1963 the procedure was felt to be unsatisfactory, since the methods for testing men had been used regardless of their suitability. There was also a high proportion of failure at the

Womens Royal Army Corps Officer Training Centre. The type of person required by the Womens Royal Army Corps was redefined as 'a decent, responsible girl of adequate intelligence and education, with sufficient personality to command the respect of others and to exercise authority' (Regular Commissions Board/AORE, August 1963). The Command Tasks were felt to be inappropriate, and a Chairmanship Exercise was introduced in November 1963. Once again the outdoor tests were abandoned and physical ability was not rated.

Womens Royal Army Corps officer assessment was reviewed again in 1975 and in 1979 because the board found it difficult to assess leadership ability and because of the changing role of the Womens Royal Army Corps officer. Previously the young Womens Royal Army Corps officer had worked with a unit of a Corps or Arm, and her main role had been administrative. The officer had been required to be capable of administering, in all respects, a platoon of about 30 girls. Time and requirements altered these specifications; the aim became to turn out an 'all purpose' officer.

Unlike her male counterpart, who would know in advance to which particular Corps he would be posted, the young Womens Royal Army Corps officer could be sent anywhere. She would be likely to receive some postings which placed her in the centre of a male unit where she needed to exercise authority over male soldiers. She needed to have confidence in her own ability, the maturity to cope with being isolated in a predominantly male environment,

and to be able to relate well to officers and Non-Commissioned Officers of both sexes. She would be expected to undertake whatever work her particular unit and Corps required, and this would often be more than just desk work.

The Army Board Paper (77)8 of 14 January 1977 para. 36(c) states: "The Womens Royal Army Corps should now be recognised as a combatant Corps but that their personnel should not be placed in employment where the primary task is direct combat".

The Charter at Regular Commissions Board for Womens Royal Army Corps boards is now: "To select from the field of candidates of acceptable education and physical standards, those with the character and potential qualities of leadership who should after training be able to exercise command effectively in carrying out the duties of a Womens Royal Army Corps Junior Officer in peace and war".

Following the 1979 Regular Commissions Board Review the Chairmanship Exercise has been replaced with an outdoor Command Task and the Individual Obstacles have been re-introduced. The procedure is now the same as for the selection of male officers and the same profile items are used.

Chapter 3: Current Selection and Training of the British Army Officer

There follows an account of the current selection (Scholars and Welbexians excluded) and training of the army officer. For obvious reasons the account is necessarily brief.

All potential officer candidates are initially interviewed by a Schools Liaison Officer, University Liaison Officer or Army Careers Officer to assess their eligibility for consideration. Thereafter all, except potential Scholars or Welbexians (who do not attend the Regular Commissions Board) embark on a process of familiarisation visits and introductions to the Corps or Regiments with a view to obtaining sponsorship before submission of an application. Attendance at a Pre-Regular Commissions Board follows where a candidate will be advised whether to go to the Regular Commissions Board, to go on an 'O' type course or to reconsider his application. Candidates then attend the Regular Commissions Board and if successful join either the Standard Military Course or Standard Graduate Course course at the Royal Military Academy Sandhurst. The non-graduates graded E (training) at the Regular Commissions Board are first required to attend and pass the Rowallan course. After commissioning, the young officer's join their regiments and then a Special-to-Arm course, or vice versa. Non-graduate regular officers attend the Regular Careers Course some two to four years after being commissioned. An outline of the current selection and training of army officers is given in Figure 1.

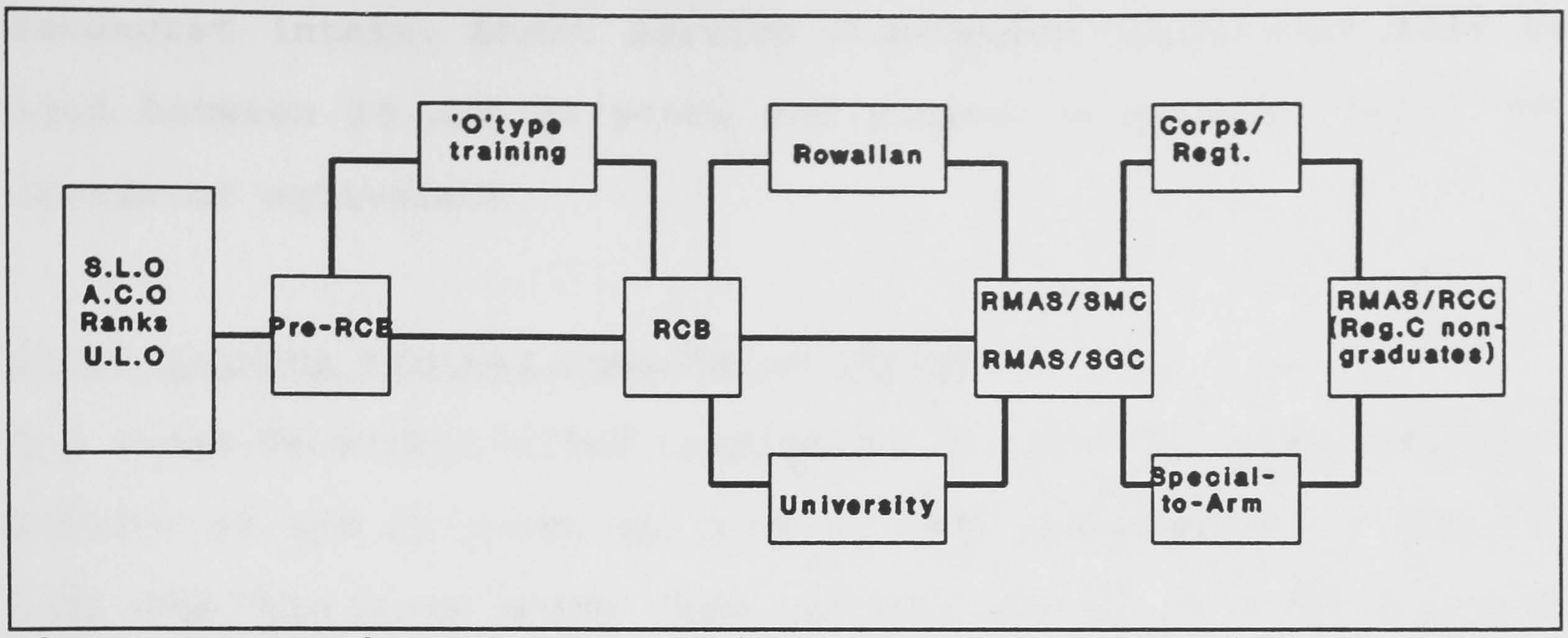

Figure 1: Outline of Army Officer Selection & Training

3.1 Types of Commission and Entrants

Regular Commission (Reg.C)

Offers a career to the age of 55 and currently makes up 40 per cent of the Royal Military Academy Sandhurst intake. Regular Commission applicants must be aged between 17 3/4 and 22 years on entry to the Royal Military Academy Sandhurst (under 25 for graduates) and possess at least 2 'A' levels or equivalent.

Special Regular Commission (SRC)

The Special Regular Commission is designed for those who would have liked to apply for Regular Commission but who are either too old or do not have the educational qualifications necessary. It offers a maximum length of service of 16 years without conversions, and makes up approximately 10 per cent of annual the Royal Military Academy Sandhurst intake.

Short Service Commission (SSC)

A Short Service Commission carries a minimum length of service of 3 years and a maximum of 8 without conversion. It currently makes up 50 per cent of the annual the Royal Military Academy

Sandhurst intake. Short Service Commission applicants must be aged between 18 and 29 years and possess a minimum of 5 'O' levels or equivalent.

Short Service Limited Commission (SSLC)

The Short Service Limited Commission is given to young men aged between 18 and 22 years who have no firm commitment to join the Army but who have spare time between school and taking up a confirmed university place. Applicants who pass the Regular Commissions Board with a recommendation for Short Service Limited Commission attend a 3-week course at the Royal Military Academy Sandhurst and then serve in their chosen Corps or Regiment for between 4 and 18 months.

Army Entrants

Serving soldier applicants require a Commanding Officer's recommendation to attend Regular Commissions Board. Regular Commission applicants need to be between 20 and 25 1/2 years, must have completed 18 months of service on entry to the Royal Military Academy Sandhurst and possess 4 'O' levels. Special Regular Commission and Short Service Commission applicants normally are required to possess 5 'O' levels, although a Senior Education Officer recommendation is sometimes accepted, and to be aged between 22 and 30 years.

Army Undergraduate Cadetship Scheme

The Cadetship Scheme is designed for those who decide, before entering university or early in their degree course, that they wish to make a career as an Army officer and commit themselves for at least 5 years after graduation (i.e. join as Regular

Commission). Applicants for a Cadetship must have at least a conditional place to read for a recognised first degree at a UK university, polytechnic or college of higher education or already be reading such a degree but not have started their final year. They must be older than 17 1/2 years on 1 September of year of entry and expect to graduate before their 25th birthday. Selection, as a result of a Regular Commissions Board award, takes place in September each year when up to 60 places are available. Once a candidate has been selected he attends a short course at the Royal Military Academy Sandhurst in September and is commissioned on probation and paid as an officer until he graduates. On completion of his degree course a candidate attends the Standard Graduate Course at the Royal Military Academy Sandhurst and is confirmed in his commission on successful completion of it. Undergraduates granted a cadetship are required to undertake part-time military training in the University Officer Training Corps and carry out attachments to regular units or specialist training during each of the long vacations.

Army Undergraduate Bursary Scheme

The Bursary Scheme was introduced in 1976, in order to attract undergraduates or potential undergraduates who were not prepared to commit themselves to the 5 years Service required under the Cadetship Scheme. The Army provides financial support and opportunities for paid training which supplement the normal grant and other sources of student income. The conditions of entry are the same as those for a Cadetship. A candidate must also normally have at least a Short Service Commission place in his chosen Regiment. Apart from a one-day briefing at the Royal Military Academy Sandhurst there is no formal military training involved

and the Bursary holder goes to university as a civilian with no commitment to the Army, although he is strongly encouraged to join the University Officer Training Corps and undertake unit attachments. On graduation he attends the Standard Graduate Course at the Royal Military Academy Sandhurst with a commitment to serve for at least 3 years on commissioning. There are up to 180 places available each year. Currently Womens Royal Army Corps are allowed 30 one-year Bursaries a year.

Direct Entry Graduates

Direct Entry graduates make up just over 18 per cent of the annual entry to the Royal Military Academy Sandhurst and 47 per cent of the graduate entry. They are dealt with and processed in a similar way to the school entrant except that the University Liaison Officer steers them through the initial stages of application. They also differ from a Standard Military Course entrant in that all Standard Graduate Course entrants must, where possible, have Arm/Corps acceptance so that they may be commissioned on entry to the Royal Military Academy Sandhurst. If Arm/Corps acceptance has not been given by the time of entry they are commissioned into the General List pending acceptance later in the course.

3.2 Pre-Regular Commissions Board Briefing

All candidates normally attend a Pre-Regular Commissions Board Briefing which is arranged by the sponsoring officer. The briefings are run by many military establishments throughout the country and usually last two days. After the briefing the candidate is advised whether: he is suitable to go straight to

the Regular Commissions Board; he should do an 8-10 week 'O' type course before he goes to the Regular Commissions Board to enhance his chances of passing the Board; or that he is not considered suitable. This is purely advice, and the final decision on how to proceed remains with the candidate.

The main aim of the pre-Regular Commissions Board is to brief candidates for the Regular Commissions Board. Since 1983 a more standardised pre-Regular Commissions Board briefing package has been instituted. However, before this time (as was the case when the sample of candidates in this study attended pre-Regular Commissions Board), there were marked variations in the nature of the pre-Regular Commissions Board briefing across regiments, and in some cases there was a suspicion of rehearsal or coaching rather than familiarisation.

The more sophisticated pre-Regular Commissions Board schemes include all the major elements, excepting the intelligence tests, of the Regular Commissions Board. Namely, a group discussion, lecturette, planning project, interviews, command tasks, and leaderless group tasks, and an obstacle course. [The author attended one of these pre-Regular Commissions Board briefings as part of another research contract and to all intents and purposes the pre-Regular Commissions Board visited was a mock Regular Commissions Board, involving very similar tasks and exercises, and provided the candidates with group-based feedback on their performance.]

Secondary aims of the pre-Regular Commissions Board briefing are to act as a coarse filter for Regular Commissions Board and to

provide the regiments with an opportunity to assess the suitability of their own potential officers and whether or not to sponsor them to Regular Commissions Board and the Royal Military Academy Sandhurst.

Of relevance to the current validation study, the pre-Regular Commissions Boards result in candidates attending Regular Commissions Board with varying familiarity with the procedures. And further, that those attending the Regular Commissions Board have already been filtered by the regiments/corps as being suitable officer material. This is likely to restrict the range of candidates appearing before the Regular Commissions Board and, assuming that the Regular Commissions Board would make similar decisions to those made by the pre-Regular Commissions Board (given that the exercises and assessors are similar to both this is not unreasonable), this will reduce the potential validity and utility of the Regular Commissions Board. That is, the validity and utility that would be apparent should Regular Commissions Board receive an unfiltered population of candidates.

3.3 'O' type training

Potential candidates, who are otherwise qualified for a commission, may be considered by their advisors or sponsors following the pre-Regular Commissions Board briefing to require a period of basic training before attending the Regular Commissions Board. The 'O' type courses are 8-10 weeks in length and are run to develop qualities of character and leadership necessary in a young officer.

The regiments run the 'O' type courses and consequently there is variation one to another. Like the pre-Regular Commissions Board briefing, the 'O' type courses involve assessment and may or may not result in a Commanding Officer's recommendation to attend Regular Commissions Board. Thus, 'O' type training also results in the restriction of range and homogenisation of candidates attending the Regular Commissions Board.

3.4 The Regular Commissions Board

Since 1961, the Regular Commissions Board has been responsible for the selection of all Short Service Commission and Regular Commission officers with the exception of a few specialist groups and the entrants from Welbeck College and the Army Scholarship Scheme.

Minor modifications were made to the procedure in 1979 following the Regular Commissions Board Review undertaken by Army Personnel Research Establishment, but essentially the Regular Commissions Board's methods have remained unchanged since its origin in January 1943.

The Charter of the Regular Commissions Board is: 'To select from the field of candidates of acceptable education and physical standards, those with the potential qualities of character, ability and leadership who should after training be able to command a platoon or troop in battle.' (Instructions for the Guidance of Board Members, Regular Commissions Board, p.10).

It should be noted that the Regular Commissions Board is

concerned with the prediction of job performance immediately after training at the Royal Military Academy Sandhurst. This is because a young officer may find himself in charge of a platoon on, for example, the streets of Belfast within 8 months of his attendance at the board. Further, the same Charter is applied to all Corps regardless of their role in the Army: all officers are potentially in the 'front line'.

The Regular Commissions Board is a four-day assessment procedure held at Leighton House, Westbury, Wiltshire. An outline of the boarding programme is given in Appendix 1, and the organisation of assessors is given in Figure 2.

The Group Leader, who runs the exercises, and the Deputy President stay with a particular group throughout the board. The Deputy President interviews all the members of his group. The Vice President presides over two groups and interviews all of the candidates (sixteen interviews in one day!). The Educational Adviser, from the Royal Army Education Corps, acts as advisor to the board, conducts the written exercises and also interviews all 16 candidates. Both the Vice President and the Educational Adviser observe the exercises, but their time is split between the two groups. The President presides over all the groups, gives an opening and closing address, observes the exercises, interviews some of the candidates, and sits in on the boards. The boards are chaired by the Vice President and in addition comprise the Deputy President and Group Leader for the particular group, with the Educational Adviser commenting on the candidate's educational potential.

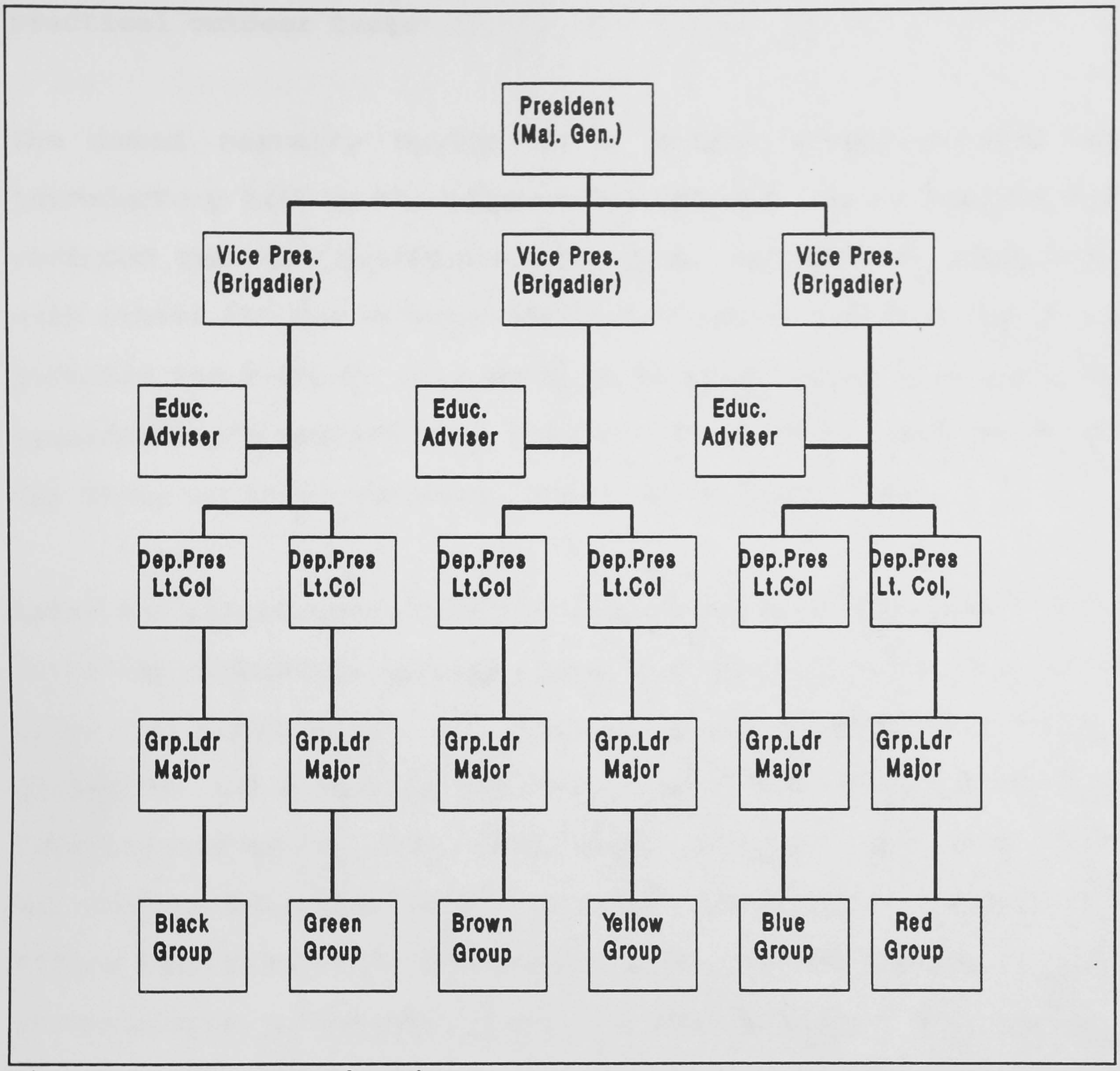

Figure 2: RCB Organisation

Generally each intake comprises 48 candidates who are divided into six groups of eight. The squads are selected on a more-or-less random basis by the administrative staff of the Regular Commissions Board before the start of the board.

The groups are known as colours (blue group, red group etc.) and individuals are given numbers. The candidates are required to address each other using these numbers rather than names. 'This may seem impersonal but it helps board members to identify candidates during the more physical aspects of some of the

practical outdoor tests'.

The board normally begins on a Monday afternoon with an introductory talk by the Supervising Officer. The candidates are reminded that the candidates in a group are not competing with each other: all are assessed against a common standard and it is possible for everyone in a group to be accepted or rejected. The candidates are assured that they are never under observation in the Mess, in their quarters, or in their spare time.

After the introductory talk the candidates spend the rest of the first day completing written tests: a Contemporary World Affairs test; a 45 minute essay; and three intelligence tests (Intruders, Analogies, and Reasoning) which are combined to form the Officer Intelligence Rating (OIR). These tests have been introduced since War Office Selection Board although two of the original War Office Selection Board tests are used for re-testing some groups of candidates. After criticism by Vernon and Parry (1949) because of its association with educational attainment, the Verbal Intelligence Test was removed from the War Office Selection Board battery. However the Analogies test in the more recent battery is also associated with educational attainment. The approach of the War Office Selection Boards and Regular Commissions Board has been to follow the Spearman 'g' model of intelligence. The Officer Intelligence Rating is consequently loosely interpreted as indicating an individual's 'ability to learn'. (A more detailed review of the Officer Intelligence Rating is given in Dennison and Segal 1981).

The second day begins with a talk from the President and then the

candidates meet their Group Leader. There follows a 40 minute leaderless group discussion using topics selected by the Group Leader. After lunch on the second day there are a series of leaderless outdoor tasks. The group is confronted by ladders, ropes, planks, poles etc., and typically are required to move a burden from point A to point B without touching the ground or pre-defined no-go areas. The group is briefed on the task by Group Leader and given a few minutes to formulate a plan. One of the candidates is asked to outline the plan and then, with a time limit, the group undertakes the task. The tasks are followed by an inter-group race. Once again, the group is asked to formulate a plan first.

The rest of the day is taken up by the interviews (15 - 20 minutes each) with the Vice President, Deputy President and Educational Advisor, some of the interviews having been done in the morning. The President interviews some of the 'possible' or 'borderline' candidates on the Wednesday morning.

The third day begins with a Planning Exercise. The candidate is given 1 1/2 hours to study the problem and then write a solution. The problem normally involves the effective use of people, equipment, time and distance. After the planning exercise there is a 30 minute discussion where the group is required to formulate a group plan. Individual members are spot-lighted by the Group Leader and asked to stand up and explain the group plan, its weaknesses and so on.

Next there is the outdoor Command tasks which are similar in nature to the outdoor leaderless tasks but where each member in

turn is put in command of the group. The member is briefed by the Group Leader as to the goal and rules and then is given a few minutes to formulate a plan before outlining it to him. The member then explains the task to the group and gives members their instructions. The morning ends with an Obstacle Course where the candidate has to negotiate as many obstacles as possible. Some of these require a fair amount of physical courage. The afternoon of the third day is taken up with Lecturettes. Each candidate in turn gives a five minute informal talk to the group on a specified subject. At the end of the talk the speaker answers questions from the group and takes part in any discussion that follows.

The fourth day begins with a short conference amongst the board members. The assessors in turn indicate their provisional grading for each candidate. There is little discussion but the discrepancies are noted for the Final Race. Here all the groups race against each other over an obstacle course transporting a burden. A short address from the President ends the board for the candidates.

In the Final Board Conference which follows each candidate is discussed and assessed in turn. The Educational Adviser outlines the candidate's background and his performance in the written tests. The candidate is then rated on the profile items in the order Group Leader, Deputy President, Vice President, and then in the same order the Educational, Practical and Character Potentials are rated. Finally the board mark is given. If there

is disagreement it is the Vice President's or President's mark which is awarded.

Essentially a 7-point scale is used for the Final Board Grade (A, B, C, D, E, DW, F). Although occasionally some of these are qualified by + or -. A to D are straight passes and for those qualified who have applied, the board may award a university cadetship or bursary. The E gradings are considered to be risk passes by the board. It may recommend pre-Royal Military Academy Sandhurst training for non-graduates, at either the Army School of Education Beaconsfield (E lit), or Rowallan (E training). E (Char) indicates a concern over the candidates character but no specific action results. Deferred Watch (DW) is awarded to those candidates which the board fail but wish to encourage to return at a later date.

The Regular Commissions Board also considers the type of commission applied for by the candidate. In some circumstances it may recommend a change in intended commission. This is usually to recommend a Short Service Commission for risk passes who have applied for a Regular Commission.

3.5 Pre-Royal Military Academy Sandhurst Training

The Regular Commissions Board may decide that a candidate either needs to develop his inherent leadership skills, or perhaps is not up to the education standard required. In the former case candidates attend Rowallan Company at Sandhurst, and in the

latter they attend a 12-week course at the Army School of Education, Beaconsfield. Exceptionally, a candidate may be recommended for both types of preliminary training.

Rowallan

The Royal Military Academy Sandhurst training was re-introduced - it had been originally devised by Lord Rowallan for War Office Selection Board 'risk' candidates during the war - for Regular Commissions Board 'risk' candidates in January 1977. Non-graduate candidates at the Regular Commissions Board who are graded E (training) attend the 12-week training course run by the Rowallan Company. The aim of the course is to develop qualities of leadership to the standard required for entry to the Standard Military Course at the Royal Military Academy Sandhurst. The course concentrates on the development of leadership, physical fitness, survival, communication and military skills. There is almost continuous assessment during the course with self-assessment and counselling, and a Review Board meets four times to consider the student's progress.

A more detailed description of Rowallan is given by Jenkins (1982). This paper reports that between January 1977 and December 1981, 69 per cent of the Rowallan students passed on to the Standard Military Course, with 17 per cent being discharged from Rowallan, 10 per cent requesting Premature Voluntary Retirement, and 4 per cent leaving for medical reasons. Table 2 below (from Jenkins 1982) suggests that the Regular Commissions Board 'risks' that go through Rowallan hold their own relative

to the straight Regular Commissions Board passes on the Standard Military Course.

Table 2: Performance of Rowallan passes on the SMC

	T	Above Aver.	Aver.	Below Aver.	Back Term	Fail
SMC's 15-27	2039	27%	45%	8%	10%	10%
Rowallan 1-13	376	25%	53%	8%	8%	7%

During this period Rowallan men gained 16 per cent of the cadet appointments at the end of the Standard Military Course and two Swords of Honour.

3.6 Royal Military Academy Sandhurst

After being accepted by the Regular Commissions Board all candidates undertake training at the Royal Military Academy Sandhurst, though some may first attend Army School of Education Beaconsfield or the Rowallan Company.

From 1953 the Royal Military Academy Sandhurst ran a two-year course for the training of young officer's. This was changed to the 26-week Standard Graduate Course in 1981 for graduates, and to the 26-week Standard Military Course in 1982 for non-graduates. The non-graduates with a Regular Commission now also attend a further 26-week course (the Regular Careers Course) some 2 to 4 years after passing out of the Royal Military Academy

Sandhurst. Given the Regular Commissions Board Charter, changes in the training of young officers have important implications for Regular Commissions Board assessment. A young officer may now be in command of men on active service only 8 months after attending the Regular Commissions Board.

The purpose of the Standard Military Course is 'to develop the qualities of leadership and provide the basic knowledge required by all young officers of any Arm or Service so that after the necessary Special-to-Arm training they will be fit to be junior commanders' (Para. 11, Report on the Validation Study December 1978, RMA Sandhurst). The course covers basic training, basic tactics, counter revolutionary warfare up to company level, and conventional tactics. The emphasis is upon leadership training. Assessments of the students are made by the staff of New College. There are two boards at which the individual's progress is reviewed and at which the individuals may be backtermed or discharged. The final report on a young officer includes assessments of officer qualities and military knowledge as well as an overall grade on a five point scale.

The purpose of the Standard Graduate Course is the same as that of the Standard Military Course but additionally it seeks to 'lay the foundation for professional knowledge leading to Staff College and beyond, based upon war studies, contemporary affairs and military technology' (Para. 16, Report of the Validation Study, December 1978, RMA Sandhurst). The graduates do not attend the Regular Careers Course which the regular commissioned

non-graduates attend, which provides for this group the necessary professional knowledge. A final report for graduates is compiled by the staff of Victory College and includes assessments of officer suitability, military and academic studies, and an overall grade on a five point scale.

It should be noted that there would appear to be a disparity between the Regular Commissions Board and the Royal Military Academy as to the stage at which an individual is considered fit to be a junior commander. The Regular Commissions Board considers that this stage is reached after the satisfactory completion of the Standard Military Course or Standard Graduate Course; the Academy on the other hand considers that Special-to-Arm training is also required before an individual is fit to be a junior commander.

3.7 Special-to-Arm Training

Shortly after being commissioned from the Royal Military Academy Sandhurst the young officer will attend a Special-to-Arm course intended to fit him to his chosen regiment. They are run by the various Arms and vary considerably in content and length. Given the Regular Commissions Board Charter, the 10-week Platoon Commander Battle Course run by the Infantry at Warminster is of particular relevance. The following is an extract from the Army's literature on the Platoon Commanders Battle Course.

"The first part of the course consists of skill-at-arms -

improving your knowledge and expertise in handling Infantry platoon weapons. You will learn how to organise and run a training programme, including exercises using blank ammunition, and live firing range work.

The second or longer part of the course will instruct you in the command and training of a rifle platoon. You will learn to work in the context of an all-arms combat team, including helicopters, tanks, armoured reconnaissance vehicles, gunners and engineers. You will learn of the help available from close air support and how to co-ordinate your tasks with those of other arms. You will also learn something of operations in aid of the civil power.

Finally, you will be given practical experience in commanding troops from the School of Infantry's resident demonstration battalion on a succession of exercises, some in the Welsh mountains - a terrain which can be guaranteed, especially in winter, to make things as rugged as the most enthusiastic Infantrymen could wish." (Abstract from the 'Infantry Officer' APS 0755, Ministry of Defence (Army)).

3.8 Current Selection and Training of the Womens Royal Army Corps Officer

There has been considerable equivocation over the role and nature of the Womens Royal Army Corps officer. Consequently there have been fairly regular changes in their selection and training

procedures.

Presently, the selection of the Womens Royal Army Corps officer at Regular Commissions Board is similar to that of their male counterpart. The same exercises (although lighter burdens are used for the physical tasks) and profile scales are used, and the boarding process is essentially the same.

Womens Royal Army Corps candidates attend a pre-Regular Commissions Board briefing held at the Womens Royal Army Corps training centre at Guildford and may be advised to attend an '0' type course. The great majority of candidates apply for a Short Service Commission on entry with some converting to a Regular Commission after a few years. There is no equivalent for the Womens Royal Army Corps of the Rowallan pre-Royal Military Academy Sandhurst training attended by the male 'risks'.

In 1983 the training of the Womens Royal Army Corps officer was radically altered in line with the changing role of the Womens Royal Army Corps. A new 25-week course was introduced at Womens Royal Army Corps College, Camberley, and in 1985 Womens Royal Army Corps training moved to the Womens Royal Army Corps Wing at the Royal Military Academy Sandhurst.

This brief outline of the current selection and training history of the army officer makes it quite clear that the Regular

Commissions Board cannot be viewed in isolation. It is a key part of a long and sophisticated training and selection practice that hopes to provide the army with the right quality, number and type of officer at various levels in the hierarchy.

The validation of the Regular Commissions Board has to take into account the pre- and post-Regular Commissions Board training and selection. Changes here have the potential to affect the validity, utility and fairness of the Regular Commissions Board.

Chapter 4: Previous Research on the War Office Selection Boards and the Regular Commissions Board

4.1 War Office Selection Boards

Interpretation of the reported research should bear in mind the following:

(a) 17 different War Office Selection Boards were in operation from late 1942 until 1945. Until 1945, the boards used different standards and procedures and members received no training. Until 1943 the Final Board Grading scheme varied.

(b) From 1946 the nature of the War Office Selection Board changed considerably. It became concerned with the selection of officers for National Service and Short Service Commissions. The psychiatrists and psychological tests were withdrawn.

(c) Throughout the period 1942 - 1951 initial officer training was undertaken at a number of different Officer Cadet Training Units (OCTU, later OCS) attached to different Arms. The standard and type of training differed between Officer Cadet Training Unit. Morris (1949) states: "It became clear that the very basis of the overall assessment of candidates differed, not only among War Office Selection Boards but as between War Office Selection Boards and Officer Cadet Training Unit themselves. The difficulties of bringing these various assessments into line were, under the conditions obtaining, quite insuperable." (p.229).

(d) Prior to 1947/48 there appear to be significant differences

in the method and philosophy operating in the War Office Selection Boards and the Regular Commissions Board. Early studies of War Office Selection Board validity, at best, provide only indirect support for the validity of the present-day Regular Commissions Board.

In reporting the research undertaken on the War Office Selection Boards, one further difficulty arises from the fact that much of the research is unpublished and is available largely only in personal accounts by members of the Research and Training Centre. Much of the detail of the studies is not reported, and frequently the date is not specified.

War Office Selection Board Reliability

One of the earliest studies of the reliability of the War Office Selection Boards is reported in Morris (1949) and Vernon and Parry (1949). Two matched groups were sent to two different boards. A 23 per cent pass rate was found at one board and a 48 per cent pass rate found at the other. Morris (1949, p.232) reports a slightly later study where the same group of candidates were sent to two different boards. In order to counteract learning effects, half of the group attended Board A first whilst the other half attended Board B and then Board A. Morris states that significantly different acceptance rates were found. There was 60 per cent agreement on disposition, and disagreement on major issues in 25 per cent of the cases. This was regarded as a major discrepancy. Vernon and Parry (1949 p.125) report a similar study involving 116 candidates sent through two boards

a fortnight apart. A tetrachoric correlation of 0.67 was obtained. Of candidates passed by one board, 21.5 per cent were rejected or deferred by the other. Vernon and Parry report that a further unpublished study on reliability found a higher level of agreement between the technical members of the board than between the non-technical members.

It was not until after the war that a serious attempt could be made to assess reliability. In 1945 two teams of highly experienced staff, given common training and common reporting forms, observed or interviewed some 125 (Morris states 200) candidates. Whilst the boarding took place on the same premises at the same time, the staff were sworn not to discuss relevant aspects with each other. The correlations obtained between the assessments of various members of the boards are given in Table 3.

Table 3: Inter-rater Reliability of WOSBs

	Mean Reliability Coefficients	Median Agreement on separate traits	Correlation with Final Grade
MTO with MTO	.86	.77	.83
Psychologists with same	.78	.69	.83
MTO with Psychologist	.79	-	-
President with same	.65	.68	.75
Psychiatrist with same	.65	.47	.71
President with Psychiatrist	.62	-	-
MTO or Psychologist with President or Psychiatrist	.59	-	-
Team with Team	.80	.68	.91

(From Vernon and Parry, 1949, p.126)

The reliability coefficient of 0.80 for the whole team is quite good. It is noticeable that there is little evidence of the psychiatrist's opinion being substantially at odds with that of the President; Presidents and Psychiatrists concur very nearly as often as President with President.

Vernon and Parry (p.126) conclude as to the evidence for the reliability of the War Office Selection Boards: "War Office Selection Board methods applied haphazardly according to the whims of the staff are only of slight value, but when standard techniques are evolved and applied uniformly by trained and experienced personnel a satisfactory reliability may be obtained."

War Office Selection Board Validity: Training criteria

War Office Selection Boards were originally introduced because of high failure rates at Officer Cadet Training Unit and decreasing numbers of applications for commissions. Harris (1949, p.viii) reports that in the Command in which the first board was introduced the number of volunteers for commissions increased by 25 per cent. Gillman (1947) states that in 1942, 20 to 40 candidates in every 100 were sent back to their units through Officer Cadet Training Unit. After the Middle East War Office Selection Board had been set up, this figure came down to one candidate per 100. However, as Morris (1949) points out, claims for the success of the War Office Selection Boards in reducing the number of training failures during late 1942 cannot be substantiated. An upper limit for the rejection rate at Officer

Cadet Training Unit was laid down at this time by the War Office.

Harris (1949) reports a study undertaken by Reeve on the 'returned to unit' (RTU) rates at Officer Cadet Training Units over a period prior to 1947. Analysis of the Officer Cadet Training Unit and War Office Selection Board records of 1027 cadets is given in Table 4.

Table 4: WOSB Grade by RTU rate

WOSB Final Grade	RTU Rate
A	0%
AB	0%
B	2.8%
C	3.6%
D	9.1%
DD	9.1%
"148"	11.8%

(From Harris, 1949, p.247. "148" refers to War Office Selection Board category for immature candidates requiring special training)

Reeve (1971) in a study of 664 cadets passing out of Officer Cadet Training Units in 1947 and 1948 found a significant association between Return to Unit rate and the War Office Selection Board grading (χ^2 $p<0.005$). Reeve in a detailed study of the Return to Unit rates themselves from 1947 to 1951 (n=16,959) concludes "Return to Unit rates were substantially influenced by causes at the training (OCS) stage, and this places an important restriction on the use we can make of Return to Unit rates in the study of the efficiency of selection by War Office Selection Board." (p.131).

Vernon and Parry (1949) report a study carried out in 1942 which compared the performance of 1200 cadets at Officer Cadet Training Units. Some of the cadets had passed through the old Command Boards and some through the War Office Selection Boards. The subjects were followed up and a conference held with Officer Cadet Training Unit instructors. The results are given in Table 5.

Table 5: Comparison of WOSBs and Command Interview Boards

	Above Average	Average	Below Average and Fail
Old Board (n=491)	22.1%	41.3%	36.6%
New Board (n=721)	34.5%	40.3%	25.2%

The selectees from 7 out of the 8 new boards were found to be superior to the old boards and this relationship held across ten different Officer Cadet Training Units representing different Arms. Morris (1949) notes that the difference in favour of the War Office Selection Boards increased with an increasingly strict criterion.

Reeve (1971) points out that in 1948 this study, purporting to prove the validity of the War Office Selection Boards, was given in the House of Lords in defence of the Civil Service Selection Boards. Reeve reports that from later conversations with the research staff who undertook the study, it became apparent that the staff knew at the time which of the boards the candidates had

attended. Reeve further points out that the difference between the old and new boards could result from the use of the Officer Intelligence Rating alone.

Morris (1949) states that as the result of a number of specific investigations undertaken before 1945 into the relationship between War Office Selection Board and Officer Cadet Training Unit assessments, the War Office Selection Board final grade was found to correlate approximately 0.3, and the Officer Intelligence Rating 0.35 with Officer Cadet Training Unit grades. A multiple correlation of 0.58 was found between the Final Board Grade, Officer Intelligence Rating, Educational Standard, type of school, age, length of other rank service, and Officer Cadet Training Unit performance. Comparison of the War Office Selection Board grades of those passed and failed at Officer Cadet Training Units revealed very little difference. Vernon and Parry (1949) report that a large number of investigations have shown War Office Selection Board grades to correlate between 0.4 and 0.5 with Officer Cadet Training Unit assessments, but the significance of the correlation is greatly dependent upon the skill of the individual board members. Unfortunately, the studies reported above from Morris and Vernon are not presented in detail and are given without reference.

Reeve (1971) reports an early study involving 152 War Office Selection Board candidates, 76 of whom had been interviewed by a particular psychiatrist and 76 of whom has been interviewed by another psychiatrist. The Final Board Grading for the board of

which one psychiatrist was a member provided a correlation of 0.41 with Officer Cadet Training Unit assessments, whilst when the other psychiatrist was a member of the same board the correlation was -0.12. Reeve points out that when this study was later presented as evidence for the validity of psychiatric opinion, the results of the second psychiatrist were omitted and reference to him, included in the original report of the work, was removed.

Reeve also reports a study conducted in 1947 in which the War Office Selection Board grades of 2685 cadets passing out of Officer Cadet Training Units were followed back to provide a correlation coefficient of 0.217. Also reported is a later study of the relationship between War Office Selection Board and Officer Cadet Training Unit grades. For the 649 cadets passing out of Officer Cadet Training Units in the first quarter of 1950 a correlation of 0.28 was obtained; the second quarter of 1950 produced a correlation of 0.15. Further analysis revealed not only significant differences in validity between quarters, but also between Officer Cadet Schools. Reeve (1971, p.170) concludes on the basis of over 70 studies carried out by himself between 1947 and 1951, that in the main, coefficients for the relationship between War Office Selection Boards and Officer Cadet Training Units have tended to average between 0.2 and 0.3.

War Office Selection Board Validity: Performance Criteria

Vernon and Parry (1949) report a follow-up of 329 officers, 4 to 13 months after commissioning. An average correlation of 0.26 was

found between Officer Cadet Training Unit grades and Commanding Officers' opinions of the officers in the units. Old and new boards yielded almost identical results at the Officer Cadet Training Units, and the relationship with the Commanding Officers' opinions were too marked by differences in Arm, age, etc. to be meaningful. Vernon and Parry also report a small follow-back study of officers who had suffered psychiatric breakdown. 89 cases were traced back. Neither the Final Board Grade, President's or Military Testing Officer's opinion of them were any different to normals. The psychiatrists had recommended acceptance of 71 per cent but had given significantly more adverse reports than to normal candidates. The psychologists working from personality pointers without interview had recommended acceptance of 52 per cent; however the psychologists tended generally to give more adverse reports. 14 per cent of the group, compared with 6 per cent of normals, had an Officer Intelligence Rating of 4 or below.

Morris (1949) reports a follow-up study of the Mediterranean Campaign (1943-44). It found in the opinion of the Commanding Officer, that 76 per cent of officers selected by the War Office Selection Boards were completely satisfactory, 12 per cent clearly unsatisfactory. Morris also reports a follow-up study in the British Liberation Armies (1944-45). For the Infantry, in the opinion of the Commanding Officers, 76 per cent of the officers selected by the War Office Selection Boards were completely satisfactory, 7 per cent clearly unsatisfactory. For the Royal Artillery, 59 per cent were completely satisfactory and 12 per

cent clearly unsatisfactory. As no control group was available for either study, these figures prove little. In the Home Commands, War Office Selection Boards had higher satisfaction rates than the old procedures, particularly in the Infantry for those under 23 years of age and with less than one year's experience in the ranks.

Vernon and Parry (1949) also report a study involving 500 officers in the Infantry and Royal Artillery just before the crossing of the Rhine in 1945. A slight but significant difference was found between those awarded A, B, C or D at the War Office Selection Boards in their Commanding Officer's opinion of them as officers. A correlation of 0.165 (corrected 0.35) was found. War Office Selection Board predictions were better for younger men. An uncorrected correlation of 0.23 was found for those under 23 years of age, compared with 0.06 for those of 28 or over.

Miscellany

Vernon and Parry (1949) report a study involving approximately 4,500 War Office Selection Board candidates. It was found that pre-service organisation membership, e.g. scouts, Army Cadets, ATC, etc., correlated 0.24 with War Office Selection Board pass or fail, and the Officer Intelligence Rating correlated 0.33.

Reeve (1971) reports a study in 1947 where, of those who passed, no difference was found between public school boys and non-public school boys in the War Office Selection Board grading they

received. However, a significantly higher proportion of non-public school boys failed the War Office Selection Board. In 1949, a study of 199 War Office Selection Board candidates revealed a significant difference in the pass rate for public (59%) as opposed to non-public school boys (36.8%), and also a significant difference (χ^2 $p<0.001$) in the grades awarded. In 1951, a study of 1284 candidates confirmed the significant tendency for those from public schools to be awarded a higher pass grade, a higher proportion of 'deferred watch', and a lower proportion of fails, than those from non-public schools.

4.2 Regular Commissions Board

Although the Regular Commissions Board procedure has remained largely unaltered since inception, a number of significant changes have occurred:

(a) In 1962 the Regular Commissions Board and War Office Selection Board were merged and the Regular Commissions Board took over responsibility for the selection of both Regular Commissions and Short Service Commissions.

(b) In 1955 the 2-year course was introduced at the Royal Military Academy Sandhurst. This was changed to a 26-week course in 1981 for graduates and in 1982 for non-graduates. Those of the latter group who wish a regular commission now attend a further 26-week course two to four years later. Given the Regular Commissions Board Charter, changes in the training of young Officers have important implications for

Regular Commissions Board assessment.

(c) In 1977, the Rowallan Company Course was introduced for those under 21 years of age who are assessed at Regular Commissions Board as immature.

(d) In 1979, as a result of the Regular Commissions Board Review modifications were made to the Regular Commissions Board procedure.

(e) Changes occurred in the assessment of Womens Royal Army Corps officers at the Regular Commissions Board in 1980 and major changes to their training in 1983.

Acceptability of the Regular Commissions Board

An analysis of the acceptability of the Regular Commissions Board was made for the 1979 Regular Commissions Board Review. In 1974 the Regular Commissions Board ran a trial during which a small number of Headmasters were co-opted onto the board. The Headmasters were asked to make a formal statement of its effectiveness. Criticism was virtually non-existent, and generally the system was seen as fair and thorough. Analysis of the 1977 Correspondence File at the Regular Commissions Board and analysis of the opinions of the 100 or so Army officers who visit and observe the Regular Commissions Board each year, led the Regular Commissions Board Review to conclude that there is real confidence in the Regular Commissions Board, both within and outside the Army amongst those who have had the opportunity to observe it.

Candidates' attitudes to the Regular Commissions Board have also

been studied (Army Personnel Research Establishment Memo 13/78). 249 candidates were asked to complete a questionnaire anonymously at the end of their stay at Westbury. The research found that the great majority (95%) saw the Regular Commissions Board as fair and equitable, though some criticism of the tests was made.

Regular Commissions Board Reliability

Clarke (1964) recounts a study that compared assessments made by War Office Selection Boards and the Regular Commissions Board of the same individuals when the War Office Selection Boards acted as a screen for the Regular Commissions Board in 1954. A correlation of 0.44 (corrected to 0.69) was found between the two sets of assessments.

In 1978 the Army Personnel Research Establishment undertook a 'shadow boarding' study. 16 candidates were assessed by the board as normal but also observed by a second shadow board at the same time. The shadow members sat in and observed interviews, but did not themselves conduct the interview. The shadow board then, having not discussed the candidates with the real board, sat under their own Vice-President and made their assessments. Thus for each candidate two assessments were made. Agreement as to disposition of the candidates was achieved in 87 per cent of the cases.

Regular Commissions Board Validity

The earliest research conducted specifically into the validity of the Regular Commissions Board, as opposed to the War Office

Selection Boards, is reported in Clarke (1967). Clarke conducted retrospective follow-ups of 186 young offices for a five year period, and of 269 young officers for a ten year period. The samples comprised Regular Commissions Board passes from 1950 to 1952, who attended the Royal Military Academy Sandhurst in 1953 (intakes 10 and 11), who were still serving in 1961; and the Regular Commissions Board passes for 1956, who left the Royal Military Academy Sandhurst in 1958 (intakes 21 and 22), and who were still serving in 1961. All the samples were officers serving Regular Commissions in the Royal Armoured Corps, Royal Artillery, or Infantry. The criteria used were the Royal Military Academy Sandhurst reports, examination results, and Annual Confidential Reports. The major results are given in Tables 6 and 7.

The results suggest evidence of an increase in validity over time (0.11 for 5 years, 0.30 for 10 years); however the ten-year sample was less affected by selection at Regular Commissions Board than the five-year sample. Further, the nature of the training received by the two groups at the Royal Military Academy Sandhurst differed. Not surprisingly, it would appear to be the

Table 6: Five-Year Follow-up of RCB Assessments

	1	2	3	4	5	6	7	ACR
RCB Assessments								
Final Board Grade	-	.09	.19	.22	.25	.20	.20	.11
OIR		-	.32	.18	-.04	.25	.31	.03
Educational Potential			-	.33	.08	.41	.47	-.05
RMAS Assessments								
Order of Merit				-	.54	.67	.65	.29
Officer Qualities					-	.33	.24	.38
Mil. Subjects						-	.62	.25
Acad. Subjects							-	.22

Table 7: Ten-Year Follow-up of RCB assessments

	ACR	Prom. Exam	SC Exam
RCB Assessments			
Final Board Grade	.30	.12	.25
OIR	.11	.24	.29
RMAS Assessments			
Character Grade	.53	.22	.46
Education Grade	.31	.41	.51

(From Clarke, 1966, p.10. Uncorrected Pearson Product Moment correlation Coefficients, significance not reported)

case that the Royal Military Academy Sandhurst grades are better predictors of Annual Confidential Report performance than the Regular Commissions Board gradings. The significant correlations produced by the 'Character' and 'Officer Quality' grades at the Royal Military Academy Sandhurst should be noted.

Clarke (1965) reports, in an unpublished Ministry of Defence paper, a significant correlation (0.53) between the Regular Commissions Board final grade and the Royal Military Academy Sandhurst overall grade at the end of the 2-year training period.

Laing-Morton et al (1983) report a more recent study of the validity of the Regular Commissions Board. Using as the criterion the results of three Junior Command and Staff Courses at the Junior Division of the Staff College, a significant degree of association was found between the Regular Commissions Board Final Grades and the Junior Command and Staff Course results (Kendall's Tau = 0.18, $p<.055$). The sample comprised 202 male, Regular Commissioned Officers, the majority of whom had attended the Regular Commissions Board between 1968 and 1970. 56 Womens Royal Army Corps Officers were also included in the study. Less association was found for this group; less than half the sample were given similar grades at Regular Commissions Board and Junior Division Staff College. Laing-Morton et al suggest that the weaker association for the Womens Royal Army Corps Officers is probably the result of the longer period over which data was collected. In order to obtain the Womens Royal Army Corps sample all Junior Command and Staff Courses between 1969 and 1978 were included, which means that the Regular Commissions Board years extended from 1961 to 1977.

In 1976, The Independent Assessment and Research Centre investigated the predictive validity of the Officer Intelligence Rating tests using as a criterion a combination of Academic, Military and Officer Quality ratings from the Royal Military Academy Sandhurst. The Reasoning (0.19, $p<.05$), Analogies (0.31, $p<.01$) and Officer Intelligence Rating grade (0.29, $p<.01$) revealed significant validities, whilst the Intruders test did not.

In 1977, as part of the Regular Commissions Board Review, a follow-up study was carried out for 88 Regular Commissions Board candidates. Officer Intelligence Rating test results and the Regular Commissions Board Educational Standard rating were compared with the Royal Military Academy Sandhurst assessment of Standard Military Course English and Standard Military Course Written Expression.

Table 8: The OIR and SMC assessments

	SMC English	SMC Written
OIR Tests		
Intruders	.15	.18
Reasoning	.24	.19
Analogies	.31	.24
RCB Educational Standard	.27	.24

(From Dennison & Segal, 1981, Annex F/1. Kendall's Tau, all $p<.05$).

Miscellany

Dennison & Segal (1981) report an analysis of the Regular Commissions Board assessments based upon an analysis of 272 Regular Commissions Board candidates in 1979 and 1980. The results are given in Table 9.

Table 9: Correlations between the RCB elements and the RCB Final Board Grade

	OIR	ES	EP	P	C	Final Grade
OIR	-	.41	.75	.38	.17	.28
Educational Standard		-	.69	.25	.21	.30
Educational Potential			-	.52	.41	.51
Practical Potential				-	.69	.70
Character Potential					-	.91

(From Dennison & Segal, 1981, Annex E/3. Spearman's Rank r's, all $p<.01$)

Dennison & Segal also find that the Intruders test is relatively unaffected by education, and conclude that it is a reasonable measure of general intelligence; the Analogies and Reasoning tests being influenced to a greater degree by verbal ability and educational experience. It is interesting to note that in Table 9 the correlation of the components with the Final Grade increases in step with the order of discussion in the Final Board. 'Character' which is discussed immediately prior to awarding the Final Grade correlates most significantly with it.

4.3 Previous research on the selection of the Womens Royal Army Corps Officer

AORG (1952) report a study of 94 Womens Royal Army Corps young officers attending the Officer Cadet Wing of the Womens Royal Army Corps College between 1950 and 1952. 82 per cent of the sample was commissioned, and the uncorrected correlation between a Officer Cadet Wing combined grading and the Regular Commissions Board Final Board Grading was 0.26 ($n=77$, $p<.05$).

The Director of the Womens Royal Army Corps advised the 1979 Regular Commissions Board Review that the Womens Royal Army Corps had always had confidence in the Regular Commissions Board system and had been generally satisfied with the quality of those who had been recommended for officer training.

The 1979 Review reports a study where 100 Womens Royal Army Corps officers who had served as officers for at least 3 years were

selected at random. The study found that only 9 had been graded below average on any of their Annual Confidential Reports. The Review concluded: "it is reasonable on this basis that 80 per cent of Womens Royal Army Corps officers who have been recommended by Regular Commissions Board have been considered satisfactory during their first 3 years of service".

The Review also reports a study on the long course at Womens Royal Army Corps College during the period January 1973 to December 1978. 86 per cent of those recommended by Regular Commissions Board successfully completed officer training. For the short course over the same period the success rate was 97 per cent.

Comments made by visitors to the Womens Royal Army Corps boards suggest that the procedure is seen as relevant and appropriate.

Summary

The results suggest that the War Office Selection Boards were moderately predictive of training performance. However, there is virtually no empirical evidence that they were predictive of job performance or that they were better predictors than the old Command Interview Boards. Anecdotal evidence suggests that the War Office Selection Boards were seen as being objective and fair to all candidates. Evidence collected for the 1979 Regular Commissions Board Review suggests that, despite the criticisms of Salaman and Thompson (1978), the present day Regular

Commissions Board is seen likewise. The description of the War Office Selection Boards given by Harris (1949) reveals that the present day Regular Commissions Board differs quite significantly in terms of personnel, exercise and approach. Evidence for the validity of the War Office Selection Boards is only indirectly indicative of the validity of the Regular Commissions Board.

Whilst only two separate studies have been undertaken, the results suggest that, for male officers, the Regular Commissions Board is moderately predictive of performance at the Royal Military Academy Sandhurst, Junior Division Staff College and in the Regiments as measured by the Annual Confidential Report. It should be noted that all the studies have used only Regular Commissioned Officers as subjects and that they are based on samples drawn largely from the 1950s. Since this time changes have occurred at the Regular Commissions Board and in the training of young officers. The Charter of the Regular Commissions Board is 'to identify those who, after training, are able to lead a platoon or troop in battle'. No attempt has been made to validate the Regular Commissions Board against this criterion. The 1979 Regular Commissions Board Review noted that of all areas of investigation the validation of the Regular Commissions Board was the least advanced.

PART II

PRESENT RESEARCH

Chapter 5: Research Methodology

The principal aim of the research was to establish the predictive validities for the current Regular Commissions Board assessment procedure in order to provide guidelines for improving its effectiveness and a baseline for evaluating future changes.

In order to achieve this aim the following research process was undertaken in consultation with the research steering group.

5.1 Familiarisation

The first six months of the research was primarily concerned with familiarisation. In addition to the Army Personnel Research Establishment, visits and discussions were held with the Regular Commissions Board, the Royal Military Academy Sandhurst, and the Military Secretary at Stanmore where personal files are kept.

These visits and discussions served several purposes including:

(i) Enabling the researcher to become familiar with officer recruitment, selection, training and career structure.

(ii) Ensuring a common understanding of the aims of the research.

(iii) Providing opportunities for the researcher to be introduced to those parts of the Army which have a

direct interest in the outcome of the study and hold data needed for the successful conduct of the study.

(iv) Enabling the researcher to learn what was likely to be practicable and acceptable in the process of achieving the aims of the research, including the utilisation of the findings.

In addition, the research literature on validation and, in particular, validation of the selection of officers for the armed forces was reviewed. This included visits to Senior Psychologist (Navy) and the use of their and the Army Personnel Research Establishment's library. [A bibliography of studies of officer selection was produced].

During the familiarisation stage it became more apparent what data were available for the research. Computerised personal records do exist within Ministry of Defence, held on Officer Selection Data Files at Worthy Down. Unfortunately, both providers and users questioned the accuracy of this data bank. Many saw provision of information as a largely administrative chore with little return. One gained the impression that not a great deal of care was taken over the provision of some records. It became apparent that the data for the validation study would have to be raised by hand. Further, it also became apparent that the selection and training process was complex with many different groups of entrants, and many different variables to be taken into account.

5.2 Choice of the Validation Sample

Given minor changes to the Regular Commissions Board in 1979/80 and significant changes to the training of both male and female officers at the Royal Military Academy Sandhurst in 1981/82 and 1983 respectively, the need to validate current as opposed to outmoded selection and training procedures required that the sample for the study should not pre-date these changes. This meant that the potentially valuable data on the performance of young officers during the Falklands conflict in 1982 was lost. Discussions with the Regular Commissions Board supported this decision and suggested that any conclusions and recommendations drawn from the validation of an earlier sample would lack credibility within the Army itself.

The research was undertaken on a fixed term contract initially for two years but later extended to three years in order to collect criterion data for the Women's Royal Army Corps. September 1986 was the scheduled completion date. In some cases the length of time between attending the Regular Commissions Board and the Royal Military Academy Sandhurst can be as much as 4 years. This is particularly the case with cadets and bursars who attend university in between the Regular Commissions Board and the Royal Military Academy Sandhurst. This meant that it was not possible, in the time available, to use a cohort at the Regular Commissions Board during late 1981/82. Criterion information from the Royal Military Academy Sandhurst for some, and from the Annual Confidential Reports and Special-to-Arm

reports for many, would not be available before the completion date. Consequently, it was decided and agreed that the study should be based on a cohort at the Royal Military Academy Sandhurst in 1982. This ensured that adequate criterion information could be available for the sample. The sample being traced back to Rowallan and the Regular Commissions Board for their Rowallan and Regular Commissions Board reports, and followed up for their Annual Confidential Report and Special-to-Arm reports.

5.3 Pilot Analysis

Next, data was collected on a pilot sample in order to develop coding frames, identify the difficulties of data collection, the precise criteria available, the completeness of the information available, and to undertake preliminary analysis of the predictor and criteria to check their adequacy.

The Academy Headquaters and New College at the Royal Military Academy Sandhurst and the Military Secretary (Confidential Records) were visited and coding frames developed for the Standard Military Course, Standard Graduate Course, the Regular Commissions Board final report form, and the Annual Confidential Report.

All members of Standard Graduate Course 1 and Standard Military Course 29 were selected for the trial investigation. These courses were the first of the new shortened (26-week) version run

at the Royal Military Academy Sandhurst. The sub-sample comprised 107 non-graduates and 43 graduates. For the great majority, the Regular Commissions Board final report forms were held on the p-files at the Royal Military Academy Sandhurst. For the purposes of the trial it was considered unnecessary to visit Regular Commissions Board to collect the few missing Regular Commissions Board report forms.

Those commissioned (approx. 85% of the sub-sample) from Standard Military Course 29 and Standard Graduate Course 1 were followed through to the Military Secretary (Confidential Records) where a coding frame was developed and data collected from the Annual Confidential Reports. In 58 per cent of the cases two Annual Confidential Reports per officer were available; these being the Annual Confidential Reports for the years ending March 1983 and March 1984. The 1983 Annual Confidential Report was completed on average after approximately 9 months of regimental duty, and the 1984 Annual Confidential Report after approximately 20 months of regimental duty.

Choice of Predictor

During the period of assessment the Regular Commissions Board collects information on candidates on nineteen different characteristics. This information forms the basis of estimates of the candidate's intellectual potential, practical ability and character. These are in turn combined, though not in any simple manner, to form the board's final grading. This grading determines whether a candidate is given a straightforward

acceptance or rejection, or a qualified acceptance (e.g. he is regarded as a 'risk' candidate).

Previous research on War Office Selection Boards and the Regular Commissions Board and corresponding research on the Admiralty Interview Board had used the Final Board Grade given at the end of the assessment process as the predictor in the validation. The use of the Regular Commissions Board's Final Board Grade as the predictor in the current study was considered desirable and acceptable by the steering group and the Regular Commissions Board.

Previous research suggests that the board's final grading is reliable, in the sense that different boards sitting at the same time will make similar assessments of the same candidates. Clarke (1964) and Miles (1978) report coefficients of agreement of 0.80 or higher. This is an acceptable level of reliability and therefore this research will not estimate reliability nor in accordance with Guilford & Fruchter (1978, p.452), will it correct the validity coefficients for the unreliability of the predictor.

At this stage it became apparent that the board profile items were, with one or two exceptions, of very restricted range. For the most part only two or three points of the scale were being used. The use of factor analysis and multiple regression was unlikely to be defensible. The intention to provide, as a secondary aim, the Regular Commissions Board with advice on the

weighting of the profile items was unlikely to be realised. Instead the restricted range of the items questioned the design and use of the profile scales and the amount of information available to board members. It also became apparent - from observation of the boarding process rather than any statistical analysis - that some of the scales were being used essentially as cut-offs. Further, it was soon recognized that one of the major recommendations likely to result from the research would be to have a closer look - rather than the arms-length that accompanies validation - at the boarding process, use of scales, information available, contribution of the exercises and so on.

Unselected Sample

The consequences of using a cohort at the Royal Military Academy Sandhurst rather than at the Regular Commissions Board was that it was a selected sample. Consequently, an Regular Commissions Board unselected sample was investigated in order to enable the Regular Commissions Board profile items to be scrutinised and, in particular, their contribution to the Final Board Grade ascertained. The unselected sample comprised all those who attended the Regular Commissions Board between September 1981 and February 1982 (n=395). There was a significant overlap between the unselected and selected samples in that 117 individuals were common to both (essentially most of the non-graduates and direct entry graduates in the unselected sample). A further consequence of using a Royal Military Academy Sandhurst cohort was that those who passed the Regular Commissions Board but did not attend the Royal Military Academy Sandhurst were lost. The Director of Army

Recruiting estimated that this wastage rate ran at about 5 per cent at the time of the study.

Choice of Criteria

In discussion with the Army Personnel Research Establishment and the steering group the possibility of creating a custom-made criterion based on young officer performance in military exercises was considered. However, this was discarded as it would require much work and negotiation, whilst performance on exercises was already recorded and influenced the gradings of the Annual Confidential Reports raised on young officers by their regiments. It was decided and agreed, that provisionally the criteria for the study would comprise training assessments at the Royal Military Academy Sandhurst, Annual Confidential Reports available shortly after the Royal Military Academy Sandhurst, and Special-at-Arm reports if these were readily available.

The Regular Commissions Board Charter states that the Regular Commissions Board attempts to identify those who after training would be able to command a troop or platoon in battle. The Regular Commissions Board confirmed that 'after training' was interpreted by them to mean after the Royal Military Academy Sandhurst training: it is the Regular Commissions Board's principal goal in selection to identify those who after the Royal Military Academy Sandhurst will be able to command a platoon in battle. For the present study the Regular Commissions Board must be validated in the context of its current Charter and its interpretation by the Regular Commissions Board. Given this,

changes in the nature of training at the Royal Military Academy Sandhurst are significant. [It would appear that the Regular Commissions Board Charter could usefully be reviewed. Perhaps with a view to considering the merit of the Regular Commissions Board identifying those with the potential to pass the Standard Military Course or the Standard Graduate Course. This would bring it into line with the Charter at the Royal Military Academy Sandhurst, the views of the regiments, and the role of the Admiralty Interview Board in the Navy.]

Training criteria at the Royal Military Academy Sandhurst

Non-graduates attend the Standard Military Course run at New College, Royal Military Academy Sandhurst and graduates attend the Standard Graduate Course run at Victory College. The Standard Military Course and Standard Graduate Course are run independently and different assessors are involved in the assessment of performance. Both Colleges attempt to standardize the overall gradings given to the young officers on different courses.

The Standard Military Course and the Standard Graduate Course are both 26-week courses of military and academic studies. Performance is continuously assessed and reviewed by the Commandant's Review Board which meets three times during the course. The board makes decisions on backterming, discharge and awards cadet rank (Junior Under Officer, Cadet Sergeant, Cadet Corporal). The final board awards the overall grade and performance prizes. A final course report is available which

records the overall grade. The pilot analysis found the overall grades given on the Standard Military Course and the Standard Graduate Course to be adequately discriminating and to receive the support of Academy staff as being appropriate for the validation of the Regular Commissions Board. The profile characteristics given as ratings in part of the report on the young officers were found to be highly correlated, and indicative of halo. The view of the Academy staff was that these ratings were completed largely for administrative purposes and to be inappropriate for the validation study. They have not been used in the validation study but are given in Table 10 to provide an indication of the type of assessments made at the Royal Military Academy Sandhurst.

Clarke (1964), using pairs of Royal Military Academy Sandhurst Officers to make 'Regular Commissions Board like' judgements at the end of the first year of the Sandhurst course (intake 22, 1957), found agreement in 80 per cent of the cases.

Special-to-Arm Young Officer's course

Most young officers who are commissioned spend a short period with their Regiments and then attend a Special-to-Arm young officers course. This is specialist training designed to fit them to the particular Arm they have entered. Consequently, the training differs considerably from Arm to Arm. The courses vary in length and the courses for different Arms assess young officers on different attributes, the assessments being made by different groups of assessors. Most of the courses provide fairly

Table 10: Rating Scales used at RMAS

SMC	SGC
Turnout	Turnout
Understanding	Intelligence
Judgement	Practical ability
Initiative	Physical ability
Organised	Oral expression
Effectiveness	Written expression
Oral fluency	Clear and sensible orders
Written fluency	Zeal and energy
Orders/briefing	Military knowledge
Responsibility	Robustness
Self reliance	Confidence
Confidence	Written test
Commitment	
Zeal	
Military knowledge	
Determination	
Fitness	
Practical	
Social polish	
Tact	
Reliability	
Maturity	
Commands respect	

extensive final reports which include an overall grade.

The pilot study revealed that the Special-to-Arm course reports were also held at Stanmore. The reports varied considerably in their nature, the assessments made, scales used etc. But nonetheless an overall rating of performance on Special-to-Arm training could be coded. As the files on which Special-to-Arm reports were held were in almost constant use it was apparent that the data collection would be both piecemeal and time consuming.

The Annual Confidential Reports

The Annual Confidential Reports raised on young officers by their regiments were found to be held by the Military Secretary

(Confidential Records) at Stanmore. This was visited and the reports investigated, provisionally coded and discussions held with Miltary Secretary staff on the significance of the reports. Career progression to the rank of Captain is virtually automatic in the Army after commissioning. Nonetheless the Annual Confidential Reports are used by the promotion boards, particularly for the appointment of Majors and to confirm conversion to a Regular Commission from a Short Service Commission.

The annual appraisal is standardized across all Arms and is supported by an extensive instruction manual. (Full guidelines for completing the Annual Confidential Reports are given in the Military Secretaries Guide, July 1983). It is well regarded in the Army and is considered a fair and accurate report on an officer's regimental performance. It forms a significant component of the paper promotion boards.

The Annual Confidential Report is quite a sophisticated appraisal mechanism. A pen picture and overall grading given by the Initiating Officer is seen by the young officer. The overall grading given by the Senior Reporting Officer is unseen unless a different grading is given. Frequently Senior Reporting Officers, whilst agreeing with the overall grading given, add a comment which alters the flavour of the report. For example, the Senior Reporting Officer may make a comment such as 'I would place him in the lower half of the given bracket'. Such explicit statements have been used to amend the grading given. Thus in the

example given the young officer would be rated 'Good minus' rather than 'Good', the official grading. The Military Secretary's department advised that promotion boards place most emphasis on the Senior Reporting Officer's 'grading'.

Military Secretary staff considered that the Senior Reporting Officers grading given on the Annual Confidential Report was, in particular, suitable for validation study. And that where two Annual Confidential Reports were available that the later one should be used. This was because the first report received by a young officer from the regiment would typically be rather conservative in its judgements as it may have been raised only a few months after the young officer joined the regiment. Analysis of the Annual Confidential Reports coded in the pilot analysis strongly supported this view as all the scales given in the Annual Confidential Reports showed greater discrimination with increasing time in the regiment. Consequently it was decided that the Senior Reporting Officer's grading given on the latest available Annual Confidential Report would be used as the main performance related criterion.

The Annual Confidential Reports also contain a series of rating scales completed by the Initiating Officer. Military Secretary staff advised that not too much weight should be given to these components at such an early stage in the young officers career. Intercorrelations between the scales reveal evidence of a strong 'halo' factor. Nonetheless, they do give some indication of the nature of the assessments being made. The individual scales are

therefore reported in Table 11.

Table 11: Rating Scales used in the Annual Confidential Reports

Zeal	Tactical Ability
Reliability	Oral Expression
Commonsense & Judgement	Written Expression
Intelligence	Organisation & Administration
Leadership	Tact & Co-operation
Initiative	Technical Ability

Clarke (1966) has carried out an extensive investigation of the consistency of Annual Confidential Reports. Whilst the study used Annual Confidential Reports from 1955 to 1963, the essential details appear to be the same as the current Annual Confidential Reports. Using the Initiating Officer's grading, Clarke found that over the nine year period the reported standard of an young officer increased. This would be expected due to an increase in regimental experience and training and also from differential attrition rates at the upper and lower ranges. The pilot study found an increase in variance in gradings over the first two Annual Confidential Reports an officer received. That is, greater use was made of both the upper and lower gradings in the second Annual Confidential Report that young officers received. Clarke (1966) also found a 62 per cent to 78 per cent agreement in grading over successive years and a 78 per cent to 58 per cent agreement in grading over 1 to 9 years. The agreement in the gradings between successive years was found to be influenced by

the due promotion date, whether or not the young officer remained in the same unit, and whether or not the same Initiating Officer completed the Annual Confidential Report. Agreement decreased either side of the promotion dates, and decreased if the young officer was in a different unit or had a different Initiating Officer. The inconsistency found by Clarke need not be indicative of an unreliable criterion. Indeed, Clarke's findings suggest that the Annual Confidential Reports are complex and sensitive instruments which are responsive to different situations and changes in the young officers concerned. Clarke (1966) found increasing validity of the Regular Commissions Board with time when the Annual Confidential Report was used as a criterion. It is probable that this increase in validity results from the increasing discrimination of the criterion.

Clarke (1965) has investigated the pen pictures found in the Annual Confidential Reports of young officers. The subjects passed out of the Royal Military Academy Sandhurst in 1953. Twenty pen pictures were abstracted from Annual Confidential Reports of young officers and presented anonymously to six reviewing Officers. Clarke concluded that a fairly definite impression of standard is communicated by the pen pictures, that on average the agreed impression of standard by the reviewing officers differs from that of the original Initiating Officer, and personal qualities and performance are usually not communicated with sufficient detail for a description of one young officer to be distinguishable from that of another.

Annual Confidential Report Refinement

Analysis of the Annual Confidential Reports provided the opportunity to investigate the effect of the role of the young officer on performance. The Annual Confidential Reports identify the job, regiment and theatre that the young officer has held during the reporting period. For example, Platoon Commander/Royal Green Jackets/Lebanon, or Instructor/ Royal Army Education Corps/Beaconsfield. Some 200 different combinations of regiment, role, and theatre were identified and these sorted independently by five experienced officers from different regiments, into categories ranging from 'not testing', to 'very testing'. This enabled the validation to approach a test of the Regular Commissions Boards Charter with its emphasis on performance in battle.

5.4 Total Sample

The next stage of the research involved the data collection for all those Regular Commissions Board candidates who attended the Royal Military Academy Sandhurst in 1982. In total, the Regular Commissions Board reports for 567 individuals were coded, as well as the Rowallan, the Royal Military Academy Sandhurst, the Annual Confidential Report and Special-to-Arm reports as appropriate. A small amount of information was unavailable, but the missing data appeared to be entirely random. The coding phase took approximately 9 months to complete. The Special-to-Arm reports, in particular, being time consuming because of their high usage and consequent unavailability. [This stage of the research led

the steering group to recommend an integrated personnel data retrieval system.]

A sub-sample (n=35) were re-coded to check the reliability of the coding. 6 errors were identified out of nearly 5,000 bits of information. Whilst the reliability check was not independent, the data was considered to be sufficiently reliable to permit analysis.

5.5 Analyzing the Results

The data were entered onto the computer system at the City University and verified. The data were analyzed using SPSSX.

The Estimation of Validity

The relationship between the predictor and criterion scores can be presented in a number of different ways. Cross-tabulations of the two sets of scores with a chi-square test of independence is perhaps one of the simplest methods.

Traditionally, validity has been presented as a correlation coefficient. Typically this has been the Pearson product moment correlation. Previous research on the War Office Selection Boards and the Regular Commissions Board have used this statistic, as have most validation studies. From the point of view of comparing the results of this and previous studies there is a strong case for the use of the Pearson coefficient if the assumptions which underlie its use can be reasonably met. Other correlation

coefficients use different scales and cannot be easily compared in terms of the magnitude of the coefficient even if they can in terms of their power efficiency.

Contrary to popular thesis the only assumption underlying the calculation of the Pearson product moment when used as a descriptive statistic is that the scales are continuous i.e. they are interval scales. If this is the case then the obtained r is a measure of the degree of linear association between the x and y scores. However, if the relationship between x and y is non-linear then r will underestimate the amount of agreement between x and y and thus the validity of the predictive measure. Predictive validity refers to the degree of agreement between the predictor and criterion, and this agreement need not be linear.

Inspection of the nature of the Regular Commissions Board Final Board Grade, the Royal Military Academy Sandhurst overall grade, the Special-to-Arm composite grade, and the Annual Confidential Report Senior Reporting Officers grading, supports the view that these scales can be considered to be continuous. And the inspection of the scatterplots between these scales suggests that the amount of agreement between them can reasonably be represented by a measure of linear association i.e. Pearsons product moment correlation coefficient.

The estimation of the significance level and confidence limits for Pearsons r requires an additional assumption to be met - that the joint x and y distribution is bivariate normal. The joint

distributions of the predictor and criterion scores in this study are not bivariate normal. Nor can they be transformed to be so. (The reason for the non-normality of the scales is typically that there are large numbers of individuals with the same score. Transformation does little to correct this situation. For example, the log. of 100 equal scores results in a 100 equal log scores!). Significance levels and confidence limits will be calculated for Pearsons r. However, the reader should note that the assumption underlying these calculations has been violated.

Many statisticians would consider that psychological rating scales cannot be considered to more than ordered categorisations i.e. an ordinal scale, and consequently that Pearson's correlation coefficient is inappropriate. They clearly have a point, but such a blanket veto on rating scales seriously constrains the analysis that can be undertaken, for most statistical transformations and methods (e.g. corrections for unreliability or range restriction, meta analysis, regression) assume Pearsons correlation coefficient has been used. The approach that has been used in this analysis is that where a rating scale can reasonably be viewed as continuous Pearson's Product Moment has been used, whilst where this appears unlikely, for example, with many of the Regular Commissions Board profile elements, Spearman's rho has been used.

Correction for unreliability

Linn (1983) has shown that correlations corrected for unreliability and restriction of range are less biased than

uncorrected correlations.

> "If the tests from which we wish to predict something else are not perfect, that fact must be faced, and our predictions are reduced in accuracy accordingly. But we should hardly expect to be asked to overlook the fallibility of the criterion we are trying to predict. If it measures success inaccurately this lack of accuracy should not be permitted to make it appear that the test is less valid than it really is." (Guilford & Fruchter 1978, p.452).

The obtained correlations will be corrected for the unreliability of the criterion, but not for the unreliability of the predictor. The traditional correction formula will be used (see, for example, Gulliksen 1950, p.95, Eq.15). The correction for unreliability assumes the use of Pearsons r, therefore the non-parametric measures of correlation will not be corrected.

Correction for Selection

Other things being equal the Pearson correlation between two variables is affected by their variability and range. For example, if one correlated the height and weight of a group of people who ranged between eight and nine stones, the correlation obtained is likely to be low, and will be less than if the correlation was based upon an uncensored sample which included the complete range of human weight. The fact that the Pearson correlation coefficient is influenced by the variability of the

scores has led some authors to consider that it is an inappropriate measure of correlation with interval scales of narrow or limited range. In fact, even with a two-point scale Pearson will provide a descriptive index which reflects the degree of linear association between the variables. (Of course, typically a two-point scale will be considered to be categorical, in which case Pearson is inappropriate). Thus, it is not true that Pearson necessarily provides an underestimate of the amount of linear association if the scales are of limited range. It provides an adequate descriptive measure of the association in such data. However, if the observed scores are those of a selected group, then the obtained coefficient may be an underestimate of the association in the unselected group. Similarly, if the scale used by a criterion measure does not discriminate sufficiently finely between the true differences in criterion performance, then the obtained coefficient will be an underestimate.

Whilst the Regular Commissions Board assesses the officer potential of all applicants, it selects only 38 per cent of this population and criterion information is available for only this selected group. Further selection occurs at Rowallan and at the Royal Military Academy Sandhurst. As a consequence the correlations obtained for the selected sample between the predictor and criteria will substantially underestimate the correlations that would have been obtained had the complete applicant population been included.

Selection effects may occur in either a direct or indirect manner. Direct selection results when the variable used for prediction has been used for selection. Thus the correlations between the Regular Commissions Board Final Board Grade and the criteria are all subjected to direct selection effects. Indirect selection occurs when the variable used for prediction is correlated with a another variable which has been used for selection. Thus the correlation between the Regular Commissions Board Final Board Grade and the Annual Confidential Report or Special-to-Arm criterion is subjected to the indirect selection effects of the Royal Military Academy Sandhurst (whilst the correlations between these criteria and the Royal Military Academy Sandhurst are subjected to direct selection effects at the Royal Military Academy Sandhurst).

Correction formulae for direct and indirect selection effects are given in Gulliksen (1950). These formulae require knowledge of the variance of the predictor scores in the unselected population - or more precisely the ratio of the selected and unselected standard deviations. The standard deviation of the Final Board Grade in the applicant population is unknown. Firstly, the validation sample is necessarily based upon a cohort at the Royal Military Academy Sandhurst and consequently Regular Commissions Board 'fails' are not included. Secondly, whilst an unselected Regular Commissions Board applicant population has been analyzed, the Regular Commissions Board Final Board Grade distribution is distorted. Only two 'fail' grades are used by the Regular Commissions Board and as a consequence some 62 per cent of the

unselected population have been allocated either 'F' or 'DW'. It is reasonable to assume that 'officer potential' is normally distributed in the applicant population and that the obtained distribution is therefore unrepresentative of the 'true' variance in the unselected population. [There is, of course, no practical reason for the Regular Commissions Board to discriminate more finely between those it considers unsuitable].

Given that there is no experimental way of obtaining the ratio of the selected and unselected standard deviation (U), a statistical solution has been devised based on the assumption that the unselected population is normally distributed. Given the proportion of applicants selected, the U ratio can be obtained and then entered into the correction formulae. Dobson (1988) gives the explanation of this method and tabulated U values for a range of selection ratios.

Correction for Selection at Rowallan

Attrition at Rowallan presents a particular problem when attempting to correct for selection effects. Unfortunately the traditional correction formulae cannot be applied. This is because only E (training) grades attend Rowallan, and therefore the required correlation between the Final Board Grade and Rowallan gradings cannot be calculated. The only way to overcome this problem is to include dummy subjects in the data-base to counteract the selection effects of Rowallan. In order to determine the number of dummies to be included it is necessary to estimate the proportion of Rowallan participants who would

have been successful at the Royal Military Academy Sandhurst.

The uncorrected correlation between Rowallan and the Royal Military Academy Sandhurst is 0.127, with a Selection Ratio of 0.67, Dobson (1988) would estimate the corrected correlation to be 0.183. 91 per cent of Rowallan successes were also successful at the Royal Military Academy Sandhurst. With a Selection Ratio of 0.91 and corrected correlation of 0.183, Taylor and Russell (1939) would estimate that approximately 87 per cent (ie 75) of the total Rowallan population of eighty-six would have been successful at the Royal Military Academy Sandhurst. Consequently, of the twenty-eight dummies added to the data-base (28+58=86): seventeen have been coded as Royal Military Academy Sandhurst passes (17+58=75); four have been coded as 'Premature Voluntary Retirement' (this is the number of trainees who PVR'd from Rowallan); and seven have been coded as 'Services No Longer Required' at Sandhurst.

The 17 successful dummies have been allocated gradings at the Royal Military Academy Sandhurst, Special-to-Arm young officer training course and Annual Confidential Report in direct proportion to the distribution of gradings for the E (training) group with these criteria. For example, if 10 of 50 individuals graded E (training) at Regular Commissions Board were graded 'Good+' in their Annual Confidential Report, then 1/5 of the dummies were similarly graded, and so on. The gradings for the Arm were based on the distribution of grades for the E (training) group for each of the Special-to-Arm courses.

No account was taken of the interrelationships between criteria and consequently criteria intercorrelations are reported without the dummies in the data-base. In all other instances - unless otherwise stated - the analysis includes the dummy subjects.

Investigation of Moderating variables

Multivariate analysis was used to investigate the impact of the sample characteristics (age, type of school, length of time between Regular Commissions Board and criterion, type of Arm, degree of 'test', educational level, type of commission etc.) on the validity of the Regular Commissions Board with each of the criteria. Some significant differences were found but these could all be attributed to the impact of the cadet sub-group which the Regular Commissions Board accurately predicted would be successful at the Royal Military Academy Sandhurst and in the regiments. Thus both age (negatively), and length of time between Regular Commissions Board and criterion (positively), were found to be significant moderators of validity because the cadets are seen at the Regular Commissions Board at a younger age than the other groups, and attend the Royal Military Academy Sandhurst, receive Special-to-Arm training, and their Annual Confidential Reports, after they have attended university. The general lack of any significant moderating variables other than these led to the use of a within-study meta analysis to investigate whether the variations in validity between the various sub-groups could be the result of sampling error. The meta analysis revealed that the variations could be so explained, and a plot of validity against sample size supported this finding. Consequently, the

validity of the Regular Commissions Board was represented by total group coefficients.

A draft report was circulated to the steering group in June 1986, and a presentation given to the staff of the Regular Commissions Board. Following reactions and discussion a final report was circulated in January 1987 after the Women's Royal Army Corps study had been analyzed.

Chapter 6: Analysis of Results (Part 1) - Analysis of Validation Sample, Predictor, and Criteria

6.1 The Validation Sample

The validation sample comprises all those, excluding Welbexians and scholars, who attended the Standard Military Course and Standard Graduate Course in 1982 and the Rowallan courses which fed the Standard Military Course (i.e. Standard Military Course 29, 30, 31; the Standard Graduate Course 01 and 02; and Rowallan 15, 16, 17). In total, the sample numbers 567, of which: 265 were Direct Entry Non-Graduates attending the Standard Military Course; 28 were Direct Entry Non-Graduates who failed to complete Rowallan; 31 were from the ranks; 114 were Direct Entry Graduates; 100 were Bursars; and 29 were university Cadets.

Table 12: The Validation Sample

DENGs*	293
Ranks	31
DEGs	114
Bursars	100
Cadets	29
Total	567

* Includes 28 Direct Entry Non-Graduates who failed to complete Rowallan.

Differences between the groups in the sample in their selection and training history are given schematically in Figure 3. The

sample was drawn from an applicant population of approximately 1,479. This reflects an overall pass rate at the Regular Commissions Board of 38.3 per cent. This rate is somewhat lower than that for other periods and suggests that fewer risk candidates were being passed by the Regular Commissions Board during 1981/82.

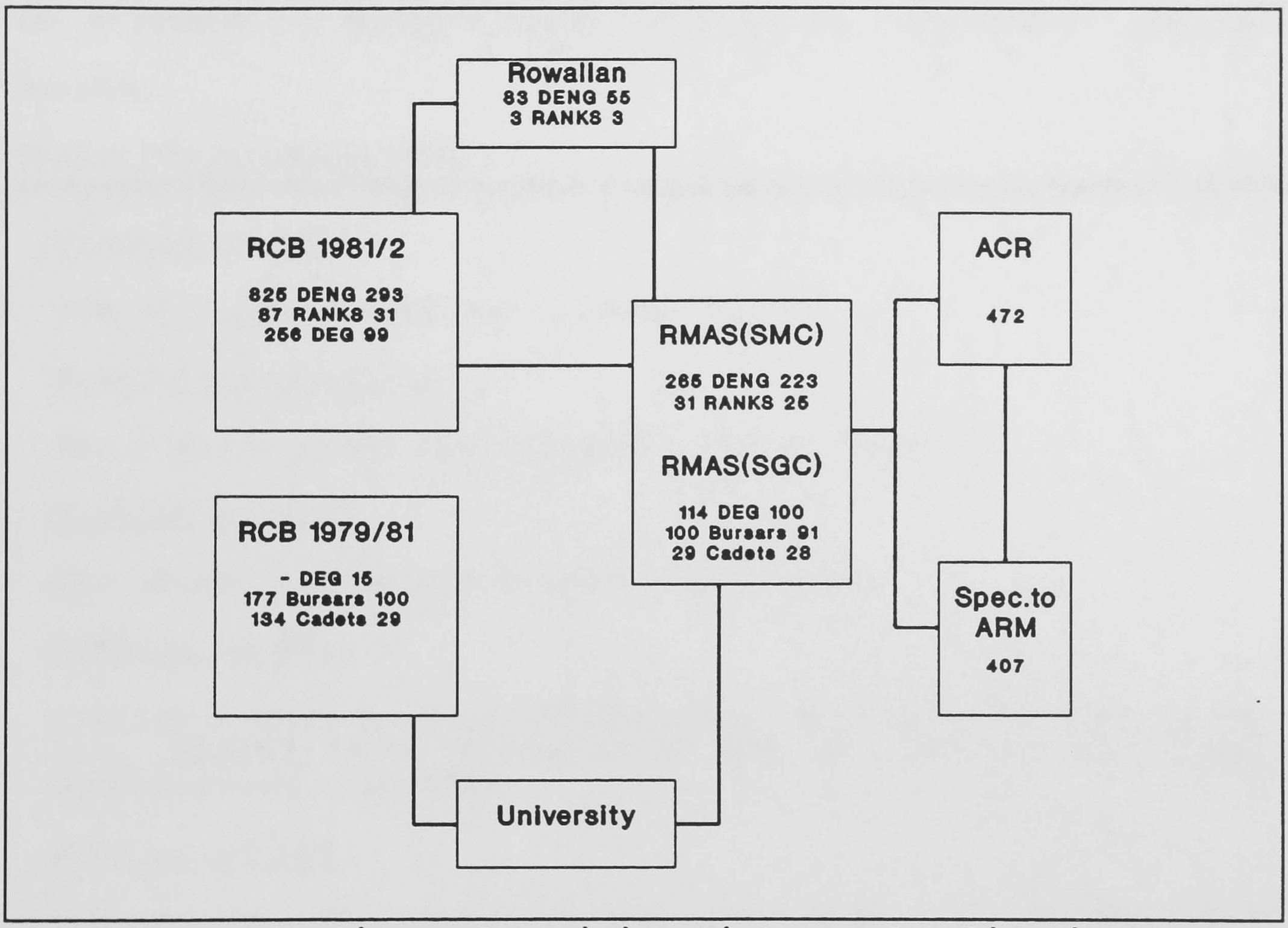

Figure 3 : Selection and Training History of Validation Sample

Bursars and Cadets attend the Regular Commissions Board prior to attending university, and consequently attend the board some 2 or 3 years earlier than the Non-Graduates and Ranks. There is a corresponding difference in their ages at the board, and in the length of time between selection, training and the availability of criteria. Non-Graduates who are considered to be risk passes

by the board attend Rowallan which is a 12-week 'character building' course. On being commissioned from Sandhurst the young officers may join their regiments before undertaking Special-to-Arm training or vice versa. An Annual Confidential Report was available for 97 per cent, and a Special-to-Arm training report was available for 84 per cent of those commissioned. There was no evidence to suggest that the missing information was non-random.

Table 13: Missing Data

Missing at RCB

FBG was unavailable for 7 cases (1.3%).

Missing at Rowallan

The overall grade was available for all cases.

Missing at RMAS

The overall grade was missing for 1 case.

Missing at ARM

Special-to-Arm overall grading was available for 407 cases i.e. grades were unavailable for 77 (15.9%) of those commissioned from RMAS.

Missing at ACR

ACR grades were available for 472 cases i.e. grades were unavailable for 13 (2.5%) of those commissioned from RMAS.

Table 14 gives the attrition rates at the Regular Commissions Board and the Royal Military Academy Sandhurst.

Table 15 gives the characteristics of the sample. The type of entrant differed in their biographical background and in their

Table 14: Sample Attrition

Attrition at RCB (SR = 0.38)*

Pass	567
Fail	912
Total	1479

(* based on average pass rates for boarding years weighted by number in sample from respective boarding year).

Attrition at Rowallan (SR = 0.67)

Pass	58
PVR	4
SNLR	24
Total	86

Attrition at RMAS (SR = 0.87)

Commissioned	467
PVR	24
SNLR	48
Total	539

selection and training history. Overall 61 per cent had been educated at an independent school, 60 per cent had been a member of Combined Cadet Force, UOTC etc., 41 per cent had or had had a close relative in the armed forces: for the majority this was a serving army officer. Comparison with the unselected sample (n=395) suggests that these details are characteristic of the applicant population and not the product of the selection system.

The impression gained from reading applicant biographies was of a self-selected highly committed group who since their early teens had intended to become an officer in the Armed Forces. To this end the majority had undergone some form of officer training and had been on an attachment with a regiment. Substantial differences exist within as well as between the graduate and non-graduate groups. Direct Entry Non-Graduates, those from the

Table 15: Sample Characteristics

Close relative in services		40.9%
Independent School		60.5%
Number of 'O' levels (mean)		7.87
Number of 'A' levels (mean)		2.63
Graduates		42.9%
Member of CCF etc.		60.2%
'O' type training		30.8%
Age at RCB	20.6 yrs	
Age at RMAS	21.6 yrs	
Age at ARM	22.4 yrs	
Age at ACR	23.4 yrs	
Type of Commission at RCB:		
SSC		59.8%
SSLC		3.4%
Reg.C		31.3%
SRC		5.4%
Regiment/Corps after RMAS:		
RAC	(74)	17.4%
RA	(63)	14.8%
Infantry	(132)	31.0%
RE	(35)	8.2%
R Signals	(29)	6.8%
RAOC	(19)	4.5%
RCT	(40)	9.4%
Rest	(34)	8.0%
Classification of Regimental Role:		
Testing (Operational)	(54)	11.9%
Testing (Role demand)	(49)	10.8%
Quite testing	(145)	32.1%
Not very testing	(124)	27.4%
Not testing	(80)	17.7%

ranks, direct entry graduates, bursars and cadets differ not only with regard to schooling, service familiarity and family connections, educational level etc., but also with regard to the time of Regular Commissions Board appearance, their age at Regular Commissions Board, the Vice-President who chaired their board, the time between Regular Commissions Board and the Royal Military Academy Sandhurst, whether they attended university

before or after Regular Commissions Board or at all, whether the Regular Commissions Board was aware or not of degree results, and in their training, tutors and assessment at Sandhurst. Further, on leaving the Royal Military Academy Sandhurst there are differences between the groups in the Arm entered which is reflected in Special-to-Arm training undertaken, and which to some extent influences the likelihood of the individual finding himself in a 'testing role'.

For these reasons the total sample has been divided into the five entry sub-groups and analysis has proceeded on this basis.

6.2 Analysis of the Predictor

The distribution characteristics of the Final Board Grade are given in Table 16. All the E gradings are considered by the Regular Commissions Board to be 'risk' passes, the difference between them being qualitative.

Table 16: Scale Distribution of RCB Final Board Grade (N=560)

	Value	N	
B	14	5	0.9%
C	11	40	7.1%
D	8	325	58.0%
D -	7	44	7.9%
'Risk'	5	146	26.1%

Mean = 7.41 Standard deviation = 1.74

Table 17: RCB Final Board grade by entry group

	N	MEAN	S.D.
DENG	292	6.894	1.658
Ranks	30	7.000	1.576
DEG	112	7.830	1.482
Bursars	96	8.021	1.583
Cadets	29	9.345	1.895

(F = 23.53, p< .000)

The 'Value' column in Table 16 refers to the original coding frame used for data collection. The Regular Commissions Board could theoretically have used a eighteen-point scale, ie., A+, A, A-, B+, B, and so on. The mean and standard deviation given in Table 16 are based upon this orginal coding. This is similarly the case for Tables 23 and 28.

The Final Board Grade characteristics for the various entry groups are given in Table 17. The Regular Commissions Board clearly considers that, on average, the bursars and cadets are more likely to become successful young officers than the Direct Entry Graduates who in turn are more likely to become successful young officers than the Direct Entry Non-Graduates.

Appendix 2 gives the characteristics of the Regular Commissions Board profile for the various sub-groups. It should be noted that the sample is a selected one and that these characteristics refer only to those who attend the Royal Military Academy Sandhurst. Consequently, for the most part, the bottom end of the scale

distribution is missing.

Generally, the scales appear to reflect a perceived superiority by the Regular Commissions Board of cadets, and of graduates over non-graduates. This is particularly the case with regard to Intellectual Potential, Character Potential, the board members' ratings and the Final Board Grade. For reasons that are not clear a different pattern between the groups is revealed in the assessment of Practical Potential.

It should be noted that university education appears to influence the distribution of the objectively marked Officer Intelligence Rating, as it also appears to influence subjective assessments of Educational Standard, Breadth of Interests, Written Fluency, Planning and perhaps Verbal Fluency. Interestingly, this effect is not reflected in the assessment of Intellectual Potential, though it might influence the assessment of Practical Potential.

The Officer Intelligence Rating and the assessments of Educational Standard, Breadth of Interests, Written Fluency, Intellectual Potential, Practical Potential, Character Potential, the board members' ratings and the Final Board Grade show adequate, though non-normal, distributions for the purpose of analysis. The remaining profile scales are of at best three point distributions and some, particularly for the cadets, are only of two points.

Appendix 3 gives the intercorrelations of the Regular Commissions

Board elements. The first column of the Table gives the correlations between the elements and the Final Board Grade. Because of the limited nature of the scales Spearman's rho has been used as the correlation coefficient.

As others have found, the Final Board Grade appears to be significantly influenced by the assessment of the character of the candidates. Some of the low correlations may underestimate the importance of the profile item to the board. For example, the Officer Intelligence Rating appears to be used primarily as a cut-off. Those with an Officer Intelligence Rating score of less than 3 being considered unacceptable, whilst, except for the bursars and cadets, little additional weight is given to Officer Intelligence Rating scores above 5. In such a situation the correlation coefficient between the Officer Intelligence Rating and the Final Board Grade will necessarily be low.

6.3 Analysis of the Criteria

Three different principal criteria have been used to validate the Regular Commissions Board. Namely:

* The overall grade obtained during the Standard Military or Standard Graduate course at the Royal Military Academy Sandhurst.
* The overall grade obtained during the Special-to-Arm young officer course.
* The overall grade given by the Senior Reporting Officer in the young officer's Annual Confidential

Report (ACR).

Royal Military Academy Sandhurst

The problems reported during the Standard Military Course were noted either from the final reports or from the reports on discharge. These are given in Table 18. Like the Standard Military Course scales, the reported problems indicate that assessment at Sandhurst is primarily concentrated on 'character', 'leadership' and 'intellect'.

Table 18: Problems associated with YOs on the SMC at Sandhurst

Overall (n=248)	
No problems reported	75.0%
*Character/Officer qualities	10.4%
Motivation	6.1%
Intellect/academic ability	4.9%
Leadership	2.4%
Medical	0.4%
Fitness	0.4%
Turnout	0.4%

*The Character category is a composite including: integrity, selfishness, abrasiveness, arrogance, coolness, confidence, reaction to authority, unreliability, immaturity, dull, etc.

Major reasons given for back-terming (n=46)	
Character/Officer qualities	28.2%
Medical	26.1%
Leadership	21.7%
Intellect/academic ability	17.4%
Motivation	4.4%
Administration	2.2%

Major reasons given for discharge (n=34)	
Character/Officer qualities	33.4%
Leadership	27.8%
Intellect/academic ability	22.2%
Unsuited	11.1%
Motivation	2.8%
Medical	2.8%

Table 19 gives the relative status awarded the Direct Entry Non-Graduates and Ranks during the Standard Military Course.

Table 19: Cadet Status during the Standard Military Course

	Non-Graduate	
	DENG	Ranks
N=	223	25
J.U.O.	5.0%	24.0%
C/SGT	4.5%	16.0%
C/CPL	14.0%	20.0%
O/CDT	76.5%	40.0%

Table 20 gives the outcomes for the Standard Military Course. Table 21 shows the changes in commission that occurred during the Standard Military Course. 89.2 per cent of those commissioned did not change their commission whilst at the Royal Military Academy Sandhurst.

Table 20: Outcomes of the Standard Military Course

	Non-Graduate	
	DENG	Ranks
N=	265	31
Commissioned	63.8%	67.7%
Cross-Platooned & Commissioned	4.9%	6.5%
Backtermed & Commissioned	15.5%	6.5%
Backtermed & Discharged	2.6%	0.0%
Discharged	8.7%	12.9%
Resigned	4.5%	6.5%
Failure Rate	11.3%	12.9%
Wastage Rate	15.8%	19.4%

The compulsory changes in commission are relevant to the validation of the Regular Commissions Board. The Regular Commissions Board makes the initial decision as to whether to recommend a regular or short service commission.

Table 21: Changes in Commission during Standard Military Course

Voluntary SSC to RegC	2.7%
Voluntary RegC to SSC	1.5%
Voluntary SRC to RegC	0.4%
Voluntary SSC to SRC	0.8%
Voluntary SSLC to RegC	0.8%
Compulsory RegC to SSC	3.8%
Compulsory SRC to SSC	0.8%

However, as can be seen the number of compulsory changes in commission are too small to permit meaningful analysis in this study. However, they are strongly associated with the overall grade awarded.

The outcomes of the Standard Graduate Course are given in Table 22.

Table 22: Outcomes of the Standard Graduate Course

	Graduates		
	DEG	Bursars	Cadets
N=	114	100	29
Commissioned	75.4%	87.0%	93.1%
Backtermed & Commissioned	12.3%	4.0%	3.4%
Backtermed & Discharged	1.8%	1.0%	0.0%
Discharged	7.0%	4.0%	0.0%
Resigned	3.5%	5.0%	3.4%
Failure Rate	8.8%	5.0%	0.0%
Wastage Rate	12.3%	10.0%	3.4%

For both the Standard Military Course and the Standard Graduate Course the overall grade awarded by the Commandant's Review Board is considered by Academy staff to be the most appropriate criterion for the validation of the Regular Commissions Board. This is given in Table 23.

A comparison of the means and standard deviations of the Royal

Table 23: Scale distribution of the RMAS overall grade (N=538)

	Value	N	
A	17	3	0.6%
B +	15	2	0.4%
B	14	45	8.4%
B -	13	33	6.1%
C +	12	84	15.6%
C	11	270	50.2%
C -	10	32	5.9%
D	8	14	2.6%
SNLR	7	55	10.2%

Mean = 11.03 Standard deviation = 1.83

Military Academy Sandhurst overall grade for the different entry groups is given in Table 24. This reveals some significant differences between the groups in their assessed performance at the Royal Military Academy Sandhurst.

Table 24: RMAS overall grade by entry group (N=537)

	N	MEAN	S.D.
DENG	275	10.724	1.837
Ranks	29	11.517	2.230
DEG	110	10.791	1.709
Bursars	95	11.600	1.447
Cadets	28	12.571	1.752

(F = 10.913, p < .000)

Special-to-Arm

The characteristics of the Special-to-Arm courses are given in Appendix 4. Generally, but with the notable exception of the Royal Corps of Transport Troop Commanders Course, the scales reflect the adjudged superiority of graduates.

Because the various courses use different scales, in order to compare sub-groups a composite scale has been created. Each of the individual Special-to-Arm course gradings have been standardized and then combined. In order to obtain sufficient numbers on each point of the scale, some of the scales were collapsed. The differences between the various courses have been maintained in the construction of this scale. Thus if, as appears to be the case, the Royal Armoured Corps consider that they have on average more able young officers, this difference has been maintained in the combined scale. This has been done because there does seem to be a 'pecking order' amongst the regiments, and further, some of the courses use behaviourally based scales and most support their conclusions with long and carefully worded reports. Table 25 shows the characteristics of the combined criterion scale (Arm-C).

The combined criterion once again reflects the now rather familiar ordering of Cadet>Bursar>Direct Entry Graduates>Direct Entry Non-Graduates. Here, unlike the Standard Military Course and the Standard Graduate Course, a number of different assessments have been made independently by different assessors. Table 26 shows the means and standard deviations for the entry

Table 25: Scale distribution of Special-to-Arm composite grade (ARM-C) (N=407)

	Value	N	
Well above average	5	13	3.2%
Above average	4	101	24.8%
Average	3	220	54.1%
Below average	2	73	17.9%

Mean = 3.133 Standard deviation = 0.734

groups on Arm-C.

Table 26: Special-to-Arm composite grade (ARM-C) by entry group (N=406)

	N	MEAN	S.D.
DENG	212	3.024	.685
Ranks	16	3.375	.500
DEG	83	3.133	.712
Bursars	72	3.264	.839
Cadets	23	3.565	.844

(F = 4.303, p< .002)

Given the Charter of the Regular Commissions Board, the Platoon Commanders Battle Course for young officers in the Infantry is of considerable interest as it most closely resembles a true test of Regular Commissions Board's validity. A considerable part of the Platoon Commanders Battle Course concerns the young officers' ability to command a platoon in the field. An overall grade is not given, but the same individual assessed all members of the

sample who attended the Platoon Commanders Battle Course and consistently ended a long and detailed report with one of the following phrases: 'able to command and train a platoon without supervision / with minimal supervision / with normal supervision / with close supervision'. The Platoon Commanders Battle Course would appear to be a good test of the Regular Commissions Board's ability to identify those who, after training, will be able to lead a platoon in battle. The scale characteristics for this course are given in Appendix 4.

Annual Confidential Reports

The Senior Reporting Officer's overall grading from the most recent Annual Confidential Report was used to validate the Regular Commissions Board. There is a strong relationship between the Initiating and Senior Reporting Officers' gradings, and between these gradings and recommendations for extension or conversion of the commission of short service officers. This is significant support for the use of the Annual Confidential Report as a criterion. The recommendations for conversion of extension of a Short Service Commission represent significant endorsement by a regiment.

Table 27 gives the intercorrelations (Kendalls tau) between the Senior Reporting Officer grading, and recommendation for an extension to or conversion of a short service commission for three types of entrant.

The characteristics of the Senior Reporting Officer grade are

Table 27: Intercorrelations between some components of the ACRs

	DENG(n=134)			DEG(n=72)				
BURSARS(n=48)								
ACR (SRO)	-			-			-	
ACR (extension)	.61	-		.61	-		.42	-
ACR(conversion)	.73	.75	-	.63	.87	-	.51	.61	-

given in Table 28.

Table 28: Scale distribution of the ACR(SRO) grade (N=472)

	Value	N	
	+ 15	1	0.2%
Excellent	14	16	2.8%
	- 13	7	1.2%
	+ 12	49	8.6%
Very good	11	154	27.2%
	- 10	39	6.9%
	+ 9	58	10.2%
Good	8	113	19.9%
	- 7	15	2.6%
	+ 6	1	0.2%
Adequate	5	11	1.9%
	- 4	2	0.4%
Weak	2	6	1.1%

Mean = 9.78 Standard deviation = 2.09

Recommendations for short service officers made in the Annual Confidential Report are given in Table 29, and Table 30 shows the means and standard deviations for the entry groups on the Annual Confidential Report (Senior Reporting Officer) overall grade. Both of these tables appear to reflect the apparent superiority of cadets, bursars and graduates.

Table 31 gives the period of time over which the Regular Commissions Board predictions are being validated, that is, the

Table 29: Regimental recommendations for Short Service Commissioned Officers

	Non-Graduate		Graduate		
	DENG	Ranks	DEG	Bursars	Cadets
N=	140	10	72	48	0
Recommendation for extension of SSC					
Definitely yes	67.9%	80.0%	72.2%	89.6%	0.0%
Undecided	20.7%	0.0%	13.9%	4.2%	0.0%
Definitely no	11.4%	20.0%	13.9%	6.3%	0.0%
Recommendation for conversion to Reg C					
Definitely yes	51.1%	60.0%	66.7%	73.5%	0.0%
Undecided	30.8%	20.0%	16.7%	14.3%	0.0%
Definitely no	18.0%	20.0%	16.7%	12.2%	0.0%

Table 30: ACR(SRO) grade by entry group (N=471)

	N	MEAN	S.D.
DENG	235	9.489	2.133
Ranks	22	10.591	1.817
DEG	98	9.694	2.112
Bursars	88	10.114	1.985
Cadets	28	10.821	1.657

(F = 4.417, p< .002)

time between the Regular Commissions Board assessment of an individual and the taking of the criterion measure. Table 32 gives the age of the young officers when the criterion was obtained. Significant differences between the groups are evident in both these tables. No evidence has been found which suggests that either age or time per se, influences the validity of the Regular Commissions Board.

Table 31: Time between RCB and Criteria (in years)

	Total	DENG	RANKS	DEG	BURSARS	CADETS
RCB to RMAS	1.0	0.4	0.4	0.4	2.7	3.3
RCB to ARM	1.8	1.4	1.4	1.3	3.7	4.2
RCB to ACR	2.8	2.4	2.7	2.3	4.5	5.1

Table 32: Age at Criteria (in years)

	Total	DENG	RANKS	DEG	BURSARS	CADETS
RCB	20.6	19.9	23.8	22.9	19.4	18.9
RMAS	21.6	20.3	24.3	23.3	22.1	22.3
ARM	22.4	21.2	24.6	24.1	23.0	23.0
ACR	23.4	22.2	26.1	25.1	23.9	24.0

Criteria Intercorrelations

Special-to-Arm courses are run independently by different regiments and corps. Whilst undeniably Arm specific these young officer courses do include a significant element of general officer and leadership ability. The question therefore arises as to whether these young officer course reports are measuring the same thing.

Tables 33 and 34 give the meta-analysis of the Special-to-Arm young officer training course with the Royal Military Academy Sandhurst and Annual Confidential Report correlations. The meta-analyses have been carried out using the procedure and formulae suggested by Hunter, Schmidt and Jackson (1982). Accordingly, the correlations have been corrected for either direct or indirect selection effects using the method given in Dobson (1988) and

Table 33: Meta-analysis of RMAS and ARM intercorrelations

	SR_{RMAS}	U_{exp}	r_{xx}	N	r_{uc}	r_c	α^2
RAC	.87	1.2244	.80	68	.4249	.5571	1.7190
RA	.87	1.2244	.80	61	.3045	.4075	1.7911
Infantry	.87	1.2244	.80	127	.1892	.2567	1.8410
RE	.87	1.2244	.80	33	.2558	.3446	1.8147
Signals	.87	1.2244	.80	28	.3141	.4198	1.7860
RAOC	.87	1.2244	.80	18	.1224	.1669	1.8600
RCT	.87	1.2244	.80	39	.4889	.6326	1.6742

$\bar{r}_{uc}$	=	0.2941	σ^2_{rc}	=	0.01994
$\bar{r}_c$	=	0.3908	σ^2_{ec}	=	0.02792
$\bar{\alpha}^2$	=	1.7878	σ^2_{ρ}	=	-0.00798

then corrected for unreliability of the criterion.

As indicated by the negative 'true' variance obtained in both of these meta-analyses the variance of the corrected observed correlations is less than that expected to occur due to sampling error. The meta-analyses suggest that the variance between the obtained correlations can be explained by sampling error alone. Consequently, it was considered appropriate to represent the Special-to-Arm young officer training course with the Royal Military Academy Sandhurst and Annual Confidential Report intercorrelations as a single combined coefficient. The corrected sample weighted coefficients given in Tables 33 and 34 have been used because these are marginally larger than those obtained

Table 34: Meta-analysis of ACR and ARM intercorrelations

	SR_{RMAS}	U_{inc}	r_{yy}	r_{zz}	N	r_{uc}	r_c	α^2
RAC	.87	1.2244	.80	.70	68	.2290	.4292	3.5126
RA	.87	1.2244	.80	.70	58	.3658	.5474	2.2396
Infantry	.87	1.2244	.80	.70	127	.3514	.5170	2.1650
RE	.87	1.2244	.80	.70	30	-.0143	-.0388	7.3741
R Signals	.87	1.2244	.80	.70	28	.3455	.5468	2.5048
RAOC	.87	1.2244	.80	.70	18	.0503	.0668	1.7612
RCT	.87	1.2244	.80	.70	39	.4374	.6472	2.1894

$\bar{r}_{uc}$	=	0.2952	σ^2_{rc}	=	0.03460
$\bar{r}_c$	=	0.4543	σ^2_{ec}	=	0.04532
$\bar{\alpha}^2$	=	2.8591	σ^2_{ρ}	=	-0.01072

using the composite scale ARM-C.

Table 35 gives the criteria intercorrelations. The intercorrelations are only moderate and suggest that for the most part the criteria are measuring different aspects of young officer performance.

The scales used at the Royal Military Academy Sandhurst, in Special-to-Arm training, and in the Annual Confidential Report suggest that the commonality in the criteria can be partly accounted for by judgements of 'officer quality'. Clarke (1966) also considers the the Royal Military Academy Sandhurst and Annual Confidential Report assessments take account of this character based aspect.

Table 35: Criteria Intercorrelations

RMAS	-	.3908	.4276
		(374)	(454)
ARM	.2941	-	.4543
	(374)		(368)
ACR	.2986	.2952	-
	(454)	(368)	

Uncorrected correlations are given in lower triangle, corrected correlations in upper. ARM with RMAS and ACR are sample weighted estimates.

Uncorrected correlations are based on samples excluding 'dummy' adjustment for attrition at Rowallan. RMAS and ARM and ACR correlations have been corrected for the direct selection effects of RMAS and the ACR with ARM correlation has been corrected for the indirect selection effects of RMAS (SR = 0.87, U = 1.2244). The appropriate formulae are given in Gulliksen (1950), E.g. 18 and 19, P.138 and p.149 respectively. The correlations have also been corrected for unreliability in the ARM (yy = .80) and ACR (zz = .70) measures.

Criteria Contamination

The criteria are not entirely independent, for general knowledge of the Royal Military Academy Sandhurst performance and specific knowledge of performance on a Special-to-Arm course, are likely to be known by the regiments. Furthermore, the Commandants at Victory and New College at Sandhurst are aware of the Regular Commissions Board Final Board Grade in those cases which come before them for discharge of backterming. Royal Military Academy Sandhurst assessors are aware of those who have attended Rowallan (and have consequently been considered 'risks' by the Regular Commissions Board) and those who have been recommended for a Regular Commission, or awarded a cadetship or bursary by the Regular Commissions Board, and thus by implication they are aware of those who have been given a good Regular Commissions Board grading. Similarly, the regiments will be aware that the Regular

Commissions Board and/or the Royal Military Academy Sandhurst considered Regular Commission officers to be adequate career officer material. These factors may serve to increase the intercorrelations between the criteria, and the apparent validity of the Regular Commissions Board.

Chapter 7: Analysis of Results (Part 2) - Validity, Utility and Fairness of the Regular Commissions Board

7.1 The Validity of the Regular Commissions Board

The validity of the Regular Commissions Board is given by the degree of association that exists between the board grades and the criterion grades. It is assumed that different board grades represent different estimates of the potential of the Regular Commissions Board candidates. It would be expected, therefore, that above average board grades would be associated with above average performance on appropriate criteria and below average board grades associated with below average performance on such criteria.

Three different criteria have been used to validate the Regular Commissions Board. Namely, training performance at the Royal Military Academy Sandhurst and in Special-to-Arm training, and job performance as measured by the young officer's Annual Confidential Report. We will consider each of these criteria in turn.

Validity with the Royal Military Academy Sandhurst as criterion

Table 36 gives the crosstabulation of the Regular Commissions Board Final Board Grade with the Royal Military Academy Sandhurst overall grade. The Chi-square test of independence is statistically significant (χ^2=87.2, p<.01). Table 37 gives the means and standard deviations of the Royal Military Academy

Sandhurst overall grade for each Regular Commissions Board grade. As can be seen, for the most part, higher Regular Commissions Board grades are associated with superior Royal Military Academy Sandhurst performance and a smaller standard deviation, i.e., a smaller error of measurement.

Table 36: Crosstabulation of RCB Final Board Grade with RMAS overall grade

		RMAS GRADE								
FBG	SNLR	D	C-	C	C+	B-	B	B+	A	
B	0	0	0	0	2	2	1	0	0	5
C	0	1	2	14	5	8	7	2	0	39
D	25	7	16	157	54	20	25	0	3	307
D -	7	1	3	24	2	0	3	0	0	40
'Risk'	22	5	11	71	21	3	8	0	0	141
	54	14	32	226	84	33	44	2	3	532

As can be seen in Tables 38 and 39, there is considerable variation in the obtained correlations for different entry groups and regiments. A meta-analysis has been carried out on the corrected correlations in order to assess the likely contribution of sampling error to the variation. The obtained Pearson Product Moment correlation coefficients have been corrected for restriction of range using the procedure given in Dobson (1988), they have then been corrected for the unreliability of the

Table 37: Mean and Standard Deviation of RMAS grade by RCB Final Board Grade (N=532)

FBG	N	MEAN	S.D.
B	5	12.800	0.837
C	39	12.154	1.548
D	307	11.163	1.751
D -	40	10.425	1.893
'Risk'	141	10.553	1.861

criterion assuming a reliability coefficient of 0.80 for training performance (see Ghiselli 1966), and finally the true variance has been estimated using the formulae given in Hunter, Schmidt and Jackson (1982).

Table 38: Meta-analysis of the correlation between the RCB and RMAS grades for the different entry groups

	SR_{RCB}	U_{exp}	r_{yy}	N	r_{uc}	r_c	α^2
Ranks	.35	1.8641	.80	28	.1589	.3213	4.0881
DENG	.35	1.8641	.80	275	.1552	.3142	4.0992
DEG	.39	1.8051	.80	109	.0718	.1441	4.0261
Bursars	.42	1.7631	.80	91	.4721	.7676	2.6434
Cadets	.22	2.0947	.80	28	-.0142	-.0332	5.4810

$\bar{r}_{uc}$ = 0.1836 σ^2_{rc} = .0469

$\bar{r}_c$ = 0.3390 σ^2_{ec} = .0344

$\bar{\alpha}^2$ = 3.907 σ^2_{ρ} = .0125

As can be seen from the results a very sizeable proportion (over 70%) of the observed variance in results can be accounted for by error variance. There may be some factors moderating the validity of the Regular Commissions Board, but this research has not

Table 39: Meta-analysis of the correlation between the RCB and RMAS grades for the different regiments

	SR_{RCB}	U_{exp}	r_{yy}	N	r_{uc}	r_c	α^2
RAC	.38	1.8193	.80	72	.4371	.7406	2.8705
RA	.38	1.8193	.80	63	.2997	.5548	3.4264
Infantry	.38	1.8193	.80	130	.1774	.3484	3.8569
RE	.38	1.8193	.80	35	.0644	.1304	4.0981
R Signals	.38	1.8193	.80	28	.0739	.1494	4.0858
RAOC	.38	1.8193	.80	18	-.0360	-.0731	4.1250
RCT	.38	1.8193	.80	40	-.0841	-.1697	4.0708

$\bar{r}_{uc}$	=	0.190	σ^2_{rc}	=	0.07893
$\bar{r}_c$	=	0.3477	σ^2_{ec}	=	0.06188
$\bar{\alpha}^2$	=	3.6758	σ^2_{ρ}	=	0.01705

identified any. And, in any event, their effects would appear unlikely to be particularly significant.

Validity with Special-to-Arm training as criterion

Table 40 shows the crosstabulation of the Regular Commissions Board Final Board Grade with the Special-to-Arm composite grade as criterion (χ^2=23.3, $p<.05$). Table 41 gives the means and standard deviations of the Special-to-Arm composite grade for each Regular Commissions Board grade. The obtained means and standard deviations have been corrected for the selection effect of the Royal Military Academy Sandhurst by the procedure given in Dobson (1988). For the most part, increasing Regular Commissions Board grades are associated with superior Special-to-Arm performance, though in this case, not with decreasing error of prediction.

Table 40: Crosstabulation of the RCB Final Board Grade with ARM-C

FBG	ARM-C Grade Below average	Average	Above average	Well above average	
B	0	2	1	1	4
C	2	12	13	2	29
D	43	129	56	9	237
D-	6	14	6	0	26
'Risk'	18	49	21	1	89
	69	206	97	13	385

Table 41: Mean and Standard Deviation of ARM-C grade by RCB Final Board Grade (N=385)

FBG	N	SR_{RMAS}	U_{exp}	$MEAN_{uc}$	$MEAN_{c}$	SD_{uc}	SD_{c}
B	4	1.00	-	3.750	3.750	.957	.957
C	29	1.00	-	3.517	3.517	.738	.738
D	237	.92	1.1571	3.131	2.992	.745	.862
D -	26	.83	1.2740	3.000	2.731	.693	.883
'Risk'	89	.84	1.2618	3.056	2.801	.697	.879

Tables 42 and 43 reveal considerable variation in the correlation coefficients obtained for different entry groups and regiments. The correlation for the Infantry is of particular interest, for this is the Platoon Commanders Battle Course. Given the Charter of the Regular Commissions Board a significant correlation would be hoped for. However, as can be seen, the correlation is

Table 42: Meta-analysis of the correlation between the RCB and ARM-C grades for the different entry groups

	SR_{RCB}	U_{exp}	SR_{RMAS}	U_{inc}	r_{yy}	N	r_{uc}	r_c	α^2
Ranks	.35	1.8641	.87	1.2244	.80	15	.4154	.7431	3.2003
DENGs	.35	1.8641	.89	1.1985	.80	212	.0105	.0457	18.9067
DEGS	.39	1.8051	.91	1.1713	.80	82	.1956	.3895	3.9657
Bursars	.42	1.7631	.96	1.0945	.80	69	.1002	.2486	6.1577
Cadets	.22	2.0947	1.0	-	.80	23	.3537	.6942	3.8521

$\bar{r}_{uc}$ = 0.0986 $\quad \sigma^2_{rc}$ = 0.04518

$\bar{r}_c$ = 0.2142 $\quad \sigma^2_{ec}$ = 0.1496

$\bar{\alpha}^2$ = 12.2355 $\quad \sigma^2_{\rho}$ = -.1044

insignificant. On the basis of this criterion, which as has already been discussed is quite acceptable (see 3.7 & 6.4), there is little reason to conclude that the Regular Commissions Board can accurately identify those who after training, are able to lead a platoon in battle. Appendix 4 reveals that 18.3 per cent of the sample who attended the Platoon Commanders Battle Course were considered able to lead a platoon only under close supervision.

The meta-analysis, carried out in the same manner as for the Royal Military Academy Sandhurst but correcting for the indirect selection effects of the Royal Military Academy Sandhurst as well as the direct selection effects at Regular Commissions Board, reveals that the observed variation between coefficients may result from sampling error alone: the variance between the corrected correlations is less than that expected from sampling error.

Table 43: Meta-analysis of the correlations between the RCB and ARM-C grades for the different regiments

	SR_{RCB}	U_{exp}	SR_{RMAS}	U_{inc}	r_{yy}	N	r_{uc}	r_c	α^2
RAC	.38	1.8193	.90	1.1850	.80	73	.2516	.5667	5.0727
RA	.38	1.8193	.90	1.1850	.80	63	.1561	.3753	5.7806
Infantry	.38	1.8193	.90	1.1850	.80	130	.0275	.0928	11.3873
RE	.38	1.8193	.90	1.1850	.80	35	.1842	.3710	4.0567
R Signals	.38	1.8193	.90	1.1850	.80	28	.0651	.1540	5.5966
RAOC	.38	1.8193	.90	1.1850	.80	18	.0024	.0049	4.0912
RCT	.38	1.8193	.90	1.1850	.80	40	.1675	.3063	3.3445

$\bar{r}_{uc}$	=	0.1209	σ^2_{rc}	=	0.0342
$\bar{r}_c$	=	0.2757	σ^2_{ec}	=	0.1235
$\bar{\alpha}^2$	=	7.0309	σ^2_{ρ}	=	-.0893

Validity with Annual Confidential Report as criterion

Table 44 gives the crosstabulation of the Annual Confidential Report (Senior Reporting Officer) grades with the Regular Commissions Board grades (χ^2=45.6, p<0.5).

Table 45 gives the means and standard deviations of the Annual Confidential Report (Senior Reporting Officer) grade for each Regular Commissions Board grade. These have been corrected for selection at the Royal Military Academy Sandhurst. Once again, the results indicate that the higher Regular Commissions Board grades are associated with superior criterion performance and less error of prediction. [Table 46 presents the same data as contained in Tables 44 and 45, but in a different format].

Table 44: Crosstabulation of the RCB Final Board Grade with ACR(SRO)

	FBG GRADE					
ACR GRADE	B	C	D	D-	Risk	
Weak	0	0	3	0	3	6
Adequate -	0	0	2	0	0	2
Adequate	0	0	7	2	2	11
Adequate +	0	0	1	0	0	1
Good -	0	0	8	3	4	15
Good	0	9	56	8	36	109
Good +	0	0	39	3	16	58
V Good -	0	6	24	2	7	39
V Good	4	15	87	11	36	153
V Good +	1	7	30	2	9	49
Excellent -	0	2	4	0	1	7
Excellent	0	0	13	1	2	16
Excellent +	0	0	1	0	0	1
	5	39	275	32	116	467

Tables 47 and 48 show the obtained and corrected correlations between the Regular Commissions Board and the Annual Confidential Report criterion. Once again, considerable variation is evident between the entry groups and the regiments. The correlations have been corrected for both direct and indirect selection effects, and for the unreliability of the job performance criterion [assuming a reliability coefficient of 0.70 (see Ghiselli 1966)]. The meta-analysis reveals that the observed variation between the coefficients may be entirely the result of sampling error.

Table 45: Mean and Standard Deviation of ACR(SRO) grade by RCB Final Board Grade (N=467)

FBG	N	SR_{RMAS}	U_{exp}	$MEAN_{uc}$	$MEAN_{c}$	SD_{uc}	SD_{c}
B	5	1.00	-	11.200	11.200	0.447	0.447
C	39	1.00	-	10.436	10.436	1.535	1.535
D	275	.92	1.1571	9.876	9.475	2.146	2.483
D -	32	.83	1.2740	9.406	8.593	2.092	2.665
'Risk'	116	.84	1.2618	9.405	8.636	2.106	2.657

Table 46: Per cent of YO's commissioned and considered 'better than good' by their regiment by RCB Final Board Grade

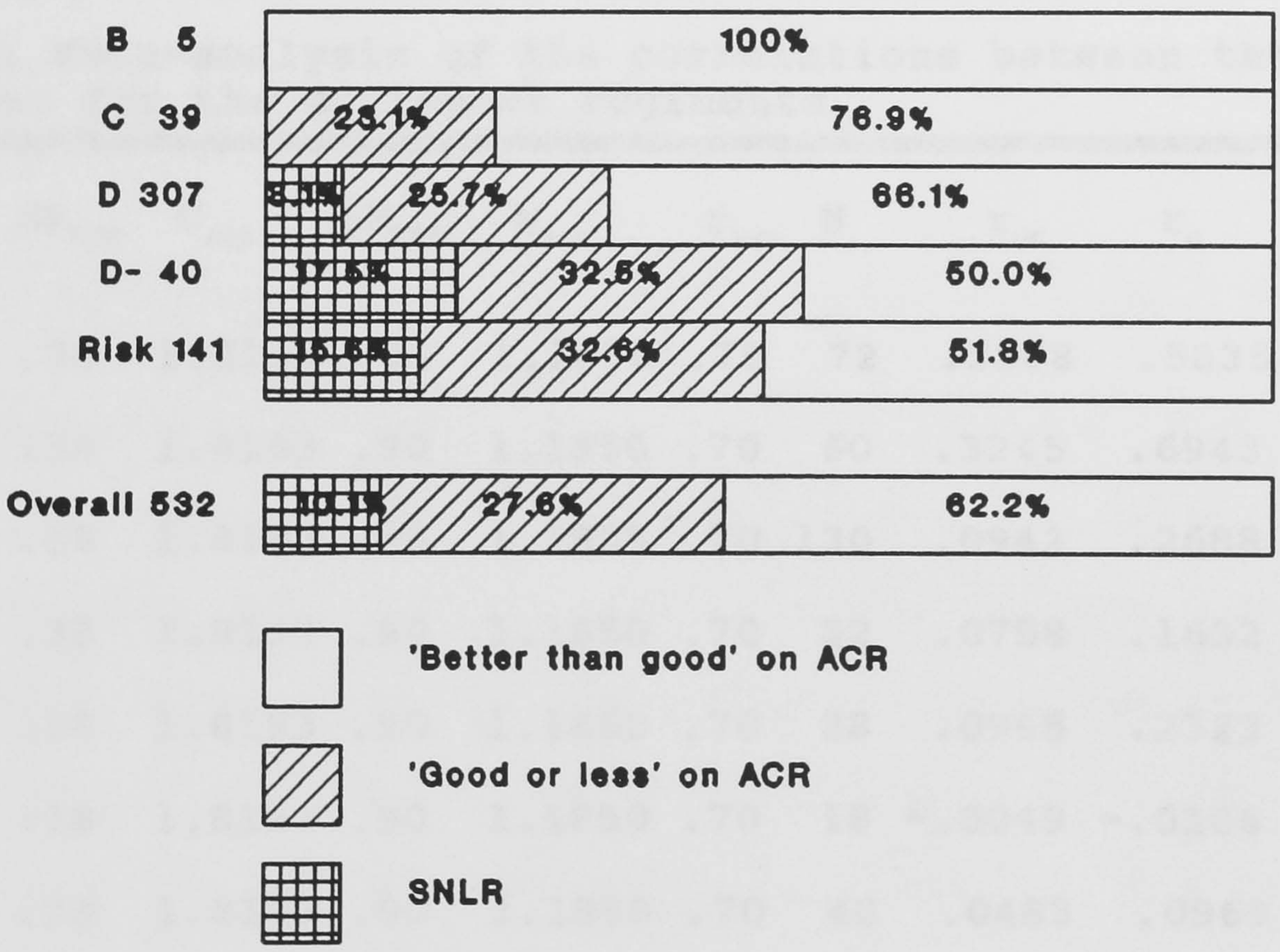

Figure 4 shows the correlations for the various sub-groups with the criteria, plotted against sample size. As can be seen, more extreme correlations are associated with smaller sample size to give a characteristic pyramidal shape. Given that for each of the

Table 47: Meta-analysis of the correlation between the RCB and ACR grades for the different entry groups

	SR_{RCB}	U_{exp}	SR_{RMAS}	U_{inc}	r_{yy}	N	r_{uc}	r_c	α^2
Ranks	.35	1.8641	.87	1.2244	.70	21	.5904	.9611	2.6499
DENGS	.35	1.8641	.89	1.1985	.70	235	.0800	.2192	7.5088
DEGS	.39	1.8051	.91	1.1713	.70	97	.0493	.1256	6.4874
Bursars	.42	1.7631	.96	1.0945	.70	85	.1905	.4312	5.1242
Cadets	.22	2.0947	-	-	.70	28	-.0589	-.1466	6.1949

$\bar{r}_{uc}$ = .1084 $\quad \sigma^2_{rc}$ = 0.04193

$\bar{r}_c$ = .2498 $\quad \sigma^2_{ec}$ = 0.06878

$\bar{\alpha}^2$ = 6.5633 $\quad \sigma^2_{\rho}$ = -.02685

Table 48: Meta-analysis of the correlations between the RCB and ACR grades for the different regiments

	SR_{RCB}	U_{exp}	SR_{RMAS}	U_{inc}	r_{yy}	N	r_{uc}	r_c	α^2
RAC	.38	1.8193	.90	1.1850	.70	72	.2588	.5835	5.2848
RA	.38	1.8193	.90	1.1850	.70	60	.3245	.6943	4.5782
Inftry	.38	1.8193	.90	1.1850	.70	130	.0942	.2688	8.1417
RE	.38	1.8193	.90	1.1850	.70	32	.0758	.1632	4.6346
R Sigs	.38	1.8193	.90	1.1850	.70	28	.0965	.2323	5.7968
RAOC	.38	1.8193	.90	1.1850	.70	18	-.0049	-.0106	4.7196
RCT	.38	1.8193	.90	1.1850	.70	40	.0483	.0969	4.0220

$\bar{r}_{uc}$ = 0.1499 $\quad \sigma^2_{rc}$ = 0.04816

$\bar{r}_c$ = 0.3527 $\quad \sigma^2_{ec}$ = 0.1052

$\bar{\alpha}^2$ = 5.9739 $\quad \sigma^2_{\rho}$ = -0.05704

different criteria the variation in the observed correlations may result from sampling error, and that no moderating variables have

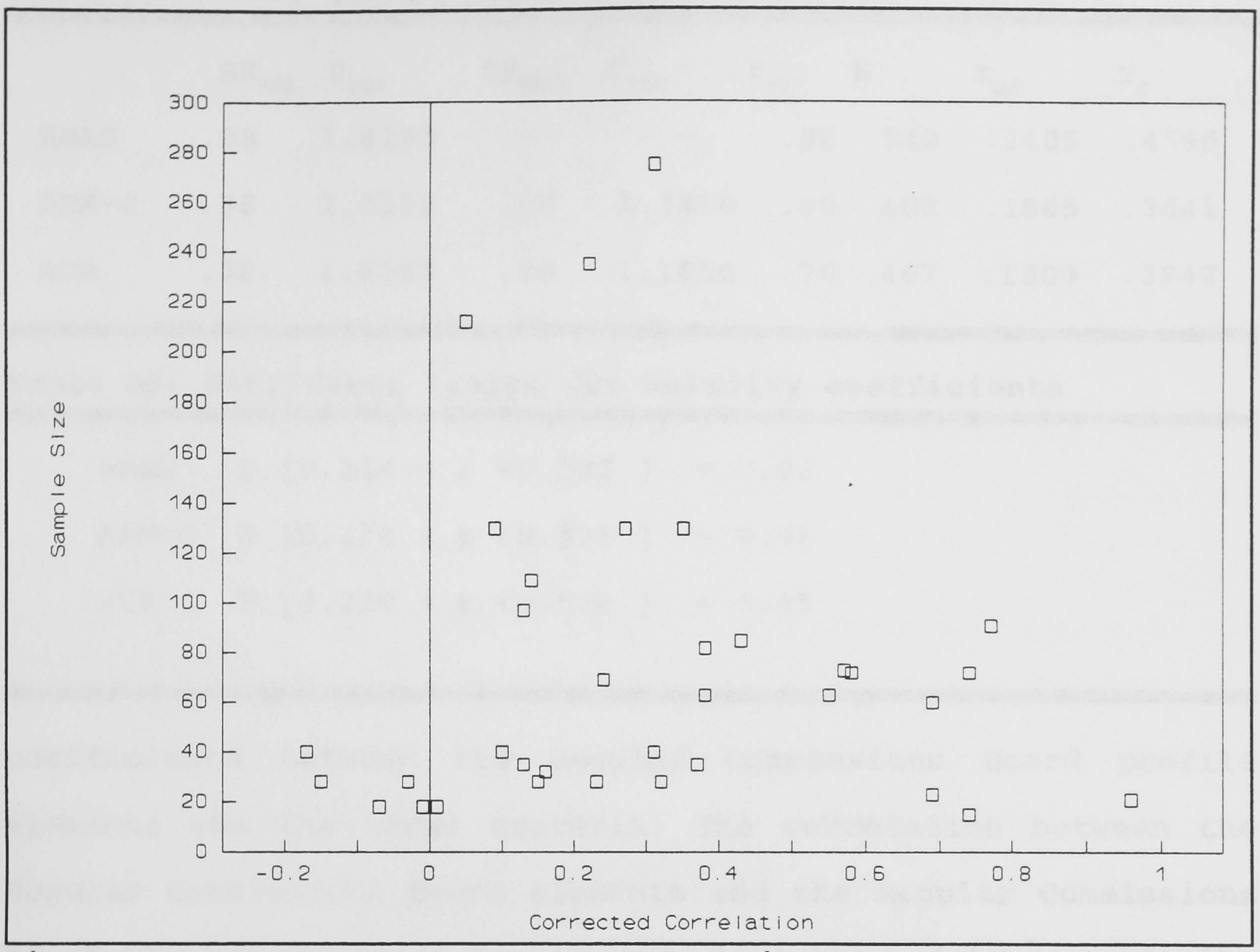

Figure 4: Sub-group corrected correlations by sample size

been identified, it would appear appropriate to represent the validity of the Regular Commissions Board as total group or sample-weighted correlation coefficients. As the total group coefficients are marginally larger they will be used to represent the validity of the Regular Commissions Board. They are given in Table 49 and the confidence limits in Table 50. The confidence limits have been obtained by using Fisher's Z to obtain the confidence limits of the uncorrected coefficients and then correcting these limits for restriction of range and unreliability of the criterion (see Hunter, Schmidt & Jackson, 1982).

Appendix 5 gives the uncorrected Spearman rank correlation

Table 49: Total group validity coefficients

	SR_{RCB}	U_{exp}	SR_{RMAS}	U_{inc}	r_{yy}	N	r_{uc}	r_c
RMAS	.38	1.8193	-	-	.80	532	.2405	.4595
ARM-C	.38	1.8193	.90	1.1850	.80	402	.1565	.3641
ACR	.38	1.8193	.90	1.1850	.70	467	.1509	.3842

Table 50: Confidence limits for validity coefficients

RMAS	P [0.314 < ρ <0.582]	= 0.95
ARM-C	P [0.214 < ρ <0.538]	= 0.95
ACR	P [0.210 < ρ <0.539]	= 0.95

coefficients between the Regular Commissions Board profile elements and the three criteria. The correlation between the Regular Commissions Board elements and the Regular Commissions Board Final Board Grade are given so that the weight given to the elements by the board and thus the likely effects of selection on the obtained correlation, can be estimated.

For the most part, the Regular Commissions Board elements correlate positively but weakly with the criteria. The objectively marked Officer Intelligence Rating is disappointing in this regard, though it may, as Dennison and Segal (1981) have suggested, be more predictive of performance in later career. Nonetheless, the correlation obtained is considerably less than would be expected from an objective measure of cognitive ability and the Officer Intelligence Rating should be reviewed.

Written Fluency, Planning, Coolness, Sense of Responsibility,

Quality of Relations, and particularly Reference appear to make useful contributions. Whilst, given their contribution to the Final Board Grade, Dominance, Liveliness, Initiative, and Range of Relations appear to make little contribution to validity.

Table 51 gives the validity coefficients that would have been obtained had the Regular Commissions Board combined the elements in a mechanical fashion weighted according to the correlation between the element and criterion.

Table 51: Correlations between statistically combined RCB elements and criteria

	SR_{RCB}	U_{exp}	SR_{RMAS}	U_{inc}	r_{yy}	N	r_{uc}	r_c
RMAS	.38	1.8193	-	-	.80	473	.305	.563
ARM-C	.38	1.8193	.90	1.1850	.80	360	.256	.528
ACR	.38	1.8193	.90	1.1850	.70	420	.235	.534

Table 51 reveals that mechanical weighting is superior to the board's clinical judgement, particularly regarding the prediction of Special-to-Arm and regimental performance. A number of studies have made similar findings. For example, Feltham (1988) with the police, and Jones (1989) in a survey across a number of organisations. Jones found that predictive ability increased by 25% when statistical methods were used. The equivalent mean increase for the present study is 85%. A number of proposals have been put forward to account for this sub-optimal weighting of the components by boards. Namely, that assessors utilise only part of the information available, that the assessors target criterion

differs from that which is measured (Akkerman 1989), and that the group processes involved in the final board decision have a negative impact (Herriot et al 1985).

7.2 Utility of the Regular Commissions Board

Table 52 gives the utility of the Regular Commissions Board with a criterion of 'commissioned and considered satisfactory by the regiment'. With a 62 per cent success rate in the selected population, a selection ratio of 0.38, and a correlation of 0.38, Taylor and Russell (1939) would estimate that approximately 45 per cent of the applicant population would have been successful. The Regular Commissions Board turns a 45 per cent success rate into a 62 per cent success rate amongst those it selects.

Inspection of the diagonals reveals that the Regular Commissions Board makes a correct decision in 64.2% of cases, compared to the 51.1% that would be expected to occur by chance.

Given the selection ratio and the fact that there is variation in criterion performance it is almost certainly the case that the Regular Commissions Board is cost-effective (see Cascio & Lilley 1979).

The 'dollar-criterion' model of utility has its origins with the work of Brogden (1949) with the original model being re-presented by Cronbach and Gleser (1965), Schmidt et al (1979), and Hunter and Schmidt (1982). These latter researchers have provided

Table 52: Utility of the RCB with a criterion of those who were commissioned and considered 'better than good' by their regiment

	SNLR or 'good or less'	Commissioned and 'better than good'	
Accept	215	352	567
Reject	598	314	912
	813	666	1479

empirical work that suggests that the standard deviation of job performance approximates to 40 per cent of salary and that this estimate has some generality. The Director of Army Recruiting figures for 1990 indicate that the average length of tenure of army officers is 18 years, the estimated average salary after this period is £28000, and the approximate annual cost of Regular Commissions Board is £1.7m. With a selection ratio of 0.32 (including attrition from Rowallan and the Royal Military Academy Sandhurst), 467 commissioned officers leaving the Royal Military Academy Sandhurst per annum, and a corrected correlation coefficient with the Annual Confidential Report (ie regimental performance) of 0.38, the Schmidt et al (1979) formula estimates the net incremental utility of the Regular Commissions Board relative to chance selection to be approximately £38.3m per annum at 1990 prices.

7.3 Fairness of the Regular Commissions Board

Salaman and Thompson (1978) have criticised the Regular Commissions Board on grounds of fairness. There is some evidence from this study to support Salaman and Thompson's assertion that the qualities sought at Regular Commissions Board favour the independent schoolboy. The selection ratio for those educated at an independent school is 0.39 compared with 0.31 for those educated in the state school sector. Relatedly, Table 53 reveals that, whilst not a statistically significant difference, those from independent schools receive on average a slightly higher Regular Commissions Board grading.

Table 53: The mean and standard deviation of the FBG for Independent and State schoolboys (Unselected sample, N=338)

	Mean	S.D
Independent	3.240	3.208
State	2.787	3.018

t = 1.33, p = 0.184 (2-tailed)

T-tests between the scores on the Regular Commissions Board elements for independent and state schoolboys revealed only four statistically significant differences. Suggesting again that discrimination in favour of independent schoolboys at the Regular Commissions Board is not marked. Table 54 shows that state schoolboys received higher Officer Intelligence Rating scores and ratings on Educational Standard. This is perhaps not surprising as a higher proportion of those from the state education system

were graduates when they appeared before Regular Commissions Board. Those from independent school are rated significantly higher on Quality of Relations, and Range of Relations. This is possibly the result of some bias, but more likely the result of some true difference in the social skills between the two groups which reflects a different emphasis (and very probably philosophy) in the school curricula and activities. [The author has been an assessor for the Civil Service Selection Board for the past five years and having interviewed and observed the behaviour of approximately 150 candidates in some detail, he has little doubt about the typical superiority of independent school candidates in the level of social confidence and skill displayed.]

Table 54: Differences between Independent and State schoolboys on RCB elements (Unselected sample, N=338)

		Mean	S.D.	t	P
OIR	Independent	6.853	1.353		
	State	7.154	1.251	-2.12	.035
Educational standard	Independent	8.967	3.189		
	State	9.729	3.496	-2.07	.039
Quality of relations	Independent	7.140	1.883		
	State	6.739	1.668	2.07	.039
Range of relations	Independent	6.980	1.661		
	State	6.181	1.595	4.49	.000
Coolness	Independent	5.680	1.598	0.80	.425
	State	5.543	1.549		
Dominance	Independent	6.380	2.424	0.67	.506
	State	6.213	2.186		
Determination	Independent	7.600	2.017	-0.97	.330
	State	7.809	1.903		

The Regular Commissions Board elements Coolness, Dominance and Determination are included in Table 54 because Salaman and Thompson specifically identify them as elements susceptible to bias. As can be seen - on the basis of a sample of 338 - there is no evidence of any bias in favour of independent schoolboys, and Salaman and Thompson's assertion in this regard is not supported.

Table 55 shows the corrected criterion scores for independent and state schoolboys. Overall, these results lend support to the Regular Commissions Board's slight discrimination in favour of independent schoolboys, for they suggest that 'on-the-whole' those for independent schools will tend to perform better than their state educated counterparts - in the case of their Annual Confidential Report performance statistically significantly so.

Table 55: Comparison of criterion grades for Independent and State schoolboys

	$Mean_{uc}$	SD_{uc}	$Mean_{c}$	SD_{c}
RMAS (N=454)				
Independent	11.113	1.920	7.703	3.466
State	11.092	1.533	7.730	2.954
		t = .027 p > .05 (N.S)		
ARM-C (N=348)				
Independent	3.198	0.762	1.557	1.611
State	3.063	0.684	1.375	1.486
		t = 1.04 p > .05 (N.S)		
ACR (N=408)				
Independent	9.804	1.970	5.563	4.165
State	9.801	2.235	4.284	4.855
		t = 2.82 p < .01		

The means and standard deviations have been corrected using the formulae given in Dobson (1988). For Independent group SR (RCB) = 0.39 and SR (RMAS) = 0.91. For State group SR (RCB) = 0.31 and SR (RMAS) = 0.94.

Chapter 8: Discussion and Conclusions

8.1 Validity of the Regular Commissions Board

A correlation of 0.38 has been obtained for the prediction of regimental performance. A correlation of 0.46 has been obtained for the prediction of general officer training, and a correlation of 0.36 for the prediction of specialised training. These results are comparable with the previous work of Clarke (1967) and Laing-Morton, Miles and Wheatley (1983) and suggest that the Regular Commissions Board is moderately predictive of training and regimental performance. The obtained correlations are similar to the mean correlations of 0.35 and 0.29 obtained for the Admiralty Interview Board's prediction of Royal Navy and Royal Military officer training, and 0.27 and 0.31 for the prediction of annual report grades (Jones, 1983). Jones et al (1991) report a correlation of 0.45 for the Admiralty Interview Board's prediction of overall marks awarded during training [The Admiralty Interview Board correlations are not corrected for unreliability]. The validity coefficients are within the range that would be expected from the use of an assessment centre to predict training and job performance (see Gaugler et al 1987).

A weak correlation has been obtained for the Regular Commissions Board prediction of performance on the Platoon Commander's Battle Course. This is of significance for this course is the most appropriate criterion given the formal Charter of the Regular Commissions Board. Whilst this insignificant correlation may be

due to sampling effects or the limitations of the criterion, given the relevance of this course to the Regular Commissions Board Charter, further investigation is recommended. The Regular Commissions Board also failed to differentially predict the performance of those who had been on operational service as platoon commanders in the Lebanon or Northern Ireland from those who had had less 'testing' duties. Thus, the study has provided little direct empirical evidence that the board is able to identify those who will be able to lead a platoon after training. The evidence that exists is indirect, deduced from the fact that satisfactory performance as a platoon commander is a requirement at Sandhurst and in the regiments. The correlations between the Platoon Commanders Battle Course and the Annual Confidential Report and the Royal Military Academy Sandhurst ratings are 0.52 and 0.26 respectively.

On the basis of this research it would seem possible that the Regular Commissions Board assessors target criterion differs from the formal Regular Commissions Board Charter: assessors may be primarily attempting to predict those who will succeed at the Royal Military Academy Sandhurst and become satisfactory regimental officers rather than those who will be able to command a platoon after training (see Akkerman 1989).

Women's Royal Army Corps Study

One hundred and twenty-four Women's Royal Army Corps young officers who attended the new 25-week Women's Royal Army Corps course at the Royal Military Academy Sandhurst between September

1983 and August 1985 comprised the validation sample. The Regular Commissions Board Final Board Grade was used as the predictor, and the Annual Confidential Report (Senior Reporting Officer) grade and the overall grade at the Royal Military Academy Sandhurst were used as criteria.

A corrected correlation of 0.50 was obtained for the prediction of the Annual Confidential Report (Senior Reporting Officer) criterion. This represents a good level of association and it was concluded that, given the Women's Royal Army Corps Charter, the Regular Commissions Board is a valid mechanism for the selection of Women's Royal Army Corps officers.

Given a selection ratio of 0.43 at Regular Commissions Board and the observed variation in criterion performance in the regiments it was concluded that the Regular Commissions Board had utility and was probably cost-effective for the selection of Women's Royal Army Corps officers. Using a criterion of 'commissioned and considered better than good' by the regiments, the Regular Commissions Board made a correct decision in 64% of cases compared with the 48% that would have been expected to occur by chance, and an incorrect decision in 36% of cases compared with the 52% that would have been expected to occur by chance.

A weak association was found between Regular Commissions Board assessments and the the Royal Military Academy Sandhurst overall grade (corrected correlation of 0.15). It was concluded that the changing nature of the assessments at the Royal Military Academy

Sandhurst during this period and the use of different criteria and emphasis at the Regular Commissions Board and the Royal Military Academy Sandhurst was most likely the cause of this low correlation. Generally there would appear to be ambiguity over the role and nature of the Women's Royal Army Corps officer. Nonetheless, the results of the Women's Royal Army Corps study provide additional evidence of the Regular Commissions Boards ability to identify who will become commissioned and become a satisfactory regimental officer.

Basis of the Regular Commissions Board's validity

Klimoski and Brickner (1987) postulate six alternative explanations for assessment centre validity.

1. The traditional explanation, namely that assessment centres predict success and performance because they provide raters with an opportunity to assess personal traits and qualities that are linked to success and performance. Sackett and Dreher (1982) and Robertson et al (1987) have questioned the traditional explanation with regard to the Assessment Centres they investigated. They found little evidence of discriminant validity for the dimensions concerned with method variance predominating over the shared variance of measures of a single trait. Sackett and Hakel (1979) found that assessors used only a small number of the available dimensions in forming an overall judgement, and Turnage and Muchinsky (1982) concluded that the subjects of their study made global judgements rather than differentiating between traits. Certainly there is evidence that

the basis of the validity of some Assessment Centres is not solely, if at all, the assessment of the traits of individuals. However, it is difficult to agree with the absolute nature of the conclusion reached by Klimoski and Brickner (1987), namely that, "The available research consistently demonstrates a lack of evidence for the construct validity of assessment centre dimension ratings. Moreover, it convinces us that assessment centres are not working as designed. If they have predictive validity, it is not because they are effectively measuring and using traits". Thornton and Byham (1982), for example, provide a substantial amount of evidence that some Assessment Centres do measure and use traits.

The intercorrelations given in Appendix 3 suggest that the Regular Commissions Board does differentiate between many of the dimensions, that most of the dimensions contribute to the overall rating, and Appendix 5 suggests that many of the individual traits possess some validity. It has been found in this and previous work (e.g. Dennison & Segal, 1981) that the board's final grading is primarily a character assessment. Character assessments are also made and influence the overall gradings at Sandhurst, in Special-to-Arm training and in the regiments. It would appear likely that the assessment of officer qualities makes a contribution to the validity of the Regular Commissions Board. However, the extent to which the board identifies those 'who are able to command a platoon in battle', is dependent upon the extent to which these perceptions of 'officer quality' are related to such performance.

We would conclude that this study has provided some evidence that at least part of the observed validity of the Regular Commissions Board is dependent upon the accurate identification of individual traits. It is also true, however, that the observed intercorrelations between the profile dimensions suggest evidence of halo, and, as the correlation of individual characteristics with the ratings of potential, the assessors final assessments, and the Final Board Grade are generally low, it would also seem to be the case that factors other than the explicit profile dimensions influence the overall grading.

2. The validity of an Assessment Centre may be due to direct criterion contamination. Namely, that assessment centres predict success because the Assessment Centre outcomes determine future success. For example, those successful at the Civil Service Selection Board on the Administrative Trainee scheme have their careers managed and are fast-tracked; they are given accelerated promotion, special training, and selected postings. This is a major criticism of Anstey's validation of the Civil Service Selection Board (Anstey 1977). Criterion contamination may also occur because the criterion assessors are aware, directly or indirectly, of Assessment Centre outcomes. For example, in the present study, the Royal Military Academy Sandhurst assessors know who has been awarded a cadetship or bursary by the Regular Commissions Board and is thus considered to have good officer potential, and who has attended Rowallan and has been considered by the Regular Commissions Board to be a risk. Similarly in the Civil Service the fast-streamers are graded as such and therefore

all reporting officers are aware that they have been considered by Civil Service Selection Board as having significant potential. It would appear likely that direct criterion contamination has made some contribution to the validity found in this research.

3. Assessment centre validity may be dependent upon 'subtle criterion contamination'. That is, instead of evaluating each person on the dimensions of the centre, assessors attempt to perform a policy-capturing function and to mimic what future decision-makers might do in making a promotion decision. In other words Assessment Centre validity is based upon an awareness of organisational norms rather than Assessment Centre dimensions. This proposal by Klimoski and Brickner was influenced by the common finding that Assessment Centres are more predictive of career progression than job performance. However, such contamination need not be restricted to the prediction of promotion. Equally, assessors may possess foresight through a learnt mental model of who will do well in training or who will perform well in their proposed job.

Klimoski and Strickland (1977) use the term prescience to refer to this subtle criterion contamination. This is not helpful for all valid prediction methods are based upon foresight, and the term subtle or indirect criterion contamination is to be preferred to refer to those instances were prescience is based upon job or organisational knowledge rather than assessment centre technology.

If subtle criterion contamination is a significant factor underlying Assessment Centre validity one would typically expect assessors more familiar with the target job or organisation to make more valid judgements. Unfortunately - because the research that has been undertaken does not actually test the hypothesis - the results are equivocal. Silzer (1985) did find that assessors who were more familiar with company norms did make more valid judgements and suggests that awareness of the organisational norms is an indispensable feature of a good clinical prediction paradigm. However, empirically the case remains unproven. One is inclined to agree with Klimoski and Brickner that subtle criterion contamination cannot be ruled out as a significant contributor to Assessment Centre 'validity', but would point to the low validities obtained for traditional interviews - presumably typically undertaken by someone familiar with the organisation and/or job - to underscore the fact that knowledge of the type of person likely to be successful is a significantly different issue from being able to accurately assess such an individual. Gaugler et al (1985) found in their meta-analysis of Assessment Centre validity that psychologists tended to make more valid assessments than managers.

As senior army officers make the assessments of individuals at the Regular Commissions Board, Sandhurst, and in the regiments, subtle criterion contamination is potentially a significant component of the board's 'validity'. Given the strength and visibility of the army's culture it would seem improbable that Regular Commissions Board assessors do not know the type of

person most likely to do well in the army and be positively evaluated by other officers. Based upon their own experiences at Sandhurst, as a platoon commander, and as a regimental officer, assessors at the Regular Commissions Board are likely to develop a mental model of type of candidate likely to be positively rated at Sandhurst and to be considered a good regimental officer. However this does not necessarily mean that they are capable of accurately assessing the type of person before them at the Regular Commissions Board, or how that person will develop during training at the Royal Military Academy Sandhurst and the regiments. As we have discussed above, it would seem likely that the exercises and boarding process operate to provide evidence of the individual's characteristics.

It is interesting to note that the Regular Commissions Board's dimensions of assessment have been in existence for many years, that they were not based upon any objective job analysis, and that they were primarily devised by regimental officers. The origins of the dimensions of the Regular Commissions Board are likely based upon organisational norms. Indeed, if there were not considerable overlap between the assessors own beliefs about the personal qualities needed for success and those measured by the Regular Commissions Board, the system would lack credibility amongst the assessors themselves. This is certainly not the case at the Regular Commissions Board.

It seems almost paradoxical to conclude that the validity of the Regular Commissions Board is unlikely to be significantly

dependent upon subtle criterion contamination because the norms have been formally incorporated into the Regular Commissions Board process. However, this appears likely to be the case. Further, as the assessment of these dimensions is likely dependent upon the Regular Commissions Board exercises and procedures, the validity of the Regular Commissions Board is dependent upon Assessment Centre technology. This is a legitimate basis for Regular Commissions Board validity, but it does question the advisability of using officer ratings as an ultimate criterion. The Regular Commissions Board is self-prophesying and there is a need for the army to validate its selection methods against more objective criteria.

4. The reactions and expectations of others can influence self-perceptions and performance. Hence, the expectations of officers at the Royal Military Academy Sandhurst and in the regiments of cadets may positively influence the self-efficacy of this group, as it may negatively affect the self-efficacy of those who attend Rowallan. We have found no evidence that this 'self fulfilling prophecy', as Klimoski and Brickner term it, contributes to the validity of the Regular Commissions Board, but it would seem likely that it makes at least some small contribution.

5. An additional hypothesis to account for the validity of the Regular Commissions Board is based upon performance consistency. This may take two forms. Either performance prior to the Regular Commissions Board, for example at school or on attachment to a regiment is itself predictive of future performance, or, the

Regular Commissions Board exercises serve as job simulations and, for example, performance on the command task or the planning exercise is predictive of future performance. In both cases the assessment of future potential may be based upon present or past performance rather than the formal Assessment Centre dimensions. Jones et al (1991) have recently concluded that this is likely to be a significant contributor to the validity of the Admiralty Interview Board. As reports and references on past behaviour are available to assessors and many of the exercises approximate job simulations, it would seem that this source of validity also contributes to the validity of the Regular Commissions Board.

6. The final proposition proposed by Klimoski and Brickner to account for Assessment Centre validity is the managerial intelligence explanation. Namely, the ratings received reflect the level of intellectual functioning of candidates and this also influences future performance. With regard to the Regular Commissions Board this appears to be an unlikely explanation. The objectively marked Officer Intelligence Rating is not predictive of performance at the Royal Military Academy Sandhurst or the regimental performance of a subaltern, and it is given little weight by the Regular Commissions Board. The board's rating of Intellectual Potential is given greater weight and is more predictive of performance, however the fact remains that success at the Royal Military Academy Sandhurst or to the level of subaltern in the regiments does not appear to be dependent upon the level of objectively assessed intellectual functioning.

In conclusion it would appear likely that the basis of the validity of the Regular Commissions Board is complex. It is dependent upon the fact that assessors at the Regular Commissions Board, the Royal Military Academy Sandhurst and in the regiments hold common view of the type of individual who will make a good officer, that the Regular Commissions Board dimensions reflect this view, and that the Regular Commissions Board exercises and procedures enable the Regular Commissions Board assessors to make - at least in part (see below) - accurate assessments of candidates on these dimensions. In addition, it is likely that performance consistency makes a contribution to the validity of the Regular Commissions Board. Thus it is likely that the basis of the Regular Commissions Board's validity is dependent to a large degree upon the Regular Commissions Board technology. Change in self-efficacy and direct criterion contamination may also make a contribution to the validity of the Regular Commissions Board, but there is no evidence that these effects are significant.

<u>Heteroscedasticity of Regular Commissions Board assessments</u>

For both male and Women's Royal Army Corps officer selection the relationship between Regular Commissions Board assessments and regimental and the Royal Military Academy Sandhurst training performance is heteroscedastic (see Tables 37 & 45). Relatively little error of prediction is associated with those awarded B or C grades and presumably there is an equivalent group amongst those not accepted by the board. Between the tails of the distribution - between those who are 'obviously' officer material

or 'obviously' not officer material there is a sizeable 'grey' area in which the Regular Commissions Board has apparent difficulty identifying officer potential.

Whilst it is a concern that for perhaps as many as 40% of candidates the Regular Commissions Board has some difficulty in identifying officer potential. It is important that this is kept in perspective. All selection systems possess this 'grey' area where individuals are passed who perhaps should not have been accepted and some are not accepted who perhaps should have passed.

The implications of this finding are that, with current Regular Commissions Board practices and criteria, the validity can be increased if no 'risk' candidates are passed; the cost is that in absolute terms fewer numbers of young officers will be commissioned and a significant number of candidates will not be accepted who should have passed. On the other hand, increasing the number of 'risk' candidates passed by the Regular Commissions Board will increase the absolute number of young officers being commissioned and reduce the number of candidates who currently are not accepted who should have passed; the cost here is that the validity of the Regular Commissions Board will decrease and so will its cost-effectiveness. The more satisfactory course of action is to take steps to increase the Regular Commissions Board's ability to discriminate amongst those in the 'grey' area.

Regular Commissions Board's ability to discriminate amongst those in the 'grey' area.

The most likely basis for the 'grey' area is that the Regular Commissions Board has insufficient or conflicting evidence of the officer potential of these individuals. The narrow use of the profile scales supports this hypothesis, as does the evidence given in the 1979 Regular Commissions Board Review. Insufficient evidence may result from one or all of the following:

(a) Certain individuals are, for whatever reason, not forthcoming in providing evidence of their character during the board

(b) The tests and exercises do not provide adequate evidence for certain individuals

(c) The evidence is available but the board members are unable to observe or assimilate it.

In ambiguous situations where there is insufficient or conflicting information, isolated instances of behaviour (for example, solving a command task or being unable to respond when put up to the board) are likely to be very influential and board members are likely to rely more heavily on their own experiences and 'gut feeling' to aid their judgements. In general, such judgements will not be as accurate as those based upon accumulated evidence and their accuracy will, in part, be dependent upon the similarity between assessor and assessee. This scenario suggests that the validity of the Regular Commissions Board may be partly dependent upon the type of

individual who appears before it. An important conclusion from this interpretation is that change in the nature of the assessor or candidate as a result of change in recruitment policy, rapid social change, or war, may all adversely affect the Regular Commissions Board's validity. This scenario suggests that it is advisable for the Regular Commissions Board to introduce a programme of continuous validation.

An alternative, but not mutually exclusive, explanation for the Regular Commissions Board's 'blind spot' is that it is the criterion assessors rather than the Regular Commissions Board board members who have difficulty in distinguishing between individuals other than those who are obviously above or below average officers. This interpretation cannot be ruled out and suggests, once again, that the Regular Commissions Board should be validated against more objective performance criteria. Even so, one would still conclude that steps need to be taken to investigate and then perhaps enhance the amount and relevance of the evidence available to board members. This may increase the Regular Commissions Board's ability to discriminate between individuals and result in an increase in the validity, utility and cost-effectiveness of the Regular Commissions Board.

8.2 Utility of the Regular Commissions Board

When measured against a regimental criterion approximately 62% of the Regular Commissions Board's decisions are 'correct', and it transforms a 45% success rate in the applicant population into a 59% success rate amongst those it accepts. Analysis

indicates that the Regular Commissions Board is highly cost-effective. The relatively high costs of the extended interview process are insignificant when compared to its benefits. The Regular Commissions Board's net benefit relative to random selection is £38.8m per annum. However, this is significantly affected by the large numbers of officers that are selected by the Regular Commissions Board and their long job tenure. These factors apply to any method that might be used by the army to select its officers. Relative to alternative methods of selection the Regular Commissions Board is perhaps only marginally more cost-efficient. For example, modern psychometric tests and structured interviews are likely to provide predictive validities that approach that of the Regular Commissions Board and provide considerable savings in terms of time and expense. However, as we shall discuss, the Regular Commissions Board, and Assessment Centres in general, has advantages that supplement an evaluation solely in terms of validity and utility.

8.3 Fairness of the Regular Commissions Board

Salaman and Thompson (1981) criticise the Regular Commissions Board on grounds of fairness. In essence their thesis asserts:

(i) The formal dimensions used by the Regular Commissions Board reflect class-based norms and that the qualities sought by the Regular Commissions Board are more likely to be found amongst those from public schools.

(ii) The Regular Commissions Board procedures are subjective rather than objective and assessment ratings are very dependent upon the way evidence is

interpreted.

(iii) Because Regular Commissions Board assessors are of a certain social class and utilise certain class based cues in interpreting the behaviour of candidates, there is a tendency to value and select those of a similar social class.

(v) The basis of Regular Commissions Board decisions is social preference, the scientific procedures largely serve to legitimise the decisions.

(vi) The result of these factors is the legitimised perpetuation of a social elite in positions of power.

Salaman and Thompson's article is certainly thought-provoking. However, it should be pointed out that, firstly, evidence of discrimination in favour of one group or another does not necessarily constitute unfairness. Secondly, that they base their thesis on the transcripts of only two cases: one from a public and one from a state educated schoolboy. Whilst this is adequate for the purpose of raising hypotheses, it cannot be considered to constitute proof. And, thirdly, much of the Salaman and Thompson article uses loaded terms, for example, 'social elite' or 'class-based'.

There can be little doubt that army officers are in the main middle-class. The observation that the majority of senior army officers are from independent schools is well documented. For example, Boyd (1973) found that 86 percent of Major-Generals and above were from independent schools. Consequently, Salaman and Thompson's view that the dimensions of the Regular Commissions

Board have a class basis is very probably correct. Senior officers were the main architects of the Regular Commissions Board, the majority of senior officers are from independent schools, and as we have already discussed it would seem likely that the dimensions encapsulate organisational norms.

Salaman and Thompson's view that the assessors at Regular Commissions Board utilise certain class based cues has not been tested here. However, there is a substantial body of evidence in the literature on impression formation and person perception that supports Salaman and Thompson's assertion in a broad sense, ie., individuals previous learnings and experiences do influence their judgements of others. All selection systems are likely to involve a certain amount of error of this nature and whilst the training that Regular Commissions Board assessors receive may reduce the significance of the error it is unlikely that it can be completely banished from any selection system where human judgement is involved. This is particularly the case in circumstances of ambiguity for example, in the 'grey area' between those who are obviously potential officer material and those who obviously are not.

This research has found that whilst the Regular Commissions Board does discriminate in favour of those from independent schools, this discrimination is not marked (indeed it is statistically insignificant), and certainly not of the order implied by Salaman and Thompson.

It should be noted that all selection systems, in order to be

effective, have to discriminate between individuals and may therefore discriminate between various social groupings. The key question is not whether a selection system discriminates in favour of one group or another but rather whether it is justified in doing so. That is, there is a corresponding difference between the groups in performance on some acceptable criterion. As we have already shown there is a corresponding difference between independent and state school candidates in the ratings they receive at the Royal Military Academy Sandhurst and in the regiments. The key question therefore becomes, 'How acceptable are these as criteria'?

An acceptable criterion needs to be non-trivial in the sense that it measures some important aspect of individual or organisational performance, and secondly, it should accurately measure such performance: it should be reliable and free from bias. Consequently, objective and independent measures are generally to be preferred to subjective measures.

The Annual Confidential Report (Senior Reporting Officer) grade is the main criterion used in this research. It would appear to measure at least two interrelated aspects: the 'officer quality' of the young officer and his ability to perform his job. It should be remembered that army officers not only have to work together but also live together. Ability to fit in is essential for army life and morale is considered to be a key determinant of performance. 'Officer quality' which appears to be a mix of social attributes and values would appear to be a legitimate and important component of the criterion. The Annual Confidential

Report (Senior Reporting Officer) grade would appear to meet the first requirement of an acceptable criterion, ie. it is not trivial.

Is the job performance of young officers accurately measured by the Annual Confidential Report (Senior Reporting Officer) grade? Certainly the Initiating Officers have considerable opportunity to assess the behaviour of young officers. They receive training reports and reports from field exercises and operations, as well as having the opportunity to assess the young officer first-hand. Indeed there are very few organisations in which an appraiser has more opportunity to assess the appraisee. A Lt. Colonel will see a great deal of his subalterns, informally in the mess as well as performing their duties. The Annual Confidential Reports are important documents as they form the input to promotion boards and decisions over extension or conversion of a commission. Therefore, they are likely to be completed carefully. Whilst the IO has plenty of opportunity to observe relevant behaviours, this does not necessarily mean that the assessments are accurate. Though it does increase the likelihood that they are. The possibility remains that in part the assessments of young officers are based - like Salaman and Thompson's comments regarding assessment at the Regular Commissions Board - upon class-based cues, and that assessment of job performance especially during peacetime is in part based upon social preference.

In summary, one can conclude that Salaman and Thompson's accusations of unfairness rest upon the plausibility of their

case rather than upon any empirical evidence. The Regular Commissions Board discriminates marginally in favour of candidates from independent schools but against the criteria that have been used this discrimination would appear to be justified. The Regular Commissions Board appears to be an acceptably fair selection mechanism. However, accusations of unfairness cannot be properly refuted without the use of a more objective and independent criterion of job performance.

Of course the fact remains - be it justified or not - that army officers, especially senior career officers, are primarily middle-class. A long-serving, formalized selection mechanism like the Regular Commissions Board which decides who is and who is not a member is central to maintenance of this culture. One would agree with Salaman and Thompson that the Regular Commissions Board plays a part in the perpetuation of this social group. However, this would appear to be largely a legitimate function both from the point of view of the maintenance of army culture and effectiveness and from the point of view of identifying those most likely to become successful army officers. It may be inappropriate to lay accusations of unfairness, class bias, or whatever at the door of the Regular Commissions Board, Civil Service Selection Board, Admiralty Interview Board or the many private sector organisations who also appear to select in favour of those from independent schools and Oxbridge for senior positions. Maybe it is more appropriate to point the finger at a state education system which appears geared to produce the workers and technocrats of tomorrow though 'education for qualification' rather than the

policy of 'education for leadership' adopted by the independent schools. It would seem likely that accusations of unfairness can be more properly laid at the door of a state educational system that by virtue of their birth fails to fit individuals for positions of power and leadership and in so doing perpetuates the class basis of our society.

It should of course be remembered that the Regular Commissions Board is but one part of a long and sophisticated recruitment, selection and training process. Filtering mechanisms occur at the Army Careers Information Offices, amongst University Liaison Officers and Schools Liaison Officers, at pre-Regular Commissions Boards and in 'O' type training. Many of the candidates appearing before the Regular Commissions Board have already had their application endorsed by their regiment. Further selection and placement decisions take place at the Royal Military Academy Sandhurst and in the promotion boards. This research has been concerned with the fairness of the Regular Commissions Board alone; unfair discrimination may occur pre- or post-Regular Commissions Board.

8.4 A General Observation on the Selection and Training of Army Officers

A general issue which arises from our visits to the various parts of the army involved in the selection and training of young officers rather than from the results of the research itself, is the observation that the different parts of the army which are concerned with the assessment of the same male or

female young officers are apparently looking for different qualities. Further, these qualities are periodically independently revised apparently without reference to objective evidence on the relevance of the qualities to the officer role which would be provided by an 'officer specification' resulting from job analysis, or without the benefit of systematic feedback on the success of assessment. Occasional systematic studies on their success have been carried out by the Regular Commissions Board and the Royal Military Academy Sandhurst, but for the most part feedback appears to be based on 'exception reports' which by their very nature give an inaccurate picture. Job analyses have also been undertaken, but this information does not appear to be widely known or shared. The over-riding impression is one of methods and dimensions of assessment being developed locally without a great deal of scientific support or evidence. Given such a scenario, it is difficult to see how the Regular Commissions Board or the Royal Military Academy Sandhurst can learn and adapt to the changing role requirements or nature of officers. The situation is rather like target shooting with a blindfold where one is occasionally told that one has hit or missed the target. This is likely to be moderately effective as long as the target is relatively large - the majority of officers are successful - and stationary. The moment the target becomes smaller or starts moving - as would be the case with increasing specialising and rates of change in the army - then the hit rate is likely to drop dramatically. We conclude that there would appear to be a need for a support mechanism which provides objective evidence in a systematic manner on the qualities required in a young officer, and knowledge of success

in identifying and training such individuals.

8.5 Recommendations

Six main recommendations emerge from this study, all of which relate to increasing the validity, utility and acceptability of the Regular Commissions Board and to maintaining these enhanced capabilities over time:

1. It is recommended that consideration is given to a supportive mechanism which will systematically provide the various parts of the army involved in the assessment and training of young officers with:
   (a) objective information on the qualities required in a young officer and
   (b) knowledge of success in identifying and training such individuals.

2. In order to enable the Regular Commissions Board to adapt to changes in the nature of applicants, training or officer roles it is recommended that the Regular Commissions Board systematically monitors its performance by way of a system of routinised validation. It should be noted that a routined validation system for the Regular Commissions Board could easily be adapted to provide validation information for the Royal Military Academy Sandhurst and Rowallan.

3. In order to increase the Regular Commissions Board's

ability to discriminate between those in the 'grey' area it is recommended that a carefully planned study is carried out to investigate the amount and relevance of evidence available to board members, the methods whereby this evidence is observed and recorded, and the way the evidence is discussed and weighted by the board. The study should be action orientated, that is, following a period of investigation trial changes are made and their effects monitored. The outcome of the study would be an increased amount of information relevant to officer quality and job performance being available to board members.

4. The present study validated the Regular Commissions Board against early performance criteria. Knowledge of a selection procedure's ability to predict longer term as well as short term criteria is clearly valuable. The systematic and comprehensive data on the cohort used in this study would be valuable for the conduct of a longer term validation study. It is therefore recommended that the relevant computerised data should be preserved for future studies.

5. It is recommended that the Regular Commissions Board and Annual Confidential Report gradings are validated against more objective and independent performance criteria. However, it is essential that such criteria are acceptable to the army itself.

6. It is recommended that consideration be given to a future

separate study to investigate the selection of those from the ranks, for while they show considerable wastage at the Royal Military Academy Sandhurst, those that are commissioned are for the most part highly regarded at the Royal Military Academy Sandhurst, in Special-to-Arm training and by their regiments.

PART III

IMPLICATIONS FOR SELECTION THEORY AND PRACTICE

Chapter 9: Reflections and Wider Implications

9.1 Support for Assessment Centres

The basis of assessment centre validity remains unclear (see Klimoski & Brickner 1987; Robertson, Gratton & Sharpley 1987). However, there is a growing body of evidence which suggests that assessment centres typically display an acceptable level of validity when the criteria used are performance ratings or promotion. A recent meta-analysis of 50 assessment centre studies by Gaugler, Rosenthal, Thornton & Bentson (1987) obtains corrected mean validity coefficients of 0.36 and 0.35 for the prediction of performance and training criteria respectively. (These mean validities are very similar to those obtained in this study for the Regular Commissions Board's prediction of such criteria.) However, the evidence for the validity of assessment centres in predicting more objective criteria than ratings and promotion is far less conclusive.

The support for assessment centres does not solely rest upon validity or efficiency comparisons. The Regular Commissions Board is highly regarded by visitors, assessors, candidates and by the army itself. The procedure possesses what Kraut and Scott (1972) have termed 'faith validity'.

Williams (1984) has pointed out that Assessment Centres have a potential benefit of providing a realistic job preview for applicants of the nature of the job and the organisational climate. Certain benefits also accrue to an organisation if it

is seen to use a fair, and in some cases, a rigorous selection procedure.

As has been suggested elsewhere (see Williams, Dobson & Walters, 1989), a selection mechanism is a significant determinant of an organisation's culture. It is the organisations formal mechanism for deciding who is a member and who is not. As such it has an important function in maintaining organisational effectiveness - for culture is an important contributor to this. Assessment centres play a key role in maintaining or changing the culture of an organisation. There can be little doubt that the Regular Commissions Board, Civil Service Selection Board and Admiralty Interview Board have made a major contribution to the development and maintenance of army, civil service and navy culture. Equally, a number of organisations, for example, Abbey National, Norwich Union, East Midlands Electricity, have used Assessment Centres to change the nature of their culture.

One suspects that the Regular Commissions' Board and assessment centres in general have one further advantage over predominantly objective and mechanistic methods which will not necessarily be reflected by the validity coefficients. This being that assessment centres are less likely to make gross false positive errors (i.e. passing people who will subsequently fail). The various components of the assessment centre, whilst perhaps adding negligibly to the overall validity, are likely to cross-validate each other. Further, the boarding or washing-up procedure is consensual and conservative (see Herriot, Chalmers and Wingrove 1985). In those situations, as is the case with an

army officer, where a gross false positive decision may have serious consequences, the assessment centre procedure may be of more value to the organisation than is revealed by the statistical analysis of its overall validity and utility. Typically, assessment centres would appear to be conservative procedures and in some situations this is an important consideration.

9.2 Thoughts on Meta-Analysis and Heterogeneous samples

Although the study suffers from the traditional criterion problem, it does demonstrate the importance of conducting an analysis of sub-samples (see also Gardner & Williams, 1973). The research has put into perspective those studies which utilise a single homogeneous sample and report a single validation coefficient. It has become very clear that such a coefficient is but one of a range of coefficients that could have been obtained. Meta-analysis enables us to investigate the variation in results across sub-samples. Although a very powerful technique, a word of caution is appropriate. Contrary to that implied and occasionally stated by other authors meta-analysis does not prove that the variation in results is due to sampling error. It is a statistical technique - not an experimental design - which indicates whether or not the findings may result from sampling error. Consequently, the researcher needs to investigate alternative mediating effects before concluding that the variation is due to sampling error alone. This is particularly important as meta-analysis can explain a surprisingly wide variation in results.

9.3 Design of Assessment Centres

When validating an assessment centre which does not require assessors to give a rating to each candidate after each exercise, it becomes difficult to measure the contribution which different exercises are making to the final overall rating given to a candidate. Thus, because the Regular Commissions Board procedure does not require candidates to be rated after the group exercises, it was not possible to measure their individual contributions to the Final Board Grade. This feature puts a constraint on the recommendations which researchers can make to enhance the validity of the board, and contrasts with data available in many other assessment centres. Those advising on assessment centres should consider the requirements of validation for system improvements. By planning for validation at the design stage, many problems and inefficiencies will be avoided.

9.4 Validation as a catalyst for change

To some large extent the purpose of the validation study was to promote change within the Regular Commissions Board should this be needed. To date, despite proposals by Army Personnel Research Establishment on further research, this has not occurred to any significant degree. Consequently, the research casts doubt on the effectiveness of statistical validation or evaluation as a catalyst of change. Promoting change in an assessment centre which bases its decisions on Gestalt rather than actuarial assessments, which has a significant history, high faith

validity, within an organisation renowned for fierce independence, which is staffed by powerful individuals, is not an easy task. Nonetheless, on reflection it is felt that the presentational problems that result from use of concepts such as meta-analysis, correlation coefficients, regression, and indeed the concept of validity itself, were never satisfactorily overcome.

An alternative approach to validation is to base the analysis on organisational decisions rather than ratings. From the point of view of the client, this may improve the meaningfulness of the analysis. For example, the Regular Commissions Board not only awards the Final Board Grade rating, but also makes the decision to pass or fail a candidate, award a cadetship, bursary or neither, to recommend a Short Service Commission, Regular Commission, Special Regular Commission, and to recommend training at Rowallan or ASE Beaconsfield. Similarly, the Royal Military Academy Sandhurst not only makes an overall rating, but also makes decisions on backterming, awarding a commission, cadet status, and the Sword of Honour. And the regiments make decisions on whether to convert a Short Service Commission to a Regular Commission, to extend a Short Service Commission, or neither. To a large extent the ratings and decisions are highly correlated, but not entirely. It may have been more meaningful and a greater stimulus for change if, for example, the Regular Commissions Board had been confronted with the proportion of those awarded a bursary who had failed to attend the Royal Military Academy Sandhurst or who had not been commissioned. With hindsight analysis undertaken on 'decision-based validity'

rather than a purely statistical representation of validity may overcome the presentational problems of the latter and be more effective in promoting change. This would seem to be a potentially valuable approach worthy of consideration by other researchers.

Of course, from the point of view of the researcher simple 0/1 categorisations limit the analysis that is possible. Consequently, there is a case for both types of analysis to be undertaken.

9.5 Limitations of validity and dollar utility as indicators of satisfactoriness and benefit

Other things being equal (in particular the selection ratio and variation in criterion performance) the validity coefficient of a selection procedure is an acceptable indicator of its criterion related utility. Other things being equal, the procedure with the higher validity also has greater utility. The important fact about the concepts of validity, utility and cost-efficiency is that they are relative terms and do not consider the absolute benefit to the organisation.

Thus it is perfectly possible to have a selection procedure that is highly valid, cost-efficient and of high utility, whose outcome for the organisation is unsatisfactory. Equally so it is possible to have a selection procedure that is invalid, not cost-efficient, and of low utility whose outcome is highly satisfactory. For example, the Regular Commissions Board has a

low validity for the prediction of performance on the Platoon Commanders Battle Course (0.093), and yet over 81% of the young officer's were considered satisfactory or better as platoon commanders. This outcome results because a very high proportion of Regular Commissions Board applicants are capable after training of commanding a platoon. The satisfactoriness of the outcome and benefits of a selection procedure are not only dependent upon the validity and utility of the selection procedure itself but also upon the nature of the applicants and the effectiveness of training. Not only might change in recruitment or training affect the validity and utility of a selection procedure, it might also affect the satisfactoriness of the outcomes.

The evaluation of a selection method in terms of the benefits that accrue to the organisation holds a number of advantages over the more narrow evaluation in terms of just validity, utility and cost-efficiency. Firstly, the general benefits and the satisfactoriness of the outcomes will indicate the likelihood that the organisation will possess a 'felt need' to change. Probably one of the reasons why the Regular Commissions Board has resisted change, and continues to do so, is that generally the army is happy with the overall standard of its officers. Whereas to provide evidence that the outcomes of a selection system are considered unsatisfactory downstream is likely to act as a major stimulus for change, regardless of the validity and dollar benefits of the procedure. Interestingly, our historical review of the Regular Commissions Board and War Office Selection Boards indicates that the major stimulus for

investigation and review in the past has been the Return to Unit rates at the training depots rather than concern over the validity of the procedure. Secondly, a broader evaluation of the nature and outcomes of a selection method will result in a fuller appreciation of the benefits or costs of change. The Regular Commissions Board is considered valid and fair by candidates, it acts as a realistic job preview in terms of the nature of the job and organisational climate, its rigorous nature is likely to increase commitment amongst those accepted, it has a selling role, and it maintains the culture of the army. These are all benefits that accrue which would be missed by an evaluation solely in terms of the validity, utility, and fairness of the procedure.

9.6 Learnings from Re-Analysis

The final reports for the validation study were presented to the Ministry of Defence in January and March 1987, and a paper based upon the findings from the male study appeared in the Journal of Occupational Psychology during 1989. For the purposes of this thesis the original data have been re-analyzed, and the original reports re-written and expanded - in particular to give greater consideration to the fairness of the Regular Commissions Board which was not amongst the Ministry of Defence's terms of reference for the research.

A number of the originally reported statistics differ from those given here. Given that the analyses were undertaken on exactly the same original data-base it is important to account for the

differences. The reasons for the differences in the reported statistics are:

i. Resignations have been excluded from the analysis in this report.

ii. Dummy subjects have been included in the Annual Confidential Report and Special-to-Arm young officer training course sub-samples; the original analysis included dummies only at the Royal Military Academy Sandhurst.

iii. The various 'risk' categories (E lit., E trn., E Char.) have been combined for most of the analysis in this report.

iv. Sample-weighted criteria intercorrelations are reported here whilst the original report used total group intercorrelations.

The effect of these changes is to change the reported sample sizes, the means and standard deviations of the predictor and criteria, the selection ratios used in corrections, and the obtained uncorrected and corrected correlations. For example, these changes have increased the reported total group validity coefficients by .03 (the Royal Military Academy Sandhurst), .05 (Special-to-Arm young officer training course) and .05 (Annual Confidential Report). The re-analysis has revealed one minor error in Dobson and Williams (1989), namely, that the reported sample size for the calculation of the mean and standard deviation of the Regular Commissions Board overall grade is incorrect. The total sample size (567) is given in the journal article, whereas the statistics were actually based upon a sample size of 560.

The re-analysis suggests that given a large and complex database which requires a number of statistical assumptions to be made during analysis that it is highly unlikely that two researchers working independently will obtain or report precisely the same results. However, as is the case with the present research, the main conclusions and recommendations are likely to be the same. Indeed one of the main learnings from the research is that applied social science conclusions and recommendations appear to be amazingly insensitive to (most) changes in statistical assumptions. For example, the use of Pearson, Kendall's tau, or Spearman's rho as the measure of association makes, as long as the distributions are not very abnormal, little difference to the obtained correlation coefficient, and is unlikely to make any difference at all to the conclusions drawn or recommendations made from the research.

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APPENDICES

Appendix 1: Outline of the Regular Commissions Board programme

(a) Day 1		
11.00-12.45	**Written Tests**	Sandhurst Hall
	(i) General Knowledge	20 mins
	(ii) Service Knowledge)	
	)	15 mins
	(iii) Current Affairs)	
13.30-15.00	**Intelligence Tests**	
	(i) Analogies	20 mins
	(ii) Reasoning	20 mins
	(iii) Intruders	30 mins
15.30	**Additional Tests** (as necessary)	
	(i) Science	35 mins
	(ii) Maths	20 mins
15.30-18.30	**Computer Tests**	Welbeck Hut
(b) Day 2		
08.00-10.00	DP's Interviews	Camberley Block
08.00-10.00	EA's Interviews	Stable Block
09.00-10.00	VP's Interviews	Stable Block
10.10	President's Opening Address	Sandhurst Hall
10.20-11.15	Group Discussions	Camberley Block
11.15-12.45	VP's, DP's and EA's Interviews	As above
13.45	Opening Tasks	Courses
15.05	Opening Race	Courses
16.00	VP's, DP's and EA's Interviews	As above
17.00	Second Essays as necessary	45 mins Sandhurst Hall
18.00	Dyslexia Dictation Test as necessary	15 mins Sandhurst Hall

(c) Day 3

07.20-08.50	Planning Project	Sandhurst Hall
08.55-10.00	Discussion of Planning Project	Sandhurst Hall
10.25-12.00	Command Tasks	Courses
12.00-12.45	Individual Obstacles	Courses
13.45-15.00	Lecturettes	Camberley Block
14.30	President's Interviews	Stable Block

(d) Day 4

08.00	Closing Race	Course
08.30	President's Closing Address	Sandhurst Hall

Appendix 2: Scale Characteristics of the Regular Commissions Board profile elements

		Non-Graduate			Graduate	
		DENG	Ranks	DEG	Bursars	Cadets
	N=	265	31	114	100	29
Officer Intelligence Rating						
	10	1.5%	3.3%	8.3%	1.1%	3.8%
	9	6.8%	10.0%	13.0%	11.1%	3.8%
	8	24.7%	23.3%	31.5%	20.0%	30.8%
	7	33.1%	33.3%	35.2%	40.0%	46.2%
	6	24.7%	23.3%	7.4%	22.2%	7.7%
	5	7.6%	3.3%	4.6%	5.6%	7.7%
	4	0.8%	0.0%	0.0%	0.0%	0.0%
	3	0.8%	3.3%	0.0%	0.0%	0.0%
Educational Standard						
	+	0.0%	0.0%	0.9%	0.0%	0.0%
Strong		0.0%	0.0%	69.4%	2.2%	0.0%
	-	0.4%	0.0%	4.6%	0.0%	0.0%
	+	6.1%	10.0%	11.1%	4.4%	11.5%
Good		27.8%	3.3%	10.2%	63.3%	53.8%
	-	1.9%	0.0%	0.9%	4.4%	3.8%
	+	3.8%	10.0%	0.9%	2.2%	0.0%
Adequate		20.2%	6.7%	1.9%	20.0%	26.9%
	-	10.3%	3.3%	0.0%	2.2%	0.0%
	+	18.6%	10.0%	0.0%	1.1%	3.8%
Limited		10.3%	53.3%	0.0%	0.0%	0.0%
	-	0.8%	3.3%	0.0%	0.0%	0.0%
Breadth of Interests						
Strong		0.0%	0.0%	0.9%	0.0%	0.0%
	-	0.0%	0.0%	0.9%	0.0%	0.0%
	+	0.0%	0.0%	0.0%	0.0%	4.0%
Good		4.6%	0.0%	13.9%	7.3%	8.0%
	-	0.4%	0.0%	1.9%	1.2%	8.0%
	+	7.6%	0.0%	18.5%	11.0%	20.0%
Adequate		22.8%	26.7%	32.4%	20.7%	8.0%
	-	14.1%	6.7%	13.0%	20.7%	20.0%
	+	22.1%	36.7%	9.3%	13.4%	20.0%
Limited		25.1%	20.0%	7.4%	19.5%	8.0%
	-	3.4%	10.0%	1.9%	6.1%	4.0%
Written Fluency						
Strong		0.0%	0.0%	0.9%	1.1%	0.0%
	-	0.0%	0.0%	1.9%	0.0%	0.0%
	+	0.0%	0.0%	6.5%	1.1%	0.0%
Good		6.5%	3.3%	21.3%	10.0%	0.0%
	-	2.7%	0.0%	11.1%	10.0%	11.5%
	+	3.4%	3.3%	7.4%	15.6%	15.4%
Adequate		14.8%	20.0%	22.2%	21.1%	19.2%
	-	17.5%	20.0%	11.1%	17.8%	19.2%
	+	16.0%	10.0%	5.6%	15.6%	3.8%

Limited	28.1%	23.3%	8.3%	7.8%	19.2%
-	8.7%	13.3%	2.8%	0.0%	11.5%
+	0.0%	0.0%	0.0%	0.0%	0.0%
Weak	2.3%	6.7%	0.9%	0.0%	0.0%
Verbal Fluency					
Good	6.8%	6.7%	15.7%	11.1%	11.5%
Adequate	92.0%	86.7%	83.3%	87.8%	88.5%
Limited	1.1%	6.7%	0.9%	1.1%	0.0%
Planning					
Good	8.7%	13.3%	24.1%	14.4%	15.4%
Adequate	35.7%	53.3%	50.9%	47.8%	65.4%
Limited +	0.4%	0.0%	0.0%	0.0%	0.0%
Limited	53.6%	33.3%	25.0%	36.7%	19.2%
Weak	1.5%	0.0%	0.0%	1.1%	0.0%
Practical Ability					
Strong	0.4%	0.0%	1.9%	0.0%	0.0%
Good	23.6%	36.7%	20.4%	13.3%	26.9%
Adequate	63.9%	56.7%	50.0%	63.3%	65.4%
Limited	12.2%	6.7%	27.8%	23.3%	7.7%
Physical Ability					
Strong	0.4%	0.0%	0.0%	0.0%	0.0%
Good	18.3%	20.0%	17.6%	18.9%	19.2%
Adequate	79.5%	73.3%	75.0%	78.9%	80.8%
Limited	1.9%	6.7%	7.4%	2.2%	0.0%
Coolness					
Good	1.1%	0.0%	1.9%	3.3%	7.7%
Adequate	49.8%	66.7%	59.3%	62.2%	73.1%
Limited +	0.4%	0.0%	0.0%	0.0%	0.0%
Limited	48.7%	33.3%	38.9%	34.4%	19.2%
Sense of Urgency					
Good	17.9%	26.7%	15.7%	11.1%	15.4%
Adequate	62.0%	56.7%	58.3%	73.3%	76.9%
Limited	20.2%	16.7%	25.9%	15.6%	7.7%
Dominance					
Strong	0.0%	0.0%	0.0%	0.0%	0.0%
Good	20.9%	33.3%	26.9%	11.1%	19.2%
Adequate	59.3%	53.3%	54.6%	68.9%	57.7%
Limited +	0.4%	0.0%	0.0%	0.0%	0.0%
Limited	19.4%	13.3%	17.6%	20.0%	23.1%
Liveliness					
Good	12.9%	3.3%	13.0%	11.1%	15.4%
Adequate	73.4%	73.3%	72.2%	67.8%	76.9%
Limited +	0.4%	0.0%	0.0%	0.0%	0.0%
Limited	13.3%	23.3%	14.8%	21.1%	7.7%
Initiative					
Strong	0.0%	0.0%	0.0%	1.1%	0.0%

Good	19.4%	23.3%	25.0%	21.1%	34.6%
Adequate	70.7%	73.3%	66.7%	73.3%	61.5%
Limited	9.9%	3.3%	8.3%	4.4%	3.8%
Determination					
Strong	0.8%	0.0%	0.0%	1.1%	0.0%
Good	26.2%	46.7%	24.1%	24.4%	38.5%
Adequate	68.1%	53.3%	74.1%	72.2%	57.7%
Limited	4.9%	0.0%	1.9%	2.2%	3.8%
Compatibility					
Good	31.6%	96.7%	12.0%	23.3%	42.3%
Adequate	68.1%	3.3%	86.1%	76.7%	57.7%
Limited	0.4%	0.0%	1.9%	0.0%	0.0%
Responsibility					
Good	16.7%	33.3%	27.8%	25.6%	50.0%
Adequate	78.7%	63.3%	70.4%	72.2%	50.0%
Limited	4.6%	3.3%	1.9%	2.2%	0.0%
Sense of Awareness					
Strong	0.0%	0.0%	0.9%	0.0%	0.0%
Good	6.5%	3.3%	20.4%	10.0%	15.4%
Adequate	69.2%	63.3%	66.7%	65.6%	73.1%
Limited +	0.4%	0.0%	0.0%	0.0%	0.0%
Limited	24.0%	33.3%	12.0%	24.4%	11.5%
Quality of Relations					
Good	15.2%	3.3%	11.1%	10.0%	30.8%
Adequate	71.9%	83.3%	70.4%	81.1%	69.2%
Limited	12.9%	13.3%	18.5%	8.9%	0.0%
Range of Relations					
Strong	0.0%	0.0%	0.9%	0.0%	0.0%
Good	9.9%	0.0%	2.8%	4.4%	19.2%
Adequate	74.1%	63.3%	76.9%	76.7%	80.8%
Limited	16.0%	36.7%	19.4%	18.9%	0.0%
Maturity					
Good	1.5%	0.0%	4.6%	0.0%	4.0%
Adequate	68.4%	86.7%	92.6%	82.9%	80.0%
Limited	30.0%	13.3%	2.8%	17.1%	16.0%
Intellectual Potential					
Strong	0.0%	0.0%	0.0%	2.2%	3.4%
-	0.4%	0.0%	0.9%	2.2%	6.9%
+	0.8%	0.0%	5.6%	5.5%	13.8%
Good	3.0%	6.7%	23.1%	18.7%	24.1%
-	5.3%	3.3%	14.8%	9.9%	10.3%
+	8.4%	6.7%	23.1%	25.3%	13.8%
Adequate	19.8%	13.3%	16.7%	20.9%	13.8%
-	21.3%	13.3%	9.3%	11.0%	13.8%
+	20.2%	23.3%	3.7%	2.2%	0.0%
Limited	14.8%	30.0%	1.9%	2.2%	0.0%
-	6.1%	3.3%	0.9%	0.0%	0.0%
Practical Potential					

	+	0.8%	0.0%	1.9%	0.0%	3.4%
Good		3.4%	10.0%	7.4%	0.0%	3.4%
	-	3.4%	3.3%	12.0%	7.7%	13.8%
	+	15.6%	13.3%	25.0%	26.4%	31.0%
Adequate		25.9%	36.7%	18.5%	16.5%	10.3%
	-	22.1%	20.0%	12.0%	13.2%	20.7%
	+	15.2%	10.0%	10.2%	18.7%	0.0%
Limited		10.3%	6.7%	8.3%	12.1%	17.2%
	-	2.7%	0.0%	4.6%	5.5%	0.0%
	+	0.0%	0.0%	0.0%	0.0%	0.0%
Weak		0.8%	0.0%	0.0%	0.0%	0.0%
Character Potential						
Strong		0.0%	0.0%	0.9%	0.0%	3.4%
	-	0.0%	0.0%	0.0%	0.0%	0.0%
	+	0.4%	0.0%	0.9%	0.0%	0.0%
Good		4.9%	3.3%	8.3%	3.3%	13.8%
	-	9.1%	0.0%	4.6%	7.7%	17.2%
	+	18.3%	26.7%	17.6%	23.1%	31.0%
Adequate		20.2%	23.3%	18.5%	28.6%	17.2%
	-	17.1%	26.7%	18.5%	15.4%	13.8%
	+	17.5%	16.7%	14.8%	12.1%	0.0%
Limited		9.5%	3.3%	11.1%	6.6%	3.4%
	-	3.0%	0.0%	4.6%	3.3%	0.0%
Group Leader's Grade						
A		0.0%	0.0%	0.9%	0.0%	0.0%
B		0.4%	0.0%	0.0%	2.2%	0.0%
C		5.7%	6.7%	10.2%	6.6%	37.9%
D		61.2%	70.0%	63.9%	73.6%	62.1%
D -		4.2%	3.3%	7.4%	3.3%	0.0%
E		6.1%	0.0%	13.9%	3.3%	0.0%
E (char)				2.8%	8.8%	0.0%
E (lit)		0.8%	0.0%	0.0%	0.0%	0.0%
E (trn)				0.0%	0.0%	0.0%
Fail (enc)		1.1%	0.0%	0.0%	1.1%	0.0%
Fail (dis)		1.5%	0.0%	0.9%	1.1%	0.0%
Deputy President's Grade						
B		0.8%	0.0%	1.9%	1.1%	0.0%
C		4.2%	6.7%	8.3%	11.0%	27.6%
D		61.6%	76.6%	68.5%	73.6%	65.5%
D -		4.2%	3.3%	3.7%	3.3%	0.0%
E		5.3%	0.0%	10.2%	2.2%	0.0%
E (char)				3.7%	8.8%	0.0%
E (lit)		0.4%	0.0%	0.0%	0.0%	0.0%
E (trn)				0.0%	0.0%	0.0%
F (enc)		0.4%	0.0%	0.0%	0.0%	0.0%
F (dis)		0.4%	0.0%	3.7%	0.0%	0.0%
Vice-President's Grade						
B		0.4%	0.0%	0.9%	1.1%	6.9%
C		3.8%	3.3%	8.3%	9.9%	31.0%
D		57.0%	60.0%	69.4%	74.7%	62.1%
D -		6.8%	10.0%	10.2%	4.4%	0.0%

E	6.5%	0.0%	8.3%	1.1%	0.0%
E (char)			2.8%	8.8%	0.0%
E (lit)	1.1%	3.3%	0.0%	0.0%	0.0%
E (trn)			0.0%	0.0%	0.0%

(%s are approximate due to small variations in response rates)

Appendix 3: Intercorrelations between Regular Commissions Board profile elements (Correlations are Spearman rho based upon an unselected sample of N=395)

2	.284	-								
3	.096	.291	-							
4	.346	.441	.327	-						
5	.146	.180	.223	.245	-					
6	.275	.219	.129	.225	.206	-				
7	.158	-.034	-.019	-.082	.036	.159	-			
8	.017	-.027	-.049	-.081	.002	.113	.263	-		
9	.143	.153	.139	.118	.180	.249	.287	.223	-	
10	.041	-.023	.049	.005	.105	.211	.439	.277	.294	-
11	.046	.131	.109	.070	.220	.279	.467	.185	.456	.549
12	-.038	.053	.116	.051	.086	.094	.257	.093	.157	.350
13	.083	.191	.280	.082	.154	.170	.408	.157	.284	.362
14	-.044	.028	.045	-.006	.054	.143	.319	.211	.253	.396
15	-.035	-.250	-.068	-.075	-.031	.033	.287	.199	.149	.228
16	-.032	.067	.108	.076	.097	.088	.165	.073	.168	.135
17	.133	.333	.352	.285	.267	.158	.158	-.013	.253	.121
18	.002	.137	.139	.076	.100	.120	.179	.080	.156	.193
19	-.008	.059	.113	.109	.211	.095	.186	.164	.288	.207
20	.124	.343	.156	.213	.184	.143	.109	.018	.337	.147
21	-.018	.138	.072	.031	.068	.129	.096	.033	.217	.168
22	.641	.590	.441	.616	.327	.389	.166	-.022	.281	.151
23	.422	.243	.117	.193	.160	.696	.611	.331	.420	.425
24	.054	.153	.200	.109	.210	.257	.453	.238	.507	.520
25	.152	.223	.215	.179	.238	.370	.459	.254	.517	.559
26	.153	.194	.220	.155	.245	.353	.451	.236	.524	.542
27	.133	.208	.218	.160	.252	.351	.467	.236	.504	.551
28	.143	.213	.228	.171	.263	.358	.461	.233	.491	.540
	1	2	3	4	5	6	7	8	9	10

12	.372	-								
13	.511	.417	-							
14	.446	.260	.355	-						
15	.247	.164	.155	.316	-					
16	.120	.130	.146	.277	.263	-				
17	.253	.256	.364	.192	.086	.284	-			
18	.180	.209	.203	.371	.167	.369	.245	-		
19	.249	.365	.246	.212	.214	.239	.309	.244	-	
20	.353	.077	.258	.184	.018	.107	.320	.182	.131	-
21	.271	.273	.241	.238	.166	.218	.205	.274	.214	.190
22	.245	.131	.270	.115	-.042	.194	.438	.233	.176	.297
23	.517	.235	.363	.315	.194	.171	.262	.243	.243	.205
24	.657	.520	.575	.543	.364	.431	.489	.536	.522	.320
25	.660	.438	.527	.484	.321	.375	.458	.440	.474	.343
26	.660	.424	.518	.476	.334	.373	.456	.460	.485	.336
27	.659	.422	.516	.466	.323	.379	.445	.453	.478	.319
28	.650	.424	.513	.468	.320	.380	.450	.461	.490	.297
	11	12	13	14	15	16	17	18	19	20

22	.164	-						
23	.165	.519	-					
24	.386	.357	.534	-				
25	.325	.441	.633	.874	-			
26	.333	.431	.614	.883	.961	-		
27	.315	.432	.628	.870	.966	.960	-	
28	.330	.448	.628	.878	.948	.948	.983	-
	21	22	23	24	25	26	27	

Key

1	Officer Intelligence Rating
2	Educational Standard
3	Breadth of Interests
4	Written Fluency
5	Verbal Fluency
6	Planning
7	Practical Ability
8	Physical Ability
9	Coolness
10	Sense of Urgency
11	Dominance
12	Liveliness
13	Initiative
14	Determination
15	Compatibility
16	Responsibility
17	Sense of Awareness
18	Quality of Relations
19	Range of Relations
20	Maturity
21	Reference
22	Intellectual Potential
23	Practical Potential
24	Character Potential
25	Group Leader
26	Deputy President
27	Vice President
28	Final Board Grade

Appendix 4: Scale Characteristics of the Special-to-ARM Young Officers'courses

		Non-Graduates	Graduates
		DENG	Total
<u>RAC Troop Leaders Course</u>			
	N=	43	26
No reservations		2.3%	19.2%
Minor reservations		34.9%	46.2%
Expected reservations		32.6%	15.4%
Substantial reservations		30.2%	19.2%
Probably should not have passed		0.0%	0.0%
<u>Royal Artillery Young Officers Course</u>			
	N=	28	29
A		0.0%	0.0%
B+		0.0%	10.3%
B		3.6%	6.9%
B-		0.0%	6.9%
C+		28.6%	24.1%
C		50.0%	41.4%
C-		14.3%	10.3%
E/D		3.6%	0.0%
F		0.0%	0.0%
<u>Platoon Commanders Battle Course</u>			
	N=	82	44
Without supervision		0.0%	0.0%
Minimal supervision		26.8%	29.5%
Normal supervision		53.7%	54.5%
Close supervision		19.5%	15.9%
<u>RE Young Officers Course</u>			
	N=	12	20
A		0.0%	0.0%
B+		0.0%	0.0%
B		8.3%	20.0%
B-		0.0%	0.0%
C+		41.7%	10.0%
C		33.3%	65.0%
C-		16.7%	0.0%
E/D		0.0%	5.0%
F		0.0%	0.0%
<u>R. Sigs. CQC</u>			
	N=	10	13
A		0.0%	7.7%
B+		0.0%	0.0%
B		20.0%	38.5%
B-		0.0%	0.0%
C+		10.0%	0.0%
C		40.0%	38.5%
C-		0.0%	0.0%
E/D		30.0%	15.4%
F		0.0%	0.0%
<u>RAOC Young Officers Course</u>			
	N=	9	6
		192	

No reservations		0.0%	16.7%
Minor reservations		44.4%	0.0%
Expected reservations		33.3%	50.0%
Substantial reservations		22.2%	33.3%
Probably should not have passed		0.0%	0.0%
<u>RCT Troop Commanders Course</u>			
	N=	12	25
A		8.3%	0.0%
B+		0.0%	0.0%
B		16.7%	4.0%
B-		0.0%	12.0%
C+		58.3%	32.0%
C		16.7%	20.0%
C-		0.0%	32.0%
E/D		0.0%	0.0%
F		0.0%	0.0%
<u>ASE Young Officers Course</u>			
	N=	0	15
A			0.0%
B+			6.7%
B			20.0%
B-			26.7%
C+			26.7%
C			20.0%
C-			0.0%
E/D			0.0%
F			0.0%

Appendix 5: Correlations between Regular Commissions Board profile elements and the criteria

	RCB	RMAS	ARM-C	Annual Confidential Report
OIR	.143	.069(504)	.116(383)	.065(447)
Educational standard	.213	.023(504)	.084(383)	.104(447)
Breadth of interests	.228	-.045(492)	.063(373)	.140(436)
Written fluency	.171	.062(504)	.113(383)	.104(447)
Verbal fluency	.263	.041(504)	.075(383)	.043(447)
Planning	.358	.094(504)	.106(383)	.118(447)
Practical ability	.461	.105(504)	-.030(383)	-.099(447)
Physical ability	.233	.056(504)	.013(383)	-.072(447)
Coolness	.491	.111(504)	.132(383)	.083(447)
Sense of urgency	.540	.086(504)	.030(383)	.009(447)
Dominance	.650	.051(504)	-.001(383)	.010(447)
Liveliness	.424	-.031(504)	-.028(383)	.063(447)
Initiative	.513	.019(504)	-.002(383)	-.022(447)
Determination	.468	.121(504)	-.023(383)	.048(447)
Compatibility	.320	.139(504)	-.050(383)	.030(447)
Responsibility	.380	.131(504)	.113(383)	.134(447)
Sense of awareness	.450	.009(504)	.131(383)	.058(447)
Quality of relations	.461	.187(504)	.044(383)	.129(447)
Range of relations	.490	.064(504)	.074(383)	.031(447)
Maturity	.297	-.004(492)	.086(383)	.087(436)
Reference	.330	.236(488)	.159(371)	.123(433)
Intellectual Potential	.448	.181(508)	.196(385)	.196(450)
Practical Potential	.628	.140(508)	.068(385)	.046(450)
Character Potential	.878	.194(508)	.090(385)	.144(450)

Group Leader	.948	.<u>189</u>(508)	.<u>137</u>(385)	.<u>111</u>(450)
Deputy President	.948	.<u>206</u>(508)	.<u>136</u>(385)	.<u>116</u>(450)
Vice-President	.983	.<u>227</u>(508)	.<u>132</u>(385)	.<u>147</u>(450)

Correlations are uncorrected Spearman. For those underlined $p<.05$. Dummies are excluded. Correlations with Regular Commissions Board are based on the unselected sample of N=395.