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*An investigation of the value of G.C.E. results and pre-election interviews for prediction of teaching and academic ability at the conclusion of a three year training college course*

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## SECTION I

### The Purpose of the Investigation

In 1960 the compulsory three-year course for all students was commenced at Teacher Training Colleges in England and Wales and only recognized mature students were allowed to become teachers in a shorter period of time. This investigation was made to measure the effectiveness of various factors as predictors of success in a three-year course at one training college.

The college admitted men and women students in September 1960 for the first time and especially for the women there was a considerable surplus of applicants for selection. All the students for this first year, with very few exceptions, were admitted on the result of a single interview with the Principal of the college. He had available for his information a form completed by the candidates giving details of passes at Ordinary and Advanced Level of the G.C.E. plus the appropriate dates. Since the interviews were held many months before the course began and students were accepted in most cases before July, 1960, most candidates still at school had not taken their Advanced Level Examinations and could not know their results before being accepted or rejected. This involved the majority of students, and in their cases the head teacher of the school they were attending was asked to give an estimate of performance in each subject they were taking in June - July, 1960.

For candidates who had left school previously, a confidential report from their employer generally was available and in many cases was accompanied by a report from the head teacher of their last school.

Thus the suitability of the candidate for a three-year course at the college and ultimately for a career in teaching had to be decided on the following predictors:-

1. A personal interview for all but a few students.
2. The number of passes at Ordinary Level of G.C.E., and the appropriate dates where the passes had been gained on more than one occasion. The grades or marks in individual subjects were not available.
3. The number of passes at Advanced Level of G.C.E. or in the case of applicants still at school who were taking the examination in June - July, 1960, an estimate of the probable result by the head teacher of their school. Again no marks or grades in individual subjects were available. The Advanced Level examinations were taken on only one occasion almost without exception and therefore the dates of passing the examination were probably of little importance except for mature candidates.
4. General comments on the personality, character and suitability for teaching of the candidate usually made by the head teacher or the employer for applicants who had left school.

The original aim of this investigation was to assess the value of the first three of these factors as predictors of success in the college three-year course. Later it was decided to extend this investigation to include the group of three-year students who were admitted in September, 1961. This decision was taken partly because the numbers in the original sample were not large, but also the selection procedure was changed for this intake and it was of interest to see whether this had resulted in any significant change in the prediction of success.

Students entering college in September, 1961 were all interviewed by the Principal, and if possible by two other members of college staff independently. This was possible only where the candidate lived within travelling distance and could come to the college for interview. The members of college staff each interviewed the candidate for fifteen minutes and their reports were made on printed interview forms (see figure 1). These were available to the Principal when he had the final interview with the candidate.

As a further innovation, printed forms were supplied to the head teachers of candidates still at school requesting them to assess:-

- (a) The candidates' probable performance in any examinations they were to take after interview;

- (b) The candidate's suitability for the teaching profession, on a five point scale A - very good to E - unsuitable; and
- (c) the candidate's intellectual ability on a similar five-point scale. The investigation attempted to evaluate criterion (a) as a substitute for the results of the Advanced Level Examination, and criteria (b) and (c) as predictors of success in teaching practice and academic work.

NAME

DATE

1. Is the general impression produced by the candidate's physical appearance, bearing, dress, voice, quality etc., attractive?

E	D	C	B	A
Exceptionally unattractive	Rather unattractive	Average	Certainly above average	Exceptionally attractive
5%	25%	40%	25%	5%

2. Can the candidate express his/her ideas well?

E	D	C	B	A
Badly	Rather poorly	Average	Better than average	Exceptionally well
5%	25%	40%	25%	5%

3. Does the candidate appear intellectually mature?

E	D	C	B	A
Markedly immature intellectually	Rather below average	Average	Distinctly above average	To a marked Degree
5%	25%	40%	25%	5%

4. Further comments on character:-

Such as: Sense of vocation, Humour, Width of Interest, Perseverance.

5. General Suitability for teaching:

E	D	C	B	A
Unsuitable	Fair	Good	Very good	Exceptional
5%	25%	40%	25%	5%

Date .....

Signed .....



SECTION II - Previous Work Connected with the Subject of  
the Investigation

The teacher training course includes three main divisions,

- (a) teaching practice,
- (b) educational theory, and
- (c) academic work in the main subject or subjects.

Much of the previous work reported in connection with (c) has not been undertaken in the training college but in other establishments of higher education, mainly the university.

This was thought to be highly relevant and is reported.

Similarly work on (a) and (b) has been conducted in university departments of Education and again is often highly relevant.

Early Studies

Apparently the first investigation on the problem of predicting success in teaching was made by Meriam (1) in 1906. He studied the correlation of teaching success with other variables such as marks in professional and academic courses. His criterion of teaching success was a rating given to elementary school teachers by normal school principals who had followed their work in the field. The judgment of the normal school principals must have been affected considerably by a knowledge of the student's record while in training, resulting in the "halo" effect which tends to make the correlation coefficients spuriously high. In spite of this, the correlation

between scholarship and teaching success was only + 0.16, a result which later research tended to confirm rather than refute.

A survey of other early studies has been given by Sandiford (2) who concluded by stating that not a single study had been conclusive. Most of them were open to criticism on one ground or another, yet together they left little doubt that the correlations between scholarship, intelligence and teaching success were extremely low, giving no justification for using these factors in forecasting success in teaching. Among the studies surveyed some deserve special mention. Boyce<sup>(3)</sup> obtained very high correlations between teaching merit and factors such as intellectual ability, but also succeeded in obtaining a correlation of + 0.50 between voice and interest in the community. This illustrates again the danger of the "halo" effect in studies of this type where an opinion of the general merit of a teacher is carried over to estimates by the same judge of voice, intelligence and personality. Whitney<sup>(4)</sup> studied 725 graduates of twelve state normal schools and obtained a correlation between teaching success and High School marks of + 0.09, compared with + 0.07 between teaching success and academic college marks. His study was one of the first to give grounds for much pessimism in the matter of predicting teaching success.

Sandiford and others (op.cit.) investigated the most efficient methods for the prediction of teaching success and found that the teaching ability of students was not closely related to intelligence or to achievement in academic subjects. They also found that the ratings of students based on interviews of short duration, even when conducted by a number of raters, were not sufficiently reliable to be used for prognosis. There was close agreement between the opinions of different raters, but even average ratings did not agree closely with the teaching practice marks. They found that the teaching marks obtained in the first term were only a fair index of the final teaching practice mark, and also that "success in teaching" had low correlation with practice teaching marks. Since "success in teaching" was merely another subjective judgment by a different person, its validity was probably no greater than the practice teaching mark.

#### The Interview

The interview as a selection device always has been a controversial issue and much evidence has been accumulated as to its value. Hartog, Rhodes and Burt<sup>(5)</sup> carried out a major study of the interview, where sixteen candidates were interviewed independently by two separate interview boards. The examination was to be on matters of general, not academic interest, and was intended to test the candidate's alertness, intelligence and intellectual outlook. Each candidate previously had sent in

a record of his life and education and had been selected for interview on the grounds of academic distinction. The two distinguished boards interviewed each candidate for 15 - 30 minutes. The correlation between the marks of the two boards was + 0.41 and not significant. Hartog observed the proceedings of both interview boards and their mode of approach seemed identical, securing the confidence of the candidates and then allowing them to speak with freedom and frankness. It was found to be largely chance whether the interviewers struck on a topic in which a candidate felt so strongly that he was able to display his individuality. This was confirmed by Lycus Martin <sup>(6)</sup> who reported freshman interviews as one of the least effective predictors of success for students in teacher training.

Warburton <sup>(7)</sup> emphasized that the conducting of interviews is a difficult and delicate task which can be rendered valueless if performed in an amateurish manner. He thought it generally useful for the interviewer "to express his main conclusions in the form of ratings on a small number of important and more or less independent personality traits." At the London School of Economics <sup>(8)</sup> candidates were graded according to (1) general intelligence, (2) previous education, (3) interests and motivation; and (4) personality and character.

The interviewing boards were requested not to add these four assessments, but to make a single judgement on a nine-point scale to remove the possibility of a "halo" effect. Despite this standardization the interview did not correlate significantly with the Intermediate Examination results in academic subjects.

Dale <sup>(9)</sup> surveyed the value of the interview as a predictor of success in both academic work and teaching. He stated, "All the world claims to be a good judge of character and some there are who are definitely dogmatic about it. But it is one thing to judge the character of a daily acquaintance and quite another to assess the personal qualities and even academic possibilities of a complete stranger." He emphasized that the interviewer very often never knows the result of his decisions and even when mistakes catch up with him he may refuse to recognize them as his own. Dale gave the main factors reducing the reliability of the interview as:-

1. the variability of the response to the interviewer depending on the nature of the topics raised and whether the interviewer could give encouragement to the candidate to talk freely; and
2. the homogeneous nature of the group to be interviewed.

An investigation by the Department of Education in the University of Birmingham <sup>(10)</sup> showed that the students admitted to the department, who were the only ones to be interviewed, were almost without failure. Thus it appeared that this interview

may have weeded out potential failures. Since the interview included a careful examination of the applicant's academic background, his interests and other achievements, it may not be as a personality test that it was successful but as a careful consideration of factual data by skilled assessors.

Mayson <sup>(11)</sup> dismissed the interview as of little value because of the limited range of the conversation and the judgements made from such misleading indications as manners, personal appearance and facial expression. Dale <sup>(Op.cit.)</sup> supported this by considering that the qualities which are most easily rated are those which are overt, such as inhibition - impulsions, apathy - intensity, and placidity - emotionality. Selection by interview might therefore expect to obtain fairly reliable ratings of such qualities as pleasantness of appearance and voice, social maturity, self-confidence and powers of discussion. These are not qualities which are very important in the prediction of success in university work with which Dale was dealing, but should play a considerable part in considering success in a teaching career. However at the interview they do tend to influence any judgement made of intelligence and application to study. Several experiments have shown that when a person is good-looking, well-dressed, neat and pleasant in expression, he is rated as intelligent. Vernon <sup>(12)</sup> considered that because of these 'halo' effects, interviews tend to be still less reliable than essay

examination answers when selecting for academic courses.

Only a few investigators have dealt with the use of the interview as a predictor for the training college or the university department of Education. Lawton <sup>(13)</sup> used a large number of training college students in his study. They were interviewed by persons experienced in assessment of teaching efficiency and an estimate of their teaching mark was given on an A to E scale after interviews lasting five minutes. These marks were then correlated with the marks actually obtained by the student on teaching practice and gave product moment correlations averaging + 0.55, significant at the 0.01 level. However, these relatively high values were obtained for students who had already experienced teaching practice and the college courses, probably resulting in a gain or loss of confidence due to success or failure on teaching practice. Walters <sup>(14)</sup> found interviews of only small help in selecting for the training college. Allen <sup>(15)</sup> obtained a correlation of + 0.478 between final teaching practice marks in a training college and a method of individual selection involving two individual interviews, and a verbal and non-verbal intelligence test. This relatively high value was due mainly to the use of the verbal test which has been found useful in several studies. He obtained a higher correlation between prediction and teaching practice success when group selection methods were added to the individual interviews and tests.

Warburton, Butcher and Forrest (16) reported that interviews correlated + 0.265 with final teachingmark and + 0.289 with the final Theory of Education mark, both correlations being significant. However the students were recent graduates when interviewed, so that the interviewers had the advantage of knowing the applicant's full school and university records. In addition these candidates were more mature than the average training college applicant and possibly had a greater determination to become teachers.

Warburton (17) has pointed out that interviewers are liable to be impressed by the "wrong" things such as deportment, dress and accent. Since they largely reflect social class and age, they may simply help in picking students who will lower the academic standards but will adjust well to the social life, thus seriously reinforcing the interviewer's confidence in the soundness of his judgement. Burroughs (18) in an analysis of factors concerned with the interview of prospective teachers, listed the most predictive interview items as:-

- (a) skill in verbal expression;
- (b) attractive appearance; and
- (c) the ability to create a good first impression.

Since even (b) has been shown to be a highly subjective judgement, the validity of these items in selection must be highly suspect.

The very limited validity and reliability of interviews as predictors of success both in teaching and academic work has been summarized by Furneaux (19) who carried out an extensive



survey for the Nuffield Foundation. He stated, "All the evidence is quite unequivocal in showing that the great majority of people, if they have to rely on their unaided intuitions and inferences, are astonishingly bad at it." High correlation coefficients are only obtained when psychologically trained observers, who have also had training in interviewing techniques, are examining a heterogeneous group of candidates for an unusually demanding job. Since the candidates for the training colleges are relatively homogeneous, and the desired characteristics for a successful teacher are manifold, this must surely lead to low correlations. The evidence shows that a person who is reasonably good at judging one kind of trait, in one sort of person, in a particular kind of interview situation may well prove to be a hopeless failure if a different trait, a different kind of person or a different situation is involved.

#### School Reports and Headteachers' Comments

An early report by the Scottish Council (20) considered the prognostic value of headteachers' reports for entry to Scottish universities and found the estimates were higher for students who later did well. The reports appeared unable to differentiate the failure from the average student and in most cases of failure the headteachers' report was good. The study showed that either headmistresses were slightly more generous than headmasters in assessing good pupils, or

the actual performance of good men students improved at university relative to that of the women. The correlations between the degree mark and the headteacher's mark ranged between + 0.4 and + 0.6 except for students of Mathematics where it was +0.08. It is to be expected that these results for Scottish university students would be more highly correlated than for training college students, because the academic work at the university is more closely related than the training college course to school work. It is possibly more true of Scottish schools where the work tends to be severely academic. The report found no significant difference between the prognostic value of the teacher's mark and the Leaving Certificate marks for success in either degree or year examinations.

Crawford and Burnham (21) in describing the Minnesota Studies in Predicting Scholastic Achievement, showed that the High School percentile rank gave a correlation of + 0.50 with the general standard reached in the first two years of college, and it correlated better with specific course results than did general aptitude or achievement tests.

Parkyn (22) investigating success and failure in the New Zealand universities did much research on schools' academic assessments. He showed the two main problems to be -

(a) the difficulty of devising a usable common scale upon which the teachers could indicate their judgements, and

(b) the difficulty of knowing how comparable were the standards of judgement of different teachers.

He found also that there was some indication that the high school assessments maintain a fairly consistent standard, but give a relatively low correlation ( $r = 0.37$ ) with performance in Stage I examinations at university. Success and failure came from all over the range of ability. Parkyn explained that low correlation values did not necessarily mean that school work had little to do with success at college, but were probably due to differences in scholastic attainment found among the university students not being great enough to determine the differences in their performance. This restriction of range, as is suggested in many studies, may indeed cause low correlations and will be dealt with later in greater detail.

Warburton (Op.cit.) considered the headteacher's report to be the only opinion, based on long acquaintance with the candidate, that the college possessed. He thought, like Parkyn, that potentially they were of great value but the difficulty lay in equating one headmaster's view with another. The answer seems to be a standardized assessment form such as used in this investigation where the headteacher is asked to draw attention whenever relevant, to points about the student such as, (1) industriousness, (2) stability, (3) independence of judgement, (4) interest in subjects outside the examination

syllabus, and (5) home circumstances where difficult or good.

Dale and Sanders (23) both found that intelligence was one of the principal factors of differentiation at the university but at the border-line, factors such as interest, study habits and personality were very important. Dale considered that the persistence factor should be given more attention in the selection procedure and this would be assessed most readily by the teachers at school. He stated that the most important factor which impaired the prognostic efficiency of the entrance examination was the different standards of teaching in the schools, and suggested that good selection would counter this effect by careful consideration of the school record.

Macklin (24) found that low academic performance was due mainly to an unsuitable way of living, ineffective methods of study, or emotional disturbances. These factors often could be detected in part by the use of carefully compiled school records, although the first and the last tended to arise more in college life than school.

The Nuffield Foundation Inquiry (Op.cit) found a correlation of + 0.32 between university performance and the headteachers' assessments of intellectual qualities, compared with + 0.17 for non-intellectual qualities. In this case the judgements were made in a standardized fashion specified for them, and this proved to be more closely related to the subsequent academic

histories of the pupils than impressions derived from letters.

The evidence suggests that the school report giving objective evidence in the form of examination marks or class positions, is useful in predicting success in academic work, but there is little to suggest its usefulness in predicting teaching ability. Burroughs (Op.cit.) found that estimates of teaching suitability were based mainly on non-cognitive qualities and that acceptability at school depended much on social and athletic qualities. Walters (Op.cit.) showed headmasters' reports of limited value in selection for teacher training colleges. (25)

Recent work in the United States by Bloom and Peters suggests that correlations between school reports and college grades, usually averaging + 0.50, can be increased to a level of 0.70 to 0.80 by careful standardization of the schools to reduce the effect of variability in school standards. The procedure involved is so complex that it could not be used in selection for for teacher training colleges where students are drawn from such a wide variety of schools.

#### Ordinary and Advanced Level G.C.E. Examinations

Much of the useful research on the value of school leaving examinations in predicting later academic success has been done outside this country. It is true also that in the countries concerned, there is a tendency for the system of accrediting to replace the school leaving or college entrance examination. In Australia, Sanders (Op.cit.) correlated the Leaving

Examination results with the 1st Year examinations at university and obtained an average coefficient of + 0.63. He showed that this could rise to + 0.80 when a special attempt was made to derive a maximum value by giving weight to those subjects relevant to the university first year. Correlations between the Leaving Examination and the University Finals averaged + 0.45, and therefore the prediction was not reliable enough to be useful. The prediction showed most accuracy for students whose results in the Leaving Examination were very weak or very good. Also working in Australia, Hohne<sup>(26)</sup> found the entrance examination score to be the best positive predictor of academic success, but since the examination was set by the university and presumably marked by the university departments concerned with the degree examinations, this is to be expected. He found, as did many other investigators, that success in the 1st Year examinations was the best predictor of performance in the final stage.

Both Dale and Forster<sup>(27)</sup> were dubious of the predictive value of school leaving examinations. Forster found low correlations between examination results at the school leaving and university levels due mainly to low validity and reliability in the examinations at both levels. Dale listed eight main reasons why the correlation between the two levels should be low and suggested the replacement of essay type papers by attainment tests to improve reliability. (Although this might

improve the reliability of examinations, it would mean a very significant change in the attitude of schools and universities to this type of assessment). Warburton<sup>(7)</sup> however considered that when school leaving examinations were taken into account, aptitude tests and attainment tests became superfluous. He found correlations between Higher School Certificate marks and university departmental marks around + 0.35 for some Science subjects and suggested that the low correlations might be due to the restricted range of ability. Like Dale, he also thought that in part they were due to considerable variation in the standards of the examining boards, the teaching standards from school to school, and the change in the attitude to study sometimes found when a person leaves school.

Furneaux in the Nuffield Foundation study thought that the school leaving examinations provided the best single prediction of academic success, and criticized the examination boards and university selectors for making it impossible to use G.C.E. Advanced Level results as a major predictor, because of the late publication date of the examination results. In the case of training college selection Furneaux would be extra critical because most students are accepted or rejected well in advance of the Advanced Level results. Furneaux found that those students who achieve the admission qualifications at the first attempt have a superior performance at university to those who have to repeat examinations for entry. He also found

correlations between school and university performance to be higher for Science and Mathematics than for Arts subjects, where the marking was more subjective.

Oliver (28), in discussing the use of the G.C.E. as a criterion for selection, dismissed the Ordinary Level as almost irrelevant since to demand five passes merely excludes a few students from applying. He believed the Advanced Level to be a valuable but limited criterion for selection, which could be improved if more details were available about marks or grades. Nicholson and Galambos (29) made a detailed study and found correlations from + 0.09 (English) to + 0.35 (French) between average G.C.E. marks and average university final marks, showing that prediction based on performance in G.C.E. examinations would be unreliable. Correlations between first year and final examinations at the university were shown to vary from + 0.46 to + 0.67, all significant at the 0.01 level.

In the prediction of teaching practice success, performance in G.C.E. seems of little validity. In the University of Manchester Department of Education a correlation was obtained of + 0.24 between G.C.E. results and the final Education theory mark. A non-significant correlation of + 0.172 was found between the teaching mark and the number of passes at Ordinary Level of G.C.E.

The evidence shows the relationship between G.C.E. results and later academic success to be very variable and not



reliable for prediction purposes. On the little evidence available there is no indication that the G.C.E. examinations have any more value than the other selection criteria in predicting teaching ability, and in these cases it appeared of no significance.

SECTION III - Method and Scope of the Investigation

The Criteria of Success

The idea of this investigation was to assess the value of certain predictors in forecasting success at the end of the new three-year training college course. Since the course includes practical teaching, Education theory, and either one or two academic subjects, any assessment of success in its broadest sense should take account of all these together with the mental, physical and social development shown by the student during the three years. The latter is extremely difficult to measure and even scholastic attainment is not well assessed by examination performance. Because of this, and also because many students in teacher training colleges do not seem to give of their best in examinations, both the course mark and the examination mark were considered as the criteria of success in academic work and Education theory. Usually the course mark, which is given by the student's subject tutor, represents the carefully considered opinion of three years' effort, whereas the examination mark often depends more on intelligence and emotional stability than persistent effort. Since emotional stability, intelligence and persistence, are all abilities called for in the complex process called teaching, it seems fair to the prospective teacher to consider both marks in assessing success. As stated before, the course mark was given by the subject tutor, but the examination papers were marked first by internal examiners and were then checked by external examiners.

Teaching ability is more difficult to assess and could be judged fairly only by collecting data over the whole teaching career of a student, showing positions held, salary earned, and success of pupils. Even then it would be impossible to draw valid conclusions. Our criterion therefore must be based on success that can be measured within the college career and for this investigation the final teaching mark was used. This mark was on an A to E scale, which provides for twelve grades, and is awarded first of all by the training college supervisor. Then a large sample of students is checked by a group of visiting external examiners, who agree on the final mark with the college staff. The teaching mark is open to criticism on the grounds that:-

- (1) it is awarded by a few assessors who have seen the student for a limited period of time (Cattell <sup>(30)</sup>);
- (2) most of the students are not fully mature and this mark in no way indicates their ultimate achievement;
- (3) we are very vague as to exactly what it measures (Thomson <sup>(31)</sup>); and
- (4) it is based on the work of students in rather artificial circumstances and does not give much indication of the way a student would teach a full time-table commitment throughout many years. Work by Tudhope <sup>(32)</sup> and Collins <sup>(33)</sup> shows the correlation between final teaching practice marks and later

assessment marks by headteachers and others to be fairly high, but variable. It is still however the method used in most training colleges to judge teaching efficiency and most training college staffs consider that it furnishes a reasonably reliable indication of the type of teacher a student will become.

The distribution of students in the 1960 and 1961 entries is shown in Appendix I. It will be seen that in addition to the division into men and women, the students also differ in that some pursue the study of two academic subjects and the remainder only one. Thus in each entry, the male and female groups are each sub-divided into two-subject and one-subject students, giving a total of four main groups. In order to give fair consideration to these four groups, it was decided to make an analysis of the marks, which were to be used as the criteria of success, to see whether there were any significant differences between them. It was seen (Appendix II) that some of the marks were significantly different for the men and the women and for the 1960 and 1961 entries. Since the investigation was attempting to discover any improvement in 1961 selection over that for 1960, and because of these significant differences between the years, it was decided to keep the results for the two entries completely separate. The results for men and women also were treated separately because again there were significant differences in the marks, and because of much more rigid selection due to a large excess of women applicants it was

thought that potentially the women were better teachers. Examination of the criteria marks also indicated some significant differences between the two academic and one academic subject students. To deal with this, there were two main possibilities:-

(a) to treat the two groups separately thus by-passing the problem; or

(b) to add the marks in both subjects for those students who were taking two subjects, and then to standardize them to the same mean and standard deviation as the marks of the one subject students. Although treating the groups separately meant that small numbers were involved in some groups, it was thought preferable to standardization which assumes that the two groups are similar in attainment.

Thus the criteria of success used were:-

1. the teaching practice mark;
2. the Education theory examination mark;
3. the Education theory course mark;
4. the sum of the academic examination marks for two academic subject students;
5. the sum of the academic course marks for two academic subject students;
6. the academic examination mark for one academic subject students;
- and 7. the academic course mark for one academic subject students.

### The Predictors Investigated

All techniques for selection have very definite limitations. In the case of very large numbers of those examined it is only possible to assess the probability of success and not to give a firm judgement on whether they are likely to be successful or not in the training college course. Whenever a selection technique is used it is quite certain that some wrong decisions will be made, but a successful technique reduces the number of wrong decisions to a minimum. Theoretically it should ensure that the suitable student is accepted and the unsuitable one rejected. For men applicants this is roughly what does happen, but for women students with the large excess of applicants already mentioned, the problem is to reject the least suitable people and retain the most suitable.

One of the major difficulties in assessing the effectiveness of our selection devices is that whereas we can follow the college careers of the students who are accepted by the college, we have no follow-up study on the success or failure of our rejects. There is no doubt that a large number of these gain entry to other training colleges and become qualified teachers, but we cannot compare them with the students who were accepted because of lack of information. Thus the success of our predictors can be judged only on the basis of the students who were accepted for entry, by considering whether a good or poor performance in the predictor is associated with the good or poor

performance in the criteria of success.

The interview as a predictor was the first to be assessed because it is probably the most important single factor in the selection technique. As has been stated previously, students in the 1960 entry were interviewed only by the Principal of the college, whereas for the 1961 entry, students who were able to attend the training college were interviewed independently by two members of the college staff and this was followed by a shorter interview with the Principal who had available the standardized reports of the other members of staff. For both entries, the final assessment was made by the Principal on an A to E scale giving twelve possible grades. The correlations between the interview mark and the criteria of success were calculated using the Pearson product moment  $r$ . Although this assumes normal distribution of the two variables, in practice this condition is seldom fulfilled rigorously. The distributions in these cases were examined and found to be approximately normal with no marked skewness or bi-modal characteristics, although there was a truncation in the lower tail of the interview distribution due to the rejection of applicants below a certain standard. The correlations with the interview mark are shown in Table 1.

The training college demands a minimum of five passes at Ordinary level of the G.C.E. from its students and exceptions are made to this requirement only in rare cases. Any

investigation into the use of Ordinary level results must assess the value of either passes at Ordinary level in excess of the five demanded, or the marks actually obtained in the Ordinary level examination. In this study the marks or grades were not available and it was necessary to use the number of passes in the Ordinary level examination as the predictor, realizing that the distribution of this variable would show again a truncated tail at the lower end. Since the total number of passes obtained by a student was often the accumulated result of several attempts, the final college marks were also correlated with the number of passes in Ordinary level at the first attempt by the student. Although this has its disadvantages, it was considered to be a better estimate of ability, this view being supported by several investigators. The results of the correlations with these two predictors are shown in Tables 2 & 3.

Another major predictor of success that had to be considered was the Advanced level of the G.C.E., an examination which is taken by most students preparing to enter a training college. However, the majority of these are interviewed, and accepted or rejected, before the Advanced level results become available. It was thought that this probably removed one of the most reliable predictors from the selection procedure and to investigate this, the Advanced level results were correlated with the criteria of success. Since the majority of the



women and many of the men applicants had not taken the Advanced Level examinations when interviewed, the headteacher's estimate of probable success in Advanced Level, given for both the 1960 and 1961 entry, was considered important. Thus the estimate of the probable number of Advanced Level passes was correlated also with the final college marks to assess its value as a predictor.

The Pearson  $r$  coefficient assumes that the variables correlated are both normally distributed, are continuous, and the relationship between them is rectilinear. When using the number of Advanced Level passes or the headteacher's estimate as the variable, marked skewness was shown in some cases, notably with the men students. Under these circumstances it was decided to use a non-parametric statistic and Kendall's tau coefficient was chosen. (35) This does not require assumptions about the form of the distribution and is suitable where a variable is measured in a small number of discrete categories. It is very conservative in its estimation of correlation however, and the product moment  $r$  coefficient was preferred where no evidence of skewness was shown. The results are shown in Tables 4 and 5.

These correlations gave some indication of the relationship between general success in the Advanced Level and training college, but in many cases the subjects that were taken in the college course were not those in which a pass had been obtained

in the Advanced level examination. Since the college courses were very much in a stage of transition and there was an attempt to move away from the type of work associated with the Advanced level syllabuses, it was decided to investigate the value of an 'A' level pass in a subject later studied at training college. This was done by correlating both the academic examination and course work results with possession or non-possession of a pass in that subject at Advanced level of G.C.E. Because the majority of students previously had studied at Advanced level their main academic subjects in college, possession or non-possession of an examination pass was regarded not as a true dichotomy but representing an underlying normal distribution. For this reason biserial  $r$  was used for the correlation and the results are shown in Table 6. General Science as a college subject occupies a unique position in that it is regarded as a double subject and is a mixture of most scientific subjects. It was thought that a single pass in a Science subject at Advanced level was not comparable with a pass at the same level in the other college subjects, so two passes at Advanced level in scientific subjects were taken as the criterion for the biserial correlation. Because of a fairly large discrepancy in the distribution of final marks between the various subjects, the results for the 1960 entry only were broken down into academic subjects and are shown in Table 7.

Since in some subjects the number of students involved was very small, the results are shown not as correlations but in diagrammatic form.

### A Further Study of the Interview

#### (A) Factors Affecting the Interview Assessment Mark

It has been stated already that probably the interview was the most important single device in the selection technique. Other investigations have indicated that it is probably the least reliable method of selection. For these reasons, a more detailed study of the interview mark was made, to see how it correlated with other information available to the interviewer, perhaps indicating to what extent the interviewers were influenced by this. For the interviewer, among the information that was available to help him to assess the student's ability and potential was:-

- (1) the number of passes obtained in the G.C.E. Ordinary level examination;
- (2) the number of passes obtained in the first attempt at Ordinary level;
- (3) the headteacher's estimate of the probable number of passes to be obtained at Advanced level, if not already taken;
- (4) the actual number of passes at Advanced level if taken;
- (5) for 1961 entry, the headteacher's estimate of the candidate's suitability for teaching;

(6) for 1961 entry, the headteacher's estimate of the candidate's intellectual ability.

To see their possible effect on the interviewmark, the latter was correlated with (1), (2), (3) and for the 1961 entry, (5) and (6). Because it was known for only a minority of students at interview, (4) was not used in the correlations. Partial correlation was not used because it was known that the inter-correlations between (1), (2), (3) and (4) were very low and mainly non-significant. The results are set out in Table 8.

In addition to the information given above, one fact elicited at interview was the occupation of the student's father when the student was still living in the parental home, or his own occupation when living in a home of his own. The purpose of this was to gain some knowledge of the home background since it possibly has some relation to college success although most investigations have indicated that it does not. Since previous studies have indicated also that interviewers are affected by such "misleading" factors as manners, dress, voice and home background, it was thought useful to try to assess the effect of a knowledge of the applicant's home background on the interview mark. This was done by categorizing the father's occupation (or the students if living separately) into five groups under the headings (i) Professional and managerial, (ii) Clerical, (iii) Skilled, (iv) Semi-skilled and (v) Unskilled as

described fully in Appendix IV of "Early Leaving" (34).  
Some minor changes were made to the classification as laid out  
in that report:-

(a) All shop assistants were placed in group IV to distinguish  
them from shop owners and managers of small businesses in  
group III;

(b) Professionally qualified engineers were placed in group I,  
other engineers in group III;

(c) Travellers and representatives were placed in group III.

Having done this, Table 9 was drawn up showing the relationship  
between the occupational group and the interview mark.

(B) The Validity of the Estimates by the Head Teacher

Since these estimates were available at the interview and  
could be used by the interviewer to help in assessing the  
candidate, they were studied to see how successful they were  
as predictors. For the 1960 entry, the only estimate made by  
the headteacher was the probable success in Advanced level  
examinations where the candidate was to take the examination  
after the interview. Once again the men and women applicants  
were taken separately since a previous investigation (20) had  
found headmistresses to be rather more optimistic about success  
than headmasters. In doing this, it was realized that many  
women applicants were from co-educational schools mostly with  
men headteachers. The estimated number of Advance level passes  
was correlated against the actual number of passes subsequently

obtained by the student. This was done also for the 1961 entry, and in addition,

- (a) the estimate of suitability for teaching was correlated with the college final teaching practice mark, and
- (b) the estimate of intellectual ability was correlated with the academic course and examination marks, again keeping separate the two and one-subject students. The results are shown in Table 10.

To see how these estimates were inter-related, the estimate of suitability for teaching was correlated with the estimate of intellectual ability and with the estimate of probable passes in Advanced Level; the estimate of intellectual ability was further correlated with the estimate of Advanced Level passes and with the actual number of Advanced Level passes, using tau-c coefficients where the distribution of the variables was asymmetrical. It was thought that these correlations, shown in Table 11, would give some indication of any 'halo' effect in the various estimates.

(C) The Use of Multiple Predictors and Weighted Criteria of Success

Since the interview mark, the headteacher's estimate of success at Advanced level, and the number of Ordinary level passes at the first attempt, were probably to be regarded as the major predictors for the 1960 entry, the multiple correlation between these three and each of the criteria of success was found. The intention was to see whether consideration of the

three together produced a significant increase over the correlations individually with the final college marks. The results are shown in Table 12.

Undoubtedly the teaching practice mark obtained at college has considerable predictive value for later success in a teaching career, but probably many factors not measured fully by this mark, because of the artificial situation involved in teaching practice assessment, would increase its validity if considered with it. Such factors are intelligence, persistence and a sound knowledge of academic subjects, and they are all measured to some extent by the academic course and examination marks. Following a suggestion made, a weighted criterion of college success was calculated, which was thought to be a better guide to future success in the teaching profession than just the final teaching mark. This was then correlated with the interview mark and the result is shown again in Table 12. In order to obtain the weighted criterion, the final teaching practice mark and the academic course and examination marks were standardized to a mean of 0 and  $\sigma$  of 1. Then the teaching practice mark was doubled and added to the others, thus giving it the same importance as the sum of the academic examination and course marks.

SECTION IV - Experimental Results

TABLE 1

A. Correlations with Preliminary Interview - 1960 Entry

	Subject	Correlation Variable No.2	Product Moment r	n	Level of Significance
1.	All Students	Final Teaching Practice Mark	+0.037	170	-
2.	All Women	Final Teaching Practice Mark	-0.030	86	-
3.	All Men	Final Teaching Practice Mark	+0.022	84	-
4.	All Women	Education Course Mark	+0.05	85	-
5.	All Women	Education Examination Mark	+0.21	84	-
6.	All Men	Education Course Mark	-0.07	84	-
7.	All Men	Education Examination Mark	-0.05	84	-
8.	2 Subject Women	Academic Course Mark	+0.25	32	-
9.	2 Subject Women	Academic Examination Mark	+0.08	32	-
10.	1 Subject Women	Academic Course Mark	+0.10	53	-
11.	1 Subject Women	Academic Examination Mark	-0.02	53	-
12.	2 Subject Men	Academic Course Mark	-0.10	41	-
13.	2 Subject Men	Academic Examination Mark	+0.15	41	-
14.	1 Subject Men	Academic Course Mark	+0.02	43	-
15.	1 Subject Men	Academic Examination Mark	0.00	43	-



TABLE 1 (Cont.)

B. CORRELATIONS WITH PRELIMINARY INTERVIEW - 1961 ENTRY

	SUBJECT	CORRELATION VARIABLE No.2	Product Moment r	n	Level of Significance
1.	All Women	Final Teaching Practice Mark	+0.30	103	0.01 level
2.	All Men	Final Teaching Practice Mark	+0.19	89	-
3.	All Women	Education Course Mark	+0.22	103	0.05 level
4.	All Women	Education Examination Mark	+0.13	103	-
5.	All Men	Education Course Mark	+0.03	89	-
6.	All Men	Education Examination Mark	+0.04	89	-
7.	2 Subject Women	Academic Course Mark	+0.34	27	-
8.	2 Subject Women	Academic Examination Mark	+0.03	27	-
9.	1 Subject Women	Academic Course Mark	+0.05	76	-
10.	1 Subject Women	Academic Examination Mark	-0.03	76	-
11.	2 Subject Men	Academic Course Mark	+0.32	37	0.05 level
12.	2 Subject Men	Academic Examination Mark	+0.29	37	-
13.	1 Subject Men	Academic Course Mark	+0.30	52	0.05 level
14.	1 Subject Men	Academic Examination Mark	+0.31	52	0.05 level

TABLE 2

A. CORRELATIONS WITH THE NUMBER OF ORDINARY LEVEL PASSES - 1960 ENTRY

	SUBJECT	CORRELATION VARIABLE No.2	Product Moment r	n	Level of Significance
1.	All Women	Final Teaching Practice Mark	+0.23	88	0.05 level
2.	All Men	Final Teaching Practice Mark	- 0.08	87	-
3.	All Women	Education Course Mark	+0.23	88	0.05 level
4.	All Women	Education Examination Mark	+0.17	87	-
5.	All Men	Education Course Mark	+0.07	87	-
6.	All Men	Education Examination Mark	+0.16	87	-
7.	2 subject Women	Academic Course mark	0.00	33	-
8.	2 subject Women	Academic Examination Mark	+0.14	33	-
9.	1 subject Women	Academic Course mark	+0.40	55	0.01 level
10.	1 subject Women	Academic Examination Mark	+0.35	55	0.01 level
11.	2 subject Men	Academic Course mark	+0.15	41	-
12.	2 subject Men	Academic Examination Mark	+0.15	41	-
13.	1 subject Men	Academic Course Mark	-0.09	46	-
14.	1 subject Men	Academic Examination Mark	-0.17	46	-

B. CORRELATIONS WITH THE NUMBER OF ORDINARY LEVEL PASSES - 1961 ENTRY

	SUBJECT	CORRELATION VARIABLE No.2	Product Moment r	n	Level of Significance
1.	All Women	Final Teaching Practice Mark	+0.08	109	-
2.	All Men	Final Teaching Practice Mark	+0.07	92	-
3.	All Women	Education Course Mark	+0.19	109	0.05 level
4.	All Women	Education Examination Mark	+0.13	109	-
5.	All Men	Education Course Mark	+0.10	92	-
6.	All Men	Education Examination Mark	+0.14	92	-
7.	2 Subject Women	Academic Course Mark	+0.21	30	-
8.	2 Subject Women	Academic Examination Mark	+0.31	30	-
9.	1 Subject Women	Academic Course Mark	+0.11	79	-
10.	1 Subject Women	Academic Examination Mark	- 0.08	79	-
11.	2 Subject Men	Academic Course Mark	+0.03	39	-
12.	2 Subject Men	Academic Examination Mark	+0.18	39	-
13.	1 Subject Men	Academic Course Mark	+0.14	53	-
14.	1 Subject Men	Academic Examination Mark	+0.19	53	-

TABLE 3

A. CORRELATIONS WITH THE NUMBERS OF ORDINARY LEVEL PASSES AT FIRST ATTEMPT - 1960 ENTRY

SUBJECT	CORRELATION VARIABLE No.2	Product Moment r	n	Level of Significance
1. All Women	Final Teaching Practice Mark	+0.26	88	0.05 level
2. All Men	Final Teaching Practice Mark	+0.08	87	-
3. All Women	Education Course Mark	+0.28	88	0.01 level
4. All Women	Education Examination Mark	+0.25	87	0.05 level
5. All Men	Education Course Mark	+0.12	87	-
6. All Men	Education Examination Mark	+0.07	87	-
7. 2 Subject Women	Academic Course Mark	+0.21	33	-
8. 2 Subject Women	Academic Examination Mark	+0.49	33	0.01 level
9. 1 Subject Women	Academic Course Mark	+0.45	55	0.01 level
10. 1 Subject Women	Academic Examination Mark	+0.41	55	0.01 level
11. 2 Subject Men	Academic Course Mark	+0.12	41	-
12. 2 Subject Men	Academic Examination Mark	+0.05	41	-
13. 1 Subject Men	Academic Course Mark	-0.03	46	-
14. 1 Subject Men	Academic Examination Mark	-0.12	46	-

TABLE 3 (Cont)

B. CORRELATIONS WITH THE NUMBER OF ORDINARY LEVEL PASSES AT FIRST ATTEMPT - 1961 ENTRY

SUBJECT	CORRELATION VARIABLE No.2	Product Moment r	n	Level of Significance
1. All Women	Final Teaching Practice Mark	-0.04	109	-
2. All Men	Final Teaching Practice Mark	+0.06	92	-
3. All Women	Education Course Mark	+0.13	109	-
4. All Women	Education Examination Mark	+0.06	109	-
5. All Men	Education Course Mark	+0.26	92	0.05 level
6. All Men	Education Examination Mark	+0.14	92	-
7. 2 Subject Women	Academic Course Mark	+0.28	30	-
8. 2 Subject Women	Academic Examination Mark	+0.50	30	0.01 level
9. 1 Subject Women	Academic Course Mark	0.00	79	-
10. 1 Subject women	Academic Examination Mark	-0.04	79	-
11. 2 Subject Men	Academic Course Mark	+0.16	39	-
12. 2 Subject Men	Academic Examination Mark	+0.22	39	-
13. 1 Subject Men	Academic Course Mark	+0.13	53	-
14. 1 Subject Men	Academic Examination Mark	+0.33	53	0.05 level

TABLE 4

A. CORRELATIONS WITH THE NUMBER OF ADVANCED LEVEL PASSES - 1960 ENTRY

	SUBJECT	CORRELATION VARIABLE No.2	Pearson r	n	Level of Sig.	Tau c	Level of Sig.
1.	All Women	Final Teaching Practice Mark	0.00	88	-	+0.012	-
2.	All Men	Final Teaching Practice Mark	-0.07	87	-	-0.066	- *
3.	All Women	Education Course Mark	+0.13	88	-	+0.102	-
4.	All Women	Education Examination Mark	+0.19	87	-	+0.157	-
5.	All Men	Education Course Mark	+0.13	87	-	+0.055	- *
6.	All Men	Education Examination Mark	+0.32	87	0.01 level	+0.287	0.05 level *
7.	2 Subject Women	Academic Course Mark	+0.24	33	-	+0.198	-
8.	2 Subject Women	Academic Examination Mark	+0.22	33	-	+0.188	-
9.	1 Subject Women	Academic Course Mark	+0.40	55	0.01 level	+0.346	0.01 level
10.	1 Subject Women	Academic Examination Mark	+0.23	55	-	+0.184	-
11.	2 Subject Men	Academic Course Mark	+0.37	41	0.05 level	+0.330	0.05 level
12.	2 Subject Men	Academic Examination Mark	+0.27	41	-	+0.252	-
13.	1 Subject Men	Academic Course Mark	+0.09	46	-	+0.095	- *
14.	1 Subject Men	Academic Examination Mark	+0.12	46	-	+0.193	- *

\* Indicates a skewed distribution where Tau<sub>c</sub> is to be preferred.

TABLE 4 (Cont.)

B. CORRELATIONS WITH THE NUMBER OF ADVANCED LEVEL PASSES - 1961 ENTRY

	SUBJECT	CORRELATION VARIABLE No.2	Pearson r	n	Level of Sig.	Tau c	Level of Sig.
1.	All Women	Final Teaching Practice Mark	+0.12	109	-	+0.099	-
2.	All Men	Final Teaching Practice Mark	+0.22	92	0.05 level	+0.132	- *
3.	All Women	Education Course Mark	+0.15	109	-	+0.139	-
4.	All Women	Education Examination Mark	+0.25	109	0.01 level	+0.190	0.05 level
5.	All Men	Education Course Mark	+0.25	92	0.05 level	+0.190	0.05 level *
6.	All Men	Education Examination Mark	+0.35	92	0.01 level	+0.267	0.01 level *
7.	2 Subject Women	Academic Course Mark	+0.30	29	-	+0.390	0.01 level
8.	2 Subject Women	Academic Examination Mark	+0.24	29	-	+0.259	-
9.	1 Subject Women	Academic Course Mark	+0.17	79	-	+0.154	-
10.	1 Subject Women	Academic Examination Mark	+0.13	79	-	+0.165	-
11.	2 Subject Men	Academic Course Mark	+0.51	39	0.01 level	+0.442	0.01 level *
12.	2 Subject Men	Academic Examination Mark	+0.43	39	0.01 level	+0.351	0.01 level *
13.	1 Subject Men	Academic Course Mark	+0.44	53	0.01 level	+0.437	0.01 level *
14.	1 Subject Men	Academic Examination Mark	+0.37	53	0.01 level	+0.318	0.05 level *

\* Indicates a skewed distribution where Tau<sub>c</sub> is to be preferred.

TABLE 5

A. CORRELATIONS WITH THE HEADTEACHER'S ESTIMATE OF THE NUMBER OF ADVANCED LEVEL PASSES - 1960 ENTRY

SUBJECT	CORRELATION VARIABLE No.2	Pearson r	n	Level of Sig.	Tau <sub>c</sub>	Level of Sig.
1. All Women	Final Teaching Practice Mark	+0.09	78	-	+0.062	-
2. All Men	Final Teaching Practice Mark	+0.11	51	-	+0.118	-
3. All Women	Education Course Mark	+0.12	78	-	+0.081	-
4. All Women	Education Examination Mark	+0.33	77	0.01 level	+0.193	0.05 level
5. All Men	Education Course Mark	+0.28	51	0.05 level	+0.236	0.05 level
6. All Men	Education Examination Mark	+0.06	51	-	+0.052	-
7. 2 Subject Women	Academic Course Mark	+0.24	29	-	+0.146	- *
8. 2 Subject Women	Academic Examination Mark	+0.14	29	-	+0.150	- *
9. 1 Subject Women	Academic Course Mark	+0.36	49	0.05 level	+0.288	0.01 level
10. 1 Subject Women	Academic Examination Mark	+0.14	49	-	+0.217	-
11. 2 Subject Men	Academic Course Mark	+0.38	27	0.05	+0.300	0.05 level *
12. 2 Subject Men	Academic Examination Mark	+0.15	27	-	+0.091	- *
13. 1 Subject Men	Academic Course Mark	-0.29	24	-	-0.266	- *
14. 1 Subject Men	Academic Examination Mark	-0.09	24	-	-0.083	- *



Indicates a skewed distribution where Tau<sub>c</sub> is to be preferred.



TABLE 5 (Cont.)

B. CORRELATIONS WITH THE HEADTEACHER'S ESTIMATE OF THE NUMBER OF ADVANCED LEVEL PASSES - 1961 ENTRY

SUBJECT	CORRELATION VARIABLE No.2	Pearson r	n	Level of Sig.	Tau <sub>c</sub>	Level of Sig.
1. All Women	Final Teaching Practice Mark	+0.08	78	-	+0.068	-
2. All Men	Final Teaching Practice Mark	+0.04	55	-	-0.014	- *
3. All Women	Education Course Mark	+0.23	78	0.05 level	+0.206	0.05 level
4. All Women	Education Examination Mark	+0.23	78	0.05 level	+0.188	0.05 level
5. All Men	Education Course Mark	+0.08	55	-	+0.106	- *
6. All Men	Education Examination Mark	-0.02	55	-	-0.091	- *
7. 2 Subject Women	Academic Course Mark	+0.35	23	-	+0.312	-
8. 2 Subject Women	Academic Examination Mark	+0.21	23	-	+0.202	-
9. 1 Subject Women	Academic Course Mark	+0.17	55	-	+0.173	-
10. 1 Subject Women	Academic Examination Mark	-0.01	55	-	+0.073	-
11. 2 Subject Men	Academic Course Mark	+0.61	23	0.01 level	+0.569	0.01 level
12. 2 Subject Men	Academic Examination Mark	+0.64	23	0.01 level	+0.524	0.01 level
13. 1 Subject Men	Academic Course Mark	+0.03	32	-	-0.049	- *
14. 1 Subject Men	Academic Examination Mark	-0.01	32	-	-0.089	- *

\* Indicates a skewed distribution where Tau<sub>c</sub> is to be preferred.

TABLE 6

A. CORRELATIONS OF POSSESSION OF AN ADVANCED LEVEL PASS IN A SUBJECT WITH COLLEGE FINAL MARKS IN THAT SUBJECT - 1960 ENTRY

	SUBJECT	Correlation Variables	Biserial r	n	Level of Sig.
1.	All Women Except G. Science	Possession of 'A' Level Pass/Course Mark	+0.17	101	-
2.	All Women Except G. Science	Possession of 'A' Level Pass /Examination Mark	+0.29	107	0.05 level
3.	All Men Except G. Science	Possession of 'A' Level Pass/Course Mark	+0.30	97	0.05 level
4.	All Men Except G. Science	Possession of 'A' Level Pass/Examination Mark	+0.27	97	0.05 level
5.	All G. Science	Possession of 2 Science 'A' Levels/Course Mark	+0.39	26	-
6.	All G. Science	Possession of 2 Science 'A' Levels/Examination Mark	+0.30	26	-

B. CORRELATIONS OF POSSESSION OF AN ADVANCED LEVEL PASS IN A SUBJECT WITH COLLEGE FINAL MARKS IN THAT SUBJECT - 1961 ENTRY

	SUBJECT	CORRELATION VARIABLES	Biserial r	n	Level of Sig.
1.	All Women Except G. Science	Possession of 'A' Level Pass/Course Mark	+0.20	109	-
2.	All Women Except G. Science	Possession of 'A' Level Pass/Examination Mark	+0.10	109	-
3.	All Men Except G. Science	Possession of 'A' Level Pass/Course Mark	+0.38	91	0.01 level
4.	All Men Except G. Science	Possession of 'A' Level Pass/Examination Mark	+0.31	91	0.05 level
5.	All G. Science	Possession of 2 Science 'A' Levels/Course Mark	+0.23	35	-
6.	All G. Science	Possession of 2 Science 'A' Levels/Examination Mark	+0.25	35	-

TABLE 7.

TABLES SHOWING POSSESSION OR NON-POSSESSION OF AN ADVANCED LEVEL PASS IN A SUBJECT, AND THE GRADE OBTAINED IN THAT SUBJECT IN THE FINAL COLLEGE EXAMINATION - 1960 ENTRY

A. MATHEMATICS

Grade in College Final Examination

	Fail	Pass	Credit	Distinction	Subject Dropped
'A' Level Pass Men in Mathematics Women		5 7	2 3	1 3	- 3
No 'A' Level Pass in Maths Men Women		5 4	1 1	- 1	3 1

B. PHYSICS

Grade in College Final Examination

	Fail	Pass	Credit	Distinction	Subject Dropped
'A' Level Pass Men in Physics Women		4 2	1 2		1
No 'A' Level Pass in Physics Men Women		1 1		1	2

C. BIOLOGY

Grade in College Final Examination

	Fail	Pass	Credit	Distinction	Subject Dropped
'A' Level Pass Men in Biology Women		1 1	1 1		1
No 'A' Level Pass in Biology Men Women	1	2 3		1	1 2

TABLE 7 (Cont.)

D. ENGLISH

Grade in College Final Examination

		Fail	Pass	Credit	Distinction	Subject Dropped
'A' Level Pass in English	Men		6	3		2
	Women		11	2	1	2
No 'A' Level pass in English	Men		5			5
	Women		4			5

E. HISTORY

Grade in College Final Examination

		Fail	Pass	Credit	Distinction	Subject Dropped
'A' Level Pass in History	Men		5	2		5
	Women		3	1	1	1
No 'A' Level Pass in History	Men		2	1	1	2
	Women		1	1		

F. GEOGRAPHY

Grade in College Final Examination

		Fail	Pass	Credit	Distinction	Subject Dropped
'A' Level Pass in Geography	Men	1	8	3	2	3
	Women		4	3	1	
No 'A' Level Pass in Geography	Men	2	5	1		1
	Women		2	1		1

TABLE 7 (Cont.)

G. DIVINITY

Grade in College Final Examination

		Fail	Pass	Credit	Distinction	Subject Dropped
'A' Level Pass in Divinity	Men			1		
	Women		1	1	1	
No 'A' Level Pass in Divinity	Men		3	2	1	
	Women		3	1	1	1

H. MUSIC

Grade in College Final Examination

		Fail	Pass	Credit	Distinction	Subject Dropped
'A' Level Pass in Music	Men				1	
	Women			2		
No 'A' Level Pass in Music	Men		5	4		
	Women		9	2		3

I. ART AND CRAFTS

Grade in College Final Examination

		Fail	Pass	Credit	Distinction	Subject Dropped
'A' Level Pass In Art Subject	Men		2	1	2	1
	Women		4		1	1
No 'A' Level Pass in Art Subject	Men		1			
	Women		4	5		1

TABLE 7 (Cont.)

J. GENERAL SCIENCE

Grade in College Final Examination

	Fail	Pass	Credit	Distinction	Subject Dropped
Two Science Passes at 'A' Level Men		4			
Women		3	3		
One Science Pass at 'A' Level Men		4	1		
Women		4			1
No Science Pass at 'A' Level Men	1	5	1		
Women					

TABLE 8

A. FURTHER CORRELATIONS WITH THE INTERVIEW MARK - 1960 ENTRY

	Subject	Correlation Variable No.2	Product Moment r	n	Level of Sig.
1.	All Women	Number of Ordinary Level Passes	+0.18	95	-
2.	All Men	Number of Ordinary Level Passes	+0.09	92	-
3.	All Women	Number of 'O' Level Passes at First Attempt	-0.18	95	-
4.	All Men	Number of 'O' Level Passes at First Attempt	-0.01	92	-
5.	All Women	Headteacher's Estimate of 'A' Level Passes	+0.21	79	-
6.	All Men	Headteacher's Estimate of 'A' Level Passes	+0.13	52	-

B. FURTHER CORRELATIONS WITH THE INTERVIEW MARK - 1961 ENTRY

	Subject	Correlation Variable No. 2	Product Moment r	n	Level of Sig.
1.	All Women	Number of Ordinary Level Passes	+0.11	110	-
2.	All Men	Number of Ordinary Level Passes	+0.01	92	-
3.	All Women	Number of 'O' Level Passes at First Attempt	+0.17	110	-
4.	All Men	Number of 'O' Level Passes at First Attempt	0.00	92	-
5.	All Women	Headteacher's Estimate of 'A' Level Passes	+0.21	81	-
6.	All Men	Headteacher's Estimate of 'A' Level Passes	+0.03	55	-
7.	All Women	Headteacher's Estimate of Intellectual Ability	+0.26	96	0.05 level
8.	All Men	Headteacher's Estimate of Intellectual Ability	+0.20	73	-
9.	All Women	Headteacher's Estimate of Teaching Suitability	+0.47	98	0.01 level
10.	All Men	Headteacher's Estimate of Teaching Suitability	+0.23	73	0.05 level

TABLE 9 Home Occupational Group / Interview Grade - 1960 Entry

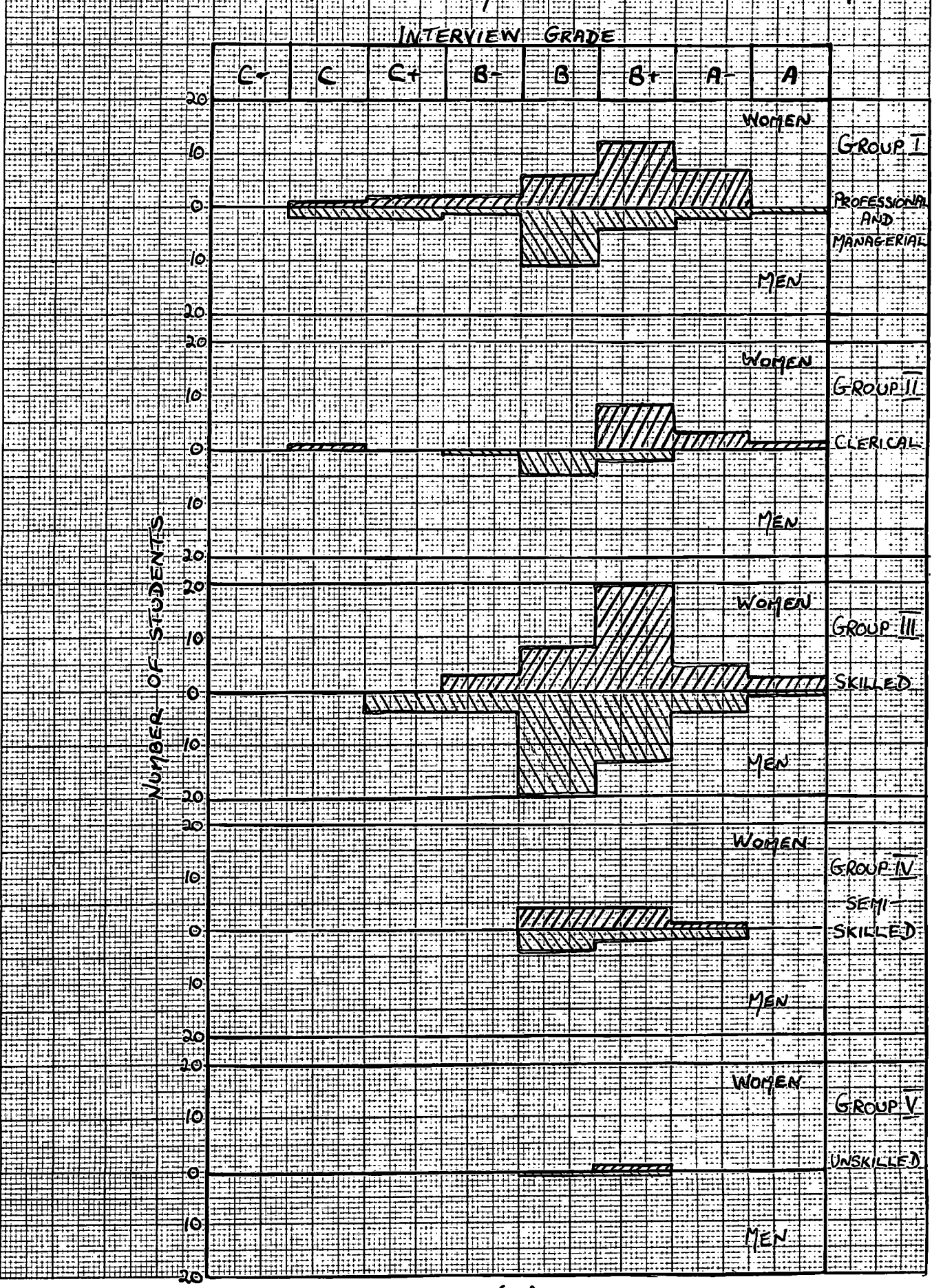




TABLE 4. Home Occupational Group / Interview Grade - 1961 Entry

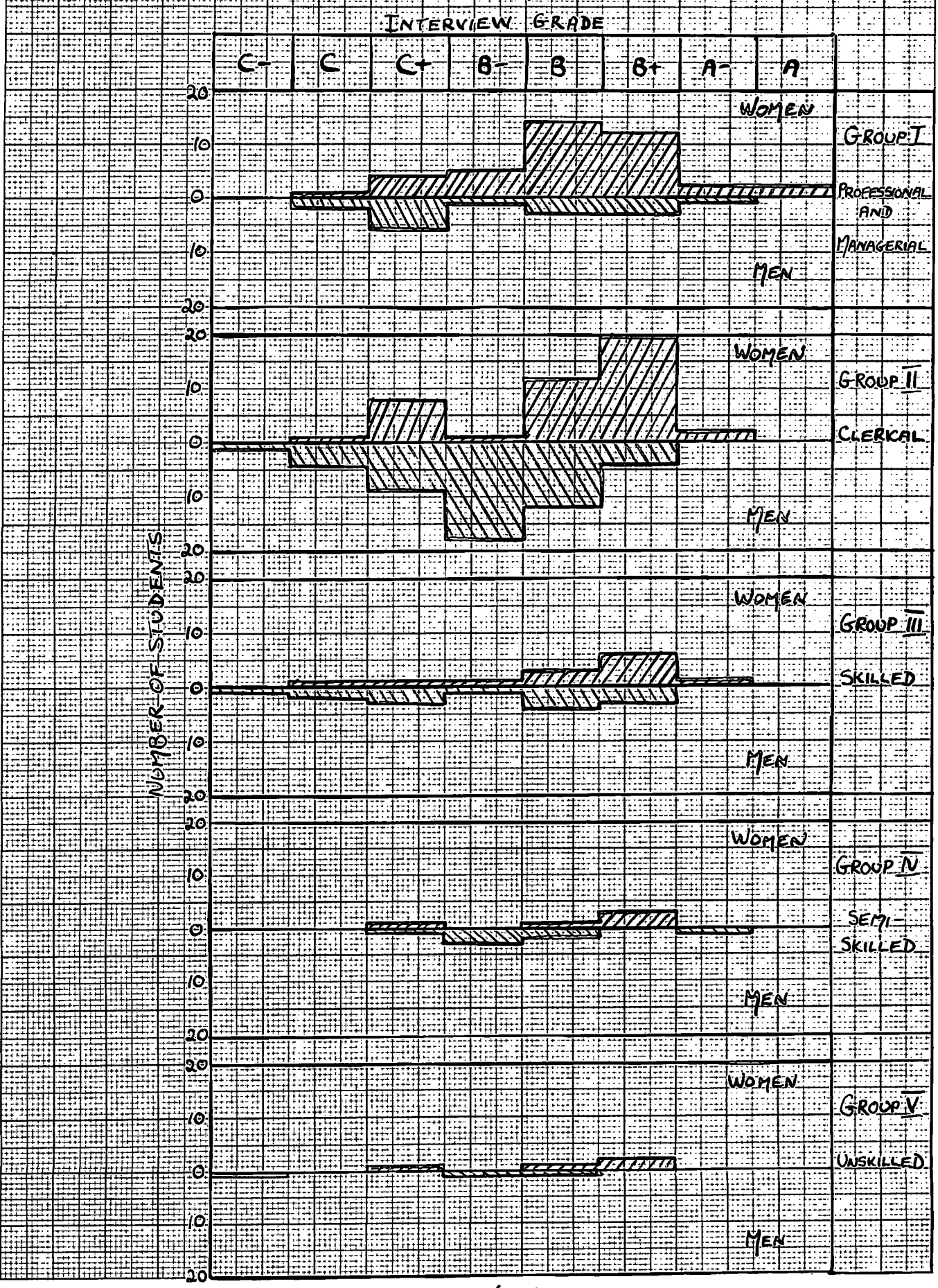


TABLE 4. Home Occupational Group / Interview Grade - Combined 1960 and 1961 Entries

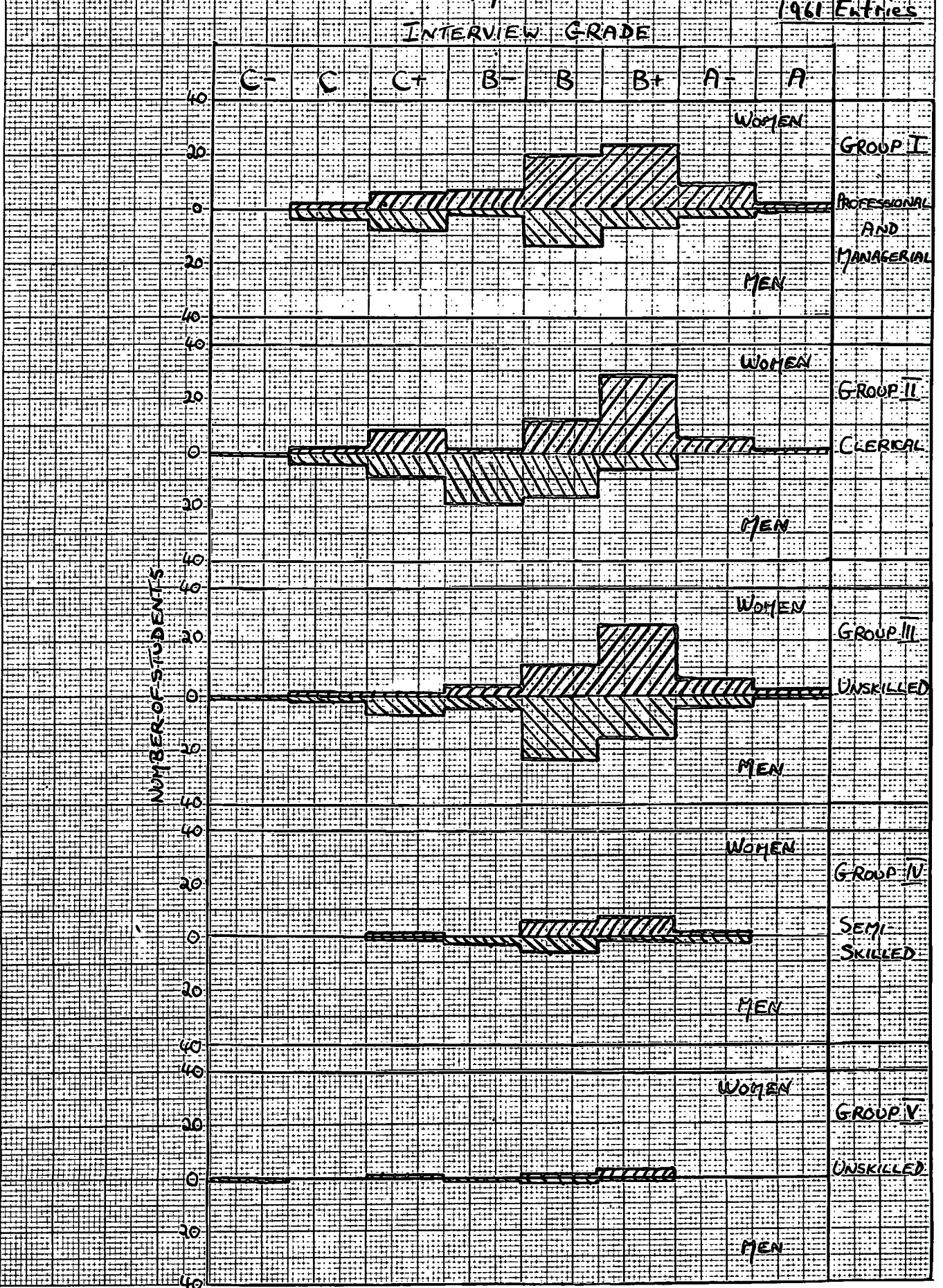


TABLE 10

A. CORRELATIONS WITH HEADTEACHERS' ESTIMATES - 1960 ENTRY

	Subject	Correlation Variables	Pearson r	n	Level of Sig.
1.	All Women	Estimate of 'A' Level Passes/ Actual 'A' Level Passes	+0.51	79	0.01 level
2.	All Men	Estimate of 'A' Level Passes/ Actual 'A' Level Passes	+0.35	52	0.01 level

B. CORRELATIONS WITH HEADTEACHERS' ESTIMATES - 1961 ENTRY

	Subject	Correlation Variables	Pearson r	n	Level of Sig.
1.	All Women	Estimate of 'A' Level Passes/ Actual 'A' Level Passes	+0.53	83	0.01 level
2.	All Men	Estimate of 'A' Level Passes/ Actual 'A' Level Passes	+0.35	57	0.01 level
3.	All Women	Estimate of Teaching Suitability/ Final Teaching Mark	+0.18	96	-
4.	All Men	Estimate of Teaching Suitability/ Final Teaching Mark	+0.09	72	-
5.	2 Subject Women	Estimate of Intellectual Ability/ Academic Course Mark	+0.33	28	-
6.	2 Subject Women	Estimate of Intellectual Ability/ Academic Exam. Mark	+0.31	28	-
7.	1 Subject Women	Estimate of Intellectual Ability/ Academic Course Mark	-0.06	66	-
8.	1 Subject Women	Estimate of Intellectual Ability/ Academic Exam. Mark	-0.14	66	-
9.	2 Subject Men	Estimate of Intellectual Ability/ Academic Course Mark	+0.31	31	-
10.	2 Subject Men	Estimate of Intellectual Ability/ Academic Exam. Mark	+0.41	31	0.05 level
11.	1 Subject Men	Estimate of Intellectual Ability/ Academic Course Mark	+0.22	41	-
12.	1 Subject Men	Estimate of Intellectual Ability/ Academic Exam. Mark	+0.23	41	-

TABLE 11

A. FURTHER CORRELATIONS WITH HEADTEACHERS' ESTIMATES - 1961 ENTRY

	SUBJECT	CORRELATION VARIABLES	Pearson r	n	Level of Sig.	Tau <sub>c</sub>	Level of Sig.
1.	All Women	Estimate of Intellectual Ability/Estimate of Teaching Suitability	+0.49	99	0.01 level		
2.	All Men	Estimate of Intellectual Ability/Estimate of Teaching Suitability	+0.51	76	0.01 level		
3.	All Women	Estimate of Teaching Suitability/Estimate of Number of 'A' Level Passes	+0.27	82	0.05 level		
4.	All Men	Estimate of Teaching Suitability/Estimate of Number of 'A' Level Passes	+0.38	56	0.01 level	+0.24	0.05 level *
5.	All Women	Estimate of Intellectual Ability/Estimate of Number of 'A' Level Passes	+0.45	79	0.01 level		
6.	All Men	Estimate of Intellectual Ability/Estimate of Number of 'A' Level Passes	+0.35	55	0.01 level	+0.17	
7.	All Women	Estimate of Intellectual Ability/Actual Number of Passes at 'A' Level	+0.26	100	0.01 level		
8.	All Men	Estimate of Intellectual Ability/Actual Number of Passes at 'A' Level	+0.29	76	0.01 level	+0.22	0.05 level *



Indicates a skewed distribution where Tau<sub>c</sub> is to be preferred.

TABLE 12

A. MULTIPLE CORRELATIONS OF THREE PREDICTORS WITH THE CRITERIA OF SUCCESS - 1960 ENTRY

	SUBJECT	VARIABLE No.1	Using Doolittle Method - Rl.234
1.	All Women	Final Teaching Practice Mark	+0.265
2.	All Men	Final Teaching Practice Mark	+0.114
3.	All Women	Education Examination Mark	+0.379
4.	All Men	Education Examination Mark	+0.093
5.	2 Subject Women	Academic Examination Mark	+0.492
6.	1 Subject Women	Academic Examination Mark	+0.422
7.	2 Subject Men	Academic Examination Mark	+0.167
8.	1 Subject Men	Academic Examination Mark	+0.187

VARIABLE No.2 - Headteachers' Forecast of Advanced Level Passes

VARIABLE No.3 - Number of Ordinary Level Passes at First Attempt

VARIABLE No.4 - Interview Mark

The Doolittle Method was used to obtain the value of Rl.234

B. CORRELATION OF INTERVIEW MARK WITH WEIGHTED CRITERION OF SUCCESS - 1961 ENTRY

Teaching Practice Mark - Weight 2

Academic Examination Mark - Weight 1

Academic Course Mark - Weight 1

All marks changed to  $\sigma$  marks to standardize, then weighted and added together, and correlated with interview mark

Product Moment  $r = +0.17$

SECTION V

Discussion of the Results

(a) The Analysis of Predictor Values

It is seen (Appendix II) that the women entering the college in 1960 and 1961 had achieved a greater number of passes at Ordinary and Advanced Level of the G.C.E. than the men, although the differences were not all significant. The mark given at the college interview, and the headteachers' estimates of suitability for teaching and intellectual ability, were also significantly better for the women than for the men in both entries. Thus the women students on entry were superior to the men, if superiority is measured by examination standards, interviews, and subjective impressions. It is important to remember, however, that the majority of the interviewers and headteachers were men and this may be reflected in the grades. One point of interest is that although selection of the women students was more rigorous than for the men, the standard deviations for the predictor values were not significantly different for men and women. This suggests that the academically good men candidates do not apply for entry to the training college in such large numbers as the corresponding women applicants.

The results show also that although the differences in the number of examination passes for the 1960 and 1961 entries are small, there is a significant drop in the interview grades from 1960 to 1961, which is greater for the men than for the women.

This may represent a stiffening of standards in the light of experience, or simply be the result of having an extended system of interviewing in some cases. It could also represent a slight drop in the intellectual ability of the 1961 entry compared with the previous year but this is doubtful.

One further point of interest is that the headteachers' estimate of the number of Advanced Level passes is greater than the actual number of passes for both men and women in both entries. The estimate was found to be more optimistic in the case of the men, and the over-estimate varied from 1.17 to 0.84 grades.

(b) Analysis of the Criteria of Success

In the final college examinations, the performance of the women was superior in general to that of the men, the differences being significant, however, in only a few cases. In the 1960 entry, the mean values of all the women's marks were better than those for the men, but rather surprisingly, for the 1961 entry the one-subject men were more successful than the corresponding women in the academic subject. For teaching practice, the marks for the women students were significantly better than those for the men only in the 1960 entry. When comparing the marks of the 1960 and 1961 entries, it can be seen that for the men the 1961 entry is slightly but non-significantly superior in marks to the 1960 entry, whereas for the women there is a significant lowering of the marks for the one-subject

students. The analysis also shows that in individual academic subjects, there is no significant difference between the results of the two-subject and one-subject students.

(c) The Interview Mark

For the 1960 entry, the preliminary interview mark shows low positive and negative non-significant correlations with the final college marks. For the 1961 entry, there is some improvement in the correlations but they are still low and only significant in the minority of cases. These results are in general agreement with previous studies already mentioned, which indicated that the interview was neither reliable nor valid as a predictor of later success in both academic studies and teaching practice. It is of interest however to see that the only correlation significant at the 0.01 level was concerned with the teaching practice of women students.

Table 8 shows that the interview mark does not correlate significantly with the other predictors used, except the headteachers' estimates of intellectual ability and teaching suitability for the 1961 entry. A candidate is called for interview after a preliminary consideration of his or her qualifications, but it seems possible that at the interview little consideration is given to examination results. As shown in Table 9, it would seem too that the home background, as measured by the father's occupation, has little effect



on the interview mark since a similar distribution of interview grades has been obtained for all the occupational groups.

(d) G.C.E. Results

The correlations of the number of Ordinary Level passes in G.C.E. with the final college marks are mainly low non-significant values. It would seem from these results that the main value of the Ordinary Level results is in preventing students with poor academic ability from applying for entry, by the insistence on a minimum standard of five passes. This predictor has probably little value because the passes at Ordinary Level have been accumulated by some students over three or four years, and by others have been obtained at the first attempt. If however we consider the number of Ordinary Level passes at the first attempt, only for the 1960 women entrants was this found to be the most valuable predictor, with correlations from low to reasonable, but almost all significant. For the men however and for the 1961 entry it was of no value in the prediction of success. The correlation coefficient was probably lowered because students at some schools were entered for only one or two subjects at the first attempt. It is common practice in these schools for students with above-average ability to be entered for English Language and one or two other subjects in order to reduce the later examination load. It is difficult when examining the results to distinguish these students from those who passed in only a few subjects through lack of ability,

but it probably lowers the correlation coefficient obtained.

The correlations obtained between the final college marks and the number of passes at Advanced Level were again low and non-significant with the exception of the 1961 men entry, where they ranged from low to reasonable and all were significant. Thus it would seem that G.C.E. results were of little use in predicting later success in college because of the small mainly non-significant correlation coefficients and also because they appeared not to be reliable from one year to the next.

The possession of an Advanced Level pass had a low but significant prediction value for success in that subject, if taken later at college, for men but not for women. This possibly means that women are prepared to work harder at college in order to close gaps in their knowledge, but there is no evidence to support this view. A closer look at the results for the 1960 entry in the individual subjects indicates that there was a slight advantage in seeking a distinction if one possessed an Advanced Level pass in the subject, whereas there was a slightly greater chance of failing or discontinuing the subject if one did not possess an Advanced Level pass in it.

#### (e) Headteachers' Estimates

It is seen that the headteachers' estimate of the probable number of Advanced Level passes is of no greater value than the other predictors that have been considered, and for the 1961 entry it is much less useful than the actual number of passes

obtained. The usefulness of the other estimates by the headteacher, intellectual ability and suitability for teaching, was negligible in predicting later success in academic work and teaching practice respectively. Even the estimates of the number of Advanced Level passes show only a low correlation with the actual number obtained for the men in both entries. It can be seen that a fairly substantial correlation exists between the estimate of intellectual ability and that of teaching suitability, but this is not great enough to suggest the existence of any considerable "halo" effect. Rather surprisingly, there is only a reasonable correlation between the estimate of intellectual ability and the estimate of the number of Advanced Level passes. Considering that the estimates of the number of Advanced Level passes were optimistic, one might be tempted to assume that the headteachers did not link intellectual ability with success in Advanced Level.

The low correlations obtained with the headteachers' estimates emphasize the difficulty in recognizing the qualities which make a good teacher. They also emphasize the need for a standardized assessment by the headteacher if the estimates are to be more reliable. Undoubtedly the standard on which the estimate is based will differ from school to school, according to size and locality, and unless a headteacher has a good knowledge of training college entrance standards, he can base his estimate only on the standard existing in his own school. It would probably be more helpful if the headmaster were asked

for details concerning the student's position in class, size of class, and the last class and examination results.

(f) Multiple Correlations and Weighted Criteria

The use of the weighted criterion to measure the effectiveness of the interview mark as a predictor of success merely serves to emphasize the small value of the correlation coefficient to be expected. In this study, the interview mark has in no way shown any practical value in predicting final college marks.

The use of multiple correlations involving the three predictors has no practical value, since the correlations obtained are not significantly greater than those obtained by correlating the number of Ordinary Level passes at the first attempt with the criteria of success. This is due to the low correlations of the criteria of success with the other two predictors.

(g) General Considerations and Conclusion

The low correlation coefficients obtained in this investigation are in general agreement with the results of previous studies. The correlations between the predictors and the criteria of success are somewhat lower than values found in corresponding studies using university students, indicating that some factors affecting the results may be peculiar to training colleges such as the comparatively greater difference between school and training college work than between school and university studies. The low values obtained for the

correlation coefficients may be explained in part by considering the factors which do lower the coefficient.

1. Any selection procedure which is successful produces a restriction in the ability range by cutting off the lower tail of the distribution of that ability. Because of this reduction in the spread of ability or of marks representing ability, univariate selection may result in a lowering of the correlation coefficient to an appreciable extent. The more successful the selection, the greater the restriction in range and possibly the greater the effect on the correlation coefficient. Even in the case of men students where rigorous selection by the college did not take place, the variance shown by the predictor values for men and women was similar, probably because selection had been applied by demanding five Ordinary Level passes at the lower limit and by providing university places at the upper limit. It would be possible to compensate to some extent for this restriction in range if information was available about the predictor values for the students who were rejected by the college.
2. The use of final results as the principal criteria of success is not without limitations. The standards are not fixed and invariable nor are they comparable between one subject and another. Since all subjects were grouped together in this study, because of the small numbers of students involved in individual departments of the college, the correlation was probably reduced.

3. The value of G.C.E. results as predictors is reduced by the college selecting from students involved in many different examining boards, and also by the variation in the standard of teaching achieved in the schools.
4. The subject combinations taken at school may or may not assist the work at the training college. It has been shown in general that there is a slight relationship between the two, but in some subjects, for example laboratory subjects, school training has a considerable beneficial effect on college work.
5. Motivation may be affected by the change from home to college, by mental, physical, and emotional breakdowns, by social activities at a mixed college, or even by the boredom induced in some students by three further years of academic study.

This study indicates that in this training college, for the men and women concerned in the 1960 and 1961 entries, the information and techniques available for selection were not capable of producing a reliable prediction of the final college marks of these men and women. Although this gives no grounds for complacency and strongly suggests that some parts of the selection procedure may be ineffective, it is important to remember the true function of this selection. As has been stated previously, it is not intended to forecast final college marks but to ensure that the best students are accepted by the

college and the least able ones are rejected. Although we have no facts concerning how many rejected students later become qualified teachers, and it probably is the majority, we do know that only a small percentage of those who were accepted failed to become qualified teachers. Close examination of the records of those students who failed or withdrew from the course, suggests that the factors which caused the failure were complex and not to be readily detected by the usual predictors. Some changes, such as consideration of grades in public examinations and a more detailed knowledge of the student's school career are suggested by other studies as possible methods for increasing the effectiveness of selection, and reducing any errors to the practical minimum.

SECTION VI

Summary of Conclusions

1. The women students accepted by the college in general are better qualified academically, achieve a higher grade at the interview, and obtain higher estimates of intellectual ability and teaching suitability from their headteachers than the men students.
2. The women students in general have more success than the men in the final college teaching practice and in the Theory of Education, but the academic subject results show no significant differences between men and women.
3. The preliminary interview and the number of passes in the G.C.E. have little value in predicting marks in both academic subjects and the final teaching practice at the end of the third year in college. For the 1960 entry the most successful predictor was the number of Ordinary Level passes obtained at the first attempt, but for the 1961 entry it was the number of Advanced Level passes. Possession of an Advanced Level pass in a subject has a slight value in predicting marks when that subject is studied later at college. Possession or non-possession of an Advanced Level pass probably increases the chance of gaining a distinction in that subject or failing, respectively.
4. The estimates made by the headteachers show no greater value than the G.C.E. results in predicting later success in both teaching practice and academic work. The various estimates



show little evidence of any 'halo' effect, and indeed these estimates, even of intellectual ability, show little relationship to the G.C.E. results or their own estimates of probable success in the G.C.E.

6. The interview mark probably is influenced only slightly by the G.C.E. results and by the headteachers' estimates. It is doubtful also whether the home background has any significant influence on the mark.

7. Since the correlations between the various predictors and the criteria of success are small, there is no practical value in considering multiple correlations of the main predictors with the criteria of success.

8. In spite of the failure of the selection procedure to predict later collegemarks with reliability, it is known that the number of students who failed to become qualified teachers was relatively small. As a delicate measuring instrument for detecting fine differences in ability and suitability for teaching the selection procedure is a failure, but as a device for weeding out potential failures it appears to achieve fair success. The procedure probably could be improved by removing those elements which have little value for prediction, and by substituting others which have been shown to be slightly more successful.

APPENDIX I - DISTRIBUTION OF STUDENTS

1960 ENTRY

Number Entering Course in 1960	One Main Subject			Two Main Subjects Initially			
	Total Number	Number Withdrawing or Transferring	Number Taking Exam.	Total Number	Number Dropping One Subject	Number Withdrawing or Transferring	Number Taking Exam.
Three-year men 96	38	3	35	58	12	6	52
Three-year women 100	53	5	48	47	7	4	43

1961 ENTRY

Number Entering Course in 1961	One Main Subject			Two Main Subjects Initially			
	Total Number	Number Withdrawing or transferring	Number Taking Exam.	Total Number	Number Dropping One Subject	Number Withdrawing or Transferring	Number Taking Exam.
Three-year men 97	42	2	40	55	13	3	52
Three-year women 116	72	4	68	44	12	3	41

APPENDIX II

A. AN ANALYSIS OF THE FINAL COLLEGE MARKS - THE CRITERIA OF SUCCESS

MEN	1960 Entry			1961 Entry		
	Mean	$\sigma$	n	Mean	$\sigma$	n
Teaching Practice Mark	C(+0.230 grade)	1.686 grades	87	C+(-0.293 grade)	1.767 grades	92
Education Examination Mark	52.06	6.675	87	52.00	8.110	92
Education Course Mark	55.91	8.285	87	55.91	9.380	92
Academic Exam. Mark (2 subjects)	105.73	17.02	41	113.46	13.11	39
Academic Exam. Mark (1 subject)	54.72	9.930	46	55.87	10.54	53
Academic Course Mark (2 subjects)	117.68	18.61	41	123.46	16.26	39
Academic Course Mark (1 subject)	59.39	11.120	46	60.02	11.30	53

WOMEN	1960 Entry			1961 Entry		
	Mean	$\sigma$	n	Mean	$\sigma$	n
Teaching Practice Mark	c+(-0.023 grade)	2.082 grades	89	c+(+0.009 grade)	2.261	109
Education Examination Mark	56.71	7.555	87	55.44	8.480	109
Education Course Mark	58.99	7.995	88	59.75	9.590	109
Academic Exam. Mark (2 subjects)	109.55	14.99	33	117.41	15.12	29
Academic Exam. Mark (1 subject)	56.18	9.710	55	53.00	8.640	80
Academic Course Mark (2 subjects)	125.61	18.74	33	128.79	20.41	29
Academic Course Mark (1 subject)	61.18	9.850	55	57.13	10.96	80

B. THE DIFFERENCE IN MEANS AND THEIR SIGNIFICANCE - CRITERIA OF SUCCESS

1. Differences between '1960' and '1961' Entry

	MEN		WOMEN	
	1961 Mean - 1960 Mean	Level of Sig.	1961 Mean - 1960 Mean	Level of Sig.
Teaching Practice Mark	+0.477 grade	-	+0.032 grade	-
Education Exam. Mark	-0.06	-	-1.27	-
Education Course Mark	0.00	-	+0.76	-
Academic Exam. Mark (2 subject)	+7.73	0.05 level	+7.86	0.05 level
Academic Exam. Mark (1 subject)	+1.16	-	-3.18	0.05 level
Academic Course Mark (2 subject)	+5.78	-	+3.18	-
Academic Course Mark (1 subject)	+0.63	-	-4.05	0.05 level

2. Differences between Men and Women

	1960 Entry		1961 Entry	
	Mean 'Women' - -Mean 'Men'	-Level of Sig.	Mean 'Women' - Mean 'Men'	Level of Sig.
Teaching Practice Mark	+0.747 grade	0.01 level	+0.302 grade	-
Education Exam. Mark	+4.65	0.01 level	+3.44	0.01 level
Education Course Mark	+3.08	0.05 level	+3.84	0.01 level
Academic Exam. Mark (2 subject)	+3.82	-	+3.95	-
Academic Exam. Mark (1 subject)	+1.46	-	-2.87	-
Academic Course Mark (2 subject)	+7.93	-	+5.33	-
Academic Course Mark (1 subject)	+1.79	-	-2.89	-

C. AN ANALYSIS OF THE PREDICTOR DETAILS

MEN	1960 Entry			1961 Entry		
	Mean	$\sigma$	n	Mean	$\sigma$	n
Interview Mark	B(+0.185 grade)	1.233 grades	92	B(+0.011 grade)	1.395 grade	92
Number of 'O' Level Passes	6.42	1.476	96	6.78	1.437	97
Number of 'O' Level passes at First Attempt	5.58	1.966	96	5.02	1.889	97
Number of 'A' Level Passes	1.23	1.046	96	1.10	1.079	97
Headteacher's Estimate of Number of 'A' Level Passes	2.40	0.815	52	2.14	0.887	57
Estimate of Suitability for Teaching	-	-	-	B(-0.461 grade)	1.653 grade	76
Estimate of Intellectual Ability	-	-	-	B(-0.158 grade)	2.284 grade	76

WOMEN	1960 Entry			1961 Entry		
	Mean	$\sigma$	n	Mean	$\sigma$	n
Interview Mark	B+(-0.292 grade)	1.163 grades	96	B(+0.109 grade)	1.286 grades	110
Number of 'O' Level Passes	7.00	1.378	100	7.10	1.619	116
Number of 'O' Level Passes at First Attempt	6.30	1.947	100	5.56	2.056	116
Number of 'A' Level Passes	1.490	1.100	100	1.41	1.100	116
Headteacher's Estimate of Number of 'A' Level Passes	2.46	0.742	79	2.25	0.725	83
Estimate of Suitability for Teaching	-	-	-	B(+0.176 grade)	1.504 grades	102
Estimate of Intellectual Ability	-	-	-	B(-0.310 grade)	2.023 grades	100

D. THE DIFFERENCE IN MEANS AND THEIR SIGNIFICANCE - PREDICTORS

1. Differences between '1960' and '1961' Entry

	MEN		WOMEN	
	1961 Mean - 1960 Mean	Level of Sig.	1961 Mean - 1960 Mean	Level of Sig.
Interview Mark	-1.174 grades	0.01 level	-0.599 grade	0.01 level
Number of 'O' Level Passes	+0.36	-	+0.10	-
Number of 'O' Level Passes at 1st Attempt	-0.66	0.05 level	-0.74	0.01 level
Number of 'A' Level Passes	-0.13	-	-0.08	-
Headteacher's Estimate of 'A' Level Passes	-0.26	-	-0.21	-
Estimate of Suitability for Teaching	-	-	-	-
Estimate of Intellectual Ability	-	-	-	-

2. Differences between Men and Women

	1960 Entry		1961 Entry	
	Mean Women - Mean Men	Level of Sig.	Mean 'Women' - Mean 'Men'	Level of Sig.
Interview Mark	+0.523 grade	0.01 level	<del>1.098</del> +0.323 grades	0.01 level
Number of 'O' Level Passes	+0.58	0.01 level	+0.32	-
Number of 'O' Level Passes at 1st Attempt	+0.62	0.05 level	+0.54	0.05 level
Number of 'A' Level Passes	+0.26	-	+0.31	0.05 level
Headteacher's Estimate of 'A' Level Passes	+0.06	-	+0.11	-
Estimate of Suitability for Teaching	-	-	+0.637 grade	0.01 level
Estimate of Intellectual Ability	-	-	+0.818 grade	0.01 level

BIBLIOGRAPHY

1. MIRIAM, J.L. "Normal School Education and Efficiency in Teaching". New York: Bureau of Publications, Teachers College, Columbia University, 1936.
2. SANDIFORD, P., CAMERON, H.A., CONWAY, C.B., LONG, J.A., "Forecasting Teaching Ability", University of Toronto, 1937.
3. BOYCE, A.C., "Methods of Measuring Teachers' Efficiency", 14th Yearbook, National Society for the Study of Education, 1915.
4. WHITNEY, F.L., "The Prediction of Teaching Success", Journal of Educational Research Monograph No.6. Illinois, 1924.
5. HARTOG, P., RHODES, E.C., BURT, C., "The Marks of Examiners", London, 1936.
6. LYCUS MARTIN, "The Prediction of Success for Students in Teacher Education", Bureau of Publications, Teachers College, Columbia University, 1944.
7. WARBURTON, F.W., "The Selection of University Students", Manchester 1952.
8. HIMMELWEIT, H.T., "Student Selection: an experimental investigation", British Journal of Sociol., Vol.I, No.4; Vol II, No.1 and Vol.II No.4. (1950-51)
9. DALE, R.R. "From School to University", London, 1954.
10. WEINSTOCK, M.B., WOOD, M.D., "An Experiment in Student Selection", Bulletin of Education No.26, Nov., 1951 (Birmingham)
11. MAYSON, E.H., "How we judge intelligence", Brit. Jnl. Psychol. Monogr. Suppl. (1926), 3, No.9
12. VERNON, P.E., "The Measurement of Abilities", London, 1940.
13. LAWTON, J.A., "A study of factors useful in choosing candidates for the teaching profession", Brit. Jrnl. of Educ. Psychol., Vol. IX, pp. 131-144.
14. WALTERS, A.D., "An Investigation into the Value of Various Types of Information in the Selection of Training College Students", MA. Thesis, University of Liverpool, 1957.
15. ALLEN, M., "A Comparison between Group and Individual Selection Procedures in a Training College," Brit. Jnl. Educ. Psychol. Vol. X, 1962, pp. 303 - 305.

16. WARBURTON, F.W., BUTCHER, H.J., FORREST, G.M., "Predicting Student Performance in a University Department of Education", Brit. Jnl. Educ. Psychol., Vol.33, 1, pp. 68-80
17. WARBURTON, F.W., "The Measurement of Personality II", Educ. Research Vol. IV, 2, Feb.1962.
18. BURROUGHS, G.E.R., "A Study of the Interview in the Selection of Students for Teacher Training", Brit. Jnl. Educ. Psychol. Vol.28, 1, pp.37-46.
19. FURNEAUX, W.D., "The Chosen Few", O.U.P. 1961.
20. THE SCOTTISH COUNCIL FOR RESEARCH IN EDUCATION, "The Prognostic Value of University Entrance Examinations in Scotland", London, 1936.
21. CRAWFORD, A.B., BURNHAM, P.S., "Forecasting College Achievement, a survey of aptitude tests for higher education", Yale Univ. Press, 1946.
22. PARKYN, G.W., "Success and Failure at the University, Vol.I", N.Z.C.E.R., 1959.
23. SANDERS, C., "Student Selection and Academic Success in Australian Universities", Commonwealth Office of Education, Sydney, 1948.
24. MACKLIN, A.D., "Address to the Conference of the Home Universities (1951)", London, 1952.
25. BLOOM, B.S., PETERS, F.R., "The Use of Academic Prediction Scales for Counseling and Selecting College Entrants", Free Press of Glencoe, 1961.
26. HOHNE, H., "The Prediction of Academic Success", Australian Jnl. of Psychol., 1949, Vol. 1, No. 1. pp.38-42.
27. FORSTER, M., "An Audit of Academic Performance", Queens' University, Belfast, 1959.
28. OLIVER, R.A.C., "The Effectiveness of G.C.E. Advanced Level as a Criterion for University Selection", N.U.J.M.B., 1960.
29. NICHOLSON, R.J., GALAMBOS, P., "Performance in G.C.E. Advanced Level Examinations and University Examinations", Hull, 1960.
30. CATTELL, R.B., "The Assessment of Teaching Ability", Brit. Jnl. Educ. Psychol., Vol.I, Part 1, Feb., 1931



31. THOMSON, G., "A Rating Scale for Teaching Ability in Students", Jnl. Expt. Psychol., 1921, Vol.VI., p.75.
32. TUDHOPE, W.B., "A Study of the Training College Final Teaching Mark as a Criterion of Future Success in the Teaching Profession", Brit. Jnl. Educ. Psychol., Vols. XII and XIII.
33. COLLINS, M., "A Follow-up Study of some former Graduate Student Teachers", Brit. Jnl. Educ. Psychol., Vol.29, p.p. 187-197.
34. MINISTRY OF EDUCATION, "Early Leaving", H.M.S.O., 1954.
35. KENDALL, M.G., "Rank Correlation Methods". 1955.