

CHAPTER V

DISCUSSION OF THE RESULTS

5.1. Introduction

In the present study an attempt has been made to find out the effectiveness of the two major functions of examination, namely, the prediction and trait measurement. It is mainly due to this that the study's main concern is with the entrance test, of which basic purpose is to select the trainees. The rationale for undertaking this study and the various important issues involved in the present system of examination were presented in Chapter I. Two objectives (Caption 1.10) of the present study were formulated on the basis of their significance by raising certain important issues. In order to achieve these objectives the necessary methodological details were given in Chapter III. The analysis and interpretation of data for the above referred two objectives of the study were presented in Chapter IV under Caption 4.2 and 4.3 respectively. The objective I belongs to the prediction function whereas objective II deals with the trait measurement function of examinations, the discussions of the results are grouped under the above referred two functions of examinations, namely, those of prediction and trait measurement. The discussions regarding these aforesaid functions of

examinations are carried out separately as shown below:

5.2. Prediction Function

Under the prediction function of examinations Objective-I states - to study the effectiveness of the entrance test consisting the following tests, viz.,

- i. General Ability Test composed of five subtests, namely;
 - a) Thai;
 - b) English;
 - c) Mathematics;
 - d) Science and
 - e) Social Studies,
- ii. Major Subject Test,
- iii. Teachers' Personality Test and
- iv. Occupational Interests Test to predict the performance of teacher trainees in the Dip. in Education.

The results presented in Section-I (Caption 4.2) show that the intercorrelations between marks in entrance test (predictor variables) ranged from 0.07 to 0.67 and explained 0.49 % to 44.89% of variability. Similarly in Dip. in Education (Criterion variables) the coefficients of correlation ranged from 0.06 to 0.77 and explained 0.36% to 59.29% of variability.

5.2.1. Relationship Between the PredictorVariables and the Criterion Variables:

The results show the relationship between each of the predictor variables (P_1, P_2, P_3, P_4 and P_5) and each of the criterion variables ($C_1, C_2, C_3, C_4, C_5, C_6, C_7, C_8, C_9, C_{10}, C_{11}, C_{12}$ and C_{13}). Firstly each of the variables is described in details and then results are discussed respectively.

Table 5.2.1 : Details of the Predictor Variables

Codes of Predictor Variables (Entrance Test)	Details
P_1	Total of General Ability Tests which composed of five subtests, namely; Thai; English; Mathematics; Science; and Social Studies. These tests involve the contents of general common subjects of grade 11 and 12.
P_2	Major Subject Test which consisting of 13 major subject tests, viz., Music; Library Science; Thai; English; Arts; Social Studies; Dramatics; Sciences; Mathematics; Agriculture; Home Economics; Health Education and Physical Education. These tests

Table 5.2.1. contd....

Codes of Predictor Variables (Entrance Test)	Details
P ₃	<p>involve the contents of the various optional subjects of grade 11 and 12.</p> <p>Teachers' Personality Test. This Test involves the content of teachers' personality, teachers' adjustment and teachers' confront problem solving which affects to the quality of profession which was constructed by the committee of Department of Teacher Training.</p>
P ₄	<p>Occupational Interests Test. This test measures the interest of an individual in various activities related to teaching profession. This indicates the preference of an individual for the teaching profession in comparison with other professions. This test was also constructed by the committee of the Department of Teacher Training.</p>

Table 5.2.1. contd....

Codes of Predictor Variables (Entrance Test)	Details
P ₅	Grand Total of Entrance Tests. These scores were the sum of Total of General Ability Tests, Major Subject Test, Teachers' Personality Test and Occupational Interests Test.

Table 5.2.2 : Details of the Criterion Variables

Codes of Criterion Variables (Dip. in Education)	Details
C ₁	Total of Foundation Courses: Foundation Courses composed of Thai 101, Thai 102, Library 101, Politics 101, Mathematics 101, Science 101, Science 102, Physical Education 101, and Health Education 101.
C ₂	Ed.111 : Foundation of Education
C ₃	Ed.121 : Psychology of Development
C ₄	Ed.122 : Psychology of Education

Table 5.2.2. contd.....

Codes of Criterion Variables (Dip. in Education)	Details
C ₅	Ed. 131 : Principles of Teaching and Preparing Field Experience
C ₆	Ed. 181 : Hygiene Plan in School
C ₇	Ed. 231 : Methods of Teaching Skill
C ₈	Ed. 232 : Methods of Teaching Life Experience
C ₉	Ed. 251 : Measurement and Evaluation in Education
C ₁₀	Total of Education Courses which composed the sum of the scores of C ₂ , C ₃ , C ₄ , C ₅ , C ₆ , C ₇ , C ₈ and C ₉ .
C ₁₁	Grade Point Average of Major Subject. These grade point average composed the total grade point average of each the optional major subject.
C ₁₂	Teaching Practice (non-credit). In Teaching Practice students are evaluated through the summative evaluation of two

Table 5.2.2. contd...

Codes of Criterion
Variables (Dip.in
Education)

Details

supervisors one from the college and another from the school. For the present study the average score of the two supervisors has been taken into consideration.

C₁₃

Total Grade Point Average : GPA. These were the grade point average of C₁, C₂, C₃, C₄, C₅, C₆, C₇, C₈, C₉ and C₁₁.

2.3 : Showing Correlations Between Different Pairs of Predictor and Criterion Variables

Correlation	Variables	Correlation	Variables	Correlation	Variables	Correlation	Variables	Correlation
.36**	P ₂ -C ₁	.07	P ₃ -C ₁	.01	P ₄ -C ₁	.09*	P ₅ -C ₁	.25**
.35**	P ₂ -C ₂	.08	P ₃ -C ₂	.09*	P ₄ -C ₂	.01	P ₅ -C ₂	.23**
.32**	P ₂ -C ₃	.10*	P ₃ -C ₃	.17**	P ₄ -C ₃	-.03	P ₅ -C ₃	.25**
.35**	P ₂ -C ₄	.14**	P ₃ -C ₄	.12**	P ₄ -C ₄	.13**	P ₅ -C ₄	.29**
.30**	P ₂ -C ₅	.05	P ₃ -C ₅	.11*	P ₄ -C ₅	-.04	P ₅ -C ₅	.13**
.15**	P ₂ -C ₆	.20**	P ₃ -C ₆	.05	P ₄ -C ₆	.10*	P ₅ -C ₆	.21**
.22**	P ₂ -C ₇	.09*	P ₃ -C ₇	.10*	P ₄ -C ₇	-.05	P ₅ -C ₇	.19**
.17**	P ₂ -C ₈	.24**	P ₃ -C ₈	.03	P ₄ -C ₈	.02	P ₅ -C ₈	.23**
.51**	P ₂ -C ₉	.00	P ₃ -C ₉	.13**	P ₄ -C ₉	-.03	P ₅ -C ₉	.23**
.41**	P ₂ -C ₁₀	.12**	P ₃ -C ₁₀	.15**	P ₄ -C ₁₀	.03	P ₅ -C ₁₀	.20**
.13**	P ₂ -C ₁₁	.26**	P ₃ -C ₁₁	.16**	P ₄ -C ₁₁	.22**	P ₅ -C ₁₁	.23**
.25**	P ₂ -C ₁₂	.17**	P ₃ -C ₁₂	.03	P ₄ -C ₁₂	.06	P ₅ -C ₁₂	.23**
.38**	P ₂ -C ₁₃	.31**	P ₃ -C ₁₃	.18**	P ₄ -C ₁₃	.16**	P ₅ -C ₁₃	.14**

Significant at .01 level

Significant at .05 level

The results from Table 5.2.3 indicate that the correlation coefficients of Total of General Ability Tests (P_1) with all of the criterion variables viz., Grade Point Average of Major Subject (C_{11}), Ed.181: Hygiene Plan in School (C_6), Ed.232: Methods of Teaching Life Experience (C_8), Ed.231: Methods of Teaching Skill (C_7), Teaching Practice (C_{12}), Ed.131: Principles of Teaching and Preparing Field Experience (C_5), Ed.121: Psychology of Development (C_3), Ed.122: Psychology of Education (C_4), Ed.111 Foundation of Education (C_2), Total of Foundation Courses (C_1), Total Grade Point Average:GPA (C_{13}), Total of Education Courses (C_{10}) and Ed.251: Measurement and Evaluation in Education (C_9) were 0.13, 0.15, 0.17, 0.22, 0.25, 0.30, 0.32, 0.35, 0.35, 0.36, 0.38, 0.41, and 0.51 respectively. The correlation coefficients ranged from 0.13 (between Total of General Ability Tests: P_1 and Grade Point Average of Major Subject: C_{11}) to 0.51 (between Total of General Ability Tests: P_1 and Ed.251: Measurement and Evaluation in Education: C_9) and explained 1.69 % to 26.01 % variability. In other words, Total of General Ability Test (P_1) which composed of subtests namely; Thai; English, Mathematics, Science, and Social Studies was a good predictor for predicting marks in Dip.in Education examination.

One of the reasons of the highest correlation coefficient (0.51) between Total of General Ability Test (P_1) and Ed.251: Measurement and Evaluation in Education (C_9)

is that the Total of General Ability Tests(P_1) is composed of 5 subtests where Mathematics is one, which has direct bearing with Ed.251: Measurement and Evaluation in Education (C_9) as numerical ability is needed in both. In addition to this Science, to a great extent requires problem solving ability and some is needed in Ed.251: Measurement and Evaluation in Education(C_9) too. In Science, particularly in Physics even numerical ability is needed which again has similarity with Ed.251: Measurement and Evaluation in Education (C_9). To some extent even verbal ability might have facilitated the understanding of Ed.251: Measurement and Evaluation in Education(C_9). It may be due to these reasons that correlation coefficient between Total of General Ability Tests(P_1) and Ed.251: Measurement and Evaluation in Education(C_9) came out to be the highest.

The low correlation coefficient (0.13) between Total of General Ability Tests(P_1) and Grade Point Average of Major subject (C_{11}), may be due to the reason that the Total of General Ability Tests(P_1) was a test of General Ability whereas Major subjects required the specific abilities. From the entrance test of the year 1981 and 1982 in Caption 4.3.2 and 4.3.3, it can be noted that the content of each Major subject includes specific and indepth knowledge of that area. Therefore, only those students who have the aptitude that is the special ability to do a particular task, will

perform better in that particular major. Other student having aptitude for other major may succeed in that. Both these special abilities may differ. For example, one who is good in Music may not be good in library Science. It is to indicate that in Major subjects it is this special ability which matters more and not the general ability. Therefore, the correlation coefficient between Total of General Ability Tests (P₁) and Grade Point Average of Major Subject (C₁₁) is very low.

According to Spearman's Theory¹, there are two factors, viz., a general factor and a specific factor. He also concluded that all mental activity is to some extent dependent upon, and an expression of, this general factor; and the magnitude of the correlation coefficient found between any two forms of mental activity reveals the extent to which this general factor is operative in each, and common to both. In the present study as the correlation coefficient is lowest between Total General Ability Tests (P₁) and Grade Point Average of Major Subject (C₁₁) but significant at 0.01 level indicates that general ability is operative in major subjects but to the least extent when compared, to other test.

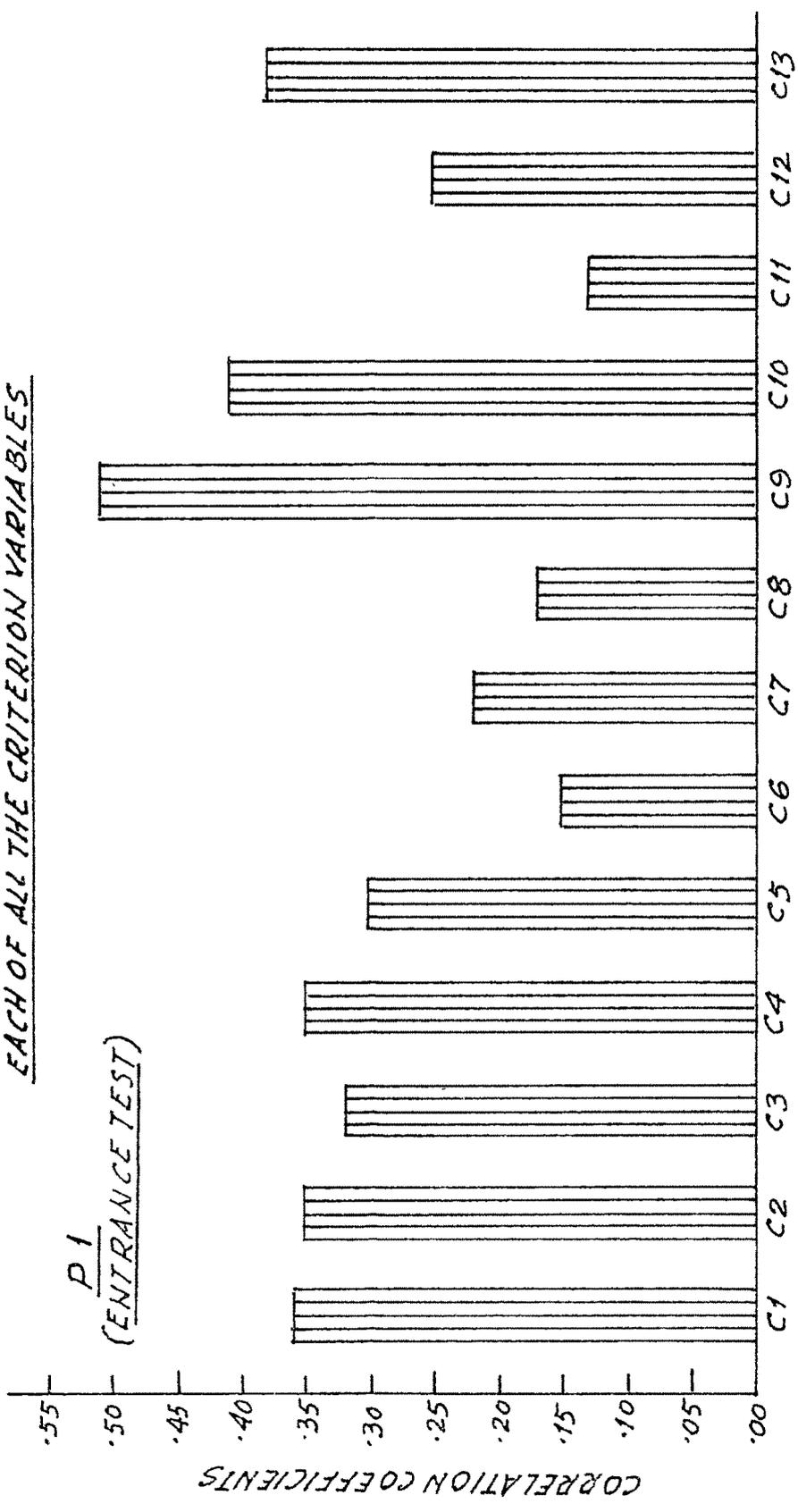
1 Frank S. Freeman (1971):
Theory and Practice of Psychological Testing, 3rd Ed. New
 Delhi: Oxford & IBH Publishing Co.: 162.

In these two sets of performance of the students at General Ability Test and Major subjects at Dip. in Education, there was some relation between the two sets of contents, such as Thai, English, Mathematics, Science, and Social Studies subtests were in the General Ability Test and they also appeared as the Major subjects in Dip. in Education. Therefore, positive correlation is observed between the two sets of scores.

The relationship of Total of General Ability Tests (P_1) with different criterion variables C_1 to C_{13} is represented graphically in Graph 5.2.1.

GRAPH: 5.2.1

BAR GRAPH SHOWING CORRELATION COEFFICIENTS
BETWEEN TOTAL OF GENERAL ABILITY TESTS (PI) AND
EACH OF ALL THE CRITERION VARIABLES



The second predictor variable, Major Subject Test (P_2) which composed the subject tests of Music; Library Science; Thai; English; Arts; Social Studies; Dramatics; Science; Mathematics; Agriculture; Home Economics; Health Education and Physical Education. The correlation coefficients between Major Subject Test (P_2) and Total of Education Courses (C_{10}), Ed.122: Psychology of Education (C_4), Teaching Practice (C_{12}), Ed.181: Hygiene Plan in School (C_6), Ed.232: Methods of Teaching Life Experience (C_8), Grade Point Average of Major Subject (C_{11}), and Total Grade Point Average: GPA (C_{13}) were 0.12, 0.14, 0.17, 0.20, 0.24, 0.26 and 0.31 respectively and significant at 0.01 level.

The coefficient of correlations between Major Subject Test (P_2) and Ed.231: Methods of Teaching Skill (C_7) and Ed.121: Psychology of Development (C_3) were 0.09 and 0.10 and significant at 0.05 level.

The correlation coefficients between Major Subject Test (P_2) and Ed.251: Measurement and Evaluation in Education (C_9), Ed.131: Principles of Teaching and Preparing Field Experience (C_5), Total of Foundation Courses (C_1) and Ed.111: Foundation of Education (C_2) were 0.00, 0.05, 0.07, and 0.08 respectively and not significant.

The correlation coefficients ranged from 0.00 to 0.31 and explained 0.00% to 9.61% of variability. In other words Major Subject Test (P_2) had predictive value for predicting marks in Dip. in Education Examination for most of the courses except C_1, C_2, C_5 and C_9 .

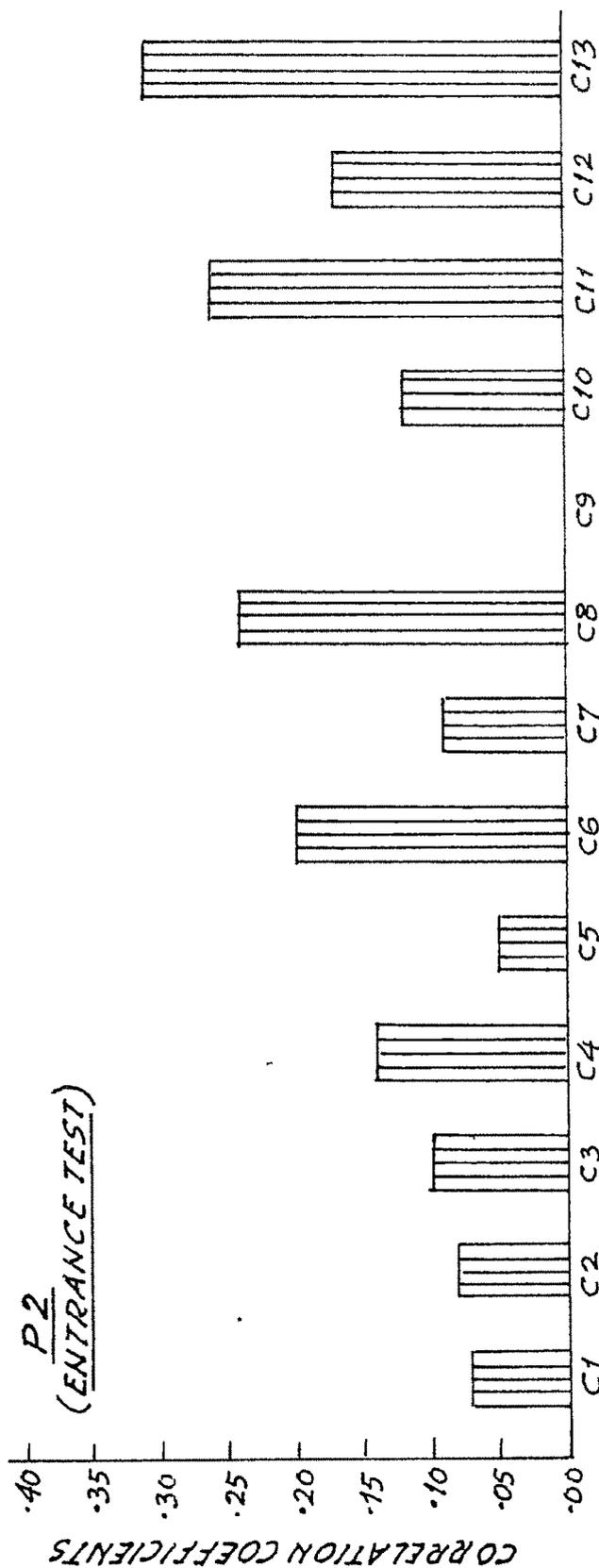
The highest correlation coefficient (0.31) was found between Major Subject Test (P_2) and Total Grade Point Average: GPA (C_{13}). One of the reasons of high correlation may be due to the high weightage given to the Major subjects in Dip. in Education course. Indeed about 30% of the total credits in Dip. in Education are given to the Major subjects. Therefore, there was some similarity between Major Subject Test (P_2) and Total Grade Point Average: GPA (C_{13}). The same is supported by the results of this study.

The lowest correlation coefficient (0.00) happened to between the Major Subject Test (P_2) and Ed.251: Measurement and Evaluation in Education (C_9). It indicates that there is no relationship between these two subjects. Main reason of this may be the difference of abilities needed in both the courses. Looking into the nature of the course on Ed.251: Measurement and Evaluation in Education (C_9) one can say that it requires to great extent the knowledge of statistics and numerical ability. Whereas in Dip. in Education most of the

students are admitted from the Arts stream. Therefore, these students may not be in a position to do well in the course on Ed.251: Measurement and Evaluation in Education (C_9). It may be indicated here that there were a number of students from Science stream too having Mathematics as one of the subject. It is surprising that two sets of scores did not indicate even little positive relationship. Although it is difficult to state but one of the reasons of this may be that knowledge of Mathematics did not help much towards clarification and use of statistical concepts. Another reason may be those students might not have devoted enough time for this subject. Therefore, high or low score in Major Subject Test (P_2) did not influence the scores in Ed.251: Measurement and Evaluation in Education (C_9).

The relationship of Major Subject Test (P_2) with different criterion variables C_1 to C_{13} is represented graphically in Graph 5.2.2.

GRAPH: 5.2.2
BAR GRAPH SHOWING CORRELATION COEFFICIENTS
BETWEEN MAJOR SUBJECT TEST (P2) AND EACH OF ALL
THE CRITERION VARIABLES



CRITERION VARIABLES

The third predictor variable was Teachers' Personality Test (P_3). This test was the test of basic teachers' characteristics. It involved the measurement of teachers' adjustment, teachers' confront problems solving which affected the quality of teacher's profession and was conducted by the committee of Department of Teacher Training.

The coefficient of correlations between Teachers' Personality Test (P_3) and Ed.122: Psychology of Education (C_4), Total of Education Courses (C_{10}), Grade Point Average of Major Subject (C_{11}), Ed.121: Psychology of Development (C_3), Ed.251: Measurement and Evaluation in Education (C_9) and Total Grade Point Average: GPA (C_{13}) were 0.12, 0.15, 0.16, 0.17, 0.18, and 0.18 respectively and significant at 0.01 level.

The values of correlation coefficients between Teachers' Personality Test (P_3) and Ed.111: Foundation of Education (C_2), Ed.231: Methods of Teaching Skill (C_7), and Ed.131 Principles of Teaching and Preparing Field Experience (C_5) were 0.09, 0.10, and 0.11 respectively and significant at 0.05 level.

The coefficient of correlations of Teachers' Personality Test (P_3) and Total of Foundation Courses (C_1), Teaching Practice (C_{12}), Ed.232: Methods of Teaching life Experience (C_8), and Ed.181: Hygiene Plan in School (C_6) were

0.01, 0.03, 0.03, and 0.05 respectively and hence not significant.

The coefficient of correlations ranged from 0.01 to 0.18 and explained 0.01% to 3.24 % of variability. From these results it can be said that P_3 : Teacher's Personality Test has the ability to predict all the criterion variables except C_1, C_6, C_8 and C_{12} .

The reasons of the low correlation coefficients between Teachers' Personality Test (P_3) and each of the criterion variable in Dip.in Education course. Looking at the nature and content of Teachers' Personality Test (P_3) it involved basic teachers' characteristic which was the personality and adjustment of individual about the teacher profession but Dip. in Education course was the academic achievement, therefore, the two sets of content were not related to a very high extent.

Another reason is that there are many factors affecting on the accomplishments on the academic side e.g. aptitude, process of teaching and learning, environment etc. From the reasons as mentioned above one gets the support to justify the results that in some cases the two sets of performance were found to have low correlations.

The relationship of Teachers' Personality Test (P_3) with different criterion variables C_1 to C_{13} is presented graphically in Graph 5.2.3.

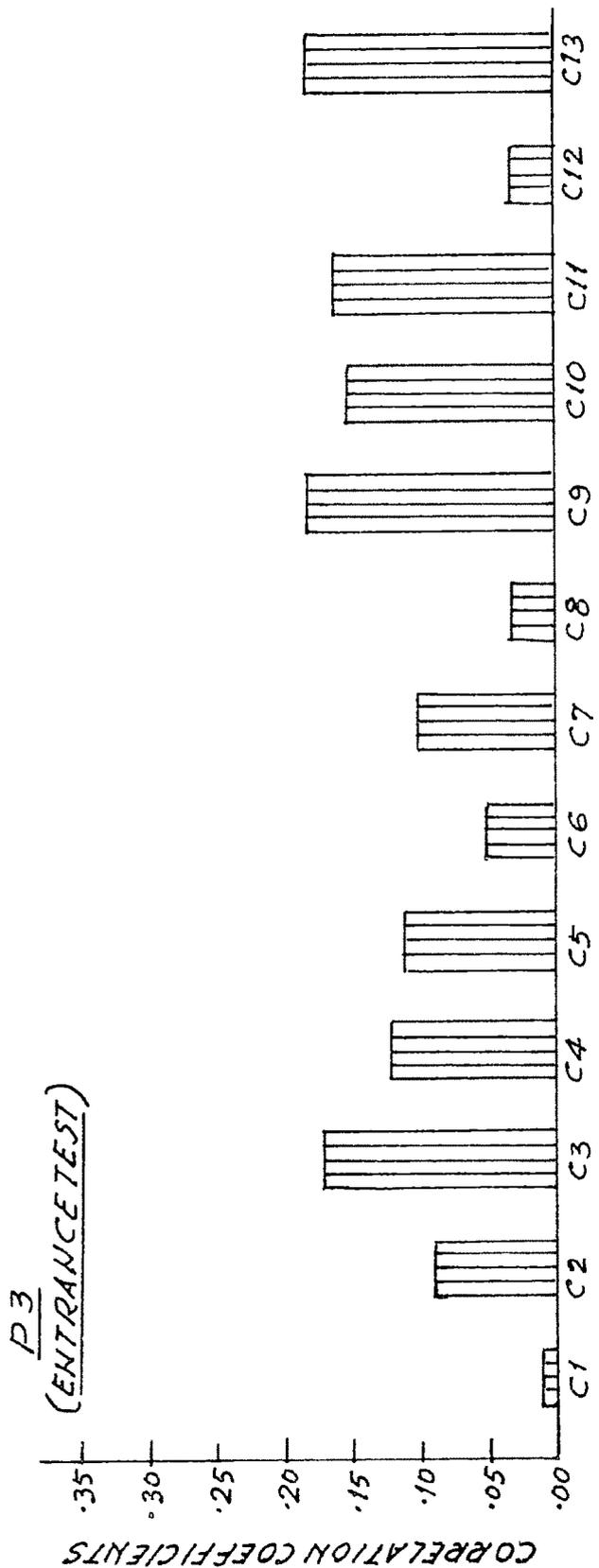
The fourth predictor variable was Occupational Interests Test (P_4). The content of this test involved about the trend, role which reflected the need and interest of Teacher's profession. This test also was conducted by the committee of the Department of Teacher Training.

The coefficient of correlations between Occupational Interests Test (P_4) and Ed.122: Psychology of Education (C_4), Total Grade Point Average: GPA (C_{13}) and Grade Point Average of Major Subject (C_{11}) were 0.13, 0.16 and 0.22 respectively and significant at 0.01 level.

The correlation coefficients between Occupational Interests Test (P_4) and Total of Foundation Courses (C_1), and Ed.181: Hygiene Plan in School (C_6) were 0.09 and 0.10 and significant at 0.05 level.

The coefficient of correlations between Occupational Interests Test (P_4) and Ed.111 : Foundation of Education (C_2), Ed.232: Methods Teaching Life Experience (C_8), Total of Education Courses (C_{10}) and Teaching Practice (C_{12}) were 0.01, 0.02, 0.03 and 0.06 respectively and not significant.

GRAPH: 5.2.3
BAR GRAPH SHOWING CORRELATION COEFFICIENTS
BETWEEN TEACHERS' PERSONALITY TEST (P3) AND EACH
OF ALL THE CRITERION VARIABLES



CRITERION VARIABLES

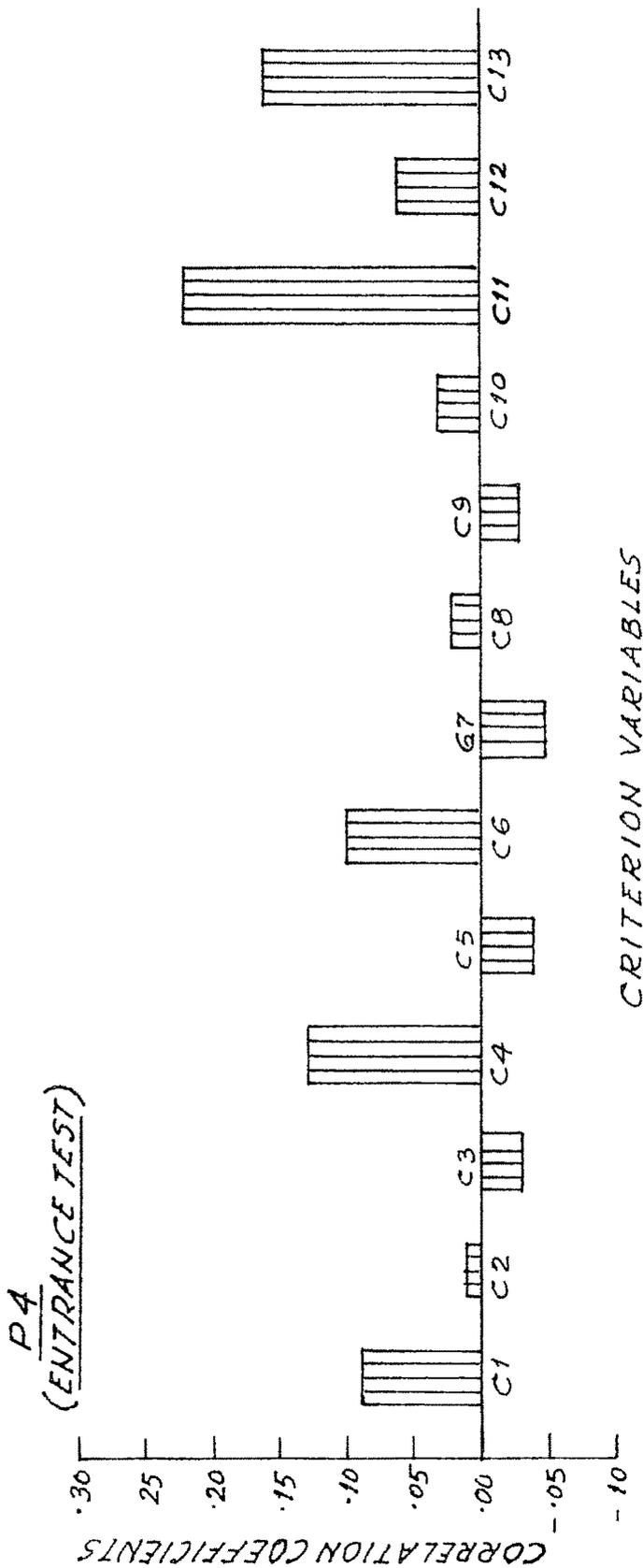
The negative correlation coefficients between Occupational Interests Test (P_4) and Ed.121: Psychology of Development (C_3), Ed.251: Measurement and Evaluation in Education (C_9), Ed. 131: Principles of Teaching and Preparing Field Experience (C_5) and Ed.231: Methods of Teaching Skill (C_7) were -0.03, -0.03, -0.04 and -0.05 respectively and not significant.

It was observed that for the positive values, the correlation coefficient ranged from 0.01 to 0.22 and explained 0.01 % to 4.84 % of the positive variability. Therefore, Occupational Interests Test (P_4) had low predictive values for predicting in Dip. in Education examination.

For the reasons of low predictive value, looking at the nature of the content of Occupational Interests Test (P_4), it was interest test including the trend, role which reflected the need and interest in teacher's profession, therefore, this content was not related to academic subject in Dip. in Education course like Teachers' Personality Test earlier mentioned. The findings of this study are supported by another study conducted by Department of Teacher Training, Research and Evaluation Unit(1980) in Thailand.

The relationship of Occupational Interests Test (P_4) with different criterion variables C_1 to C_{13} is presented graphically in Graph 5.2.4.

GRAPH: 5-2.4
BAR GRAPH SHOWING CORRELATION COEFFICIENTS
BETWEEN OCCUPATIONAL INTERESTS TEST (P4) AND
EACH OF ALL THE CRITERION VARIABLES



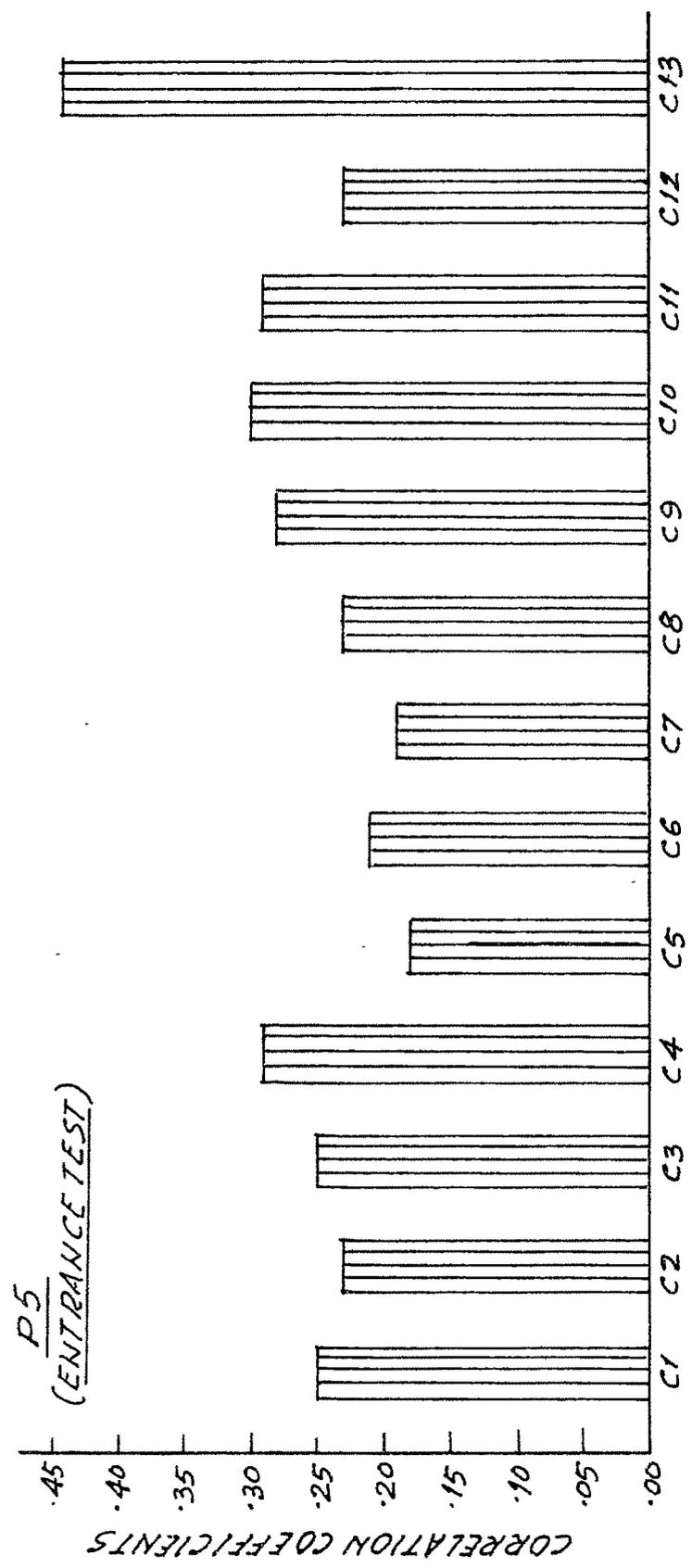
The last predictor variable was Grand Total of Entrance Tests (P_5) which was including the scores of General Ability Test (P_1), Major Subject Test (P_2), Teachers' Personality Test (P_3) and Occupational Interests Test (P_4)

The correlation coefficient of Grand Total of Entrance Tests (P_5) with all of the criterion variables viz., Ed.131: Principles of Teaching and Preparing Field Experience (C_5), Ed.231: Methods of Teaching Skill (C_7) Ed.181: Hygiene Plan in School (C_6), Ed.111: Foundation of Education (C_2), Teaching Practice (C_{12}), Ed.232: Methods of Teaching Life Experience (C_8), Ed.121: Psychology of Development (C_3), Total of Foundation Courses (C_1), Ed.251: Measurement and Evaluation in Education (C_9), Grade Point Average of Major Subject (C_{11}), Ed.122: Psychology of Education (C_4), Total of Education Courses (C_{10}), and Total Grade Point Average (C_{13}) were 0.18, 0.19, 0.21, 0.23, 0.23, 0.25, 0.25, 0.28, 0.29, 0.29, 0.30 and 0.44 respectively and significant at 0.01 level.

The correlation coefficients ranged from 0.18 to 0.44 and explained 3.24 % to 19.36 % of variability. In other words Grand Total of Entrance Tests (P_5) had high predictive values for predicting Dip. in Education examination.

The relationship of Grand Total of Entrance Tests (P_5) with different criterion variables C_1 to C_{13} is represented graphically in Graph 5.2.5.

GRAPH: 5-2.5
BAR GRAPH SHOWING CORRELATION COEFFICIENTS
BETWEEN GRAND TOTAL OF ENTRANCE TESTS (P5) AND
EACH OF ALL THE CRITERION VARIABLES



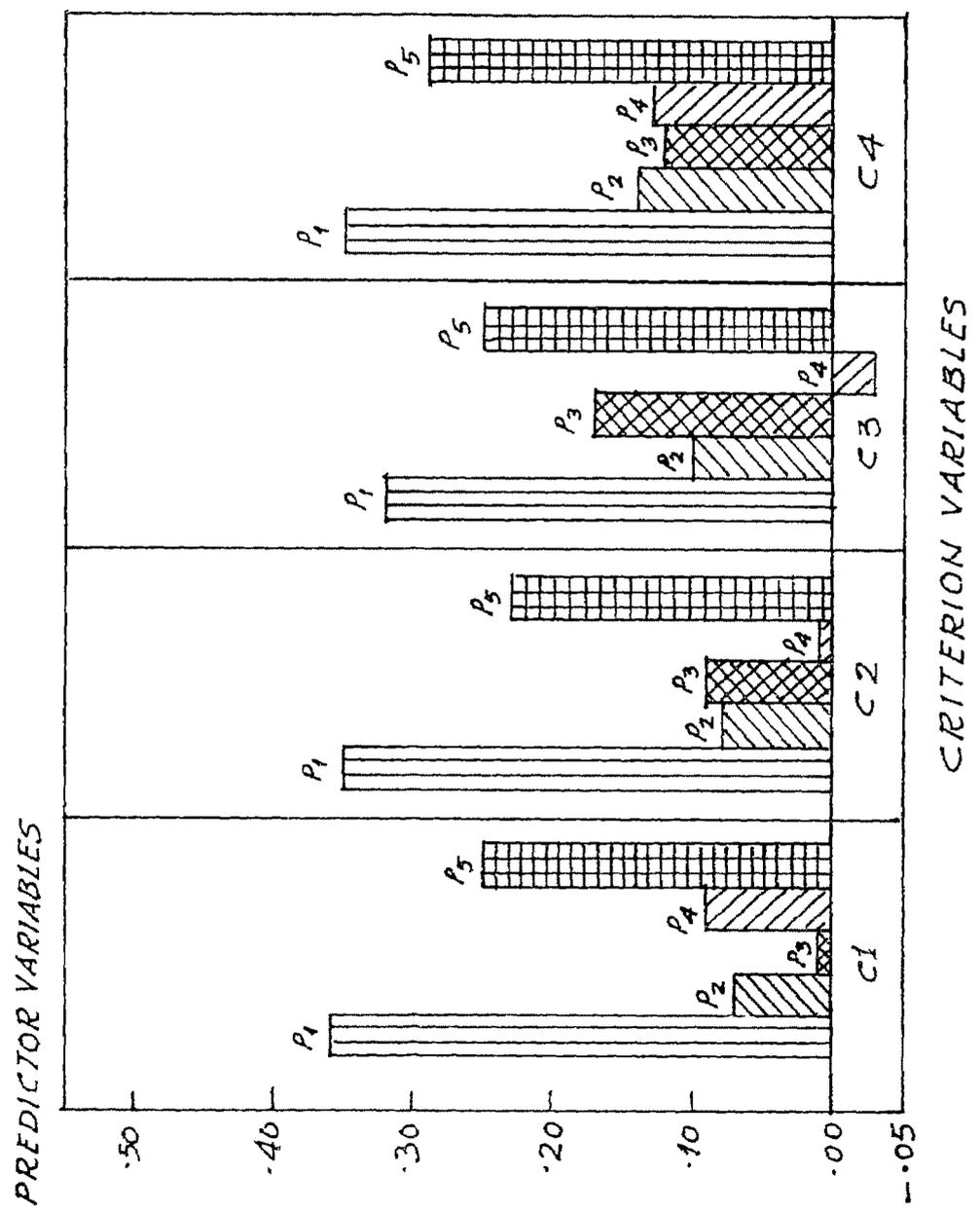
CRITERION VARIABLES

From Table 5.2.3, it may be observed that the correlation coefficients between the predictor variables of P_1 and P_5 (Total of General Ability Tests and Grand Total of Entrance Tests) and all of the criterion variables (Dip. in Education) were significant at 0.01 level, therefore, Total of General Ability Tests (P_1) and Grand Total of Entrance Tests (P_5) had higher predictive efficiency for predicting marks in Dip. in Education examination than Major Subject Test (P_2) Teachers' Personality Test (P_3) and Occupational Interests Test (P_4).

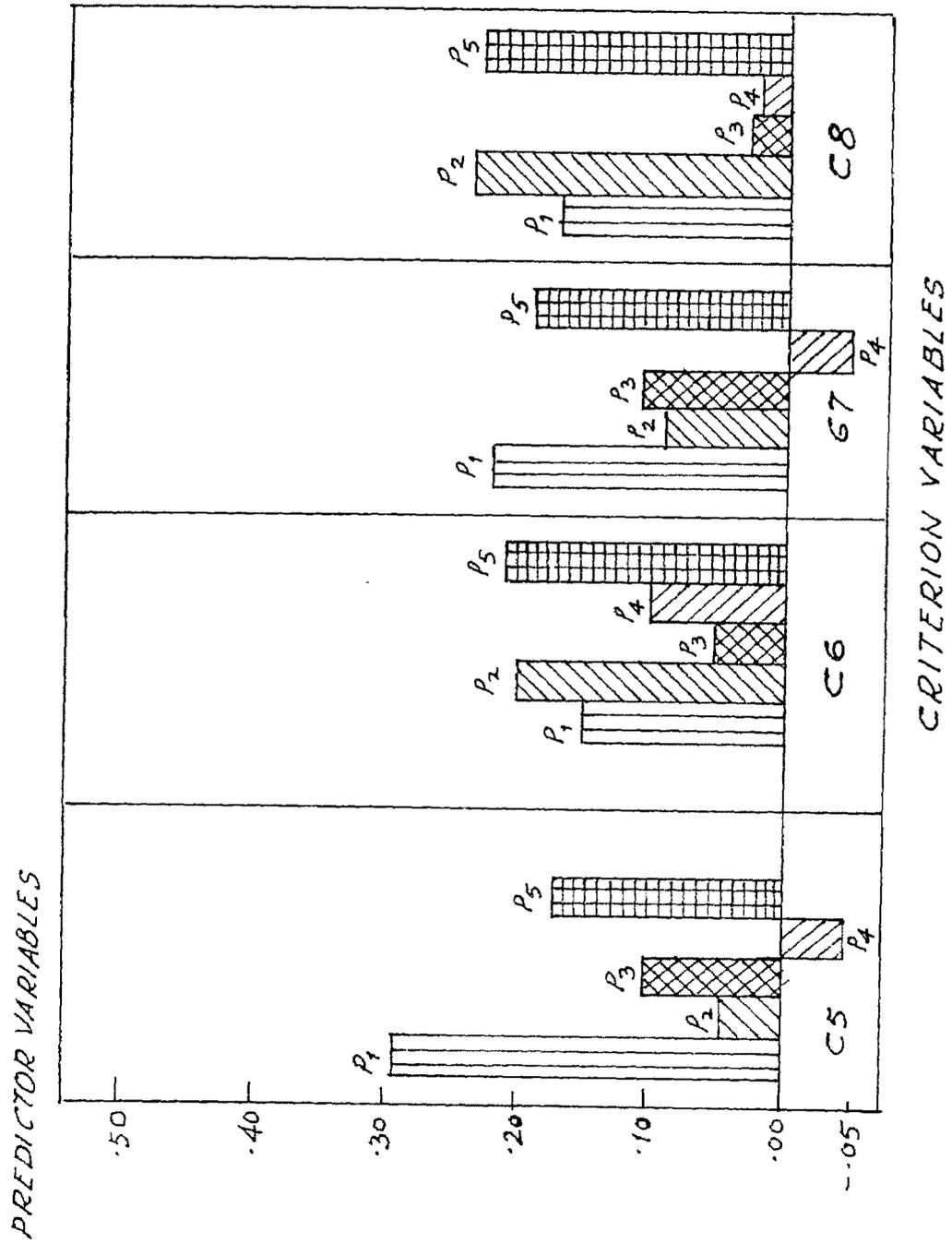
It also may be observed that the coefficient of correlations between all of predictor variables (P_1, P_2, P_3, P_4 and P_5) and the criterion of C_4, C_{11} and C_{13} (C_4 : Ed.122: Psychology of Education, C_{11} : Grade Point Average of Major Subject, and C_{13} : Total Grade Point Average: GPA) were significant at 0.01 level. Thus, all of the five predictor variables had high predictive efficiency for predicting Ed.122: Psychology of Education (C_4), Grade Point Average of Major Subject (C_{11}) and Total of Grade Point Average: GPA (C_{13}).

The graph showing correlation coefficients between each of the predictor variable and each of the criterion variable is presented in Graph 5.2.6.

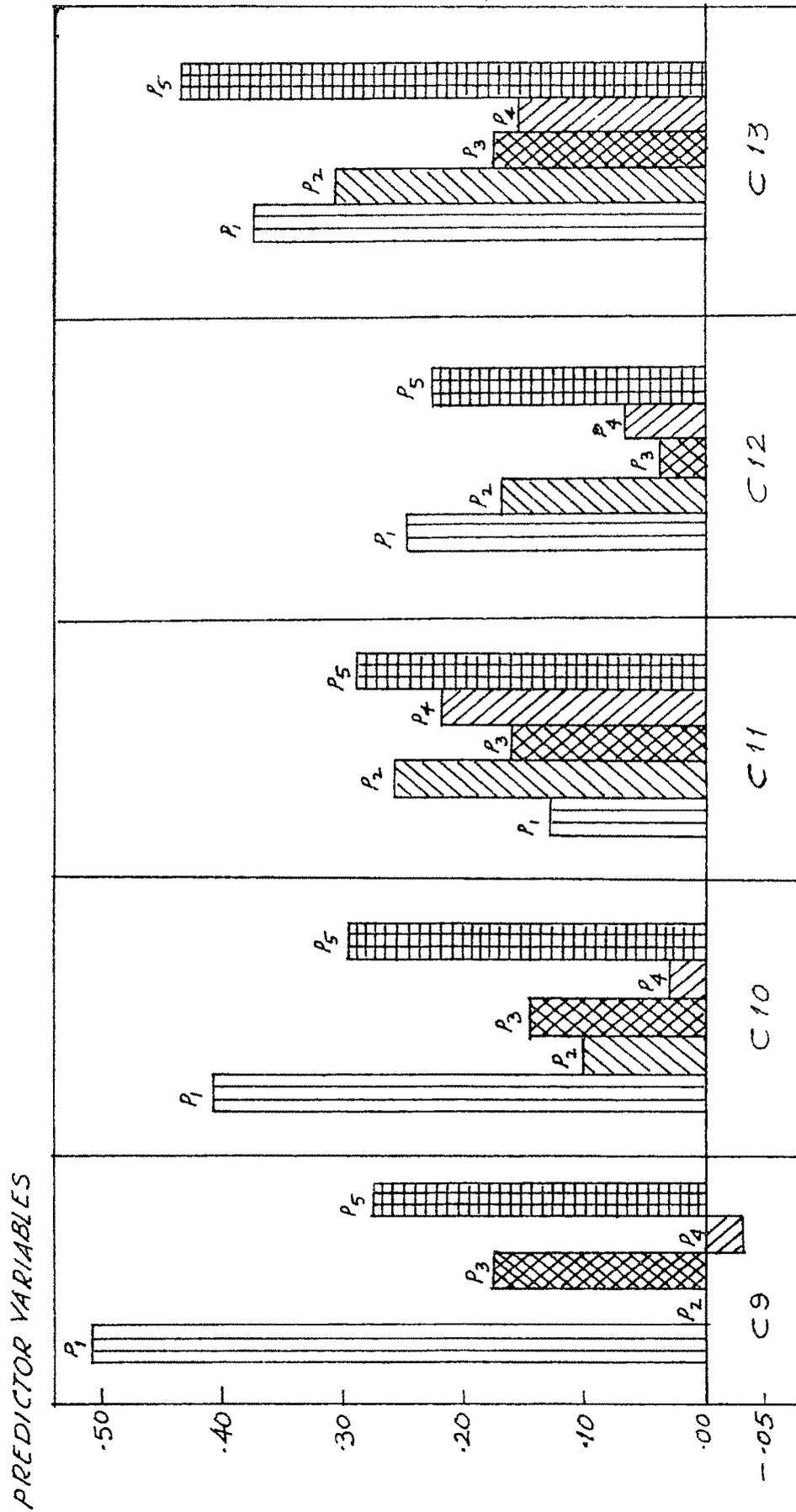
GRAPH: 5-2-6
BAR GRAPH SHOWING DIFFERENT CORRELATION
COEFFICIENTS BETWEEN EACH OF THE PREDICTOR VARIABLE
AND EACH OF ALL THE CRITERION VARIABLES



GRAPH 5.2-6 (CONT'D)



GRAPH: 5-2.6 (CONTD)



5.2.2. Meaningful Predictors and Regression

Equations:

In the present study it was also further attempted to find out the meaningful predictors for predicting the performance in the subsequent examination. This has been done by considering Dip. in Education course as criterion variables and entrance test as predictor variables. Thus, the criterion variables considered, the Multiple correlation coefficients obtained, the meaningful predictors and regression equations identified in their rank order of prediction are again summarised in the following Tables.

Table 5.2.4 : Multiple Correlation Coefficient(R),
Meaningful Predictors in the Rank
Order of Their Prediction and Regression
Equation of Total of Foundation Courses:

C_1

Criterion Variable (Dip.in Education)	Multiple Correla- tion(R)	Meaningful Predictors in Rank Order(Entrance Test)
Total of Founda- tion Courses: C_1	0.385	i. Total of General Ability Test: P_1 ii. Grand Total of Entrance Tests: P_5 iii. Teachers' Personality Test: P_3

Table 5.2.4 contd....

Regression equation with best predictors in score form:

$$C_1 = 1.7568P_1 + .3865P_5 - 1.1554P_3 + 351.6184$$

Table 5.2.5 : Multiple Correlation Coefficient(R)
 Meaningful Predictor and Regression
 Equation of Ed.111: Foundation of
 Education: C₂

Criterion Variable (Dip.in Education)	Multiple Correla- tion(R)	Meaningful predictor (Entrance Test)
Ed.111: Foundation of Education:C ₂	0.345	Total of General Ability Tests: P ₁

Regression equation with best predictor in score form:

$$C_2 = .1360P_1 + 41.3533$$

Table 5.2.6 : Multiple Correlation Coefficient (R),
 Meaningful Predictors in the Rank Order
 of Their Prediction and Regression
 Equation of Ed.121: Psychology of Develop-
 ment: C_3

Criterion Variable (Dip.in Education)	Multiple Correla- tion (R)	Meaningful Predictors in Rank Order (Entrance Test)
Ed.121:Psychology of Development: C_3	0.354	i. Total of General Ability Tests: P_1 ii. Grand Total of Entrance Tests: P_5 iii. Occupational Interests Test: P_4

Regression equation with best predictors in score form:

$$C_3 = .0865P_1 + .0375P_5 - .1447P_4 + 49.6438$$

Table 5.2.7 : Multiple Correlation Coefficients (R)
 Meaningful Predictors in the Rank Order
 of Their Prediction and Regression
 Equation of Ed.122: Psychology of Education:
 C_4

Criterion Variable (Dip.in Education)	Multiple Correla-	Meaningful Predictors in Rank Order(Entrance Test)
Ed.122: Psychology of Education: C_4	0.371	i. Total of General Ability Tests: P_1 ii. Grand Total of Entrance Tests: P_5

Regression equation with best predictors in score form:

$$C_4 = .1120P_1 + .0279P_5 + 38.5270$$

Table 5.2.8 : Multiple Correlation Coefficient (R) Meaningful
 Predictor and Regression Equation of Ed.131:
 Principles of Teaching and Preparing Field
 Experience: C_5

Criterion Variable (Dip.in Education)	Multiple Correla- tion (R)	Meaningful Predictor (Entrance Test)
Ed.131: Principles of Teaching and Preparing Field Experience: C_5	0.295	Total of General Ability Tests: P_1

Regression equation with best predictor in score form:

$$C_5 = .0938P_1 + 59.2390$$

Table 5.2.9 : Multiple Correlation Coefficient (R),
 Meaningful Predictors in the Rank Order
 of Their Prediction and Regression
 Equation of Ed.181: Hygiene Plan in
 School:= C_6

Criterion Variable (Dip.in Education)	Multiple Correla- tion (R)	Meaningful Predictors in Rank Order (Entrance Test)
Ed.181: Hygiene Plan in School: C_6	0.246	i. Major Subject Test: P_2 ii. Total of General Ability Tests: P_1

Regression equation with best predictors in score form:

$$C_6 = .0555P_2 + .0480P_1 + 57.714$$

Table 5.2.10 : Multiple Correlation Coefficient (R),
 Meaningful Predictors in the Rank
 Order of Their Prediction and
 Regression Equation of Ed.231:Methods
 of Teaching Skill : C₇

Criterion Variable (Dip.in Education)	Multiple Correla- tion(R)	Meaningful Predictors in Rank Order(Entrance Test)
Ed.231: Methods of Teaching Skill:C ₇	0.269	i. Grand Total of Entrance Tests : P ₅ ii. Occupational Interests Test : P ₄ iii. Total of General Ability Tests: P ₁

Regression equation with best predictors in score form:

$$C_7 = .0399P_5 - .1767P_4 + .0589P_1 + 55.6472$$

Table 5.2.11 : Multiple Correlation Coefficient (R),
 Meaningful Predictors in the Rank
 Order of Their Prediction and Regression
 Equation of Ed.232 : Methods of Teaching
 Life Experience : C_8

Criterion Variable (Dip.in Education)	Multiple Correla- tion(R)	Meaningful Predictor in Rank Order(Entrance Test)
Ed.232 : Methods of Teaching Life Expe- rience: C_8	0.290	i. Major Subject Test: P_2 ii. Total of General Ability Tests : P_1 iii. Occupational Interests Test : P_4

Regression equation with best predictors in score form:

$$C_8 = .0787P_2 + .0580P_1 - .0797P_4 + 57.2131$$

Table 5.2.12 : Multiple Correlation Coefficient (R),
 Meaningful Predictors in the Rank Order
 of Their Prediction and Regression
 Equation of Ed.251: Measurement and
 Evaluation in Education : C_9

Criterion Variable (Dip.in Education)	Multiple Correla- (R)	Meaningful Predictor in Rank Order(Entrance Test)
Ed.251: Measurement and Evaluation in Education : C_9	0.539	i. Total of General Ability Tests: P_1 ii. Occupational Interests Test : P_4 iii. Teachers' Personality Test : P_3

Regression equation with best predictors in score form:

$$C_9 = .4893P_1 - .1929P_4 + .0958P_3 + 32.0898$$

Table 5.2.13 : Multiple Correlation Coefficient (R),
 Meaningful Predictors in the Rank
 Order of Their Prediction and
 Regression Equation of Total of
 Education Courses : C_{10}

Criterion Variable (Dip.in Education)	Multiple Correla- tion(R)	Meaningful Predictors in Rank Order(Entrance Test)
Total of Education Courses : C_{10}	0.428	i. Total of General Ability Tests : P_1 ii. Grand Total of Entrance Tests : P_5 iii. Occupational Interests Tests : P_4

Regression equation with best predictors in score form:

$$C_{10} = .8786P_1 + .2119P_5 - .5526P_4 + 413.8751$$

Table 5.2.14 : Multiple Correlation Coefficient (R),
 Meaningful Predictors in the Rank Order
 of Their Prediction and Regression
 Equation of Grade Point Average of Major
 Subject : C_{11}

Criterion Variable (Dip. in Education)	Multiple Correlati- on(R)	Meaningful Predictors in Rank Order (Entrance Test)
Grade Point Average of Major Subject: C_{11}	0.329	i. Major Subject Test: P_2 ii. Occupational Interests Test: P_4 iii. Teachers' Personality Test: P_3 iv. Total of General Ability Tests: P_1

Regression equation with best predictors in score form:

$$C_{11} = .0051P_2 + .0119P_4 + .0055P_3 + .0027P_1 + 1.0761$$

Table 5.2.15 : Multiple Correlation Coefficient (R),
 Meaningful Predictors in the Rank
 Order of Their Prediction and Regre-
 sion Equation of Teaching Practice:
 C_{12}

Criterion Variable (Dip.in Education)	Multiple Correla- tion(R)	Meaningful Predictors in Rank Order(Entrance Test)
Teaching Practice: C_{12}	0.290	i. Total of General Ability Tests: P_1 ii. Major Subject Test: P_2

Regression equation with best predictors in score form:

$$C_{12} = .0346P_1 + .0178P_2 + 46.3102$$

Table 5.2.16: Multiple Correlation Coefficient (R),
 Meaningful Predictors in the Rank
 Order of Their Prediction and Regre-
 ssion Equation of Total Grade Point
 Average: GPA : C_{13}

Criterion Variable (Dip.in Education)	Multiple Correla- tion (R)	Meaningful Predictors in Rank Order (Entrance Test)
Total Grade Point Average:GPA : C_{13}	0.486	i. Total of General Ability Tests: P_1 ii. Grand Total of Entrance Tests: P_5 iii. Major Subject Test: P_2

Regression equation with best predictors in score form:

$$C_{13} = .0060P_1 + .0029P_5 + .0020P_2 + 1.0976$$

A critical examination of Table 5.2.4 to Table 5.2.16 indicates that the General Ability Tests (P_1) which composed of 5 subtests, viz., Thai, English, Mathematics,

Science, and Social Studies was found to be the best predictor for predicting performance in Dip.in Education course. The second best predictor was found to be the Grand Total of Entrance Tests (P_5). In addition to this it can also be observed that Major Subject Test (P_2) could predict to a greater extent the Grade Point Average of Major Subject (C_{11}), Ed.181: Hygiene Plan in School (C_6), and Ed.232: Methods of Teaching Life Experience (C_8). Whereas, Teachers' Personality Test (P_3) and Occupational Interests Test (P_4) had very little predictive value and for many criterion variables they could not predict at all.

5.3. Trait Measurement Function

In the trait measurement function of tests objective-
 II states - to study the factors underlying the entrance test.

The results presented in section-III (Caption 4.3.1, 4.3.2 and 4.3.2) show that the abilities or common factors measured by entrance test in the year 1980 were;

- i. Verbal General Ability to solve the Scientific and Social problems;
- ii. General Ability to solve the social problems and
- iii. Verbal General Ability to solve the scientific and numerical problems.

In the year 1981 the factors were;

- i. General Ability;
- ii. Numerical Ability and
- iii. Verbal General Ability to solve the scientific and social problem.

In the year 1982, only one factor of "General Ability" was found. The results of the factor analysis of difference tests in the year 1980, 1981 and 1982 are summarized as follows:

- i. "General Ability" which was only one factor to be found in the year 1982 and on the first original factor matrix of the year 1981.
- ii. "Numerical Ability" was found in the year 1981 on the second original factor matrix and also remained the same after rotation too.
- iii. "Verbal General Ability to solve the Scientific and social problems" was found on the first original factor matrix in the year 1980 and on the first rotated factor matrix in the year 1981.
- iv. "General Ability to solve the social problems" was found on the first factor matrix in the year 1980.

- v. "Verbal General Ability to solve the scientific and numerical problems" appeared on the third rotated factor matrix in the year 1980.

The results presented in the chapter IV and the discussion on these results, mentioned in the present chapter (Caption V) have been carried forward in the next chapter (Caption VI) for implication and general recommendation.