DOCUMENT RESUME

ED 224 390 HE 015 654

AUTHOR Olagunju, Amos O.; Jordan, Portia
TITLE A Student Motivation, Faculty, and Instructional Technique Evaluation Model.
INSTITUTION Barber-Scotia Coll., Concord, N.C.
SPONS AGENCY Department of Education, Washington, DC.
PUB DATE Apr 82
NOTE 51p.; This paper was identified by a joint project of the Institute on Desegregation at North Carolina Central University and the ERIC Clearinghouse on Higher Education at The George Washington University.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Academic Aspiration; College Desegregation; College Students; Course Evaluation; Dropout Prevention; Evaluation Methods; Higher Education; *High Risk Students; Institutional Research; *Learning Motivation; Models; Student Attitudes; *Student Evaluation of Teacher Performance; *Student Motivation; Teaching Methods
IDENTIFIERS *Barber Scotia College NC

ABSTRACT

Student academic motivation and student evaluation of overall faculty effectiveness and instructional techniques at Barber-Scotia College were studied to identify the academically underprepared and unmotivated students. Students provided assessments concerning the impact of the college's course offerings, the effectiveness of their instructors, and the difficulty or amount of effort instructors required from students. Overall student attitudes toward course materials, assignments, quizzes, instructors, and student responsibility were used as a measure of the degree of student academic motivation. Of the 200 students surveyed, 32.5 percent were found to be academically unmotivated. It was found that the more highly academically motivated the student, the greater the impact a course had, and the less complaints the student had about learning course materials. Additional findings include: students from rural areas seemed to be more academically inclined than students from suburban and urban areas; and students who studied an average of 4 or more hours per day were more academically inclined. It is recommended that the Office for Total Student Development and the Counseling Office become more concerned about academic problems. Potential dropouts tend to complain about a number of areas, including classwork, instructors, and college services. Most academically unmotivated students at Barber-Scotia College reject assignments and are deficient in study skills. A questionnaire is appended. (SW)

A STUDENT MOTIVATION, FACULTY, AND INSTRUCTIONAL TECHNIQUE EVALUATION MODEL

by

Amos O. Olagunju, Director
MIS/Institutional Research Office

Portia Jordan, Coordinator
Total Student Development

Barber-Scotia College
Concord, North Carolina

NORTH CAROLINA CENTRAL UNIVERSITY
DURHAM, NORTH CAROLINA 27707

INSTITUTE ON DESEGREGATION

ERIC CLEARINGHOUSE ON HIGHER EDUCATION/INSTITUTE ON DESEGREGATION

COOPERATIVE PROJECT

This paper has been identified by a joint project of The Institute on Desegregation at North Carolina Central University and ERIC Clearinghouse on Higher Education at George Washington University. The purposes of this project are to identify, collect, and make available literature concerned with

(1) the problems of minority students in higher education in general and
(2) the problems of desegregation in historically black colleges and universities in particular.

New published and unpublished materials are reviewed and recommended by participants of the Institute on Desegratation's Interinstitutional Research Group (ID/IRG) for acquisition by ERIC Clearinghouse on Higher Education. An annual bibliography of this material will be published under the names of ERIC and the Institute.

Various types of materials are being solicited, especially unpublished and unindexed materials, as well as publications, produced by faculty and staff members. Included in these may be unpublished faculty studies, institutional research studies, master's theses, monographs, papers presented at professional meetings, articles from general and scholarly periodicals, and conference and workshop proceedings not covered by ERIC Clearinghouse on Higher Education.

To be acceptable for inclusion in the ERIC system, the materials submitted for evaluation must be (1) reproducible, (2) of sufficient substance to be of value to practitioners, researchers, scholars, and others, and (3) not repetitive of materials that are already currently available.

If additional information is needed about this cooperative project or the criteria for selection of materials, please write or call the Director of the Institute on Desegregation at 919/683-6433, North Carolina Central University, Durham, North Carolina 27707.

PREFACE

Student motivation for academic studies should be investigated to bear on his intellectual and social involvements in an attempt to recommend a useful student supportive program. An objective faculty evaluation based on a survey of student opinions would make use of the opinions of academically-motivated students.

This document discusses an approach to faculty, instructional technique, and student motivation evaluation. The project was supported by a federal grant for Strengthening Developing Institutions under the Title III program, and a grant from the Consortium on Research Training, CORT, Greensboro, N.C.

The authors owe much tribute to Mrs. Brenda Lott, who typed this material.

Many thanks to Ms. Tamaria Griffin for her assistance in processing and tabulating the data for this project. The authors would also like to thank their hard-working students Marston Adams, Edward Alexander, Cheryl Bagley, Ineta Nibbs, and Steve Wiseman, who assisted in processing the instruments for this project.

Concord, North Carolina
April, 1982

Amos O. Olagunju
Portia Jordan

TABLE OF CONTENTS

TABLE OF CONTENTS Cont'd

1 INTRODUCTION

1.1 Problem Statement

When a large proportion of the total student population in a college or university obtains poor or low grades from one semester to another, there is a need to identify factors affecting student academic performance. Researchers, (Greenbaum, 1981; Webb & Carras, 1981) have advocated for the establishment of remedial and student supportive programs to combat student retention rates.

(Greenbaum, 1981) discusses a wide latitude of responsibilities of the Supportive Services Program (SSP) at the University of Minnesota, Duluth, which was designed to assist educationally underprepared students. These include: financial aid assistantship, providing skills courses, making physical environment more accessible, and providing support for students from different cultural backgrounds. Although the SSP aims at removing technical and attitudinal barriers confronting the educationally underprepared students, Greenbaum's report fails to reflect on the student motivation for academic studies.

In another study, (Webb and Carras, 1981) designed four separate introductory physical science courses in an attempt to identify the characteristics of mature-age students and in recognition of student needs. Although the results of their investigations identified the characteristics of "older" students, no attempt has been made to recognize the degree of mature-age student motivation for physical science courses. Their research

projects fail to consider the student academic progress in his social involvements and environments.

It is our philosophy that the student motivation for academic studies should be investigated to bear on his social involvements and intellectuals.

1.2 Definitions

In this report, we have introduced some terms which are synonymously within this report. We will now define these terms.

An educationally underprepared student or academically non-motivated student, or an educationally-handicapped student in a course is one whose performance (measured by grade obtained) is found to be poor and/or one who has a number of significant problems (ranging from learning and reading problems to hatred for quizzes and assignments) with his course material. Although a student might have excellent performances in a number of courses, the above definition recognizes such a student as educationally underprepared for a course so long as he has a number of significant problems with the course under discussion.

Student environment or social involvement is defined as any extra-curricular activities, living and reading atmosphere, and other obstacles which might affect the performance of a student in a course.

1.3 Purpose of Project

The primary aim of this project is to develop a model for evaluating student motivation into academic studies, overall faculty effectiveness, and instructional techniques, and to apply the model in Barber-Scotia College's environment. In order to satisfy the requirements of our project, the following goals are desirable:

1. To survey and evaluate the opinions of students at the College to bear on student attitude and motivation into academic studies.

2. To obtain and evaluate the faculty-student relationship at the College as it affects student academic progress.

3. To develop and apply an overall faculty effectiveness evaluation model.

4. To analyze student opinions to bear on the effectiveness of instructional techniques at Barber-Scotia College.

We will now review some background work.

1.4 Background Work

(Brier, 1978) offers some suggestions for identifying the underprepared student. There is a need to identify who the underprepared student is and what he is not capable of doing. In order to achieve this goal, Brier's write-up as related to the present study suggests the following questions:

- Does the student function below expected academic performance?
- Is the student from a low or high socio-economic level?
- What racial background does this student belong to? Urban? Suburban? or Rural?
- In what areas of academic curriculum is this student found to be underprepared?
- Can the student manage himself academically? Is the student deficient in study skills?

The questions above allow us to identify not only the social background of a student, but also the student motivation and deficiencies in academic studies.

In another study, (Bruffee 1978) discusses the problems of underprepared students. Educating the underprepared student requires management,

planned, and integrated approaches of a team effort. There is a need to observe student reaction to class, course requierments, and discipline problems. Specific questions of interest to researchers include:

- Does the student daydream in class?
- Is the student's attention wandered away from class?
- Does the student reject assignments?
- Does the student crack jokes in class or does he participate in class discussions?

The criteria above allow us to examine the student motivation for academic studies in class work.

Of particular relevance to the present study is an observation of student "self-esteem" by Hazelton. In an article, (Hazelton, 1981), she explains the relationship of self-esteem to academic progress. Early academic failures are attributed to heavy work loads, lack of supervision, homesickness, poor grades on examinations, and peer-group influence. If it is possible to identify students with low academic self-esteem, then it probably may be possible to assist students with poor academic performances.

Other variables affecting student academic progress might be self-ambition or peer-reinforced-ambition. In other words, a student might be motivated to achieve a goal in life and by contrast, a student might be influenced by industrious, hard-working, peer groups or he might be influenced by the non-productive students. Anastasion, (Anasta, 1969) in a research on an investigation of the interaction of performance and personality on teaching reports the following observations: Students can operate independently of teacher's approval and are cognizant of peer support. Student achievement is affected by a teacher's mastery of the teaching method.

(Mechan, 1978) suggests a new method for studying the structure of a school. He recognizes that researchers have considered the number of books in a college library, the amount of equipment in science laboratories, and the opinions of teachers and administrators towards a college as parameters for studying the structure of schooling. Mehan argues that the past researchers neglected what actually happens inside colleges on a practical, daily basis in classrooms, in testing encounters, in teachers' lounges, and at recess. As suggested by Mehan, the social class, age, sex, ability, ethnicity career plans, attitudes of students, and ability and attitudes of teachers must be considered in an evaluation process of schooling, student motivation, and instructional techniques. Moreover, the opportunity for students to participate in class discussions, the relationship of class assignments, tests, and quizzes to class materials, and the availability of text references for assignments must be considered in a successful faculty evaluation.

In subsequent sections, we will consider the usefulness of the various project reports reviewed in this section.

2. APPROACH TO RESEARCH

The single most important task in this research is that of identifying the educationally underprepared and academically non-motivated students. To achieve this task, the questionnaire of Appendix A was designed to survey the opinions of students on the impact of course offerings at the College. In the questionnaire, students were requested to rate the effectiveness of their instructors, how difficult instructors make assignments, and the amount of effort instructors require from students. Students were also asked to rate their interest and participation in class discussions, responsibilities to courses including interest in quizzes and assignments, class attendance, understanding of course materials, and so on.

The questions above were posed to students in the hope that the educationally-handicapped and the non-motivated students would rate the impact of course offerings, instructor's effectiveness, and student responsibilities very low while rating the course materials very difficult. In particular, the academically non-motivated and the educationally-handicapped students would be found with the following problems in their classes:

(a) Inability to learn, read, and think more clearly about the areas of course materials

(b) Inability to understand course materials and, consequently, lack of interest in the subject

(c) Find instructors non-enthusiastic and helpless when students are confused

(d) Find instructors going into too much detail and giving bad examples

(e) Find instructor's assignments difficult and regard course materials as requiring a great deal of work.

(f) Lack of participation in class discussions, absence from classes, and inability to focus attention in class

(g) Hatred for quizzes and assignments

(h) Allow friends to disturb their academic progress

Having identified the academically non-motivated students, we were interested in examining how their social environment might affect their poor performances. In particular, we were interested in how student social activities, hours put into studies, residence, family income, and so on might affect a student's academic performance. To accomplish this goal, the social involvement of studious students is compared against the social involvement of educationally handicapped students. For example, information that many ambitious students live on-campus and students of low academic standard live off-campus might possibly explain the degree of seriousness among students.

In this project, three classes namely, the freshman Personal Development Seminar, Humanities, and Educational Psychology were selected to provide test beds for our various instructional technique investigations. Apart from the large and mixed student population in each of these classes, there is no other reason why other classes would not be suitable for our investigations. Two hundred instruments were distributed at random to students enrolled in the selected classes.

In section 3, we will consider formally the approach to our various investigations.

3. PARAMETER MEASUREMENT

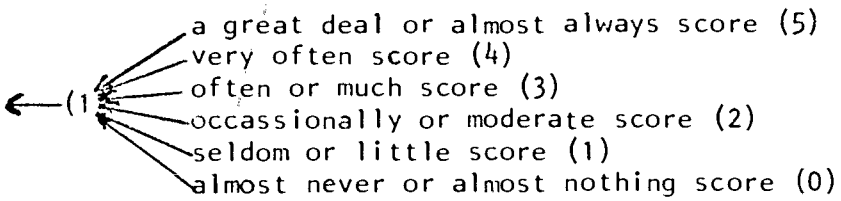
3.1 Motivation Into Academic Studies

The problem of differentiating ambitious students from the academically non-motivated students is a crucial one. The information that a student obtained a very poor grade in a course might not mean that the student is not academically inclined. The information that a student complained about the difficulty of course materials and, consequently, the difficulty in learning and understanding course material might fail to identify the non-ambitious student. For these reasons, we have employed the overall student attitude to course materials, assignments, quizzes, instructors, and student responsibility to class as a measure of the degree of student motivation into academic studies. The single measure of the degree of student motivation into academic studies is defined as follows:

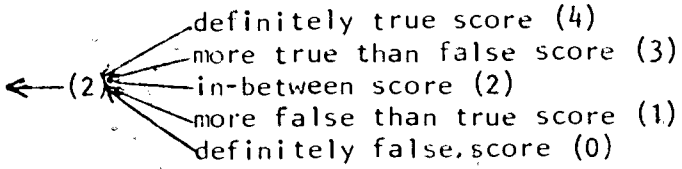
Consider the questionnaire of Appendix A.

Let a great deal or an almost always criterion carry a weight of 5
Let a very often criterion = 4
Let an often or much criterion = 3
Let an occasionally or moderate criterion = 2
Let a seldom or little criterion = 1
Let an almost never or almost nothing criterion = 0

From the above definitions, we establish a criterion evaluation model such as follows:



This model is used to evaluate the parameters; Impact on Student, Instructor's Effectiveness, and Difficulty as shown in Appendix A. Similarly, we establish another criterion evalution model consistent with the evaluation of the parameter, Student Responsibility as follows:



The overall score of the degree of student motivation into academic studies is evaluated using the model in Figure 3.1. From this model, a simple way for calculating student motivation score S may be defined as follows:

$$S = I + E + 20 - 2 \times D + 0.9375 \times R$$

Where I is the aggregated score of course impact on student,
E is the aggregated score of instructor's effectiveness,
D is the aggregated score of the difficulty of course materials,
R is the aggregated score of student responsibility to class.

Clearly, a student who is highly motivated into academic studies would obtain a score of S close to 100. In order to examine the characteristic behavior of students with the same strength in academic motivation, it is possible to establish ranges of values for S defining each behavioral group.

Note that the motivation evaluation model in Figure 3.1 could be made more effective and efficient by attaching weight of importance at each node in the tree and possibly introducing a sensitivity analysis. Because of the practical time constraints on us, we have omitted these considerations from our evaluation model.

3.2 Evaluation of Faculty Members

At times, researchers are in doubt about the significance of the results of a faculty evaluation obtained by a survey of student opinions. In section 3.1, we stated that it is impossible to establish a range of values for the parameter, Student Motivation Score S as defining the characteristics for the different groups of students. For example, a value of S greater than 80 might represent a student who is highly moti-

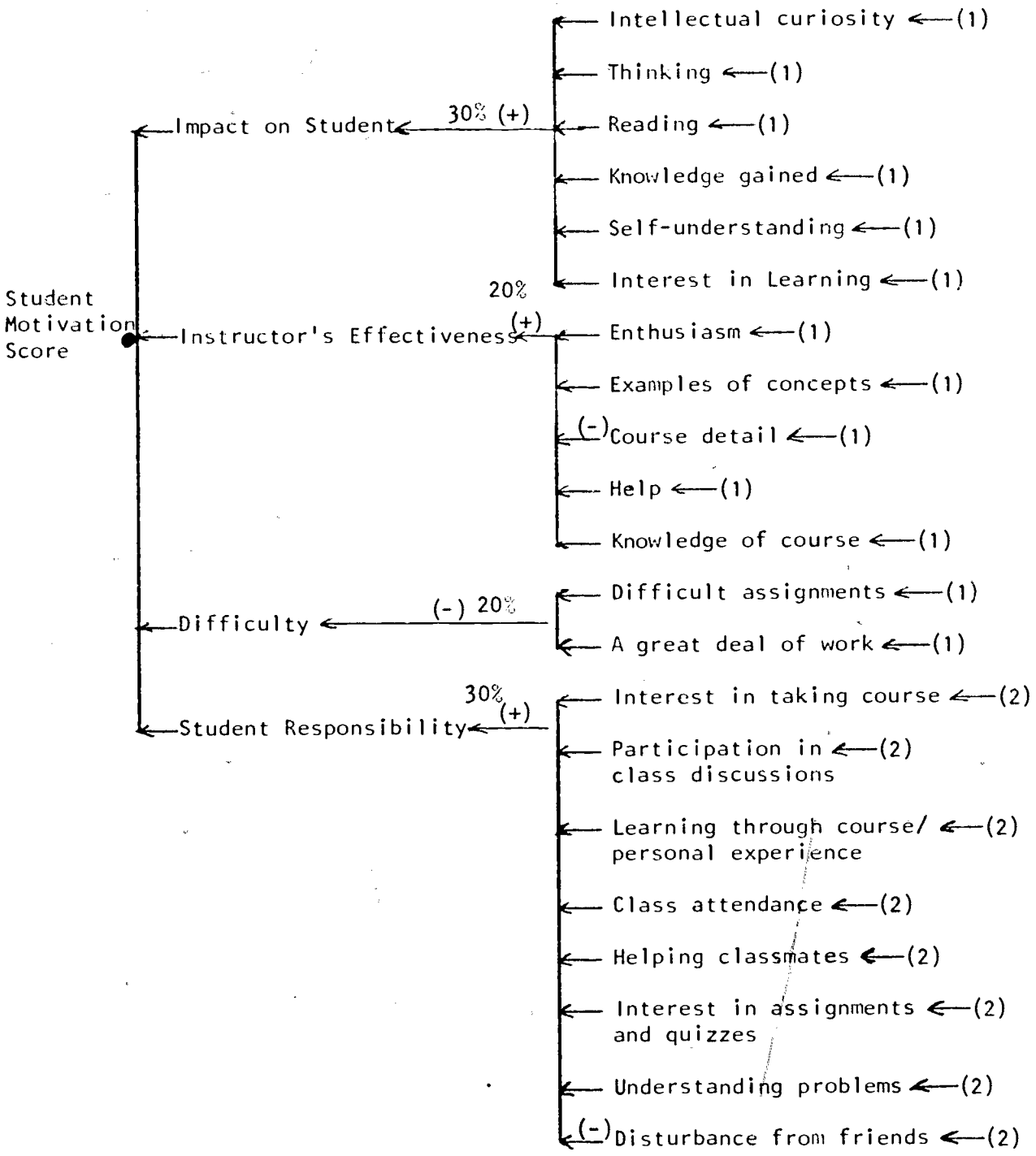


Fig. 3.1 Student Motivation Evaluation Model

vated into studies; a value of S between 70 and 80 might mean that a student is moderately serious about his studies; a value of S between 60 and 70 might represent a student who is just motivated into studies; and a value of S less than 60 might indicate a student who is not serious with his studies.

The decision of which student should be selected to evaluate faculty members is no longer a crucial problem for the researcher. The opinions of many students can be surveyed. Using the calculated values of S, the academically highly-motivated student opinions can be identified for a faculty evaluation in the hope that faculty members would respect the opinions of these students. To evaluate each faculty member, the model in Figure 3.2 is found to be useful.

In Figure 3.2, the parameter P for each criteria is calculated as follows:

(a) Identify all students who are highly motivated in academic studies. i.e. identify students with S scores greater than 80.

(b) Let n_1, n_2, n_3, n_4, n_5, and n_6 be the respective number of students in (a) who responded to a criterion as Almost Always, Very Often, Often or Much, Occasionally, Seldom, and Almost Never.

For each criteria, $P = (5n_1 + 4n_2 + 3n_3 + 2n_4 + n_5)/5(n_1 + n_2 + n_3 + n_4 + n_5 + n_6)$

$$P_* = (5n_6 + 4n_5 + 3n_4 + 2n_3 + n_2)/ 5(n_1 + 0_2 + n_3 + n_4 + n_5 + n_6)$$

Clearly, the closer to 1 the values of P and P_* the better a faculty member is found in satisfying the requirements of the particular need of students.

The overall effectiveness F, of a faculty member in meeting the total student instructional needs is defined simply as the average of the aggre-

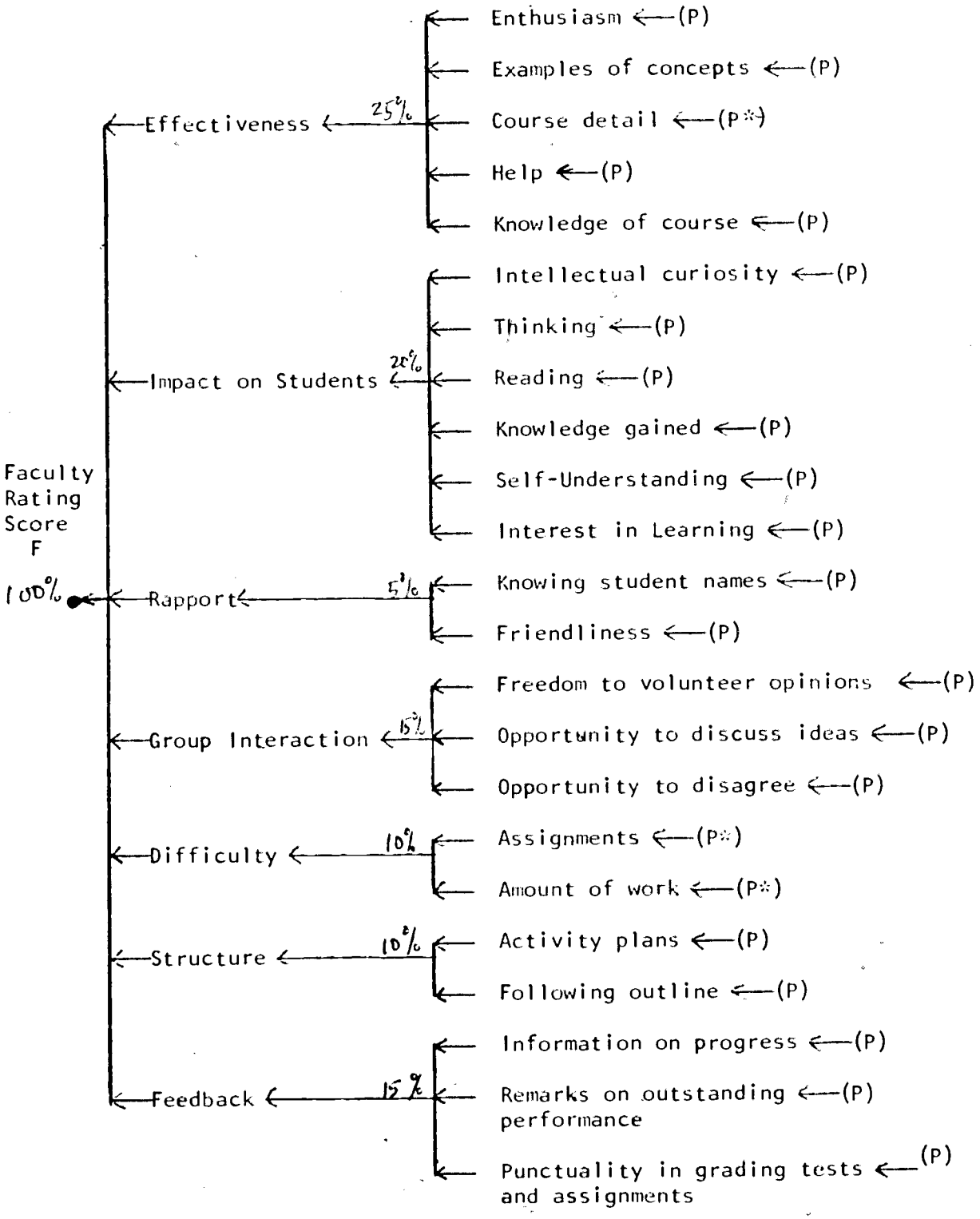

Faculty Rating Score F
100%
Effectiveness
25%
Enthusiasm ←(P)
Examples of concepts ←(P)
Course detail ←(P*)
Help ←(P)
Knowledge of course ←(P)
Impact on Students
20%
Intellectual curiosity ←(P)
Thinking ←(P)
Reading ←(P)
Knowledge gained ←(P)
Self-Understanding ←(P)
Interest in Learning ←(P)
Rapport
5%
Knowing student names ←(P)
Friendliness ←(P)
Group Interaction
15%
Freedom to volunteer opinions ←(P)
Opportunity to discuss ideas ←(P)
Opportunity to disagree ←(P)
Difficulty
10%
Assignments ←(P*)
Amount of work ←(P*)
Structure
10%
Activity plans ←(P)
Following outline ←(P)
Feedback
15%
Information on progress ←(P)
Remarks on outstanding performance ←(P)
Punctuality in grading tests and assignments ←(P)

Fig. 3.2

gated sum of the parameters in figure 3.2. Again it is possible to introduce weight of importance and sensitivity into the model but we only seek the simple model.

3.3 Effect of Background and Environment

Evaluating the degree of student motivation into academic studies to bear on his social involvements is a sensitive and difficult problem. As such, we only seek an approximate measure of student degree of motivation into studies to bear on his social background. The behavioral characteristics of the "highly-motivated student" in the areas of "student responsibilities" and "background information and social environment" can be compared to the characteristics of 'non-motivated students'.

In section 4, we will consider the applications of the various models and parameters introduced in this section.

4. RESULT AND EVALUATION

4.1 Student Motivation

Four ranges of values were established from the calculated Student Motivation Scores S to examine the degree of academic motivation for different groups of students. The groups of students identified are as follows:

(a) Group I students are those with Student Motivation Scores S less than 60. This group represents those students who are not serious with their studies. 32.5% of the 200 students whose opinions were surveyed fell into this group.

(b) Group II students obtained Student Motivation Scores S between 60 and 70 and are just slightly serious with their studies. Thirty percent of the sample fell into this group.

(c) Group III consists of students whose Motivation Scores S lie between 70 and 80 and represent students who are moderately serious about their studies. Twenty-five percent of the students are found in this group.

(d) Group IV represents those students who are highly motivated into studies. A score of S greater than 80 is used to identify students in this group. Only 12.5% of the sample fell into this group.

Table 4.1, 4.2, 4.3, 4.4, 4.5 and 4.6 represent the opinions of the different groups of students on a faculty member rated according to specific criteria. The values in each of these tables are calculated using the parameter P, (satisfaction score) defined in section 3.2. P_t in each of these tables is the aggregated sum of P for all students in a group. We will now discuss the results in these tables in greater detail.

4.1.1 Course Impact on Students

The values of P_t in table 4.1 suggests two hypotheses:

(1) The more highly motivated into academic studies a student is, the greater the impact a course has on the student.

(2) The more highly motivated into academic studies a student is, the less problems and, hence, less complaints about learning course materials.

4.1.2. Instructor's Rapport, Organization of Material and Effectiveness

The values of P_t in Tables 4.2, 4,3, 4.4, and 4.5 suggests the following hypothesis: The less academically motivated a student is, the more complaints he has about his instructors.

4.1.3 Student Responsibility

The values of P_t in Table 4.6 suggests the hypothesis that the greater the degree of commitment into studies is, the greater the responsibility to academic studies.

4.2 Effect of Background and Environment on Academic Progress

Tables 4.7 and 4.8 present the background information and the social environment of the four groups in the sample. The values in these tables are percentages. According to the hypothesis in section 4.1.3, the highly academically-motivated students are found to be more responsible in regard to classwork. For this reason, we compare the background information and the environment of the highly-motivated students to that of the non-motivated ($P \leq 60$) students to observe the effects of environment and the background of a student on his academic studies.

By examining the percentages in Table 4.7, the following assertions might be observed.

(a) Living residences (off-campus/on-campus) does not affect academic studies for students at Barber-Scotia College.

(b) Students from rural areas tend to be more academically inclined than students from suburban and urban areas.

(c) No significant inference can be drawn on the effect of family income on student motivation into academic studies.

(d) The sex of a student has no bearing on motivation into studies.

IMPACT ON STUDENTS

Criteria	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
1. Achievement by Course in Stimulating intellectual curiosity	.412	.650	.760	.826	.662
2. Learning Opportunities	.419	.676	.800	.878	.693
3. Reading Effectiveness Provided by Course	.470	.688	.796	.878	.708
4. Knowledge Gained From Course	.418	.714	.792	.913	.709
5. Contribution of Course to Self-Understanding	.446	.709	.771	.950	.719
6. Interest in Learning Course Material	.371	.664	.815	.890	.685

Table 4.1

EFFECTIVENESS OF INSTRUCTOR

Criteria	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
1. Enthusiasm	.550	.701	.805	.904	.740
2. Good Examples of Concepts	.612	.710	.783	.904	.752
3. Level of Details	.768	.724	.532	.230	.564
4. Willingness to Assist Students	.670	.762	.845	.854	.783
5. Ability	.541	.867	.872	.960	.810

Table 4.2

INSTRUCTOR'S RAPPORT

Criteria	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
1. Knowing Students by Names	.437	.580	.630	.686	.583
2. Friendliness	.626	.840	.860	.918	.811

Table 4.3

GROUP INTERACTION

Criteria	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
1. Freedom to Volunteer Opinions	.447	.617	.641	.691	.599
2. Opportunity to Discuss Ideas	.369	.403	.641	.736	.537
3. Opportunity to Disagree	.470	.509	.578	.676	.558

Table 4.4

COURSE DIFFICULTY, STRUCTURE, AND FEEDBACK

Criteria	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
Difficulty					
1. Difficult Assignments	.870	.550	.325	.312	.514
2. Requires a Great Deal of Work	.836	.570	.407	.303	.529
Structure					
1. Instructor Plans Activities in Details	.501	.708	.717	.776	.676
2. Instructor Follows an Outline Closely	.571	.731	.794	.800	.724
Feedback From Instructor					
1. Inform Students of Their Progess	.352	.490	.600	.877	.580
2. Remarks Outstanding Performance	.404	.476	.642	.776	.575
3. Grades and Returns Promptly Tests and Assignments	.467	.510	.660	.704	.585

Table 4.5

STUDENT RESPONSIBILITY

Criteria	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
1. Interest in Taking the Course	.407	.520	.661	.815	.601
2. Participation in Class Discussions	.503	.515	.709	.782	.607
3. Tie-In Between Learning and Participation	.554	.644	.794	.891	.721
4. Class Attendance	.626	.821	.852	.880	.795
5. Help Rendered to Classmates	.611	.695	.767	.806	.720
6. Attention in Class	.584.	.645	.726	.815	.693
7. Interest in Assignments and Quizzes	.420	.595	.608	.670	.573
8. Problem in Understanding Class Materials	.772	.679	.619	.330	.600
9. Academic Disturbance by Friends	.713	.521	.472	.321	.507

Table 4.6

25

BACKGROUND INFORMATION AND SOCIAL ENVIRONMENT

	RESIDENCE		CITY RESIDENCE AREA			FAMILY INCOME		SEX	
	On-Campus	Off-Campus	Urban	Suburban	Rural	Low	High	Male	Female
Group I $P \leq 60$	85	15	31	60	9	71	29	40	60
Group II $60 < P \leq 70$	94	6	39	25	36	87	13	48	52
Group III $70 < P \leq 80$	79	21	38	42	20	68	32	64	36
Group IV $P > 80$	91	9	18	41	41	84	16	42	58
Sample Total	87	13	32	42	26	78	22	48	52

Table 4.7

BACKGROUND INFORMATION AND SOCIAL ENVIRONMENT

	STUDY HOURS			AGE						WEEKEND SOCIALIZATION	
	1-3	4-6	7-10	18	19	20	21	22	22	Yes	No
Group I $P \leq 60$	68	32	0	17	20	55	4	2	2	83	17
Group II $60 < P \leq 70$	59	38	3	18	33	22	15	6	6	79	21
Group III $70 < P \leq 80$	56	46	0	26	36	22	16	0	0	79	21
Group IV $P > 80$	47	47	6	12	62	18	12	0	6	95	5
Total Sample	57	41	2	18	37	29	11	2	3	84	16

Table 4.8

Further assertions can be derived from the percentage figures in Table 4.8.

(e) Barber-Scotia College students who are 19 years of age are more academically inclined. Students at Barber-Scotia College who are 20 are found to be not serious with their studies.

(f) Students at Barber-Scotia College who put in an average of four or more hours of study per day are found to be more academically inclined.

(g) Participating in weekend social activities does not affect student academic motivation.

In order to validate our hypotheses, a random sample of 15 questionnaires was selected from each group of students with varying academic motivation. The cummulative GPA of students in each group are obtained. The result of this experiment as shown in Table 4.9 is found to be consistent with our student academic motivation assertions.

	GPA SCORES			
	0 - 2.49	2.50 - 2.99	3.00 - 3.49	3.50 - 4.00
Group I $P_t \leq 60$	92	8	0	0
Group II $60 < P_t \leq 70$	20	55	25	0
Group III $70 < P_t \leq 80$	5	30	60	5
Group IV $P_t > 80$	0	0	35	65

Table 4.9

Note that the percentage values in Table 4.9 support most of our hypotheses which are all based on the recognition of the best student opinions as those emanating from the student motivation score P_t greater 80.

PERSONAL DEVELOPMENT SEMINAR: FACULTY RATING

PARAMETER	Max Score	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
Impact on Student	20	8.643	12.527	14.333	17.293	13.200
Effectiveness of Instructor	25	13.070	15.310	17.790	19.965	16.535
Instructor's Rapport	5	2.350	2.683	3.428	3.737	3.050
Group Interaction	15	6.635	6.750	7.685	8.705	7.452
Difficulty	10	6.490	6.920	7.740	9.000	7.525
Course Structure	10	5.360	6.300	7.530	8.145	6.835
Feedback	15	5.155	7.045	9.640	11.460	8.325
Faculty Score	100	47.703	57.535	68.146	78.305	62.922

Table 4.10

HUMANITIES: FACULTY RATING

PARAMETER	Max Score	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
Impact on Student	20	9.533	15.293	16.347	17.797	14.830
Effectiveness of Instructor	25	12.700	16.740	20.430	22.075	16.860
Instructor's Rapport	5	2.845	3.745	4.125	4.498	3.876
Group Interaction	15	6.140	6.780	9.115	10.840	8.215
Difficulty	10	3.750	5.495	6.830	8.225	6.070
Course Structure	10	5.075	5.805	7.000	8.755	6.660
Feedback	15	5.515	8.720	10.455	13.225	9.483
Faculty Score	100	45.558	62.578	74.302	85.415	66.963

Table 4.11

4.3 Faculty Evaluation

In section 3, we presented a faculty evaluation model. To determine the use and the effectiveness of the model, two classes, Humanities and Personal Development Seminar (PDS), were selected for evaluation based on the large number of students enrolled in each class. Of the 200 sampled students, 147 were found to be enrolled in PDS and 39 in Humanities. By applying the student motivation score S, to the 147 students and 39 students enrolled in PDS and Humanities respectively, the following results were obtained.

- Twenty students enrolled in PDS have S values greater than 80
- For 27 students in PDS, S scores lie between 70 and 80
- Forty-Six students in PDS score between 60 and 70
- Fifty-Four PDS students score less than 60
- Three students enrolled in Humanities have S values greater than 80
- For 6 students in Humanities, S scores lie between 70 and 80
- Fifteen students in Humanities score between 60 and 70
- Fifty-Four students score less than 60

The opinions of students (with varying academic motivation) on the effectiveness of the course and the course instructor are presented in Appendices B1 and B2.

Table 4.10 and 4.11 show the rating scores for Personal Development Seminar and Humanities instructors respectively. As might be expected and supported by the values in each table, the faculty rating obtained by non-academically motivated students is significantly different from the faculty rating evaluated from the opinions of highly-motivated students. Note that the overall faculty rating score obtained from the total sample

(Average P_t) is considerably less than the rating score obtained from highly-motivated students ($P_t > 80$). Whether or not we should rely on faculty evaluation by the total students of varying academic inclination is a decision for debate among college administrators.

4.4 Evaluation of Instructional Techniques

Although a faculty member might obtain a high rating score from the entire student population or academically inclined students, he might still not satisfy all student requirements in areas of his teaching techniques. For this reason, we have chosen to evaluate the degree of student satisfaction (measured by the score P_t) in each instructional technique criterion rated by all students and by highly motivated students. For example, the information that the Humanities instructor scored a 85.4% rating from the highly-motivated student or 70% from the total sample (indicating a reasonably overall effectiveness in satisfying student needs) might not explain whether or not he structures his lectures to meet student needs or that his assignments and quizzes are at the right level of difficulty.

As might be observed from the values of Average P_t in Table 4.11, the Humanities instructor can improve upon the group interaction provided in his class to meet the needs of students. In particular, he can provide better instructions by providing the opportunity to discuss ideas and to disagree (Appendix B2). Also, it would be valuable for him to be informed that the students find the materials presented in class to be difficult. From the Appendix B1, the PDS instructor will also find the above information useful if he is to satisfy the requirements of the entire student population in his class. In addition, students are not aware that he knows their names.

4.5 Student Responsibilities

Appendices C1 and C2 present the rating scores of commitment into studies for students in Humanities and PDS classes. The values in these appendices reveal the following obserations.

- There are a number of student at Barber-Scotia College who are not serious with their studies ($P_t \leq 60$).
- Barber-Scotia College students are interested in participating in class discussions.
- Barber-Scotia College students have problems in understanding class materials and often their friends hinder their progress.

In section, we will consider the significance and the implications of the various results.

5. CONCLUSIONS AND IMPLICATIONS

Some degree of doubt is attached to our various results in view of the ad hoc way in which the academically non-motivated students' opinions were identified and separated from the opinions of the academically-motivated students. A more realistic approach would be to evaluate the student motivation into academic studies from learning and perception concepts. However, we were interested in obtaining the approximate degree of student motivation into studies. Since the general progress average scores of sampled students agree with our student motivation results, we feel confident (to some extent) of the concepts and techniques employed in this project. The general progress average scores of students can only be relied upon when previous courses taken by students are related to or are within the same field as the course in which student motivation is being rated. A student might have excellent performances in arts subjects and still be found non-motivated in mathematics (a course which the student must take to satisfy the general studies requirement).

Although the various investigations were conducted using Barber-Scotia College's students as experimental test beds, the results of our findings have global significance. We will now discuss two important results from our experiments and present their relevance to student academic performances.

I. The more highly motivated into academic studies a student is, the greater the impact a course has on the student.

II. The more highly motivated into academic studies a student is, the less the problems and complaints about learning course materials.

These hypotheses reveal the observation that the provision of stimulating courses will increase the student retention rate in a college. The accomplishment of this observation however, depends primarily upon course requirements and methods of instruction. In particular, a course

that students find boring is likely to create little or no motivation, distraction of attention away from class, low retentions, and other behavioral and psychological problems. By contrast, a course can be designed and instructed in a way that student interests will be aroused. Thus, course designers or instructors should have prior knowledge of the needs of students.

A variety of instructional techniques might be applied to meet the needs of students with varying educational backgrounds and preparedness. These include group discussions, question-answering appoaches, class assignments, student contribution and criticism, and so on. Every instructor who is interested in assisting academically, non-motivated students should ask himself the following questions:

- Do I display a sense of humor in class?
- Do students participate in my class discussions?
- Do my teaching techniques demonstrate and display realities and life experiences?
- Do I welcome questions and criticism in my class?
- Am I concerned when students are confused and do not understand my class materials?
- Do I provide my students with personal tutorial lessons?

Three main factors affect student academic performances at Barber-Scotia College.

1. Students from rural areas appear to be more academically inclined than students from suburban and urban areas.

2. Barber-Scotia College students who are 19 years of age are inclined academically. Students who are 20 years of age are found to be not serious with their studies.

3. Students at Barber-Scotia College who put in an average of four or more hours of study per day are found to be more academically inclined.

The first factor may be attributed to the fact that there are often less opportunities for distraction and social involvements in civic events and activities in the rural areas. As such, students from rural areas

might be compelled to devote more time to studies or grow into the habit of reading and studying. The development of such habits at an early stage in life is then carried over into college life. With this awareness, educational administrators should provide students, particularly the under-prepared students with environments conducive for study. There is a need to develop techniques which will prevent student distractions from studies with emphasis on assisting underprepared students to develop good study habits.

The majority of students entering Barber-Scotia College as first-time freshmen fall within the age of nineteen years. The second factor indicates that these students have not yet been overcome by the strong environmental and peer influences around the College. Perhaps then, the best time to introduce the foundation courses in each major is during a student's first year in college.

Devoting four or more hours to studies a day indicates a committment on the part of the student who is interested in learning. While students should not be compelled to devote four or more hours to study per day, the College Counseling Center should offer more guidelines that would encourage underprepared or non-motivated students to develop regular study habits. Such information might include student guided learning or study hours supervised by counselors or teaching assistants. These preparatory classes should be mandatory for educationally-handicapped students. There is a need to survey and assess the interests, needs, and educational background of students in a college to design programs which will stimulate the underprepared and academically, non-motivated students.

In this report, we have presented and applied a model for evaluating student motivation, overall faculty effectiveness, and instructional techniques. 32.5% of the 200 Barber-Scotia College students whose opinions

were surveyed were found to be academically non-motivated. There is a need for the Office of Total Student Development and the Counseling Office to become more concerned about student academic problems. The academically non-motivated students are potential college dropouts and require special attention since such students complain about almost everything ranging from class work and instructors to college services. Most academically non-motivated students at Barber-Scotia College reject assignments, are deficient in study skills, and cannot manage themselves academically. The problems of students at Barber-Scotia College require team effort and more commitment from faculty members.

REFERENCES

1. Greenbaum, A.
"An Holistic Approach for Assisting Educationally Underdeveloped Students" Journal of Developmental and Remedial Education, Spring 1981, Vol. 4, No. 3.

2. John, Webb, John Carras
"A Survey for Teaching Physical Science to 'Older' Students"
JCST, Vol. 4, No. 6, May, 1981

3. Hazelton
"Self-Esteem"
The Black Collegian, Aug./Sept. 1981, p 160

4. Anastasion Nicholas J.
"Performance and Personality"
School of Education, Indiana University, Bloomington, Indiana, p. 4, 1968

5. Ellen Brier
"Educating the Underprepared"
Journal of Developmental and Remedial Education
Fall 1978 Vol. 2, No. 1

6. Kenneth A. Bruffee
"A New Intellectual Frontier"
Journal od Developmental and Remedial Education
Fall 1978, Vol. 2, No. 1

7. Hugh Mehan
"Structuring School Structure"
Harvard Educational Review. Vol. 48, No. 1, Feb. 1978

Survey Questionnaire

DATE: _____

COURSE: _____

INSTRUCTOR: _____

YOUR CLASS STANDING (CIRCLE):

Fr. Soph. Jr. Sr.

A = Almost always or a great deal
B = Very often
C = Often or much
D = Occasionally or moderate
E = Seldom or little
F = Almost never or almost nothing

I.

II.

III.

	A	B	C	D	E	F
1. My intellectual curiosity has been simulated by this course.						
2. I am learning how to think more clearly about the area of this course.						
3. I am learning how to read materials in this area more effectively.						
4. I am acquiring a good deal of knowledge about the subject.						
5. The course is making a significant contribution to my self-understanding.						
6. The course is increasing my interest in learning more about this area.						
7. The instructor is enthusiastic.						
8. The instructor gives good examples of the concepts.						
9. The instructor goes into too much detail.						
10. The instructor is helpful when students are confused						
11. The instructor seems knowledgeable in many areas.						
12. The instructor knows students' names						
13. The instructor is friendly						

A = Almost always or a great deal
B = Very often
C = Often or much
D = Occasionally or moderate
E = Seldom or little
F = Almost never or almost nothing

IV.

14. Students volunteer their own opinions.

15. Students discuss one another's ideas.

16. Students feel free to disagree with the instructor

V.

17. The instructor makes difficult assignments.

18. The instructor asks for a great deal of work.

VI.

19. The instructor plans class activities in detail.

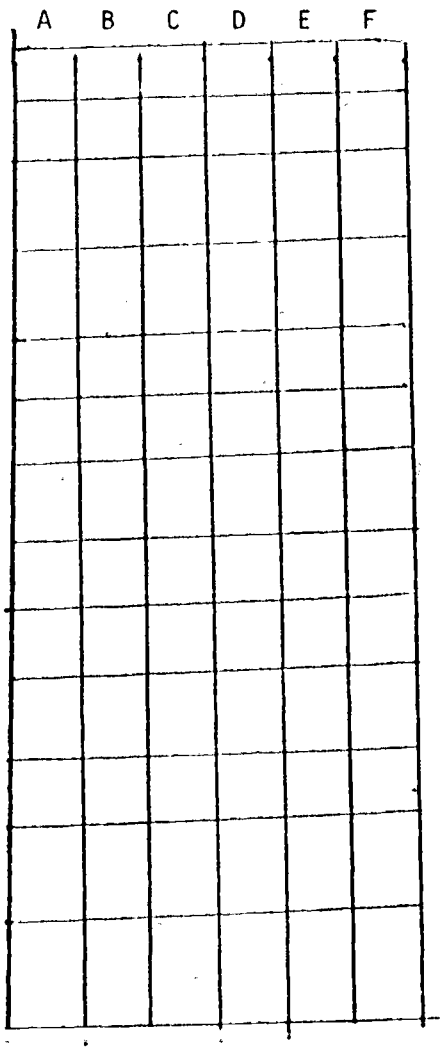
20. The instructor follows an outline closely.

VII.

21. The instructor keeps students informed of their progress.

22. The instructor tells students when they have done a particularly good job.

23. Tests and papers are graded and returned promptly.



VIII. NOTICE!!! THIS SCALE IS DIFFERENT!!!

If not applicable, leave blank

A = Definitely true
B = More true than false
C = In-between
D = More false than true
E = Definitely false

	A	B	C	D	E
24. I am very much interested in taking this course.					
25. I do participate in class discussions.					
26. I consciously try to make a tie-in between what I am learning through the course and my own experience.					
27. I do attend all my classes.					
28. I sometimes help my classmates to learn.					
29. My attention is always in class.					
30. I like assignments and quizzes a lot.					
31. I do not have any problems in understanding the class materials.					
32. My friends sometime disturb my academic progress.					

IX.

33. I live on campus_____ off campus_____ .

34. I am from an urban___ suburban___ rural___ area.

35. I am from a low_____ high_____ income family.

36. Sex: Male_____ Female_____ Age_____

37. How many hours do you put into studies?_____

38. Do you socialize yourself at weekends? Y___ N___

APPEXDIX B 1
Personal Development Seminar

CRITERIA	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
IMPACT ON STUDENTS					
1. Achievement by course in stimulating intellectual curiosity	.418	.694	.711	.813	.659
2. Learning opportunities	.475	.515	.643	.875	.627
3. Reading Effectiveness provided by course	.510	.655	.776	.906	.712
4. Knowledge gained from course	.388	.657	.725	.887	.664
5. Contribution of Course to self-understanding	.440	.673	.730	.814	.664
6. Interest in learning course material	.362	.564	.715	.893	.634
EFFECTIVENESS OF INSTRUCTOR					
1. Enthusiasm	.562	.034	.776	.893	.716
2. Good examples of concepts	.525	.694	.821	.900	.736
3. Level of details	.287	.328	.340	.404	.340
4. Williness to assist students	.580	.760	.781	.838	.740
5. Ability	.660	.643	.840	.957	.775
RAPPORT					
1. Knowing students by names	.333	.492	.502	.538	.466
2. Friendliness	.607	.581	.869	.957	.754

APPENDIX B 1 Cont'd

Personal Development Seminar

CRITERIA	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
GROUP INTERACTION					
1. Freedom to volunteer opinions	.384	.497	.506	.523	.478
2. Opportunity to discuss ideas	.429	.385	.463	.533	.453
3. Opportunity to disagree	.514	.468	.568	.685	.559
DIFFICULTY					
1. Difficult Assignments	.733	.737	.828	.900	.800
2. Requires a great deal of work	.565	.651	.720	.900	.709
STRUCTURE					
1. Instructor plans activities in details	.506	.575	.760	.775	.654
2. Instructor follows an outline closely	.566	.685	.746	.854	.713
FEEDBACK FROM INSTRUCTOR					
1. Inform students of their progress	.300	.472	.675	.786	.558
2. Remarks outstanding performance	.331	.505	.684	.773	.573
3. Grades and returns promptly tests and assignments	.400	.432	.569	.733	.534

APPEXDIX B 2
Humanities

CRITERIA	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
IMPACT ON STUDENTS					
1. Achievement by course in stimulating intellectual curiosity	.436	.771	.833	.866	.727
2. Learning opportunities	.490	.700	.771	.933	.724
3. Reading Effectiveness provided by course	.509	.700	.800	.830	.730
4. Knowledge gained from course	.527	.842	.867	1.00	.584
5. Contribution of Course to self-understanding	472	.733	.767	.814	.701
6. Interest in learning course material	.426	.842	.866	.896	.758
EFFECTIVENESS OF INSTRUCTOR					
1. Enthusiasm	.400	.633	.887	.933	.713
2. Good examples of concepts	.600	.713	.820	.866	.750
3. Level of details	.200	.450	.569	.726	.486
4. Williness to assist students	.580	.692	.850	.890	.753
5. Ability	.760	.860	.960	1.00	.670
RAPPORT					
1. Knowing students by names	.618	.771	.800	.950	.785
2. Friendliness	.520	.727	.850	.966	.766

APPENDIX B 2 Cont'd

Humanities

CRITERIA	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
GROUP INTERACTION					
1. Freedom to volunteer opinions	.446	.514	.766	.982	.677
2. Opportunity to discuss ideas	.440	.428	.457	.466	.447
3. Opportunity to disagree	.342	.414	.600	.720	.519
DIFFICULTY					
1. Difficult Assignments	.320	.566	.742	.820	.612
2. Requires a great deal of work	.430	.533	.820	.825	.602
STRUCTURE					
1. Instructor plans activities in details	.475	.545	.640	.925	.646
2. Instructor follows an outline closely	.540	.616	.760	.826	.686
FEEDBACK FROM INSTRUCTOR					
1. Inform students of their progress	0.430	.545	.650	.876	.625
2. Remarks outstanding performance	.328	.616	.745	.933	.656
3. Grades and returns promptly tests and assignments	.345	.583	.696	.836	.615

APPENDIX C 1

Student Responsibilities

CRITERIA	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
HUMANITIES					
1. Interest in taking the course	.422	.519	.607	.916	.616
2. Partipation in class discussions	.363	.589	.342	.662	.489
3. Tie-in between learning and participation	.450	.655	.850	.975	.733
4. Class attendance	.531	.639	.821	.833	.706
5. Help rendered to classmates	.500	.660	0.85	.863	.718
6. Attention in class	.411	.696	.750	.833	.673
7. Interest in assignments and quizzes	.400	.553	.607	.833	.598
8. Problem in understanding class materials	.750	.571	.517	.375	.553
9. Academic disturbance by friends	.975	0.850	.658	.350	.708

APPENDIX C 2

Student Responsibilities

CRITERIA	Group I $P_t \leq 60$	Group II $60 < P_t \leq 70$	Group III $70 < P_t \leq 80$	Group IV $P_t > 80$	Average P_t
PERSONAL DEVELOPMENT SEMINAR					
1. Interest in taking the course	.355	.520	.663	.765	.575
2. Partipation in class discussions	.500	.573	.761	.765	.649
3. Tie-in between learning and participation	.577	.685	.840	.933	.758
4. Class attendance	.558	.685	.829	.852	.731
5. Help rendered to classmates	.405	.707	.780	.933	.706
6. Attention in class	.570	.685	.877	.940	.768
7. Interest in assignments and quizzes	.416	.491	.750	.933	.648
8. Problem in understanding class materials	.850	.756	.671	.413	.673
9. Academic disturbance by friends	0.650	.575	.409	.359	.498