

DOCUMENT RESUME

ED 099 013

JC 740 454

**AUTHOR** Grippando, Gloria M.  
**TITLE** A.C.T.: Its Relationship to Practical Nursing Education.  
**INSTITUTION** Nova Univ., Fort Lauderdale, Fla.  
**PUB DATE** 17 Dec 73  
**NOTE** 35p.; Practicum submitted to Nova University in partial fulfillment of requirements for Doctor of Education degree

**EDRS PRICE** MF-\$0.75 HC-\$1.85 PLUS POSTAGE  
**DESCRIPTORS** \*Academic Achievement; \*Community Colleges; Correlation; Grade Point Average; \*Medical Education; Nurses; Post Secondary Education; \*Practical Nurses; Practicums; Pretesting; \*Test Results

**IDENTIFIERS** American College Test; \*College of Lake County; Illinois

**ABSTRACT**

This study was conducted to determine the relationship between the American College Test (A.C.T.) composite score and academic success or failure as indicated by the GPA and state-board licensing examination score of students and graduates at College of Lake County, Grayslake, Illinois LPN program. Subjects were 132 graduates and 34 currently enrolled students, of whom 127 had taken the A.C.T. preadmission test and 108 had written the state-board examination. The first five classes of the program were studied. The college implemented the program in 1969. This correlational study had an ex post facto design with interval measures indicating a parametric correlation technique be employed. The Pearson product-moment correlation machine calculated formula was used. The findings indicated a correlation of 0.438 between the A.C.T. and GPA and 0.542 between the A.C.T. and state-board examination score. As a result of this study, the screening committee for the practical nursing program will have a more valid determination of minimum cut-off composite score on the A.C.T. preadmission test in the selection of potentially successful students and graduates. Major recommendations include a study by the committee of the A.C.T. Student Profile Section for information on other factors which may affect a student's success or failure in the program; development of rating scales for other variables predictive of the strengths and weaknesses of the prospective student; and the screening committee must continually evaluate and improve the procedure for the selection of successful practical nursing students in the future classes. (Author)

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A.C.T.: ITS RELATIONSHIP TO PRACTICAL NURSING EDUCATION

by

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A PRACTICUM PRESENTED TO NOVA UNIVERSITY  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
DEGREE OF DOCTOR OF EDUCATION

NOVA UNIVERSITY

December 17, 1973

ED 099013

JC 740 454

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## Chapter I

### INTRODUCTION

#### Context of the Problem

The American College Testing Program (ACT) is an independent, non-profit corporation founded in 1959 and chartered under the laws of the state of Iowa. It provides relevant information of direct value to students and schools in educational planning and decision making. Two of the main purposes of services provided are (1) to estimate academic potentials of an individual that will be useful in the admissions process and (2) identify academic weaknesses in need of remedial study such as that provided by Developmental Services (DSR) staff.(1)

From experience the general level of ACT scores and grade point averages of successful and unsuccessful students may be determined. Based upon speculation only, a minimum ACT composite score of 12 is the cut-off point at the present time for acceptance into the College of Lake County practical nursing program. The intent of the paper was to provide valid and reliable data in determining a more meaningful usage of the ACT composite score in the screening of future applicants to the program.

#### Statement of the Problem

What is the relationship between the American College Test (ACT) composite score and academic success or failure as indicated by the grade point average and state-board examination score of students and

graduates of the College of Lake County practical nursing program?

#### Review of the Literature

According to ACT composite scores (American College Testing Program, 1966) transfer students make higher scores than terminal students.

This is probably due to the fact that in many colleges a student may not enter a transfer program if his test scores fall below a certain cut-off point generally higher than is required for terminal programs. Some junior colleges have also stated differences between transfer and terminal students on high school and college grades. (2)

Students, high school educators, and college educators use the ACT Assessment in various ways. Several publications are available to assist the college by providing recommendations about how ACT data and services should be used. Two of these are Using ACT on the Campus and Your College Freshmen. (3) According to Crockett (1969), 55 percent of 855 colleges surveyed used ACT data in actual admissions decisions with 85 percent reporting frequent use of ACT test scores. (4)

In a study of 19 public technical institutes using a 10 percent random sample of 4,890 students--321 men and 168 women selected, the mean was 17.8 and the standard deviation was 4.7. Students planning to major in practical nursing in 1,169 colleges were studied using a 10 percent random sample of 1,140 students--3 men and 111 women selected showed a mean of 15.0 and a standard deviation of 4.5. (5)

Nursing research and published articles pertaining to practical nursing education are very limited, therefore, no references will be used in this area for this study other than excerpts from Counseling, Evaluation and Student Development in Nursing Education by Litwack, Sakata and Wykle (1972).



### Hypotheses

H<sub>1</sub> It was hypothesized that individuals who are academically successful in the practical nursing program score higher on the ACT pre-admission test than those who are academically unsuccessful in the practical nursing program.

H<sub>2</sub> It was hypothesized that individuals who score high on the ACT score high on the state licensing examination for practical nurses while those who score low on the ACT also score low on the state licensing examination for practical nurses.

### Rationale for the Hypotheses

The questions of selected criteria for admission to schools of nursing and the use of standardized tests in nursing education need to be examined in the light of current practices and future applications. The planning, implementation and evaluation of an assessment program has a direct effect on the quality of the program and success or failure of its students and graduates. Langheim (1966) found that cognitive factors are the most decisive in predicting success of nursing students. One of the most commonly used standardized tests used for admission is the American College Test (ACT). Hill, Taylor, and Stacy (1963) at the Universities of Utah and California conducted a large-scale research project concerning attrition in schools of nursing and found the first reason for withdrawal is academic failure. More effective selection criteria might help to reduce the high percentage of failure. Munday and Hoyt (1965) found that the ACT is an excellent predictor of grades. Goza (1970) found that students who passed State Board nursing examinations had higher ACT scores. (6)

### **Operational Definitions of the Variables (Type B)**

In this study a student was considered successful if a grade point average of 1.6 or letter grade of C was achieved during the first semester of the practical nursing program.

In this study, a graduate was considered successful if a minimum score of 350 was attained on the state licensing examination for practical nurses.

### **Operational Restatement of the Hypotheses**

It was therefore hypothesized that the grade point average and state-board licensing examination score will rise or fall in direct relationship to the composite score achieved on the ACT.

### **Significance of the Study**

It is anticipated that as a result of this study the screening committee for the practical nursing program will have a more valid determination of a minimum cut-off composite score on the ACT pre-admission test in the selection of potentially successful students and graduates.

## Chapter II

## METHODOLOGY

## Subjects

Ss were graduate and currently enrolled students of the College of Lake County practical nursing program in Grayslake, Illinois. Of the 132 graduates and 34 students enrolled at the mid-semester, fall 1973, 127 had taken the ACT pre-admission test and 108 had taken the state-board licensing examination for practical nurses. Code numbers were assigned to Ss and identity of individuals was protected. The first five classes of the program were studied. 1969 to 1974.

## Independent Variable

ACT Composite Score. ACT Test Battery of the American College Testing Program. Candidates for college entrance; 1959 to 1970; ACT; tests administered five times a year (October, December, February, April, July) at centers established by the publisher; five scores: English usage, mathematics usage, social studies reading, natural sciences reading composite; test booklet also includes a biographical inventory (Student Profile Section) of nonacademic achievements, aspirations, special campus needs, and perceptions of college; three new forms published annually; supervisor's manual, 1970 to 1971 edition ('70, C 1968, 20 pages); counselor's handbook ('70, 39 pages); technical report ('65, 43 pages); student information booklet ('70, 24 pages); interpretive booklet for students ('70, 32 pages); guide for use of ACT services on campus ('70, 35 pages); reprint of student profile section ('70, 8 pages); announcement of ACT research services ('70, 44 pages); separate answer sheets (MRC) must be used; examination fee, \$6 per student; fee includes reporting of scores to the student, his high school, and three colleges designated at time of application; 195 (240) minutes; American College Testing Program (The), P.O. Box 168, Iowa City, Iowa 52240.

The four tests have intercorrelations and the incremental validities of the addition of the second, third, and fourth tests in predicting collegiate success are minuscule. Reliabilities of the four tests are low for individual student assessment. Construction of the items in the ACT is of uneven quality; many of the items could benefit from more careful editing. There are extensive norms for the ACT, well developed and described and appropriately selected for the intended uses and interpretations of the test results. Despite some of the psychometric weaknesses of the ACT cited, the tests display highly satisfactory predictive validities against criteria of college grades, and this is in essence the most important property of all. (7)

#### Dependent Variable H<sub>1</sub>

Grade Point Average. College of Lake County. Fall Semester. NUR 114 - Practical Nursing I. 15 credit hours.

Final grades are issued at the end of each semester. Letter grades earn a number of grade-points per semester according to the schedule in Appendix I. The practical nursing program is a one-year integrated curriculum with a total of 38 credit hours leading to a certificate in practical nursing. Refer to Grade Report Form in Appendix I for further clarification.

#### Dependent Variable H<sub>2</sub>

State Licensing Examination for Practical Nurses.

National League for Nursing. 10 Columbus Circle, New York, NY 10019

#### NLN Programs and Service

**Testing** NLN conducts one of the largest professional testing services in the country. It constructs and processes licensing examinations for registered and practical nurses; administers NLN pre-admission tests for nursing school applicants, and provides achievement and qualifying tests for nursing students, practical nurses and aides. Over one million tests are processed each year.

## STATE BOARD TEST POOL EXAMINATION FORM 869

Standard score reported on all candidates. Administration of all tests is scheduled and supervised by the State Department of Registration and Education, Board of Nurse Examiners. Mean scores and standard deviations are available for the school, state, and all United States Jurisdictions.

## Procedure

Verbal permission and cooperation was received from the Director of Admissions for access to alumni and student files in the Admissions and Records Office of the College of Lake County. Fall semester gpa's were obtained on all who enrolled whether or not they completed the program. The ACT composite scores were available on 127 of 166 Ss. Applicants with at least fifteen quarter credits or ten semester hours of "C" are not required to submit ACT scores. The class of 1970 was admitted to the program during its transition from the Waukegan High School to the College of Lake County. The high school program did not require the ACT, therefore, composite scores are not available for those enrolled in the fall of 1969. State Board examination scores are submitted to state approved schools of practical nursing and kept on file in the office of the Coordinator of Practical Nursing. Identity of individuals is secured by the use of code numbers throughout the study.

Data Analysis: Machine calculation formula.

$$r = \frac{NEXY - (EX)(EY)}{\sqrt{(NEX^2 - (EX)^2)(NEY^2 - (EY)^2)}}$$

This study has an ex post facto design and is a co-relational study with correlations obtained for both  $H_1$  and  $H_2$ .

$O_1$     $O_2$

$H_1$  = ( $O_1$ ) ACT Composite Scores

      ( $O_2$ ) Grade Point Averages

$H_2$  = ( $O_1$ ) ACT Composite Scores

      ( $O_2$ ) State Licensing Examination Scores

Basis for selecting the statistical test:

The independent and both dependent variables are interval measures, indicating a parametric correlation technique be employed (called a Pearson product-moment correlation).

## Chapter III

## RESULTS

H<sub>1</sub>

The class of 1970 was not required to take the ACT as an admission requirement of the practical nursing program. The students had made application to and were accepted by the Waukegan High School Practical Nursing Program and the pre-admission test used was the GATB. The program transferred to the College of Lake County in July 1969 and the class became the first, entering September 8, 1969. Two of the students had taken the ACT and each achieved a composite score of (19) and a mean gpa of 3.4. This is misleading when plotted on GRAPH 2 as the Class of 1970 appears to have the highest ACT mean; however, one must keep in mind that the score of (19) represents only 7% of the class.

The Class of 1971 began with forty-five students and graduated thirty-five. Of these, ACT scores were on file for thirty-seven and the mean was (16). Of the ten who did not complete the program, five failed academically and five left the program for other reasons. The ACT mean for the five academic failures was (13).

The Class of 1972 admitted thirty-seven students and thirty-two successfully completed the program with an ACT mean of (16). Two of the five who withdrew experienced academic failure and had an ACT mean of (13.5).

The Class of 1973 graduated twenty-seven of thirty-one students who registered for the first semester and two who enrolled with advanced placement in the second semester. The class ACT mean was (15) and the mean for the three students who failed was (13.7)

The Class of 1974 is currently enrolled and data is based upon the mid-semester gpa rather than the final semester grades due to the time limitation of this study. Thirty-seven students enrolled and as of this writing, seven have withdrawn. One withdrew the second day of the semester. The six who withdrew were experiencing academic difficulty and their ACT mean was (14.7)

The ACT composite score mean for the sixteen who failed academically the first five years of the program's existence is (13.7). Based upon this data, this writer concludes that the cut-off score for admission to the practical nursing program should be (14).



Graph I Scatter gram of Fall Semester  
Grade-Point Averages vs. A.C.T. Composite  
Scores for First Five Classes in College  
of Lake County Practical Nursing Program

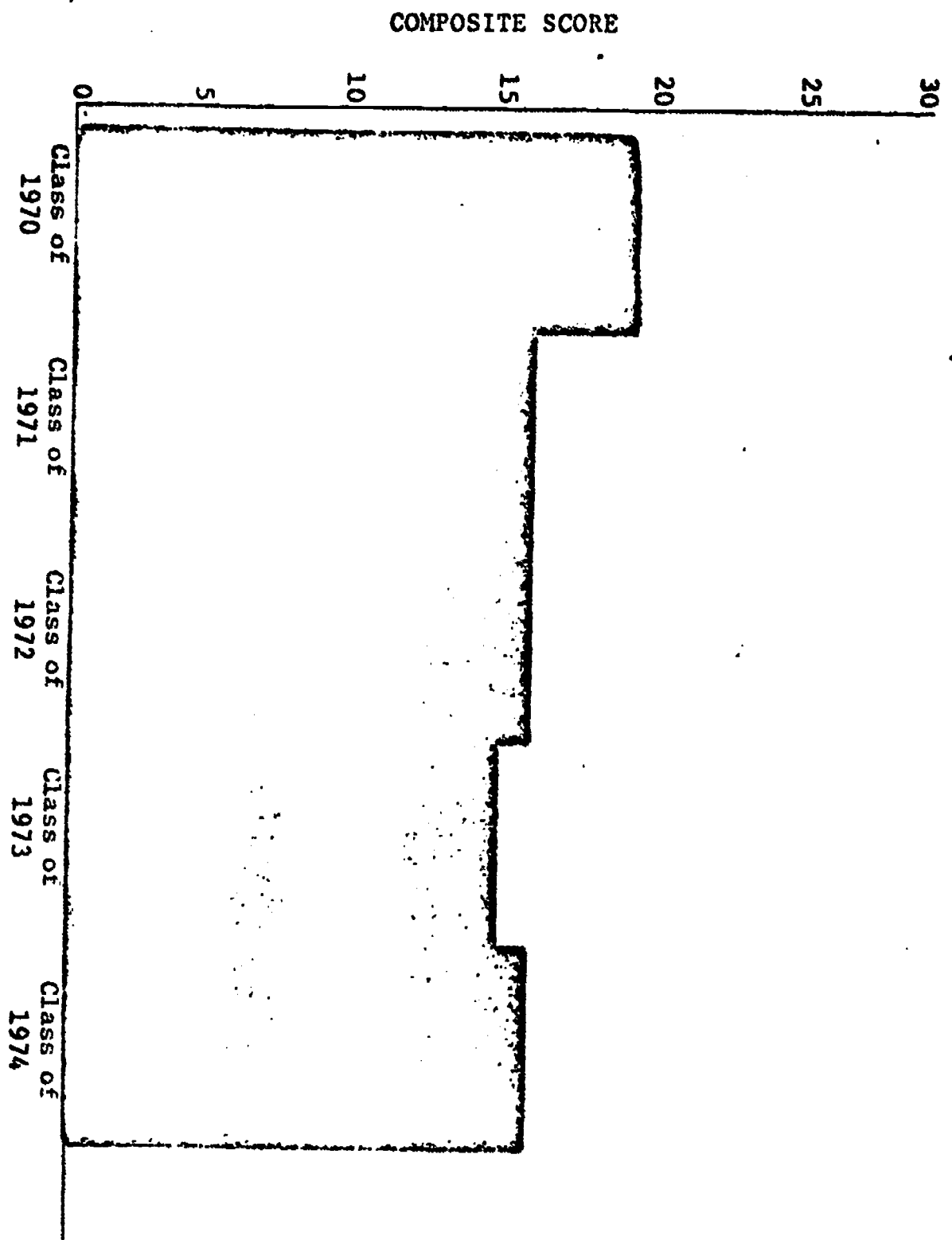
A.C.T. COMPOSITE SCORES

0 - 4      5 - 9      10 - 14      15 - 19      20 - 24      25 - 29

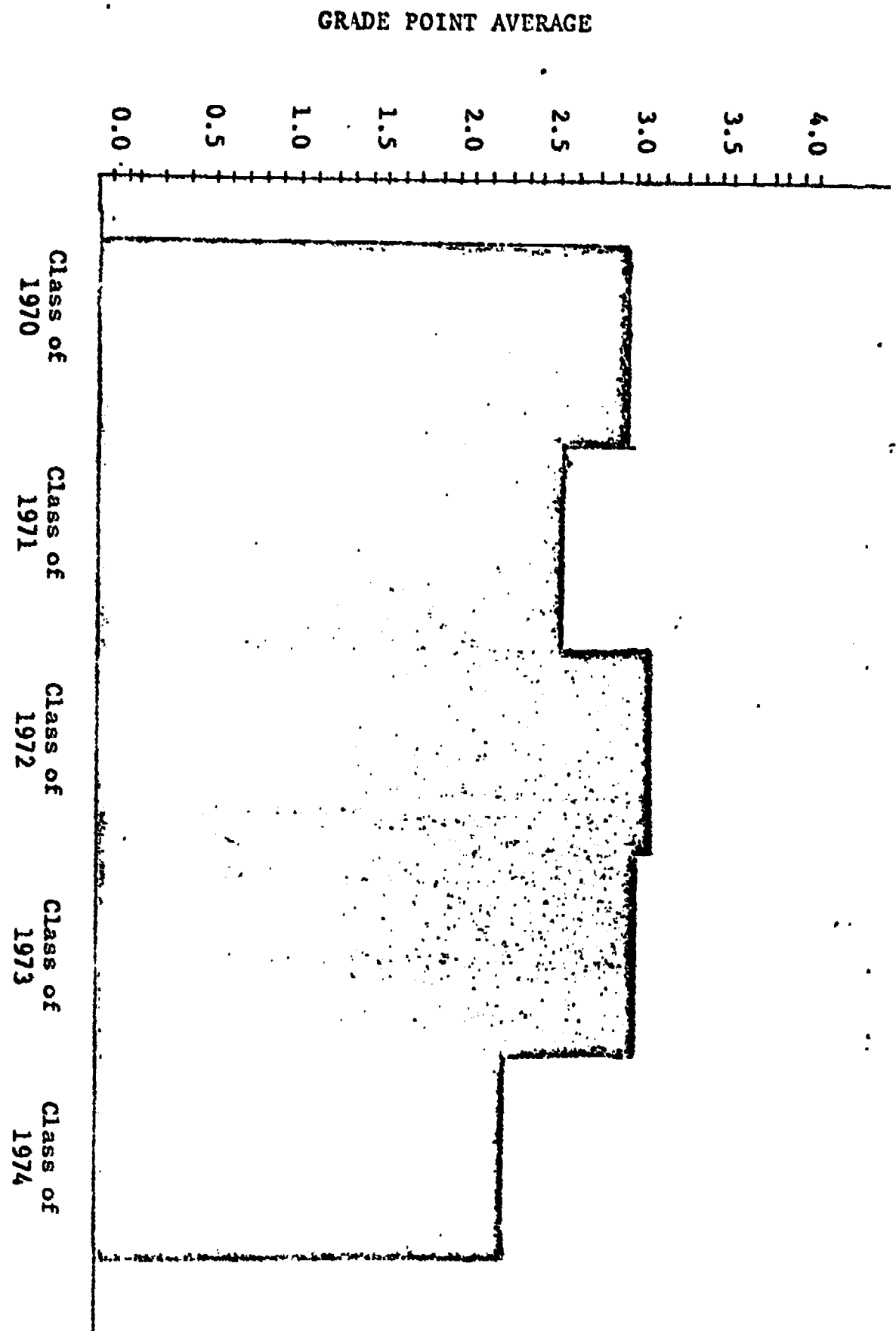
Grade-Point Averages

3.80-4.00		//	////	////	//
3.60-3.79		/	////		
3.40-3.59		//	////	//	
3.20-3.39		///		//	
3.00-3.19		//	////	////	/
2.80-2.99			////	//	
2.60-2.79	/	////	/	////	
2.40-2.59	/	////	////	/	
2.20-2.39		//	///	//	
2.00-2.19		////	////	/	
1.80-1.99	/	//	///		
1.60-1.79		//	/		
1.40-1.59		///	//	/	
1.20-1.39		/	///		
1.00-1.19	/				
0.80-0.99			/		
0.60-0.79					
0.40-0.59	/	////			

GRAPH 2 FREQUENCY DISTRIBUTION OF A.C.T. COMPOSITE SCORE CLASS MEAN



GRAPH 3: FREQUENCY DISTRIBUTION OF GPA CLASS MEAN



H<sub>2</sub>

Of the twenty-eight 1970 graduates, four failed the state licensing examination the first time it was taken. Two of these passed it the second time it was taken. One chose not to take it a second time and one failed it the second time. None of them had taken the ACT test so relationships cannot be established, however, it seems evident that two of the graduates were not prepared to function as an L.P.N.

Of the thirty-four 1971 graduates, one failed the state licensing examination the first time and passed it the second time. Her ACT composite score was (10).

Of the thirty-two 1972 graduates who wrote the state licensing examination, two failed the examination on two attempts. One has been referred to the Coordinator by the Director of the Department of Registration and Education for educational counseling before writing the examination a third time. Her ACT composite score was (12). The other may re-take the exam a third time within a two-year time limit. Her ACT composite score was (14).

The Class of 1973 will write the licensing examination on December 13, 1973 and the Class of 1974 will take the examination on September 20, 1974.

The mean ACT composite score for the seven graduates who failed the State Board examination was (12) based on the scores available on three of the seven. The mean gpa for the seven during the first semester of the program was 2.3, letter grade of (C). See Table 1 for licensing examination statistics and Appendix III - List Report Form of State Board Licensing Examination Scores.

Table 1

## STATISTICAL REPORT OF LICENSING EXAMINATION\*

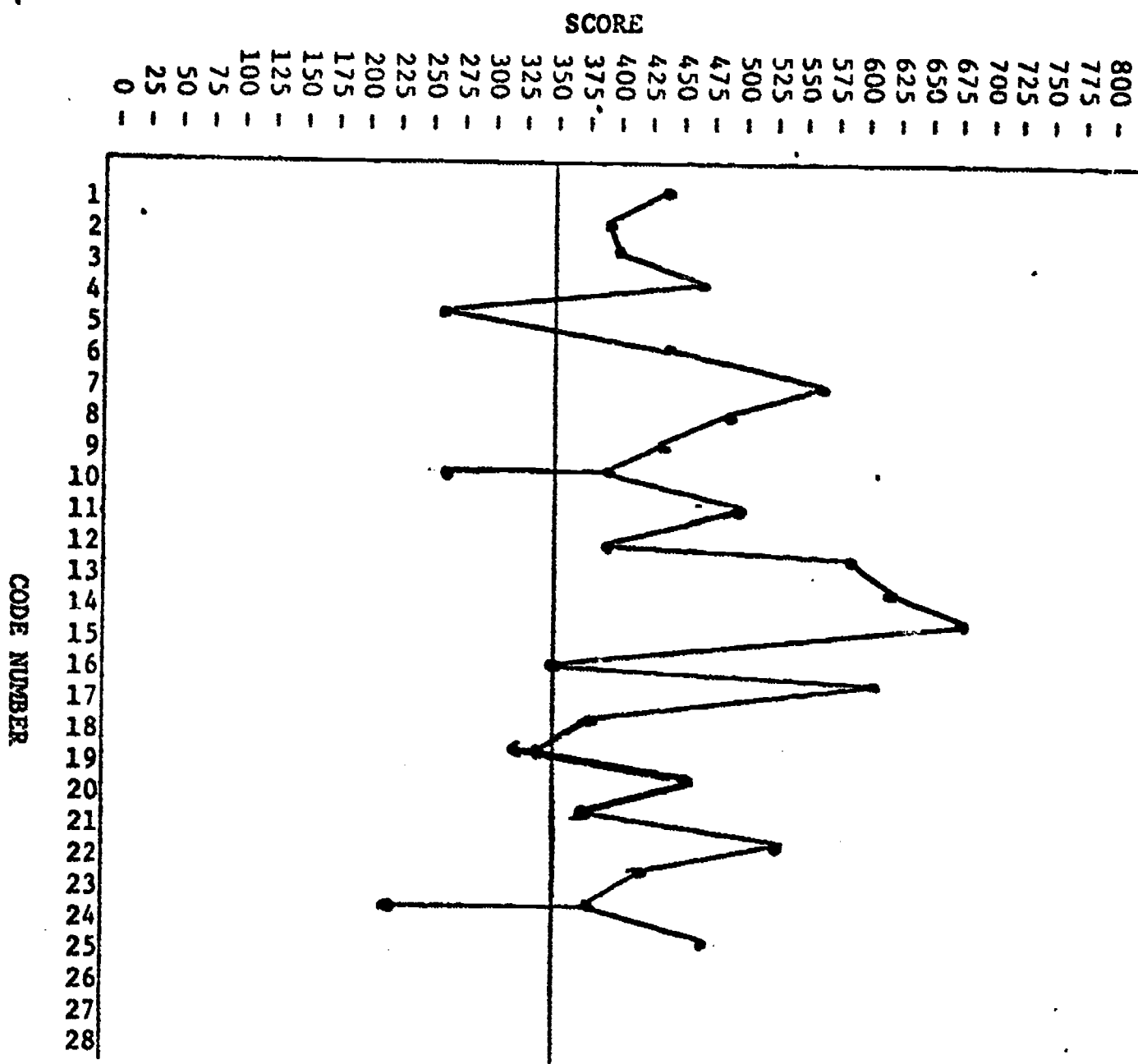
Year	Statistic	All U.S.A. Jurisdictions	Illinois	College of Lake County
Fall 1969 to Fall 1970	Number of Candidates	35,703	1175	28
	Mean Scores	506.5	497.4	511.6
	Standard Deviations	102.0	97.8	74.6
Fall 1970 to Fall 1971	Number of Candidates	38,234	1858	26
	Mean Scores	513.5	497.5	444.8
	Standard Deviations	102.6	97.3	114.2
Fall 1971 to Fall 1972	Number of Candidates	43,232	2076	36
	Mean Scores	516.0	512.9	537.5
	Standard Deviations	98.7	93.2	99.9

Statistics for the fall of 1972 to the fall of 1973 will not be available until January 1974. Therefore, stateboard examination statistics are available for only three of the first five classes of the practical nursing program at the College of Lake County.

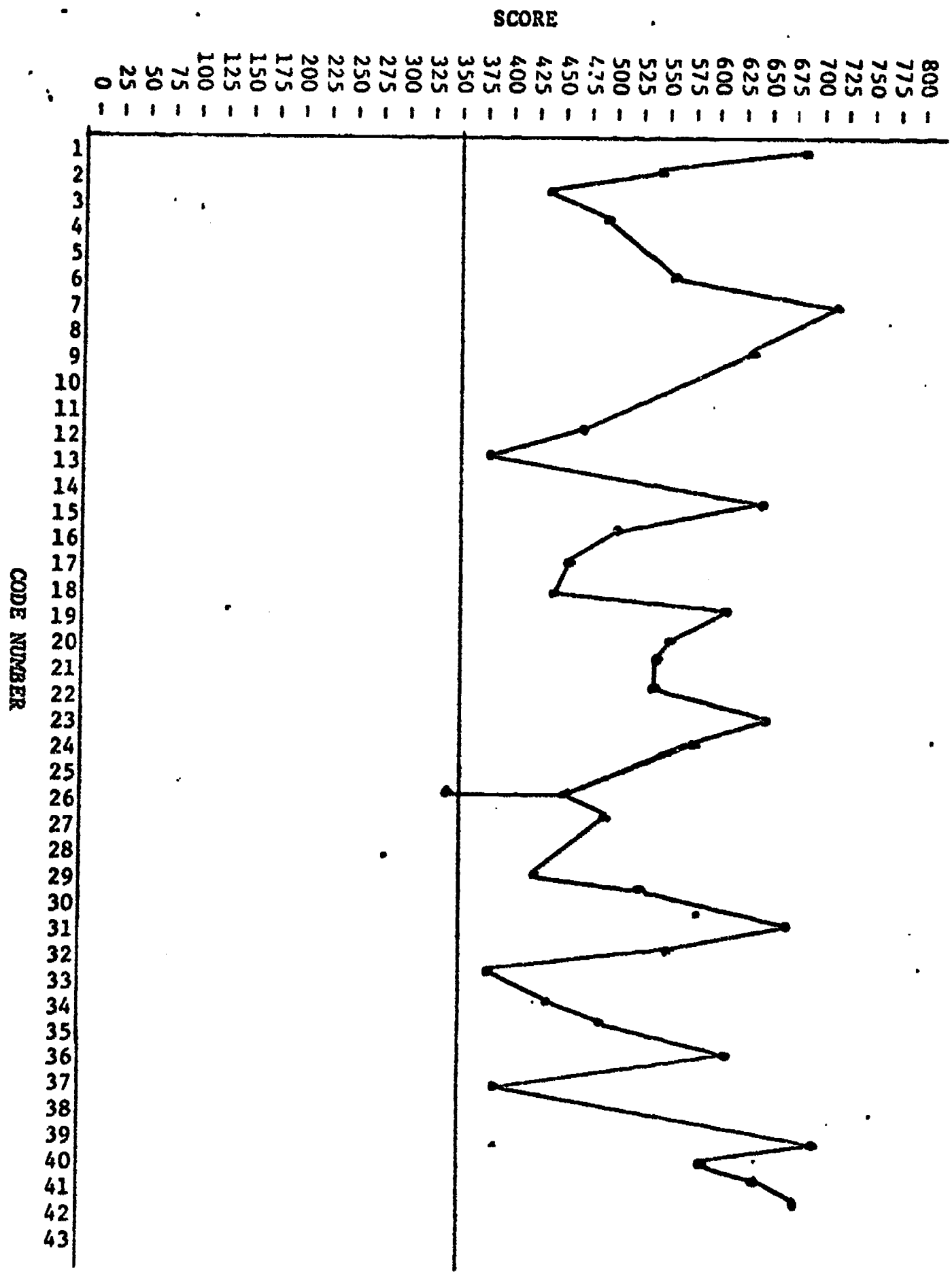
\* Information excerpted from the annual report submitted to Coordinators, Schools of Practical Nursing by the Nursing Education Staff, Illinois Department of Registration and Education.

Illinois minimum passing score = 350.

GRAPH 4 STATEBOARD EXAMINATION SCORES  
Class of 1970



GRAPH 5 STATEBOARD EXAMINATION SCORES  
Class of 1971



GRAPH 6 STATEBOARD EXAMINATION SCORES  
Class of 1972

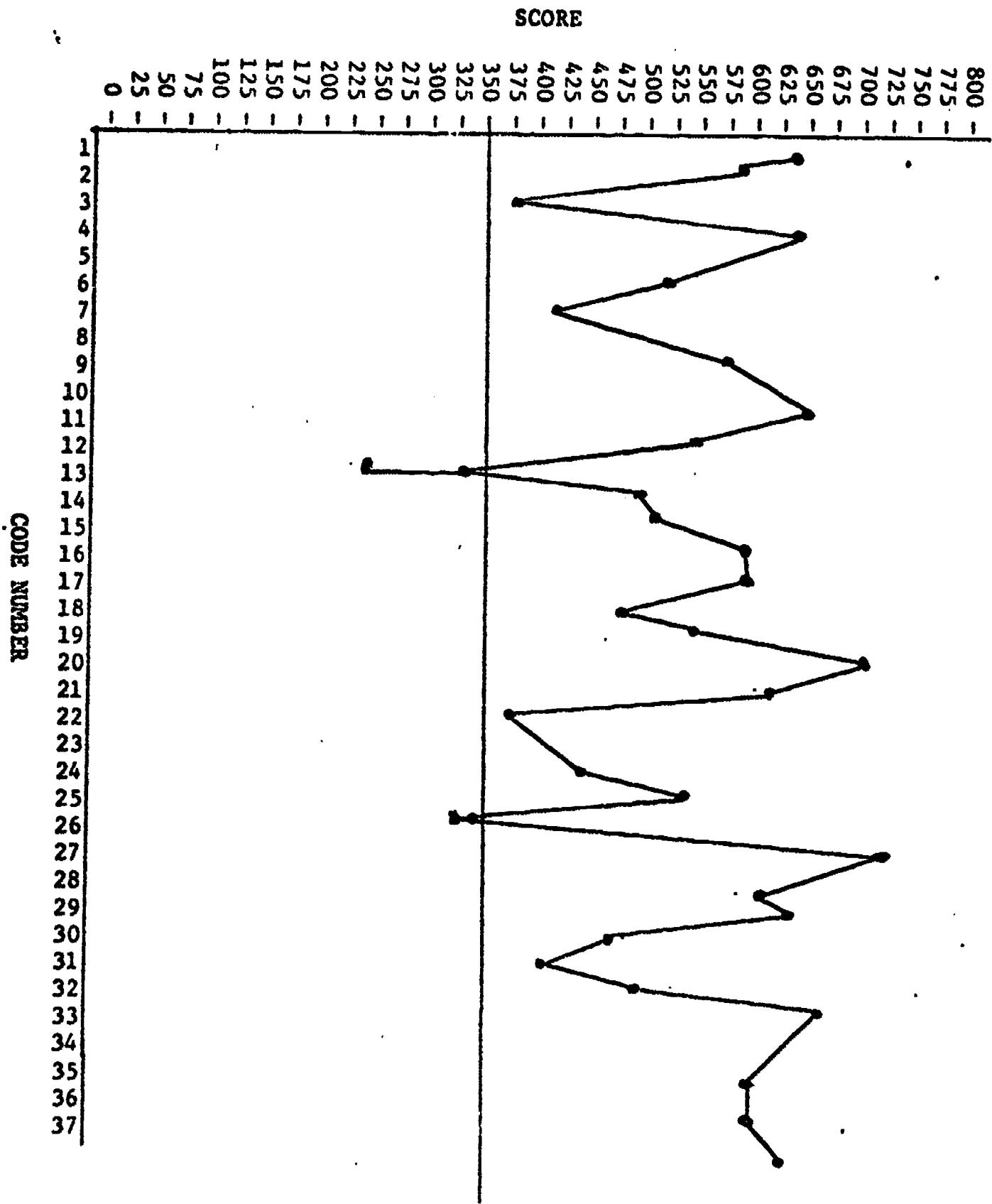




TABLE 2  
PEARSON PRODUCT-MOMENT COEFFICIENT CORRELATION

	MEAN	S.D.	N	r
H <sub>1</sub> X= A.C.T. scores Y= gpa	X= 16.220 Y= 2.602	X= 3.974 Y= 0.867	127	0.438
H <sub>2</sub> X= A.C.T. scores Y= STATE BOARD	X= 16.333 Y= 519.228	X= 4.370 Y= 110.831	57	0.542

The above statistics were machine calculated in the data processing department of the College of Lake County from the data reported elsewhere in this study. The following formula was used:

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{(N\sum X^2 - (\sum X)^2)(N\sum Y^2 - (\sum Y)^2)}}$$

Because of the inability to control all of the factors influencing the measurements in this study, a correlation of +1 or -1 was not found. In interpretation of the r of 0.5 and r of 0.4 above, one should keep in mind that an r of 0.5 does not indicate half the predictive efficiency of an r of 1.00. A correlation of 0.5 between two measures indicates an overlap of 25% (amount of common variance). The df and p values were not determined.

## Chapter IV

### Discussion

One of the main goals of the practical nursing faculty is to increase enrollment and retention of students who will be successful in the program. The high attrition rate is not unique to the College of Lake County but apparently exists in schools of nursing in general. It is apparent that the current admission criteria is not as effective as intended and this research is the beginning of several studies this writer plans to conduct until the most effective method is reached. Scores achieved on the ACT has been the most decisive factor in the selection of students to this program. As reported in the results chapter, students are leaving the program not only because of academic failure but for personal or emotional reasons. Whether these factors can be detected prior to admission and alleviated must be examined in future studies.

Success in nursing cannot be measured by the gpa or results of the state licensing exam only. Many variables which are difficult to measure or evaluate play an important part in the career role of the practical nurse. More than 1500 institutions in the United States and the District of Columbia, including the College of Lake County, participate in the American College Testing Program. One of the criterion for admission to the practical nursing program is the ACT which is used to assist the screening committee in determining the applicant's potential for academic achievement.

The ACT Battery consists of four tests: (1) English, (2) Mathematics, (3) Social Studies, and (4) Natural Sciences plus a Tests 1-4 Composite. The total number of correct response yields a raw score which is converted to standard scores using a scale of low (1) to high (36) with (16) the approximate median score of unselected national samples of first semester high school seniors and (20) the approximate median score of first semester college-bound high school seniors. The percentile rank of 55,122 students enrolled as freshmen in 118 two-year colleges and technical institutes for Tests 1-4 Composite was 15 with a standard score (19) as reported by the American College Testing Program, Inc.

Composite ACT scores at the College of Lake County have ranged from (18.3) in 1969 to (18.9) in 1972. The minimum composite score for admission to the practical nursing program has ranged from no minimum in 1969 to (12) in 1973. The screening committee for the program consists of the Director of Admissions, Director of Counseling, Assistant Dean of Career Programs, Biological and Health Sciences Division Chairman, Coordinator of the Practical Nursing Program and two nursing instructors.

This writer who is the Coordinator would recommend the following be put into operation immediately.

1. Study the ACT Student Profile Section for information on other factors which may affect a student's success or failure in the program, such as:

- a. His probable major field of study.

If other than nursing, inquire during pre-admission interview why major has changed to practical nursing.

- b. The educational degree he seeks.

If an associate or baccalaureate degree is indicated, explore the possibility that the student would be dissatisfied and even frustrated in a certificate program.

c. What he/she hopes to get out of his/her college experience.

If plans to enroll in an Associate Degree (AD) nursing program is indicated, proper counseling and career guidance must be given before acceptance into the practical nursing program. Students should not plan to use the practical nursing program as a stepping stone to becoming a professional nurse (R.N.) Being an L.P.N. does not insure one's acceptance into an AD program with its higher admission standards.

d. Whether he plans to seek student employment.

Few students are capable of successfully carrying a full academic schedule and maintaining outside employment, consequently financial independence is a must and should be confirmed prior to admission.

e. Financial Assistance Needs.

If even the slightest need is indicated, all arrangements for financial aid must be made before entering the program. All too frequently, students have been forced to withdraw from the program solely because of a lack of funds to continue.

2. Develop rating scales for other variables predictive of the strengths and weaknesses of the prospective student.

a. Admit all students in the upper half of their high school class regardless of the ACT standard composite score but admit those in lower half of high school class whose composite scores are (16) or higher.

b. Establish a gpa cut-off point corresponding to a (C) average in high school senior year or last year of enrollment if admitted with an equivalency (GED) certificate.

c. Weigh grades received in high school science and mathematics courses.

d. Establish a cut-off point for the natural science and mathematics standard scores on the ACT in addition to the composite score.

e. Administer a reading level test and attitude, motivation, and personality inventories as part of the screening procedure.

- f. Revise present interview form to a rating scale objective form to ascertain specific problems in such areas as transportation, housing, family responsibilities and parental relationships.
  - g. Continue to use the present reference form already in a rating scale form.
3. Schedule an annual meeting of the screening committee for purposes other than the review of applicant files. The committee must continually evaluate and improve the procedure for the selection of successful practical nursing students.

Basing a program on sound educational principles, providing a well qualified faculty and excellent physical facilities does not constitute a quality program as long as students who are considered potentially successful after careful screening and admitted to the program, fail!

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APPENDIX I  
COLLEGE OF LAKE COUNTY  
PRACTICAL NURSING PROGRAM

GRADING PROCEDURE

Each instructor determines the letter grade using the following numerical grading scale.

A = 93-100  
B = 85- 92  
C = 77- 84  
D = 70- 76  
N = 0- 69, withdrawal, or incomplete

Quality point value assigned to letter grade:

A = 4 points per credit hour  
B = 3 points per credit hour  
C = 2 points per credit hour  
D = 1 point per credit hour  
N = 0 points

Grade point average scale:

A = 3.6 - 4.0  
B = 2.6 - 3.5  
C = 1.6 - 2.5  
D = 0.7 - 1.5  
N = 0.0 - 0.6

**COLLEGE OF LAKE COUNTY  
PRACTICAL NURSING PROGRAM**

**GRADE REPORT**

**STUDENT** \_\_\_\_\_

**CLASS** \_\_\_\_\_

**FALL SEMESTER**

**PRACTICAL NURSING I - NUR 114 - 01**

<b>COURSE</b>	<b>INSTRUCTOR</b>	<b>MID-TERM GRADE</b>	<b>FINAL GRADE</b>
Body Structure & Function			
Nutrition			
Fundamentals of Nursing		Theory: ----- Clinical:	
Mental Health			
Personal & Vocational Relationships I			

**Grading Scale:**

- A = Excellent
- B = Good
- C = Average
- D = Below Average
- N - Failure - Withdrawal - Incomplete
- X = Audit
- Pass/Fail

**GRADE POINT AVERAGES:**

**Mid-Term:**

**Final**

\_\_\_\_\_  
Coordinator

\_\_\_\_\_  
Instructor

\_\_\_\_\_  
Instructor

\_\_\_\_\_  
Date of Conference

\_\_\_\_\_  
Student

\_\_\_\_\_  
Instructor



**NUR 114 - Practical Nursing I**

**Fall Semester - 15 credit hours**

Fundamentals of Nursing.....5 cr. hrs.  
Body Structure and Function.....4 cr. hrs.  
Nutrition.....1 cr. hr.  
Mental Health.....1 cr. hr.  
Personal and Vocational Relationships I.....1 cr. hr.

Clinical Lab - no equated grade other than Pass/Fail  
Student must pass 2 of 3 clinical lab experiences to  
obtain 3 cr. hrs.

**NUR 115 - Practical Nursing II**

**Spring Semester - 15 credit hours**

Medical-Surgical Nursing.....4 cr. hrs.  
Pharmacology.....1 cr. hr.  
Diet Therapy.....1 cr. hr.  
Gerontology.....1 cr. hr.  
Sociology or Elective.....3 cr. hrs.

Clinical Lab - no equated grade other than Pass/Fail  
Student must pass 3 of 4 clinical lab experiences to  
obtain 5 cr. hrs.

**NUR 116 - Practical Nursing III**

**Summer Session - 8 credit hours**

Maternal Child Health.....3 cr. hrs.  
Community Health.....1 cr. hr.  
Personal and Vocational Relationships II...1 cr. hr.

Clinical Lab - no equated grade other than Pass/Fail  
Student must pass both clinical lab experiences to  
obtain 3 credit hours.

APPENDIX II

LIST REPORT FORM

Fall Semester gpa and A.C.T. Composite Scores  
of 127 Student Practical Nurses at C.L.C.  
1969 - 1970 - 1971 - 1972 - 1973

A,C,T, Composite gpa	A.C.T. Composite gpa	A.C.T. Composite gpa	A.C.T. Composite gpa	A.C.T. Composite gpa	A.C.T. Composite gpa
19	3.9	09	2.5	15	3.9
19	3.1	18	2.0	12	1.8
28	3.9	12	2.0	14	3.0
20	3.1	16	1.9	21	2.7
08	2.7	16	2.3	21	3.9
15	3.1	22	2.6	16	2.3
17	1.3	14	1.6	24	4.0
18	2.5	20	2.6	16	3.1
20	4.0	18	3.0	16	2.1
15	2.9	26	3.1	13	2.4
19	1.9	10	1.6	15	2.8
15	2.0	19	3.6	14	2.6
10	2.0	08	1.1	16	2.8
14	1.5	25	4.0	14	3.9
19	3.5	14	2.7	14	2.4
14	1.8	14	3.4	24	3.8
15	2.9	13	2.7	14	1.5
11	2.0	15	2.0	18	3.8
20	3.0	21	3.4	20	3.1
15	2.7	24	2.2	17	4.0
06	1.9	16	2.4	18	3.1
13	2.3	16	2.4	12	2.0
18	3.4	12	2.4	22	1.5
13	3.0	16	1.4	16	2.3
12	1.5	18	1.8	14	3.8
				15	3.6
				18	2.8
				14	2.3
				19	3.1
				13	2.7
				13	2.9
				15	3.0
				15	3.0
				13	3.3
				20	3.4
				18	3.6
				10	0.4
				20	2.5
				14	3.6
				11	3.2
				16	2.5
				14	2.5
				19	3.5
				14	3.3
				18	3.9
				10	2.6
				09	0.4
				12	2.5
				21	2.6
				13	1.3
				16	3.1
				18	1.5
				24	3.2
				22	3.8
				19	3.5
				13	2.7
				12	2.4
				13	2.1
				17	1.3
				17	2.9
				22	3.0
				15	1.7
				14	0.4
				14	3.5
				24	2.7
				15	1.3
				17	2.0
				13	0.5
				19	0.9
				17	2.1
				20	2.2
				17	3.1
				21	3.1
				17	3.0
				12	0.4
				15	3.7
				20	3.3

APPENDIX III

LIST REPORT FORM

STATE BOARD LICENSING EXAMINATION SCORES  
Class of 1970-1971-1972

Code No.	Score	Code No.	Score	Code No.	Score	Code No.	Score	Code No.	Score
70-1	436	70-22	525	71-15	640	71-36	609	72-16	582
70-2	385	70-23	404	71-16	491	71-37	377	72-17	582
70-3	396	70-24	363 & 213	71-17	450	71-38	X	72-18	464
70-4	565	70-25	471	71-18	429	71-39	X	72-19	549
70-5	252	70-26	X	71-19	609	71-40	682	72-20	700
70-6	443	70-27	X	71-20	543	71-41	588	72-21	604
70-7	568	70-28	X	71-21	536	71-42	626	72-22	368
70-8	486	71-1	678	71-22	536	71-43	671	72-23	X
70-9	432	71-2	543	71-23	647	72-1	630	72-24	442
70-10	385 & 263	71-3	433	71-24	561	72-2	578	72-25	541
70-11	498	71-4	498	71-25	X	72-3	375	72-26	331 & 324
70-12	393	71-5	X	71-26	446 & 343	72-4	640	72-27	715
70-13	584	71-6	557	71-27	484	72-5	X	72-28	600
70-14	619	71-7	720	71-28	X	72-6	516	72-29	630
70-15	670	71-8	X	71-29	415	72-7	416	72-30	464
70-16	350	71-9	626	71-30	523	72-8	X	72-31	405
70-17	584	71-10	X	71-31	657	72-9	575	72-32	497
70-18	373	71-11	X	71-32	547	72-10	X	72-33	656
70-19	334 & 314	71-12	467	71-33	374	72-11	648	72-34	X
70-20	455	71-13	374	71-34	426	72-12	541	72-35	578
70-21	365	71-14	X	71-35	481	72-13	327 & 235	72-36	578
						72-14	482	72-37	637
						72-15	490		

APPENDIX IV

LIST REPORT FORM

A.C.T. Composite Scores and STATE BOARD L.P.N.  
Examination Scores of 57 GRADUATES

A.C.T. Composite Score	STATE BOARD Examination Score	A.C.T. Composite Score	STATE BOARD Examination Score	A.C.T. Composite Score	STATE BOARD Examination Score
14	331	14	324	16	600
19	455	20	543	08	433
14	630	14	405	13	497
28	678	15	498	18	557
24	656	18	578	20	637
20	720	15	626	15	467
10	374	19	640	14	491
15	450	11	429	20	609
15	543	06	536	13	536
18	647	09	561	18	484
16	415	16	523	22	547
14	374	20	426	18	481
26	609	10	377	25	682
14	588	14	626	13	630
15	375	21	640	16	516
16	416	15	648	12	329
14	482	21	582	12	235
21	582	16	464	24	700
16	604	16	368	15	

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LOS ANGELES

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CLEARINGHOUSE FOR  
JUNIOR COLLEGE  
INFORMATION